Texas State Government Effectiveness and Efficiency

Selected Issues and Recommendations

SUBMITTED TO THE 82ND TEXAS LEGISLATURE **JANUARY 2011**

LEGISLATIVE BUDGET BOARD STAFF

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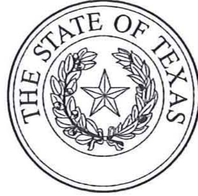

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Honorable Governor of Texas
Honorable Members of the Eighty-second Texas Legislature

Ladies and Gentlemen:

The Legislative Budget Board staff report *Texas State Government Effectiveness and Efficiency: Selected Issues and Recommendations* contains 76 analyses on the effectiveness and efficiency of Texas state government. The report has been prepared in compliance with the provisions of Chapter 322 of the Texas Government Code.

The evaluation and audit process, established under the provision of Chapter 322, are valuable tools to help the Texas Legislature identify and implement changes that improve state agency effectiveness and efficiency. The results of these evaluations, coupled with ongoing reviews of each agency's progress towards the achievement of established performance targets contained in the General Appropriations Act, facilitate the accomplishment of state goals and objectives.

The 76 analyses contained in the *Texas State Government Effectiveness and Efficiency: Selected Issues and Recommendations* report are organized by functional area. Each analysis provides the reader with an understanding of the salient findings, concerns, and recommendations (if warranted) related to the issue or program that has been reviewed by Legislative Budget Board staff. When appropriate, the five-year fiscal impact of any recommendation(s) is discussed, and information is provided as to whether the recommendation(s) has been included in the introduced 2012–13 General Appropriations Bill. If implemented, the 173 recommendations contained in the 76 analyses would produce an estimated net $1.2 billion in savings, or revenue gains, in General Revenue Funds and General Revenue–Dedicated Funds during the 2012–13 biennium.

The staff of the Legislative Budget Board appreciates the cooperation and assistance state agencies provided during the preparation of this report.

Respectfully submitted,

John O'Brien
Director

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IMPROVE THE ADMINISTRATION OF THE TEXAS ECONOMIC DEVELOPMENT ACT

The Texas Economic Development Act, 2001, authorizes an appraised value limitation and tax credit for eligible taxpayers (under certain criteria) upon agreement with public school districts to build or install property representing a certain amount of investment and to create jobs. As of September 2010, there are 98 active agreements in place within the program, representing agreements with proposed investments of $47.3 billion and 6,239 new jobs in Texas.

While an economic development benefit intended to offset the property tax burden on capital intensive projects is important, several changes to the structure of the program could improve its effectiveness. There are significant challenges measuring the net benefit to the state. Amending statute to realign the roles and responsibilities in the program and addressing key provisions would provide policy makers greater assurance that the program attracts projects that are of maximum benefit to local regions and the state and better position the state to assess the effectiveness of the program.

FACTS AND FINDINGS

- Projects in the program through fiscal year 2009 include $21 billion in investments on the part of participating companies and 4,546 jobs in Texas.
- Levy loss associated with property value limitations have little or no negative fiscal impact at the local school district level; it is offset by the state through additional state aid or reduced recapture.
- Benefits provided through the program resulted in $158 million in state costs through fiscal year 2009, and will cost $1.9 billion through the life of current projects.

CONCERNS

- Benefits provided through the program represent a significant fiscal impact to the state that, in aggregate, is limitless. Despite the cost of the benefit being borne by the state, the state's role has historically been largely administrative.
- The economic impact evaluation of projects is a reporting of information, rather than an analysis of the economic impact of proposed projects and recommendation on the degree of benefit to the state and local region.
- Wind energy electric generation development is significantly influenced by the regulation of renewable power generation at the state and federal level, and it does not produce as many jobs, directly, as other eligible projects.
- There is a disincentive for companies to indicate job creation above the statutory minimum and for districts to monitor actual job and wage performance. A high proportion of new agreements have waived the jobs requirement, as is now authorized in statute.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Tax Code to realign the roles and responsibilities of the state and of school districts with respect to the Texas Economic Development Act in a way that ensures program effectiveness, preserves appropriate taxing autonomy, and provides greater consideration for the fiscal impact to the state. Recommendation 1 also expands current fee authority to encompass all of the Comptroller of Public Accounts' responsibilities relating to the administration of the Texas Economic Development Act.
- **Recommendation 2:** Amend the Texas Tax Code to make the Comptroller of Public Accounts' authority and responsibility to evaluate the economic impact of proposed projects at both the local and state level more explicit.
- **Recommendation 3:** Amend the Texas Tax Code to address wind energy electric generation projects separately from other eligibility categories within the program.
- **Recommendation 4:** Amend the Texas Tax Code to strengthen job creation requirements and strengthen and clarify the Comptroller of Public Accounts' responsibilities relating to the monitoring and oversight of job creation.
- **Recommendation 5:** Include a contingency rider in the introduced 2012–13 General Appropriations

Bill to appropriate funds for the administration of the program, contingent upon passage of legislation implementing Recommendations 1 through 4 and on the Comptroller of Public Accounts assessing and collecting fee revenue sufficient to cover the costs of administering the program.

DISCUSSION

With the passage of House Bill 1200 in 2001, the Seventy-Seventh Legislature enacted the Texas Economic Development Act. According to its provisions, the Legislature found at the time that:

- many states had enacted economic development laws designed to attract large employers and create jobs;
- Texas had slipped in its national ranking from fiscal years 1993 to 2000 in terms of attracting major new manufacturing facilities to this state;
- a significant portion of Texas' economy is based in the manufacturing industry, and that the continued growth and overall health of the manufacturing sector served the Texas economy well;
- without a strong manufacturing sector, other sectors of the economy would also suffer adverse consequences; and
- the current property tax system in Texas did not favor capital-intensive businesses, such as manufacturers.

This legislation preceded several other state economic development initiatives, including the Texas Enterprise Fund enacted in 2003 and the Emerging Technology Fund enacted in 2005.

As an indication of state performance in attracting new development projects, Site Selection's annual Governor's Cup award is historically awarded to the state with the most new or expanded private-sector capital projects as tracked by Conway Data Inc.'s new plant database. Facility projects counted in the Governor's Cup meet one of the following criteria: capital investment of $1 million or more, creation of 50 or more jobs, and/or new floor space of at least 20,000 square feet. Nationally, Texas has ranked within the top 10 states since 1996 in number of new and expanded projects. **Figure 1** shows the Texas state rank in new and expanded projects from calendar years 1996 to 2009.

Supporters of the enactment of the Texas Economic Development Act stated that one of the main reasons Texas was lagging other states in attracting major new industrial projects was that Texas' property-tax burden penalizes capital-intensive businesses and industries, particularly manufacturing and research and development. Supporters noted that other states were taking advantage of that situation by offering tax incentives to counteract Texas' otherwise optimal business climate.

FIGURE 1
NUMBER OF NEW AND EXPANDED PROJECTS IN TEXAS AND CORRESPONDING NATIONAL RANK
CALENDAR YEARS 1996 TO 2009

CALENDAR YEARS	NUMBER OF NEW OR EXPANDED PROJECTS IN TEXAS	TEXAS' NATIONAL RANK BY PROJECTS
1996	776	3
1997	1000	3
1998	926	6
1999	939	4
2000	649	5
2001*	695	6
2002	277	9
2003	489	3
2004	668	1
2005	842	1
2006	363	2
2007	281	5
2008	497	2
2009	374	2

NOTE: Amended criteria used for 2001 ranking, old criteria used for consistency.
SOURCE: Site Selection Magazine.

According to the Tax Foundation, Texas' overall state and local tax burden has been consistently below the national average for the past three decades. Texas' state and local tax burden percentage, estimated at 8.4 percent of income, is below the national average of 9.7 percent and ranks forty-third highest nationally. Texas ranks eleventh nationally according to the Tax Foundation's State Business Tax Climate Index, which compares the states in five areas of taxation affecting business: corporate taxes, individual income taxes, sales taxes, unemployment insurance taxes, and taxes on property, including residential and commercial property.

Nationally, Texas' property taxes are comparatively high. Texas' per capita property tax collection in fiscal year 2006 ranked thirteenth highest out of all states. Texas ranked among the top ten states that rely on the property tax relative

to total state and local tax revenue, at 38.8 percent of total revenue in fiscal year 2008.

While there is no state property tax in Texas, the Texas Constitution authorizes local governments (including counties, cities, public school districts, and special districts) to levy property taxes. School property taxes represented 53.8 percent of the total property taxes levied in tax year 2007. Property taxes levied by school districts are important to the state because they help determine how much state funding is allocated to school districts to support public education.

Corporations will pay approximately 40 percent of all school property taxes in Texas in fiscal year 2011, and 41 percent of major taxes within the state, as reported in the Comptroller of Public Accounts Tax Exemption and Tax Incidence report, 2009. School property taxes represent 42 percent of major taxes paid by corporations in Texas in fiscal year 2011, the same percentage for all taxpayers.

For manufacturers and for utilities and transportation, school property taxes represent a larger portion of major tax burden at 49 percent in fiscal year 2011. In the case of total taxpayers, corporations, manufacturers, and utilities and transportation, the sales and use tax represents the next largest portion of major tax burden, ranging from 25 percent for manufacturing to 39 percent for all taxpayers within each category of taxpayer.

PROGRAM OVERVIEW

The Texas Economic Development Act authorizes school districts to grant an appraised value limitation and a tax credit for the maintenance and operations portion of the school district property tax to eligible taxpayers upon agreement to build or install property representing a certain amount of investment and to create jobs. The purposes of the Texas Economic Development Act, as set forth in statute, are to:

- encourage large scale capital investment, especially in school districts with a lower than average property tax base.
- create new, high-paying jobs
- attract new, large-scale businesses that are exploring opportunities to locate in other states or other countries
- enable local government officials and economic development professionals to compete with other states by authorizing economic development incentives that meet or exceed incentives being offered to prospective employers by other states and to provide local officials with an effective means to attract large-scale investment;
- strengthen and improve the overall performance of the economy of this state;
- expand and enlarge the ad valorem property tax base; and
- enhance the state's economic development efforts by providing school districts with an effective local economic development option.

A qualifying property, the property intended to be the subject of the value limitation, must be located in an area designated as a reinvestment zone under Texas Tax Code Chapter 311 or 312, or as an enterprise zone under Texas Government code Chapter 2303. The qualifying property must also be used in connection with certain business activities:

- manufacturing;
- research and development;
- clean coal project;
- advance clean energy project;
- renewable energy electric generation;
- electric power generation using integrated gasification combined cycle technology;
- nuclear electric power generation; and
- computer center primarily used in connection with the above activities.

To receive the value limitation, applicants must make a qualified investment by building or installing property exceeding a specified amount during a two year qualifying time period. The amount of qualified investment required of an applicant is set forth in statute and varies by a school district's taxable property values and by its designation as rural or non-rural. The value limitation offered is an eight-year limitation on appraised property value for the maintenance and operations portion of the school district property tax. Once an agreement is in place, a property owner may receive a property tax credit for part of the taxes paid to the school district for each tax year during the qualifying time period.

Applicants must also create a minimum of 25 new jobs in non-rural districts, and 10 new jobs in rural districts. The minimum job creation requirement may, however, be waived by the school district if it finds that the requirement exceeds the industry standard for the number of employees reasonably necessary for the operation of the facility. Eighty percent of all new jobs created must be qualifying jobs, as defined in statute, regardless of the number of jobs committed to in the agreement. Qualifying jobs must provide for certain healthcare benefits, include at least 1,600 hours per year, and pay 110 percent of one of three wage targets.

The Texas Economic Development Act provides that if in any tax year a property owner fails to comply with the investment and job creation requirements, the property owner is liable to the state for a penalty equal to the amount of levy that would have been collected but for the value limitation.

To obtain a value limitation through the act, a property owner must file an application form with the school district. A school district may approve a project only if it finds that:

- the information in the application is true and correct;
- the applicant is eligible for the value limitation; and
- granting the application is in the best interest of the school district and this state.

If the school district decides to consider the application, the district must then send a copy to the relevant appraisal district, and to the CPA. The CPA must first determine if the project is eligible for the program and notify the school district of that determination. After reviewing an eligible application, the CPA must conduct an economic impact evaluation and make a recommendation to the school district as to whether it should be accepted or rejected. The CPA is authorized to charge and collect a fee sufficient to cover the costs of providing an economic impact evaluation. A school district may approve a project the CPA has recommended should be disapproved with a two-thirds vote of its governing body. However, if the school district approves a project that the CPA recommends should be disapproved, the value of the limitation cannot be deducted from the property value study used by the CPA in the determination of school district property values. In such case, the school district would bear the cost of providing the value limitation. Statutory provisions authorizing agreements for value limitation and tax credits through the Texas Economic Development Act expire December 31, 2014.

SUMMARY OF PROJECTS

Within the program there are currently 98 active agreements, 89 of which fall under the designation of Subchapter C for rural districts. Approximately 70 percent of all projects are located in school districts with ad valorem tax base that is lower than the statewide average. Approximately 30 percent of all projects are located in districts with ad valorem tax base per weighted average daily attendance that is lower than the statewide average.

The average amount of total planned investment per project is approximately $483 million. Manufacturing comprises 29 percent of all projects and 56 percent of total estimated investments for the life of projects. The average amount of investment among manufacturing projects is $950 million. Renewable energy electric generation projects that are wind energy comprise 64 percent of all projects and 27 percent of total estimated investments for the life of projects. The average amount of proposed investment among wind energy projects is approximately $200 million. **Figure 2** shows a summary of project and investments.

With a total of 6,239 qualifying jobs proposed on project applications, the average number of jobs per project is 64. Manufacturing comprises 77 percent of all proposed jobs at an average of 172 jobs per project. Renewable energy electric generation projects that are wind energy comprise 7 percent of all proposed jobs at an average of 7 jobs per project. Of the 6,239 jobs proposed on project applications, 4,546 have been created to date. **Figure 3** shows a summary of project job information.

The average amount of total gross tax benefit per project program wide is $19.5 million. Manufacturing comprises 42 percent of total estimated gross tax benefit for the life of projects. The average amount of gross tax benefit among manufacturing projects is $28.6 million. Renewable energy electric generation projects that are wind energy comprise 37 percent of total estimated gross tax benefit for the life of projects. The average amount of gross tax benefit among wind energy projects is $11.3 million. **Figure 4** shows a summary of gross tax benefit information.

BALANCE OF STATE AND LOCAL RESPONSIBILITY AND AUTHORITY

Economic development incentives that reduce Texas' property tax burden on capital intensive development are important. While school district property tax accounts for much of that burden, school districts should not be made responsible for economic development. School districts have

FIGURE 2
TEXAS ECONOMIC DEVELOPMENT ACT PROJECTS, ESTIMATED TOTAL INVESTMENT, AND INVESTMENT, 2003 TO 2009

PROJECT TYPE	NUMBER OF ACTIVE PROJECTS	PERCENTAGE	ESTIMATED TOTAL INVESTMENT FOR LENGTH OF AGREEMENT	PERCENTAGE	REPORTED INVESTMENT THROUGH 2009
Manufacturing	28	29%	$26,600,228,294	56%	$13,315,906,062
Research and Development	4	4%	1,121,178,623	2%	577,125,087
Clean Coal	0	0%	0	0%	0
Advance Clean Energy	0	0%	0	0%	0
Renewable Energy Electric Generation (Wind)	63	64%	12,585,301,807	27%	7,097,386,284
Renewable Energy Electric Generation (Non-Wind)	1	1%	460,000,000	1%	100,000,000
Electric Power Generation (Integrated Gasification Combined Cycle)	0	0%	0	0%	0
Nuclear Electric Power Generation	2	2%	6,560,500,000	14%	0
TOTAL	**98**		**$47,327,208,724**		**$21,090,417,433**

Source: Comptroller of Public Accounts.

FIGURE 3
TEXAS ECONOMIC DEVELOPMENT ACT JOB INFORMATION BY ELIGIBILITY CATEGORY, 2003 TO 2009

PROJECT TYPE	REPORTED NUMBER OF QUALIFYING JOBS CREATED THROUGH 2009	QUALIFYING JOBS RECIPIENT COMMITTED TO CREATE ON APPLICATION	PERCENTAGE	AVERAGE PER PROJECT
Manufacturing	3,475	4,821	77%	172
Research and Development	499	431	7%	108
Clean Coal	0	0	0%	N/A
Advance Clean Energy	0	0	0%	N/A
Renewable Energy Electric Generation (Wind)	572	446	7%	7
Renewable Energy Electric Generation (Non-Wind)	0	41	1%	41
Electric Power Generation (Integrated Gasification Combined Cycle)	0	0	0%	N/A
Nuclear Electric Power Generation	0	500	8%	250
TOTAL	**4,546**	**6,239**		**64**

Source: Comptroller of Public Accounts.

the primary responsibility for implementing the state's system of public education and ensuring student performance, with each district's board of trustees having the exclusive power and duty to govern and oversee the management of the public schools of the district. A lack of balance in the roles, responsibilities, and authority of the state and of local school districts within the program limits its effectiveness.

Projects within the program provide significant tax benefit to participating businesses resulting from limitations and credits, as well as significant investments on the part of those businesses. However, the levy loss associated with limitations and credits has little or no negative fiscal impact at the local school district level. The cost of the benefit provided through the program is offset by the state through additional state aid or reduced recapture. As a result, the state has a significant

FIGURE 4
TEXAS ECONOMIC DEVELOPMENT ACT TAX BENEFIT INFORMATION BY ELIGIBILITY CATEGORY, 2003 TO 2009

PROJECT TYPE	ESTIMATED TAX BENEFIT THROUGH 2009	ESTIMATED TOTAL GROSS TAX BENEFIT TO COMPANY FOR LENGTH OF AGREEMENT	PERCENTAGE	AVERAGE PER PROJECT
Manufacturing	$112,204,168	$801,192,532	42%	$28,614,019
Research and Development	1,470,862	22,088,315	1%	5,522,079
Clean Coal	0		0%	N/A
Advance Clean Energy	0		0%	N/A
Renewable Energy Electric Generation (Wind)	41,503,543	712,376,734	37%	11,307,567
Renewable Energy Electric Generation (Non-Wind)	0	21,277,159	1%	21,277,159
Electric Power Generation (Integrated Gasification Combined Cycle)	0	0	0%	N/A
Nuclear Electric Power Generation	0	352,788,750	18%	176,394,375
TOTAL	**$155,178,573**	**$1,909,723,490**		**$19,486,974**

Source: Comptroller of Public Accounts.

stake in the incentives provided through the program. As of fiscal year 2009, approximately $158 million in tax benefit has been provided through the program representing a cost in that amount to the state.

School districts may enter into any agreements for economic development projects that meet the statutory criteria and, because of the structure of the program, the cost of the benefits provided in those agreements to the state are, in aggregate, limitless. Despite the cost of the benefit being borne by the state, the state's role has historically been largely administrative.

Recommendation 1 would amend the Texas Tax Code to realign the roles and responsibilities of the state and of school districts with respect to the program to ensure program effectiveness, preserve appropriate taxing autonomy, provide greater consideration for the fiscal impact to the state, and reduce overall administrative burden. Statute should be amended to change the parties to an agreement for value limitation from the school district and the business, to the CPA and the business. Agreements for value limitation, however, should be prohibited without the explicit approval by school districts. In effect, the CPA would enter into school district approved agreements with applicants that would recognize, for the purposes of school finance, the value limitation and tax credit.

This approval authority should be provided to the school district at several points in the process—approval of the application, of the agreement itself, and of any amendment to the agreement. This would not preclude the school district from being involved in the negotiations relating to an agreement and would give districts authority over whether a project that has been determined to meet the requirements established in statute would be accepted. Recommendation 1 would allow for a more appropriate alignment of authority with respect to agreements within the program and the evaluation of their aggregate costs to the state. The fee authority described above relating to the economic impact evaluation by the CPA should be expanded to encompass any new administrative costs associated with these responsibilities. Recommendation 1 would also expand the fee authority described above relating to the CPA's economic impact evaluation to encompass all of the CPA's responsibilities relating to the administration of the Texas Economic Development Act.

ECONOMIC IMPACT EVALUATION

Current statute requires the CPA to conduct an economic impact evaluation of each proposed project. While the provision requiring the economic impact evaluation was in the original enacting legislation, the scope of the evaluation was expanded by the Eighty-first Legislature to include the impact projects will have on state and local governments, including direct or indirect tax and other revenue gains, and other economic effects, including jobs and income, that would be realized initially, throughout, and following the limitation period.

This expansion of scope in statute, however, has not resulted in any greater consideration of the fiscal impact to the state or of other important considerations. The economic impact evaluation continues to be carried out as a reporting of information, rather than an analysis of the impact of

proposed projects. According to the CPA, if the region receiving a project receives any amount of investment, as is required by statute, the economic impact is deemed positive and will result in a positive recommendation, regardless of other factors that may make the project less beneficial to the region and the state. For example, a business having already made a significant investment on a project prior to filing an application (indicating existing intention to move forward with the project) would, in practice, receive the same treatment that a business that had not yet made any investment in a project being considered in Texas because both would result in investment in the region. The efficiency of the program as an economic development incentive is diminished without more thorough evaluation of the economic impact of projects.

Recommendation 2 would amend the Texas Tax Code to make the CPA's authority and responsibility to evaluate the economic impact of proposed projects at both the local and state level more explicit. Statutory provisions relating to the evaluation of economic impact of projects and resulting recommendation should include language clarifying the requirement that those factors be analyzed by the CPA and factored into consideration of a project's recommendation, rather than compiling and reporting information relating to those factors as pertinent to a given project.

WIND ENERGY ELECTRIC GENERATION

Wind energy production in the Electric Reliability Council of Texas (ERCOT) grid area (currently at 9,317 megawatts) leads the nation, three times the amount of Iowa at second in the nation and fifth worldwide. ERCOT's grid area comprises 85 percent of Texas' electricity load and 75 percent of its land area. Of current agreements, 63 of 98 (64 percent) are projects for the development of wind energy electric generation.

A significant factor influencing the development of wind energy generation is the use of a renewable portfolio standard (RPS). An RPS provides states with a mechanism to increase renewable energy generation by requiring electric utilities and other retail electric providers to supply a specified minimum amount of customer load with electricity from eligible renewable energy sources. The goal of an RPS is to stimulate market and technology development so that, ultimately, renewable energy will be economically competitive with conventional forms of electric power.

Texas adopted its RPS in 1999, mandating that electricity providers collectively generate 2,000 megawatts of additional renewable energy by 2009. Texas' RPS requires that each provider obtain new amounts of renewable energy capacity based on their market share of energy sales. Texas' RPS goals were updated in 2005, resulting in the current total renewable-energy mandate of 5,880 megawatts by 2015 and a target of 10,000 megawatts by 2025.

Texas' RPS target of 10,000 megawatts by 2025 will be reached by 2012. According to SECO, due to its competitive pricing, available federal tax incentives, and the state's immense wind resources, wind energy is expected to remain competitive with coal- and gas-fired plants. **Figure 5** shows Texas wind energy installed from 1999 to 2010.

FIGURE 5
MEGAWATTS OF WIND ENERGY INSTALLED
1999 TO 2010

YEAR	MEGAWATTS	PERCENTAGE CHANGE
1999	116	
2000	116	0%
2001	816	603%
2002	977	20%
2003	1,173	20%
2004	1,385	18%
2005	1,854	34%
2006	2,875	55%
2007	4,785	66%
2008	8,005	67%
2009	8,916	11%
2010	9,317	4%

SOURCE: Electric Reliability Council of Texas.

The relative extent to which either RPS or the Texas Economic Development Act (or still other factors such as climate and geography) influenced wind energy development in Texas is unknown. Mandating additional wind energy electric generation through the RPS, however, would result in additional development, regardless of the availability of incentives for that development. Further, it is unclear what the effect of a federal renewable energy standard (a federal portfolio standard) would have on development in Texas if one were to be enacted as has been filed in the U.S. Senate.

With respect to job creation, the number of qualifying jobs proposed on applications per project for wind energy electric generation is lower than for other types of projects. Of the 63 wind energy agreements, 467 qualifying jobs were proposed and 572 have been created to date. This represents seven

qualifying jobs proposed per project, and nine jobs created to date per project.

Because of the potential for overlapping market influences and the relatively low number of direct jobs created by wind development, wind should be incentivized independently of the other eligibility categories in the Texas Economic Development Act. Recommendation 3 would amend statute to carve out renewable energy electric generation from the program designed to incentivize investment and job creation. The requirements for value limitation agreements for wind development should be structured independently from other types of development such as manufacturing.

EVALUATE AND REALIGN JOB REQUIREMENTS

One of the stated purposes of the Texas Economic Development Act is to create new, high-paying jobs. The program's current job requirements, however, are structured to be applicable to the variety of projects eligible for the program's benefits, which may limit the effectiveness of the requirement for job creation. As noted above, projects must create a minimum of 25 new jobs in non-rural districts, and 10 new jobs in rural districts. Eighty percent of all jobs created must be qualifying jobs, meaning a new permanent full time job that requires at least 1600 hours of work per year, is covered by certain healthcare coverage, and pays at least 110 percent of certain wage levels. The minimum job creation requirement may, however, be waived by the school district under certain conditions.

Noting the enactment of legislation by the Eightieth Legislature authorizing school districts to waive the minimum number of jobs required for a value limitation agreement, the House Economic Development Committee recommended that the Eighty-first Legislature evaluate economic development incentives to ensure that they do not go to non-job creating projects. While the program's wage requirements were amended by the Eighty-first Legislature, the job creation requirements were not. Since enactment of the provision to waive the minimum number of jobs required, 63 percent of agreements have done so.

Generally, there is no incentive for companies to propose to create more than the minimum number of jobs required by statute in their application for value limitation because it has no impact on the approval of an agreement or on the amount of the tax benefit granted. Added to that, the requirement that 80 percent of new jobs created must be qualifying jobs may further reduce the incentive for companies to create additional jobs. As the primary and direct beneficiary of the investment and with no negative fiscal impact from entering the agreement, school districts do not have an incentive to verify whether companies are meeting the job and wage standards established in statute and incorporated into agreements. There is a concern that little verification is being done by school districts at the local level.

Given these structural issues, particularly if the recommendation to address wind projects separately is adopted, the program's job requirements should be re-evaluated to strengthen and clarify the Legislature's intent with respect to job creation. Recommendation 4 would amend statute to strengthen job creation requirements and strengthen and clarify the CPA's responsibilities relating to the monitoring and oversight of job creation. Changes that should be considered include establishing job creation requirements specific to program categories, raising the minimum number of jobs that must be created, establishing time frames for job creation, tying program benefit to the number of jobs created, and clarifying wage standards. For example, the average number of qualifying jobs pledged for research and development projects is 108. The minimum number of jobs required for a research and development project could be set at 75, independent of the minimum job creation requirements for other program categories.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1, 2, and 4 would result in an increase in administrative responsibilities at the CPA. It is assumed that legislation enacting the recommendations would be effective September 1, 2011. Development of administrative rules necessary to implement amended provisions would occur in fiscal year 2012, as well as any transition necessary for the ongoing monitoring and oversight of existing agreements. Applications for value limitation and tax credit received after September 1, 2012 would be treated under the structure suggested by these recommendations. It is assumed that the CPA would need two additional full-time-equivalent (FTE) positions to carry out these new administrative responsibilities, in addition to the four current FTEs allocated to the program. Recommendation 1 includes expanding existing fee authority to encompass all of CPA's responsibilities relating to the administration of the act. Recommendation 5 provides for a contingency rider to appropriate funds from the expanded fee authority, contingent upon passage of legislation implementing recommendations 1 through 4 and on assessing and collecting fee revenue sufficient to cover the costs of administering the program, including salaries for all six FTEs. It is assumed that Recommendation 3 would not result in fiscal impact.

FIGURE 6
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS	PROBABLE REVENUE GAIN/(LOSS) IN GENERAL REVENUE FUNDS	FULL-TIME EQUIVALENT POSITIONS
2012	($630,000)	$630,000	6
2013	($630,000)	$630,000	6
2014	($630,000)	$630,000	6
2015	($630,000)	$630,000	6
2016	($630,000)	$630,000	6

SOURCE: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes a contingency rider relating to the recommendations in this report.

REDUCE THE UNCLAIMED PROPERTY DORMANCY PERIOD FOR CERTAIN PROPERTY TYPES

The Comptroller of Public Accounts holds forgotten bank accounts, uncashed checks, security deposits, and utility refunds until claimed by their rightful owner. When an owner of personal property does not exercise an act of ownership for a certain length of time, known as a dormancy period, Texas law requires the property holder to transfer the unclaimed property to the Comptroller of Public Accounts, at which time the agency must try to locate the owner. In most cases, Texas' dormancy period for unclaimed property is three years. Several unclaimed property types, however, have dormancy periods longer than three years. The dormancy period for bank accounts and matured certificates of deposits is five years, for money orders the period is seven years.

Experience with return rates to property owners for bank accounts, matured certificates of deposits, and money orders indicates locating owners is easier when their property has been abandoned for a shorter period. Reducing the dormancy period from five years to three years for these property types, and from three years to one year for utility deposits, would increase the state's return rates and result in a $72 million one-time gain in General Revenue Funds for fiscal year 2013.

FACT AND FINDING

- Nineteen states have three-year dormancy periods for bank accounts, and eighteen states have the same period for matured certificates of deposits. A one-year dormancy period for utility deposits exists in 33 states. A primary rationale for these policies is that more abandoned property will be claimed by the property owner if the dormancy period is shorter.

CONCERN

- In Texas, the return rate for unclaimed registered bonds, which have a three year dormancy period, was 55 percent compared to 27 percent for checking and savings accounts and certificates of deposits, with a five year dormancy period in the year ending June 30, 2009. The return rate for money orders, which have a seven year dormancy period, was 1 percent that same year. By maintaining dormancy periods exceeding three years, the state is reducing the likelihood that owners will be found and their property returned.

RECOMMENDATION

- **Recommendation 1:** Amend the Texas Property Code to reduce the unclaimed property dormancy period for checking and savings accounts, matured certificates of deposits, and money orders to three years, and reduce the dormancy period to one year for utility deposits, for unclaimed property due by November 1, 2012.

DISCUSSION

Unclaimed property laws and programs protect the interests of property owners that have unknowingly abandoned their property. In Texas, most property is presumed abandoned and transferred to the Treasury three years after the last act of ownership, such as a transaction or communication with the Texas business holding the property. Prior to transferring property to the state, a process known as escheat, the property holder must make an effort to contact the owner. Once the property is transferred to the state, the Comptroller of Public Accounts (CPA) uses several methods to return unclaimed property, including newspaper inserts, and it provides a searchable database to the public.

Unclaimed property funds are deposited into the General Revenue Fund, and held there until claimed by the property owner. For the year ending June 30, 2009, $323.3 million was transferred to the state as abandoned property, and $147.1 million was paid to owners who filed claims with CPA. These claims were for property received in 2009 or prior years. Claimants whose property was both transferred to the state and returned to them during the year ending June 30, 2009 received $70.3 million, a return rate of 22 percent.

DORMANCY PERIODS IN OTHER STATES

Since 2006, 15 states have reduced their dormancy periods for securities, bank accounts, and other intangible property to three years. This reflects a trend towards making escheat policy more consistent across property types. States adopting shorter dormancy periods for checking accounts, savings accounts, certificates of deposit, or money orders include Arizona, Kentucky, New Jersey, Indiana, Oregon, and Utah. Prior to 2006, Alabama, California, Connecticut, District of Columbia, Iowa, Maine, Maryland, Massachusetts,

Minnesota, Nevada, Rhode Island, Vermont, Washington were among states that reduced the dormancy period for those property types. Also, 33 states have one-year periods for utility deposits.

States prefer three- or one-year dormancy periods because it is easier to find the property owners. Owners are more likely to be in the same area and use the same name as before their property was transferred to the state. The likelihood of finding owners increases the return rate for unclaimed property, which can encourage other owners to search the state's abandoned property database.

HIGHER RETURN RATE FOR SHORTER DORMANCY PERIODS

Shorter dormancy periods result in more successful attempts to find owners. During the year ending June 30, 2009, CPA received $4 million in unclaimed registered bonds, which have a three-year dormancy period, and returned $2.2 million to their owners that same year—a 55 percent return rate. Also in 2009, the agency received $27 million in unclaimed checking accounts, savings accounts, and matured certificate deposits; and refunded $7.3 million to their owners. This is a 27 percent return rate for property types with five-year dormancy periods. Comparing the two rates, 55 percent versus 27 percent, supports the conclusion that a three-year, or lower, dormancy period would result in a higher likelihood of finding owners. An even lower return rate of 1 percent occurred for money orders, which have a seven-year period.

Retaining a five-year policy creates a missed opportunity to reunite owners with their unclaimed property. The recommendation would amend the Texas Property Code to reduce the unclaimed property dormancy period for checking and savings accounts, matured certificates of deposits, and money orders to three years, and reduce the dormancy period to one year for utility deposits, for unclaimed property due by November 1, 2012. Making the change effective for unclaimed property due by that date would provide businesses time to adjust their financial and accounting systems to the shorter dormancy periods.

FISCAL IMPACT OF THE RECOMMENDATION

Implementation of the recommendation would result in a one-time gain of $72 million in General Revenue Funds for the 2012–13 biennium. This is a one-time gain because the dormancy period reduction would require several years of unclaimed property to be transferred in one reporting year. After that change, just one year of unclaimed property would be transferred.

Because it would be easier to locate property owners, it is probable that reducing the dormancy period will increase claim payments out of the General Revenue Fund in fiscal years 2014 and beyond; however the resulting impact cannot be estimated.

FIGURE 1
FIVE-YEAR FISCAL IMPACT
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE NET GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2012	$0
2013	$72,000,000
2014	$0
2015	$0
2016	$0

SOURCE: Comptroller of Public Accounts.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

ELIMINATE PAPER WARRANTS BY USING DIRECT DEPOSIT OR ELECTRONIC PAY CARDS FOR CERTAIN STATE PAYMENTS

Texas has used direct deposit of funds as an alternative to paper warrants since 1981. Still, in fiscal year 2010, more than 5.6 million warrants, or 38.8 percent of all payments, were issued to vendors, employees, annuitants, and other recipients. During this period, approximately 45 percent of all vendor payments and 10 percent of payroll and annuity payments were paid by warrant. While direct deposit rates have increased in recent years, the state could realize additional benefits from making more payments electronically.

Previous Texas Legislatures have addressed this issue. Legislation requiring employees and vendors to receive payment via direct deposit was enacted in the 1990s. However, this mandate was repealed in 1999 because it purportedly caused a hardship for state employees and small businesses unable to open a bank account and establish a relationship with a financial institution. Since then, state agencies have successfully implemented programs to increase payments made via direct deposit or electronic pay card. In fiscal year 2010, the Comptroller of Public Accounts contracted with a bank to provide electronic payment cards to state employees who are not enrolled in a direct deposit program to receive their monthly salary.

The electronic payment card, an alternative to paper warrants and direct deposit, will allow individuals who do not have back accounts another option for payment. Instead of transferring funds to a bank account, payment would be deposited in an electronic pay card or debit card. The pay card would replace the warrant, and could either be cashed like a warrant or used as a debit card. Requiring state employees and annuitants to receive payment from the state via direct deposit or electronic pay cards could decrease administrative costs and increase efficiencies for the Comptroller of Public Accounts and other state agencies.

FACTS AND FINDINGS

- The Texas Council on Competitive Government reports that each warrant converted to a direct deposit saves the state $2.00.
- Since 1995, the Health and Human Services Commission has provided food stamp and welfare recipients with benefits through a debit card. The agency reports this change helped streamline program administration, reduce the illegal sale of food stamps, and provide a secure and convenient way for program recipients to receive benefits.
- The Texas Workforce Commission and the Office of the Attorney General are using electronic pay cards to disburse benefits to unemployment and child support recipients.
- The Comptroller of Public Accounts reports that they will begin a pilot program allowing state employees to receive their salary via an electronic payment card in fiscal year 2011.

CONCERN

- Processing paper checks and warrants to pay employees and annuitants involves a substantial amount of paper, postage, storage, processing time, and personnel cost that can be reduced if direct deposit or an electronic pay card were used as payment.

RECOMMENDATION

- **Recommendation 1:** Amend the Texas Government Code, Section 403.016, to require the Comptroller of Public Accounts to pay all employees and annuitants state-issued payments via direct deposit or electronic pay card.

DISCUSSION

The Comptroller of Public Accounts (CPA) is responsible for making all payments of state funds to employees, annuitants, and vendors for all state agencies and institutions of higher education. The only exceptions are the Texas Workforce Commission's (TWC) unemployment insurance payments and the Health and Human Services Commission's (HHSC) Temporary Assistance to Needy Families (TANF) and food stamps benefits. Both agencies generate their own payments for these purposes. **Figure 1** shows the number of warrants that Texas issued to vendors, employees and annuitants, and child-support recipients in fiscal year 2010.

CPA issued approximately 5.6 million warrants in fiscal year 2010, representing 39 percent of all payments issued by

FIGURE 1
NUMBER OF WARRANTS ISSUED BY TEXAS
FISCAL YEAR 2010

PAYROLL AND ANNUITY PAYMENTS	VENDOR PAYMENTS	CHILD SUPPORT PAYMENTS	TOTAL
705,776	2.1 million	2.9 million	5.6 million

NOTE: Numbers do not sum due to rounding.
SOURCE: Comptroller of Public Accounts.

CPA. This is a decrease from fiscal year 2009, which was 43.3 percent.

Each agency is responsible for authorizing the CPA's Payment Services division to distribute its warrants in a specific manner. Some agencies located in Austin retrieve warrants at CPA, while other Austin area agencies contract with CPA's Texas Procurement and Support Services (TPASS) to deliver the warrants to them. Agencies outside of the Austin area typically authorize Payment Services to mail the warrants to the agency.

PAST STATE EFFORTS TO ENCOURAGE DIRECT DEPOSIT

Previous Texas Legislatures have addressed the issue of converting warrants to direct deposit. The enactment of legislation by the Seventy-fourth Legislature, 1992, mandated that state employees receive payment through direct deposit. However, the mandate allowed broad exceptions that rendered the mandate ineffective. The law required CPA to issue a warrant to pay a person unless the person properly notified the Comptroller that receiving the payment via direct deposit would be impractical, would be more costly than receiving the payment by warrant, or that the person was unable to establish a bank account. This requirement essentially made it optional for state employees to receive payment via direct deposit.

Six years after the direct deposit mandate for state employees, legislation enacted by the Seventy-fifth Legislature, 1997, required vendors to accept direct deposit beginning in 1998. However, the requirement for vendors did not allow the same exceptions granted to employees. The only way a vendor could opt out from direct deposit was if they did not have a bank account. This mandate and the one for state employees were repealed by the Seventy-sixth Legislature, 1999, based on claims that it caused a hardship for small businesses without accounting systems sophisticated enough to process direct deposits. Legislation was filed in the Eighty-first Legislature, 2009, that would have required CPA to pay all vendors, employees, annuitants, and other recipients of state-issued payments via direct deposit or electronic pay card. The bill was supported by HHSC. Two-thirds of the approximately 15,000 employees who receive paper warrants work for HHSC and the Texas Department of Criminal Justice.

STATE INITIATIVES FOR ELECTRONIC PAY CARDS

Despite the repeal of the mandate requiring vendors and state employees to accept payment via direct deposit and the failure of the most recent bill to eliminate paper warrants, the state continues to consider new ways to reduce the number of paper warrants issued. In 1995, an electronic benefits task force was created when HHSC launched the electronic benefits transfer (EBT) program for food stamps and TANF recipients. Legislation enacted by the Seventy-fifth Legislature, Regular Session, 1997, directed the task force to determine what other state programs could benefit from the conversion of a warrant to an electronic funds transfer, and the cost-effectiveness of such an expansion. It directed the Office of the Attorney General (OAG) and TWC to perform a cost-benefit analysis of providing benefits electronically. The analysis led to electronic pay cards being used by each agency to pay recipients their unemployment and child support benefits. Most recently, CPA indicated that state employees would have the option of receiving payment via an electronic pay card before the end of calendar year 2010.

FOOD STAMPS AND TANF PAYMENTS

The EBT program for food stamps and TANF recipients began in November 1995. The program provides benefits to over 2 million food stamp and welfare recipients on the Lone Star card, an electronic debit card, and replaced millions of warrants and food stamp coupons. Recipients can access their benefits by using their Lone Star card at participating retail locations. They scan their card to pay for a purchase in the same manner a debit or credit card is used. Benefit recipients must choose a personal identification number that is entered at the point of sale to protect against unauthorized use of the card or in case it is lost or stolen. No purchase is necessary if the TANF recipient wants to withdraw funds from the debit card at a participating retail location, but some stores may set a limit on how much cash can be withdrawn at one time. The Texas EBT program is one of the largest in the nation. HHSC maintains that this move from a paper process to an electronic process helped streamline program administration, reduce the illegal sale of food stamps, and provide a safe and convenient way to receive benefits. Retailers also benefited from the transition to the

debit card because they immediately receive payment of food purchases made with the card.

CHILD SUPPORT PAYMENTS

The Office of the Attorney General's Child Support Division (CSD) collects and disburses child support payments to more than one million families. In fiscal year 2009, CSD collected over $2.8 billion in child support payments. OAG now allows child support recipients to choose a warrant, direct deposit, or payment card (Texas Debit Card) as their method of payment. According to CPA, while almost 2.9 million warrants were issued to child support recipients in fiscal year 2010, 86 percent of recipients receive payments electronically. The OAG estimates that it has saved approximately $32.7 million by converting paper warrants to electronic payment since fiscal year 2006.

The Texas Debit Card was introduced in April 2006 as a safer and more convenient way to receive child support payments than warrants or electronic payments. The card is issued by a vendor, loaded with the amount of funds due to the recipient, and may be used by the recipient anywhere Visa is accepted. Just like cashing a paper check, the card can be taken to the participating banks to withdraw the entire amount of funds. Other benefits of the debit card as reported by OAG include:

- a bank account is not necessary;
- no check cashing fees;
- no lost or stolen checks;
- no waiting for checks to come in the mail; and
- no waiting for deposits to clear the bank.

PAYMENT OF UNEMPLOYMENT BENEFITS

Since June 2007, all unemployment compensation beneficiaries receive their benefits from TWC on an electronic pay card (UI debit card) issued by Chase Bank or via direct deposit since fiscal year 2010. The debit card is accepted anywhere that Visa cards are accepted. Like a paper check, the UI debit card can be taken to a Chase bank or a Visa bank teller service for cash withdrawal, or smaller unlimited withdrawals can be made when making purchases with the UI debit card at a retailer. Chase supplements the customer service aspect of the UI debit card system by handling banking issues such as transaction disputes through Chase Customer Service. Each debit card lists a toll-free number for Chase Customer Service for the claimant and Chase is now offering access to online statements.

Sometimes vendors charge to provide pay card services. However, Chase does not charge TWC, the state or beneficiaries for the debit card or the transfer of benefits payments to the cards. As is typically the case with retailers who accept credit cards, the retailers must pay a service charge to the credit card company to allow the use of their card for purchases. The vendor negotiating the contract with TWC earns fees from retailers when unemployment beneficiaries make purchases through the vendor provided pay card.

After transitioning to the UI debit card, TWC was able to eliminate costs incurred for warrant mailings such as postage, warrant paper, security envelopes and some labor costs. In fiscal year 2010, 585,948 individuals were paid unemployment benefits, approximately thirty percent of which received payment via direct deposit.

STATE EMPLOYEE INDEMNITY PAYMENTS

Senate Bill 908, Eightieth Legislature, 2007, included a provision that required direct deposit of indemnity payments for those state employees receiving their salary through the same means. The Sunset Advisory Commission (Sunset) made this recommendation as an efficiency and cost savings measure in its review of the State Office of Risk Management (SORM). The Sunset report states that such a move would save SORM and injured state employees time, effort, and money. SORM implemented the recommendation in February 2008 and has increased its direct deposit rate of indemnity payments to 57.2 percent in fiscal year 2010 from 7.5 percent in fiscal year 2007. In fiscal year 2010, 35,267 indemnity payments were paid.

Some key findings from Sunset include:

- paying workers' compensation indemnity benefits by check wastes taxpayer dollars;
- CPA makes most payments to state employees by direct deposit;
- the workers' compensation program operated by the Texas Department of Transportation pays most indemnity benefits through direct deposit; and
- direct deposit delivers workers' compensation benefits faster and reduces hardships for employees.

SORM states that paying injured workers through direct deposit has not reduced administrative costs for the agency. As a workers' compensation carrier they are required to mail an explanation of benefits (EOB) form to the claimant

notifying them of the type of indemnity benefit and the period for which payment is made. For paper warrants, the EOB is mailed with the warrant, for direct deposits the date of the transaction is noted on the EOB and is mailed alone. The same amount of administrative time is required because now direct deposit must be verified before the EOB is mailed; whereas before, receipt of the warrant provided SORM verification of the payment processing.

SORM also reports that some additional administrative duties are also now required for canceling or recalling payments. While this is also not a significant percentage of the payments process, a common occurrence is an adjuster learning that an injured worker has returned to work and is not due the entire payment processed. As a carrier, SORM is required to make indemnity payments by specific deadlines and because of the two business day turn-around to process payments through CPA, the processing must begin a few days in advance. When information is received that a full payment is not due, a paper warrant can be cancelled, preventing the overpayment of state funds. The equivalent recall of direct deposits requires a different process, including attention to whether funding in the individual's account will be sufficient for a return of the payment.

While the transition to direct deposit has been difficult for SORM, it is important to note that the rules SORM must comply with as a compensation carrier are unique and do not apply to state employees.

SALARY PAYMENTS TO STATE EMPLOYEES

In fiscal year 2010, after reviewing other states' contracts to identify best practices, consumer protections, and optimal cost structure for a state electronic pay card program, the Council on Competitive Government made a request for proposals for electronic payment services and awarded a contract. CPA indicated that a pilot program allowing state employees not enrolled in a direct deposit program to receive their payment via an electronic pay card to replace the paper warrant would be underway by December of 2010. At the direction of CPA and the Office of the Governor, the contract prohibits any charge to access payment from the state (in any form). Due to the pricing structure that the selected contractor provided the State, the majority of the fees will be waived for State of Texas employees. The cost of using the card will be practically nothing and users are allowed cash back with purchases at no charge; free unlimited withdrawals from the contractor's automatic teller machines (ATM); and three free withdrawals ($1.50 thereafter) from an ATM at other banks. Mailed account statements, web account statements, low balance notification, deposit notification, and account balance inquiries are all provided at no charge.

Based on the success of other statewide initiatives promoting electronic payment cards, CPA expects this to be an effective manner to further increase the use of electronic payments to state employees. However, the provision allowing state employees the option to continue receiving paper warrants could significantly reduce any administrative savings because agencies would still have to maintain processes to issue warrants for some payees.

OTHER CURRENT STATE EFFORTS TO REDUCE THE NUMBER OF WARRANTS

A couple of efforts to educate employees about the benefits of electronic funds transfer have been underway.

- Direct deposit brochure—CPA sends direct deposit brochures with payment warrants to individuals who have not yet elected to receive payment through direct deposit. This brochure provides information on the benefits of direct deposit and explains the process of receiving payment electronically.
- Direct deposit website—CPA has a website with information and updates about direct deposit payments for employees, state agencies, and vendors interested in learning more about the benefits of this type of electronic payment.

While these efforts have improved direct deposit rates and reduced warrants, they do not include the option to replace warrants with an electronic pay card.

ELIMINATE WARRANTS ISSUED TO EMPLOYEES AND ANNUITANTS BY THE STATE

While the state's rate of employee and annuitant participation in direct deposit is now at almost 90 percent, there are benefits to be realized from eliminating all warrants to employers and annuitants. In addition to direct deposit, the development of secure, no cost electronic pay cards can help reduce state costs and provide an easy way for employees and annuitants to receive state payments. The Texas Council on Competitive Government reports that each warrant converted to a direct deposit saves the state $2.00. As evidenced by several state agencies serving low-income clients, electronic pay cards have reduced costs, streamlined payment processes, and provided a secure way of delivering funds.

Recommendation 1 would amend the Texas Government Code, Section 403.016, to allow state employees and annuitants to choose either direct deposit or an electronic pay card to receive payment of state funds. Given that the state has a contract for electronic payment services for state employees, implementation of this recommendation would not pose additional administrative costs to the CPA. Full implementation of Recommendation 1 would be required by the end of the 2012–13 biennium.

FISCAL IMPACT OF THE RECOMMENDATION

Recommendation 1 would not have a direct fiscal impact of General Revenue Funds appropriated in the 2012–13 biennium. The recommendation would reduce CPA administrative costs but the extent to which cannot be determined until full implementation is achieved in fiscal year 2013. Additionally, state agencies would also be expected to see savings as evidenced by HHSC, OAG, and TWC.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

IMPLEMENT STRATEGIES TO INCREASE THE TRANSPARENCY OF THE STATE CONSTITUTIONAL DEBT LIMIT

Since 1997, Article III, Section 49(j) of the Texas Constitution has limited the authorization of new General Revenue supported debt so that the annual debt service for all General Revenue supported debt does not exceed 5.00 percent of unrestricted General Revenue averaged over three years. This policy is in place to encourage a prudent use of General Revenue supported debt.

After voters approved $9.3 billion in new bond authorizations in November 2007, the debt limit ratio increased from 1.82 percent at the end of fiscal year 2007 to 4.09 percent at the end of fiscal year 2008. Prior to 2008, the debt limit ratio had never been higher than 3.20 percent. The Bond Review Board is the agency charged with calculating the state's debt limit ratio, which divides the total debt service payments for not self-supporting debt by the three-year average of unrestricted General Revenue Funds. As of the end of fiscal year 2010, the debt service ratio was 4.10 percent for issued and authorized but unissued debt that requires General Revenue appropriations.

The constitutional debt limit calculation forms the legal standard to which the state is held for not self-supporting debt. If the state were to meet or exceed the debt limit of 5.00 percent, according to the Office of the Attorney General staff testimony, the Legislature would not be allowed to authorize any more not self-supporting debt until enough debt had been paid off to bring the limit below 5.00 percent. In addition to not being able to authorize any additional debt, should the state reach or exceed the 5.00 percent limit, it risks a downgrade in its General Obligation credit rating, which could lead to higher interest costs.

FACTS AND FINDINGS

- Since 1985, the Texas Legislature and voters, where applicable, have approved $16.2 billion in not self-supporting debt authority that is included in the constitutional debt limit ratio of debt service to unrestricted General Revenue Funds. Of this amount, $15.4 billion was General Obligation bond authority, and $876.8 million was revenue bond authority.
- When a new debt authorization is approved by the Legislature or voters, it takes an average of 3.9 years before any debt is issued from that authority.
- For those debt authorities that have been completely exhausted, it has taken an average of 9.4 years to issue all the debt authorized.

CONCERNS

- The annual calculation of the debt limit does not provide a realistic picture of the state's debt burden because the calculation uses assumptions that do not match actual issuing practice. The Bond Review Board has used the same methodology and assumptions in the debt limit calculation for long enough that the Office of the Attorney General staff advised the agency staff that it had created precedent in the way the calculation was done and could not change it without legislative direction.
- There is no external review of the figures the Bond Review Board includes in the debt limit calculation to ensure its accuracy.
- Understanding how the constitutional debt limit is calculated is difficult. The Bond Review Board reports the debt limit in its annual report and other publications but does not publish a detailed explanation of how the calculation is done.
- Debt authorization during the legislative session is largely decentralized, which makes it difficult for members to see the full debt burden and debt service commitments made by the state.
- Texas has a total of $287.1 million in unissued not self-supporting General Obligation and revenue debt authority approved prior to 2001 that must be calculated into the debt limit despite the age of the authorization.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Government Code, Chapter 1231, to permit the Bond Review Board to modify certain assumptions within the debt limit calculation for unissued debt so that they reflect common or standard issuing practices for which an issuer has the legal authority to use.

- **Recommendation 2:** The Bond Review Board should develop a process for external review of the data used in the debt limit calculation on an annual basis, including review by affected issuers.
- **Recommendation 3:** Amend the Texas Government Code, Chapter 1231, to require the Bond Review Board to publish a document that explains how the debt limit is calculated, including all of the assumptions, authorizations, and legal requirements factored into the calculation.
- **Recommendation 4:** Within each chamber's finance or appropriations committee, the Legislature should consider establishing a standing subcommittee or workgroup that reviews all requests for new debt authority, bond proceeds appropriations, and debt service appropriations or reimbursement.
- **Recommendation 5:** Amend the Texas Constitution or statute, as appropriate, to repeal bond authorizations that are 10 years or older with unissued authority if projects or programs are no longer viable or necessary.
- **Recommendation 6:** The Legislature should consider including authority expiration dates in each bill or joint resolution that includes future bond authorizations.

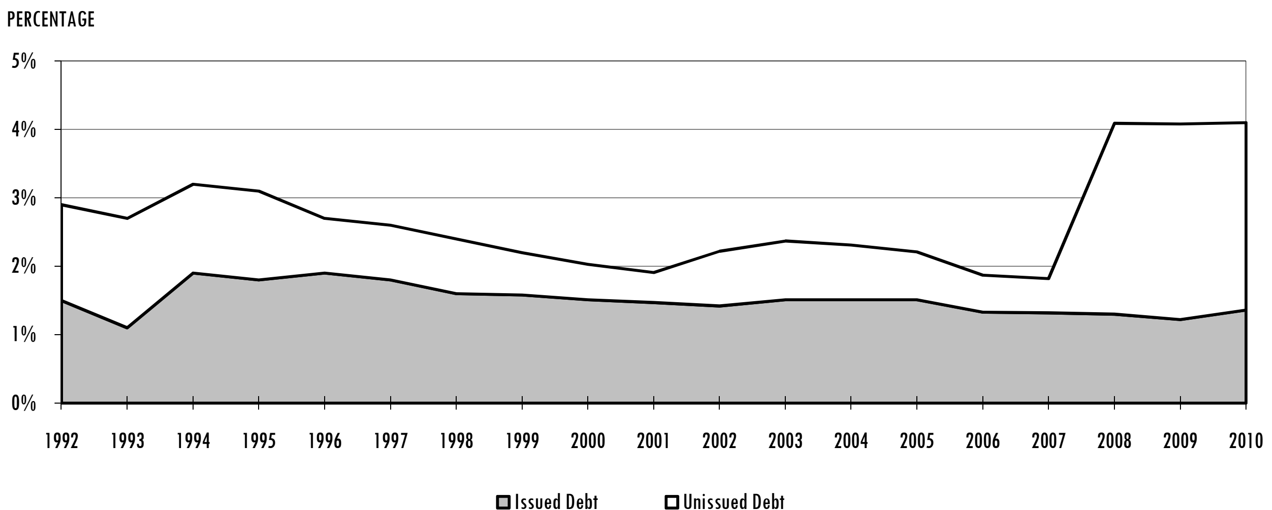
DISCUSSION

During the November 1997 ballot election, Texas voters approved House Joint Resolution 59 from the Seventy-fifth Legislature, Regular Session, 1997, which amended the state's constitution to limit the authorization of additional new General Revenue supported debt to an amount that ensures annual debt service payments do not exceed 5.00 percent of unrestricted General Revenue Funds averaged over three years.

The Bond Review Board (BRB) is the state agency charged with calculating the annual constitutional debt limit (CDL). As part of this responsibility, the agency calculates two ratios. The first ratio is issued not self-supporting debt service as a percentage of unrestricted General Revenue Funds, or the amount of funds available after constitutional allocations and other restrictions have been deducted. The second ratio includes both issued and unissued not-self supporting debt service as a percentage of unrestricted General Revenue Funds.

The BRB has calculated the debt limit ratio back to fiscal year 1992. From fiscal years 1992 to 2010, the issued debt ratio has ranged from 1.10 percent to 1.90 percent, and the total issued and unissued debt ratio has ranged from 1.82 percent to 4.10 percent. **Figure 1** shows the trend for the issued and unissued portions of the constitutional debt limit.

FIGURE 1
TREND OF TEXAS' CONSTITUTIONAL DEBT LIMIT RATIO
FISCAL YEARS 1992 TO 2010



SOURCES: Legislative Budget Board; Bond Review Board.

During the 19-year period for which the debt limit ratio has been calculated, the issued debt ratio has averaged 1.51percent and the total issued plus unissued debt ratio has averaged 2.67 percent. The approval by voters of $9.3 billion of not self-supporting debt in November 2007 significantly increased the unissued debt authority that must be calculated into the debt limit. As of the end of fiscal year 2010, $9.5 billion of not self-supporting debt calculated into the debt limit remained unissued with plans for a further $2.9 billion to be issued in fiscal year 2011. That leaves an estimated balance of $6.7 billion in unissued authority at the end of the 2010–11 biennium.

METHOD FOR CALCULATING DEBT LIMIT

To understand the significance of the two ratios calculated by the BRB, it is important to consider how the constitutional debt limit is calculated.

The two major components of the debt limit calculation are the amount of authorized debt and the three-year average of unrestricted General Revenue Funds. As these components change from year to year, such as a decrease in revenues or an increase in debt authority, the debt limit changes. Of these two components, debt authorization is the factor over which the Legislature has more direct control. The debt authorizations included in the debt limit calculation are ones that are classified as not self-supporting debt that require a General Revenue appropriation for debt service payments. The debt in the CDL calculation includes bonds, which are a long-term financing instruments with a term of greater than five years, and commercial paper, which is a short-term financing instrument with a maximum term of 270 days.

Within this calculation, the debt authorization component is divided into issued and unissued debt. **Figure 2** shows the data included in the CDL calculation based on the fiscal year 2009 CDL calculation

ISSUED DEBT

As of the end of fiscal year 2009, issued debt authorities comprised the smaller portion of the CDL calculation. Approximately $3.1 billion in not self-supporting debt outstanding, or 23 percent, of the debt calculated into the CDL, required $439.6 million in debt service payments, as shown in **Figure 2**.

At the end of each fiscal year, when the debt limit calculation is updated, the terms involving any issued debt are already set based upon the bond documents including:

- the par amount (or the face value of debt issued);
- type of financing instrument used such as short-term commercial paper or long-term bonds;
- interest rates, which can be fixed or variable;
- maturity dates; and
- repayment structure, which is typically level debt service (same total payment from year to year) or level principal (same amount of principal payment each year).

For BRB to calculate its first ratio, issued not self-supporting debt service as a percentage of unrestricted General Revenue Funds, the total debt service for issued debt is divided by the three-year average of unrestricted General Revenue Funds.

For the fiscal year 2009 debt limit calculation for issued debt, the BRB used the debt service for not self-supporting debt, or $439.6 million, and divided that by the three-year average of unrestricted General Revenue Funds, or $35.9 billion, resulting in a ratio of 1.22 percent for issued debt.

In addition to the terms of issued debt previously described, changing national trends in issuance may need to be reflected in the state's debt limit ratio. In 2009, the federal government created a new taxable bond program called Build America Bonds (BABs), which offers an interest rate subsidy that lowers the interest rate cost for a state or local government issuer or directly to investors. As of October 2010, Texas state agencies have executed two BAB issuances for not self-supporting debt where the agency receives a direct payment from the federal government for an amount equal to 35 percent of the total interest paid to investors. In August 2009 the Texas Public Finance Authority (TPFA) issued $181.8 million in BABs for Proposition 4 and Proposition 8 bonds. In September 2010, the Texas Department of Transportation (TxDOT) issued $815.4 million in BABs for Proposition 12 bonds. For fiscal year 2012, the BAB subsidy reduces the General Revenue appropriations needed by $3.7 million for TPFA and $12.5 million for TxDOT. Such subsidies reduce annual debt service payments and if considered in the CDL calculation, they would reduce the debt limit ratio.

For the debt limit ratio calculation, unissued debt is treated differently from issued debt. To calculate the debt limit with both issued and unissued debt, the BRB uses several assumptions about the unissued portion of the debt limit. The assumptions for unissued debt used in the calculation involve interest rates, length of bond term, and the type of debt service payment.

FIGURE 2
CONSTITUTIONAL DEBT LIMIT CALCULATION
DEBT SERVICE AS A PERCENTAGE OF UNRESTRICTED GENERAL REVENUE FUNDS
FISCAL YEAR 2009

MAXIMUM ANNUAL DEBT SERVICE ON OUTSTANDING DEBT (ISSUED DEBT)*	
Debt Service on Bonds	
General Obligation (minus 10% of TWDB's EDAP bonds)**	$364,320,400
Revenue	64,670,000
Total Debt Service on Bonds	428,990,000
Debt Service on Commercial Paper	
TPFA Master Lease Purchase Program (MLPP) ($107.3 million outstanding)	10,602,000
Lease-Purchase Payments Greater Than $250,000	0
	10,602,000
Total Debt Service on Issued Debt	$439,592,000
AUTHORIZED BUT UNISSUED DEBT	
Unissued Bond Authority	
Authorized but Unissued Bonds	$10,191,982,000
Minus 10% of EDAP Bonds Authorized**	26,201,300
Total Authorized but Unissued Bonds	10,165,780,700
Unissued Commercial Paper Authority	
Authorized but Unissued Master Lease Purchase Program (MLPP)	42,680,000
Estimated Debt Service for Unissued Bond and Commercial Paper Authority	
Estimated Debt Service on Authorized but Unissued Bonds***	886,299,087
Estimated Debt Service on Higher Education Fund Bonds	122,253,000
($131.25 million maximum debt service - $9.0 million existing debt service)	
Estimated Debt Service on MLPP Commercial Paper	15,933,867
Total Estimated Debt Service for Unissued Debt	$1,024,485,953
Total Debt Service	
Estimated Debt Service on Outstanding and Authorized but Unissued Debt	$1,464,077,953
UNRESTRICTED GENERAL REVENUE	
Unrestricted General Revenue (Year Ending 8/31/07)	$36,129,758,757
Unrestricted General Revenue (Year Ending 8/31/08)	36,866,229,307
Unrestricted General Revenue (Year Ending 8/31/09)	34,711,114,016
Three-Year Average of Unrestricted General Revenue	$35,902,367,360
DEBT LIMIT CALCULATIONS - DEBT SERVICE TO UNRESTRICTED GENERAL REVENUE	
Outstanding Debt (Issued Debt)	1.22%
Outstanding and Authorized but Unissued Debt	4.08%

*Debt service is based on maximum annual debt service payable in General Revenue Funds. Peak debt service occurs in fiscal year 2011.
**Up to 90 percent of TWDB's EDAP bonds can be used for grants and are assumed to require General Revenue. The remaining 10 percent is paid with non-General Revenue Fund sources.
***Estimated debt service assumes 20-year level debt service financing at 6 percent.
SOURCES: Legislative Budget Board; Bond Review Board; Comptroller of Public Accounts.

INTEREST RATES FOR UNISSUED DEBT

The first assumption involved in the unissued debt portion of the debt limit involves interest rates, which are an important component of the cost of issuing debt. Since 2002, BRB has used an interest rate assumption of 6 percent for long-term unissued debt calculated in the debt limit. From 1995 to 2001, BRB used an interest rate assumption of 7 percent. The current interest rate assumption is a conservative estimate but in recent years it has been higher than the actual interest rate paid by the Texas Public Finance Authority (TPFA) and Texas Water Development Board (TWDB), two issuers of not self-supporting debt. During fiscal year 2009, the interest rate paid by these issuers on long-term debt was less than 5 percent. The current interest rate assumption also does not account for the fact that TPFA, which is the largest issuer of the state's not self-supporting debt, frequently issues commercial paper, which as a short-term financing instrument offers lower interest rates than a long-term bond. While it is important that the debt limit not underestimate the potential interest cost, in an interest rate environment such as the one in recent years, it must also be recognized that using a higher interest assumption may overstate the potential cost of any issuances that are likely to happen in the immediate years.

MATURITY FOR UNISSUED DEBT

The second assumption used by BRB for the unissued debt portion of the debt limit involves bond terms, or maturity. The maturity dates affect the debt limit because it indicates how long an issuer will be paying debt service from an issuance. The BRB assumes a 20-year term for the long-term debt issuances calculated into the unissued debt portion of the debt limit. For many programs this would be an accurate reflection of the how a bond will be issued. But there are exceptions. The $5 billion in transportation bonds authorized by the voter-approved Proposition 12 in 2007 are likely to be issued under a 30-year term because the statutory authority granted to the Texas Department of Transportation (TxDOT) permits the agency to issue bonds over a 30-year term. A portion of TxDOT's September 2010 Proposition 12 issuance did have a maturity of 30 years. When a bond is issued over a longer period, it typically lowers the annual debt service payments. If the annual debt service payment is lowered, then the debt limit calculation also is lowered. Using a 20-year term may overstate the cost associated with the transportation bonds since they are likely to be issued under a 30-year term.

DEBT SERVICE REPAYMENT STRUCTURE FOR UNISSUED DEBT

The third assumption used by BRB for the unissued portion of the debt limit involves debt service payment structure. Most state debt issuances include a level debt service payment or a level principal payment. According to the Municipal Securities Rulemaking Board (MSRB):

- Level debt service is a debt service schedule in which the combined annual amount of principal and interest payments remains relatively constant over the term of the bond issue. Over time the ratio of interest paid to principal paid changes, but the total payment is consistent.

- Level principal is a debt service schedule in which the combined annual amount of principal payments remains relatively constant over the term of bond issue, resulting in declining annual debt service as the annual amount of interest payments declines.

TPFA, which as of August 2010 had issued $2.4 billion, or 74 percent of the $3.3 billion in not self-supporting debt outstanding, is the primary issuer of the state's not self-supporting debt. The agency typically uses a level principal debt service schedule for any issuance which is expected to be paid with General Revenue Funds. Since the debt service payment will decline over time under level principal, in the early years of a bond issuance by TPFA the debt service would be higher and possibly increase the debt limit ratio above the ratio currently produced by the limit calculation.

The combination of issued and unissued debt service creates a calculation that reflects the near worst case scenario in terms of debt service burden. To calculate the issued debt service ratio the BRB uses the peak year—year of highest debt service—for the debt service calculation after reviewing the full amortization schedule for any currently issued debt. For the fiscal year 2009 calculation, the peak debt service year was 2011—with $439.6 million in debt service. The peak debt service year for issued debt is added to the estimated debt service for unissued debt to calculate to the debt limit ratio for issued and unissued debt. While this method for calculating the limit is helpful for demonstrating what the maximum obligation of the state would be based on current authorizations, it does not realistically reflect the state's not-self-supporting debt burden because it assumes all of the currently unissued authority is issued and issued within a short period, which is unlikely.

The constitutional debt limit calculation forms the legal standard to which the state is held for not self-supporting debt. If the state were to meet or exceed the debt limit of 5.00 percent, according to testimony by staff at the Office of the Attorney General (OAG), the Legislature would not be allowed to authorize any more not self supporting debt until enough debt had been paid off to bring the limit below 5.00 percent. In addition to not being able to authorize any additional debt, should the state reach or exceed the 5.00 percent limit, it risks a downgrade in its General Obligation (GO) credit rating, which could lead to higher interest costs.

There is no statutory guidance on how the debt limit is to be calculated. When the limit was approved by voters, BRB established a process of how to calculate the limit. The methods used in debt issuance have changed over time, but the agency has used the same methodology and assumptions for so long that OAG staff advised BRB that it had set a precedent in the way the calculation was done. The agency was discouraged from changing assumptions without further legislative direction. To ensure that the debt limit can accurately reflect actual issuing practice, Recommendation 1 would amend Texas Government Code, Chapter 1231 to authorize the BRB to modify certain assumptions within the debt limit calculation for unissued debt so that they reflect common or standard issuing practices.

DEBT LIMIT CALCULATION TRANSPARENCY

The calculation of the debt limit involves only BRB staff. For quality control, several BRB analysts review the calculation prior to publishing the new ratio as part of the agency's annual report. Due to the complexity of the calculation and the volume of data that is calculated into the limit, an external review of the data used in the calculation would better ensure its accuracy. In fiscal years 2008 and 2009, minor adjustments to the original annual calculation were made due to small data errors. It is important that BRB retain the final decision on how to calculate the debt limit based on legal requirements and the agency's best estimate for interest rates and other assumptions. However, it would be helpful if issuers with not self-supporting debt authority could review their issuance and authority data that are included to ensure an accurate calculation each year. Recommendation 2 would encourage the BRB to develop, through administrative rules or internal policies, an external review process of the data used in the calculation with issuers to ensure accuracy.

In addition, due to the data elements included in the debt limit calculation which include actual revenue and debt service amounts for issued debt as well as assumptions such as interest rate for unissued debt, it is difficult for the average person to easily understand how the debt limit is calculated. The state of Washington has had constitutional and statutory debt limits since 1971. The Washington treasurer's office, which has a centralized authority over debt management for the state, publishes an annual certification of the debt limits as required by the constitution and statute. This certification publication explains how the state's debt limits are calculated including what revenues, debt authority, and debt issuances are part of the limit. To increase the public's understanding of how BRB calculates Texas' debt limit, Recommendation 3 would amend Texas Government Code, Chapter 1231 to require BRB to publish annually a document that provides details on how the calculation is performed. This information could be included within the agency's annual report, possibly as a separate chapter or appendix, or it could be a separate publication.

NOT SELF-SUPPORTING DEBT AUTHORITIES

For the not self-supporting debt that is calculated into debt limit, there are three primary state issuers, TPFA, TWDB and TxDOT, which have not self-supporting debt authority.

Since 1985, the three primary issuers received over 25 debt authorizations for various projects. These projects include building or renovation of state owned facilities such as office buildings and labs, water infrastructure loans, and highway construction. As of fiscal year 2010, 17 General Obligation (GO) programs or authorities are included in the debt limit as are five TPFA revenue debt authorities. **Figure 3** shows a list of those authorities, the amount issued from those programs through fiscal year 2010, and any unissued authority for those programs.

In addition to issuances from the three primary not self-supporting issuers, the Higher Education Fund (HEF) debt issuances are included in the CDL. For the August 2009 calculation this included $54.9 million in issued HEF bonds with a corresponding $9 million in debt service. The calculation also included estimated debt service for future HEF issuances based on the full portion of the annual allocation that can be used for debt service on HEF bonds. This allocation is $262.5 million annually, 50 percent of which can be used for debt service. The estimated debt service for unissued HEF for the fiscal year 2009 calculation totaled $122.3 million.

FIGURE 3
NOT SELF-SUPPORTING DEBT AUTHORITIES INCLUDED IN DEBT LIMIT, AUGUST 2010

AGENCY	YEAR AUTHORIZED	PROGRAM/AUTHORITY	TYPE	AMOUNT AUTHORIZED	ISSUED*	UNISSUED
TPFA	2007	Cancer Prevention	GO	$3,000,000,000	$ 225,000,000	$2,775,000,000
	2007	Construction and Repair for State Facilities (Prop 4)	GO	1,000,000,000	367,080,000	632,920,000
	2001	Colonias Roadways	GO	175,000,000	124,000,000	51,000,000
	2001	Construction and Repair for State Facilities (Prop 8)	GO	850,000,000	773,601,702	76,398,298
	1993	Construction and Repair for State Facilities	GO	1,000,000,000	999,325,000	675,000
	1991	Construction and Repair for State Facilities	GO	1,100,000,000	1,100,000,000	N/A
	1989	Construction and Repair for State Facilities	GO	400,000,000	399,497,500	502,500
	1987	Construction and Repair for State Facilities	GO	500,000,000	499,752,500	247,500
	1967	Parks	GO	75,000,000	75,000,000	N/A
	1999	Master Lease Purchase Program	Revenue	150,000,000	97,590,000	52,410,000
	Various	Multiple Programs	Revenue	277,477,889	120,381,345	158,896,544
		TPFA Total Debt Authorizations		**$8,527,477,889**	**$4,806,958,047**	**$3,722,279,891**
TWDB	2007	Economically Distressed Areas (EDAP)	GO	$250,000,000	$13,146,098	$236,853,902
	2001	Water Infrastructure Fund (WIF)**	GO	911,529,381	706,930,430	204,598,951
	2001	State Participation**	GO	210,050,000	30,583,640	179,466,530
	1997	State Participation (Development Fund II creation)	GO	134,991,180	134,991,180	N/A
	1989	Economically Distressed Area Program (EDAP)	GO	250,000,000	250,000,000	N/A
	1985	State Participation (Original Authority)	GO	23,000,000	23,000,000	N/A
	1985	Agricultural Water Conservation Loan	GO	200,000,000	35,160,000	164,840,000
		TWDB Total Debt Authorizations		**$2,019,345,561**	**$1,193,811,348**	**$825,534,213**
TxDOT	2007	Highway Construction	GO	$5,000,000,000	N/A	$5,000,000,000
		TxDOT Total Debt Authorizations		**$5,000,000,000**	**N/A**	**$5,000,000,000**

*Issued amounts reflect debt issued through fiscal year 2010. Not all the issued debt is currently in the debt limit calculation as a portion of issued debts have been repaid.
**WIF and State Participation are part of Development Fund II. The amounts shown here represent the current allocation for these programs from the fund.
Sources: Legislative Budget Board; Texas Public Finance Authority; Texas Water Development Board; Texas Department of Transportation.

One feature of these programs that the Legislature needs to consider when proposing the authorization of new debt is whether the new debt will be considered self-supporting or not self-supporting, as well as whether that classification could change over time. Potentially any self-supporting GO debt authorized by voters could be reclassified as not self-supporting if the revenue stream for it does not materialize and the debt begins being repaid with General Revenue Funds. Most of the programs listed in **Figure 3** were authorized as not self-supporting debt and remain not self-supporting, but there are a couple of exceptions.

TWDB's Agricultural Water Conservation Loan Program from 1985 was authorized as self-supporting debt 12 years before the constitutional debt limit was established in 1997.

To date, four bond issuances have been executed for this program. The first three of these issuances, which happened in fiscal years 1994 and 1997, were classified as self-supporting. For the most recent issuance in 2002, General Revenue Funds was used to pay the debt service and it triggered a reclassification of the entire debt authority from self-supporting to not self-supporting.

Another exception is TWDB's State Participation and Water Infrastructure Fund (WIF) issuances, which are a portion of the $2 billion authorization from November 2001. The entire $2 billion was authorized as self-supporting GO debt. However, when TWDB allocates a portion of the authority for State Participation or WIF and receives bond proceeds appropriations, initial debt service payments in the early years after an issuance are repaid with General Revenue Funds, classifying the debt as not self-supporting. In later years, these debt service payments will be repaid by loan payments and can be reclassified as self-supporting, thus removing the amount that has been reclassified and its outstanding debt service from the CDL.

From TWDB's original $2 billion in authority, the current allocation for State Participation is $210.1 million, of which $30.6 million had been issued by the end of fiscal year 2010. For WIF, the allocation totals $911.5 million, of which $706.9 million had been issued by the end of fiscal year 2010. In July 2010, the BRB approved reclassification of $139.8 million of State Participation debt, which has $7.9 million in annual debt service payments. Also, in November 2010 the BRB approved a reclassification of $230.1 million of State Participation debt, which has $14.4 million in annual debt service payments. The November 2010 reclassification of this debt decreased the 2010 CDL by 0.04 percent.

These three programs which were originally authorized as self-supporting GO debt illustrate the importance of considering how likely it is that new self-supporting debt could require General Revenue Funds appropriations, either on a temporary or permanent basis for the life of the debt. As of the end of the fiscal year 2010, there was $10.2 billion in outstanding self-supporting GO debt and another $3.8 billion in unissued authority.

LEGISLATIVE COMMITTEES DEBT OVERSIGHT

All debt authority must initially be authorized through statute or constitutional amendments. After a member files a bill or joint resolution, most debt related bills will be referred to the Senate Finance Committee (SFC) or the House Appropriations Committee (HAC). These two committees review and approve debt authorizations and debt service appropriations.

Each committee makes appropriations and authorization recommendations to the full chamber. To make appropriation decisions for different governmental function areas, each of these committees uses sub-committees or workgroups. The SFC typically creates workgroups that cover one to three articles in the General Appropriations Bill, but these are not standing committees. The HAC currently has six sub-committees.

Although legislators receive information that provides totals for debt authorization and debt service, debt financing and its impacts are not always considered comprehensively. New debt authorizations and debt service appropriations are addressed by functional area, which makes it difficult to approve debt with an overall perspective, to compare debt priorities and recognize the full debt service commitment being made by the state. With the state's limited financial resources, it is important for legislators to be able to consider overall priorities when considering proposed capital projects and to compare projects of one governmental function to another.

Recommendation 4 proposes establishing standing sub-committees within HAC and SFC where all proposals for capital projects would be presented to provide comprehensive debt information to the state's legislative finance committees.

DEBT AUTHORIZATION PROCESS

The debt authorization process depends on the type of debt being authorized. For revenue debt, which represents five percent of the current debt calculated into the debt limit, the Legislature must enact statutory change to establish revenue authority. For GO debt, which is 95 percent of the current debt calculated in to the debt limit, the Legislature must pass a joint resolution that would amend the Texas Constitution. If the joint resolution passes, its language eventually forms the ballot proposition language that is enacted if a majority of voters approve it. In addition, in order for a state agency to issue voter approved GO debt, the Legislature must typically amend statute to create enabling legislation.

UNISSUED DEBT AUTHORITY

As of the end of fiscal year 2010, approximately $12.9 billion in debt authority was included in the debt limit calculation. Of this amount, $9.5 billion of the debt authority was unissued. Most of the unissued authority originates from the

2007 authorizations for state buildings, cancer research, highway construction, and Economically Distressed Areas Program(EDAP). The remaining $889.0 million in unissued authority predates 2007.

It can take time for debt to be issued once authorized. An analysis of issuance history for not self-supporting debt shows an average time to first issuance to be 3.9 years from authorization, and for those cases where an authority has been exhausted, 9.4 years to fully exhaust the authority.

Of the $889.0 million in unissued authority that existed prior to 2007, $287.1 million was authorized in 2000 or earlier. Due to the limited capacity the state has under the debt limit, it is recommended that the Legislature revisit the need for existing debt authorities on an ongoing basis.

For current debt authorities, it is recommended that the Legislature review the need for any authority, but particularly those older than 10 years with unissued authority. **Figure 4** shows authorities in the debt limit that are older than 10 years with unissued authority.

If the Legislature has questions about the continuing need for a debt authority, it would be best that those questions be posed to the issuing agency. For those authorities that are no longer needed, Recommendation 5 would amend the Texas Constitution or statute, as appropriate to the original authority, to repeal bond authorizations that are 10 years or older with unissued authority. While repealing or reducing existing debt authority is not a common occurrence, it has happened. In 1987, voters approved a constitutional amendment adding $500 million in GO debt authority for the Superconducting Supercollider project. When that project was later terminated in 1995 voters approved a reduction of the authority to $250 million.

To prevent having unissued authority for an undue period, future debt authorizations should include an expiration date of the authority. In 1985, when TWDB's Agricultural Water Loan Conservation program was originally authorized, it had a time limit of four years for using the authority. That limit was later removed by voter approval in 1989. Recommendation 6 would require that future authorizations include an expiration date in the constitutional amendment or statute. If this path is pursued, to avoid unnecessary repeals or amendments in the future, it may be helpful to establish an expiration date that is consistent with the average time to exhaust the current authority. As previously mentioned, this period is a little less than 10 years.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would not have a direct fiscal impact to the state other than the potential cost for constitutional amendment publication by the Secretary of State, if any authority is repealed under Recommendation 5.

Recommendations 1, 2 and 3 relate to actions that would be taken by BRB staff, but would not create a significant

FIGURE 4
UNISSUED NOT SELF-SUPPORTING DEBT AUTHORITY OLDER THAN 10 YEARS, AUGUST 2010

ISSUER	YEAR AUTHORIZED	PROGRAM/AUTHORITY	TYPE	AUTHORIZED	UNISSUED	PERCENT UNISSUED	LAST ISSUANCE
TPFA	1999 & 1993*	Alternative Fuels	Revenue	50,000,000	50,000,000	100.00%	Not applicable
TPFA	1999 & 1991*	Hobby Bldg., Mueller Office, Aircraft Pooling Board	Revenue	89,905,500	41,787,267	46.48%	November 97
TPFA	1999 & 1989*	Office Bldg. - Tarrant County	Revenue	15,000,000	15,000,000	100.00%	Not applicable
TPFA	1999 &1989*	Office Bldg. - Harris County	Revenue	20,000,000	14,093,718	70.47%	Not applicable
TPFA	1993	Construction and Repair for State Facilities	GO	1,000,000,000	675,000	0.07%	October 03
TPFA	1989	Construction and Repair for State Facilities	GO	400,000,000	502,500	0.13%	October 91
TPFA	1987	Construction and Repair for State Facilities	GO	500,000,000	247,500	0.05%	November 90
TWDB	1985	Agricultural Water Loan Conservation Program	GO	200,000,000	164,840,000	82.42%	August 02
		TOTAL DEBT		**$2,274,905,500**	**$287,145,985**		

*Previously authorized debt authority that was recodified in 1999 under Texas Government Code, Chapter 1232.
Sources: Legislative Budget Board; Texas Public Finance Authority; Texas Water Development Board.

additional workload for the agency given its current work on the debt limit. Affected issuers such as TPFA, TWDB, and TxDOT already submit information on their issuances to BRB on a regular basis and additional review of their data should require a nominal amount of staff time at those agencies.

Recommendations 4, 5 and 6 relate to the committee and debt authorization process under the Legislature and would not result in any additional costs.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

OVERVIEW OF LOCAL GOVERNMENT DEBT TRANSPARENCY AND COST EFFECTIVENESS

Texas local governments carry a substantial amount of debt. As of August 2009, local governments in Texas had a total of $174.6 billion in debt outstanding compared to $34.1 billion in debt outstanding at the state level. In 2007, of the ten most populous states, Texas was ranked fifth overall for state and local debt outstanding per capita. When split into state and local components, Texas was tenth in state debt outstanding and second in local debt outstanding.

Over the 10-year period from fiscal years 2000 to 2009, Texas local governments issued an average of 1,138 bonds per year. During the same period local governments issued an average total amount of $22.5 billion in debt per year. Local government entities that issue debt include cities, counties, school districts, community colleges, water districts, hospital districts, and other special districts. There are multiple factors related to cost transparency that local governments must address both when debt is authorized and when it is issued.

FACTS AND FINDINGS

- ♦ With the exception of the Office of the Attorney General, which provides the final legal review of government issuances, no state agency oversees local government debt issuance.
- ♦ For voter approved debt authorizations, ballot language is required to include the bond purpose and bond authorization amount. No cost of issuance information is required to be disclosed in ballot language, and only 39 percent of local government debt outstanding required voter approval.
- ♦ Once local government debt is authorized, there are multiple sources of debt issuance disclosures available, and most of them are available to the public. Beginning in July 2009, the Municipal Securities Rulemaking Board required that all initial and continuing disclosures related to debt issuances be posted on its Electronic Municipal Market Access website.
- ♦ From fiscal years 2000 to 2009, Texas local governments issued 31 percent of their debt through competitive sales compared to the state which issued 17 percent of its issuances this way. A national average of 20 percent of debt is issued through competitive sales.
- ♦ Capital appreciation bonds, a type of financing structure, defer principal and interest payments. From fiscal years 2000 to 2009, 10 percent of local government issuances involved these bonds.
- ♦ Bond refunding is a financing tool that can help an issuer achieve savings, restructure debt service for budget flexibility, or remove restrictive bond documents. From fiscal years 2000 to 2009 Texas local governments issued a total of 2,865 refundings, or 25 percent of total issuances.

DISCUSSION

In 2007 according to U.S. Census Bureau data, of the ten most populous states, Texas was ranked fifth overall for total state and local debt outstanding per capita. When split into state and local components, Texas was tenth in state debt outstanding and second in local debt outstanding per capita. Of the debt outstanding per capita for Texas, 13 percent was held at the state level and 87 percent was held at the local level, indicating that most of Texas' debt is held at the local level. Other states distribute their debt burden differently. For example, Illinois ranked second overall in debt outstanding per capita, second in state debt and sixth in local debt. Of Illinois' debt per capita, 47 percent was held at the state level and 53 percent at the local level, indicating that its debt burden is distributed more equally between the state and local levels.

In Texas, the local government entities that issue debt include cities, counties, school districts, community colleges, water districts, hospital districts, and other special districts. These entities use debt to finance a variety of projects such as schools, public safety buildings, city halls, county courthouses, and sewer systems. Of the $174.6 billion in debt outstanding from Texas local governments, approximately one-third each belongs to cities and school districts. **Figure 1** shows the allocation of local debt among different governmental entity types.

According to Bond Review Board (BRB) data, local government debt outstanding increased from $119.4 billion

FIGURE 1
TEXAS LOCAL GOVERNMENT DEBT OUTSTANDING BY GOVERNMENT TYPE, AUGUST 2009

LOCAL GOVERNMENT TYPE	DEBT OUTSTANDING* (IN MILLIONS)	PERCENTAGE
Public School Districts	$58,837.3	33.7%
Cities, Towns and Villages	58,448.5	33.5
Water Districts and Authorities	27,121.5	15.5
Other Special Districts and Authorities	12,070.3	6.9
Counties	11,925.3	6.8
Community and Junior Colleges	3,684.9	2.1
Hospital/Health Districts	2,463.6	1.4
TOTAL LOCAL GOVERNMENT DEBT	**$174,551.4**	**100.0%**

*Totals may not sum due to rounding.
Sources: Legislative Budget Board; Bond Review Board.

to $174.6 billion in fiscal years 2005 to 2009, a 46 percent increase.

Given the amount of debt outstanding and the number of issuers at the local level, Texas local governments have a higher volume of issuance compared to the state. From fiscal years 2000 to 2009, the state issued an average of 36 bonds per fiscal year, compared to the per fiscal year average of 1,138 bond issuances at the local level. During fiscal year 2009, the most recent year of complete data, local governments executed 1,047 issuances. These issuances translate to an average annual par amount, or face value, of $22.5 billion issued by Texas local governments.

Like state agencies, local governments issue two main types of debt. This debt includes tax-supported General Obligation (GO) debt which is backed by the full faith and credit of the issuer and requires voter approval, and revenue debt, which depends on project specific revenues and does not require voter approval. For fiscal year 2009, approximately 61 percent of local debt outstanding was revenue debt and the remaining 39 percent was tax-supported debt.

BOND OVERSIGHT

Currently, with the exception of the Office of the Attorney General (OAG), no state agency oversees local government debt issuance. As required by Texas Government Code, Section 1202.003, prior to issuance local government issuers must undergo a legal review by the OAG to insure that a given issuance meets the legal criteria for issuance. During this legal review, the local government completes a detailed bond transcript form on the issuance which includes a variety of items such as par amount, structure, call provisions, refundings, derivatives, sales type, and cost of issuance. After the OAG approves the issuance, the bond is listed on the Comptroller of Public Accounts' (CPA) Public Securities Registry, but this registry is not available on CPA's website and access to the data requires a public information request.

The information collected by the OAG is shared with the BRB, which serves as a repository for information on local government debt. As required by Texas Government Code, Section 1231.062, the agency reports the overall state of local debt with statistical information in its annual report as well as numerous spreadsheets with annual data available on the agency website. BRB does not have any approval or review function associated with local government debt.

LOCAL BOND ELECTIONS

Texas statute requires issuers to disclose certain information to voters when requesting voter approval of any new tax-supported debt. While issuers can provide voters with additional information beyond what is required several factors make additional disclosure more complicated.

According to BRB data, approximately 39 percent of the local government debt outstanding at the end of fiscal year 2009 was tax-supported debt where the original authority would have to be approved by voters. With debt requiring voter approval, certain information is required to be included in the ballot language in order to help a voter better understand the proposition being considered.

Under requirements of Texas Government Code 1251.002, during a bond election by voters a local government the following information is disclosed in the proposition language:

- the purpose for which the bonds are to be issued;
- the amount of the bonds;
- the rate of interest (this requirement has been negated via subsequent court cases);
- the imposition of taxes sufficient to pay the annual interest on the bonds and to provide a sinking fund to redeem the bonds at maturity; and

- the maturity date of the bonds or that the bonds may be issued to mature serially over a specified number of years not to exceed 40.

Having additional information in the bond proposition language may help a voter understand the long-term cost of authorizing and subsequently issuing debt. One consideration for whether or not to include cost of issuance details in ballot language is that market changes affect many features of a bond issuance such as interest rates, bond structure, and bond pricing that cannot easily be predicted in advance of issuance. In lieu of including this information in the proposition language, local governments can address the need for additional information by providing additional presentations and publications about debt position and capital needs.

The city of Austin provides an example of how both the legally required disclosures and additional information to voters can be addressed. The city's 2006 bond election included seven propositions for $567.4 million, all of which were approved. Prior to the bond election, the city staff prepared a variety of documents explaining the capital needs related to the library system, parks, and transportation. Those presentations included information about the city's debt position including debt per capita, and comparison to other Texas cities.

Another consideration for proposition language is that most of Texas' local government debt is revenue debt and therefore not subject to voter approval. If the debt is not subject to voter approval, then there is not an upfront opportunity in the form of proposition language to disclose potential issuance costs. As of August 2009, approximately 61 percent of local debt outstanding was revenue debt and the remaining 39 percent was tax-supported debt subject to voter approval.

BOND ISSUANCE DISCLOSURES

Once debt is authorized, additional disclosures related to the issuance of any new debt authorities must be made. For Texas local government debt, multiple sources of debt issuances disclosures are available and most of them are available to the public. These sources of disclosure information include the CPA, the BRB, a federal regulatory agency, a private non-profit membership organization, and issuer websites.

The CPA maintains a Public Securities Registry. When a state or local issuer receives approval from the OAG, the OAG submits information on the issuance to the CPA. The information submitted includes issuer name, issuance date, principal amount issued, and interest rate. The Public Securities Registry is not available online, but the registry information is available by making an open records request.

Another source of debt issuance information is the BRB. The agency receives all of the information collected by the OAG on local issuances. BRB's website includes data by fiscal year and local government type that is available to download or search. A summary of local government issuance and debt outstanding is also included in each year's annual report. As of September 2010, BRB's website offers annual data on local government debt for fiscal years 1999 to 2009.

Another source of information is the Municipal Securities and Rulemaking Board (MSRB). The MSRB was established in 1975 by Congress to develop rules for broker-dealers and banks that underwrite, trade and sell municipal securities such as bonds, notes and other securities issued by states, cities, and counties or their agencies to help finance public projects or for other public purposes. The MSRB's goal is to provide investor protection through federal regulation.

MSRB provides protection to investors and the public by requiring disclosure on debt issuances. To do this, the Electronic Municipal Market Access (EMMA) website was developed to provide broad access to disclosure and transparency information in the municipal securities market. EMMA provides free access to investors and the public. The website information is tailored for retail, non-professional investors who may not be financial or investing experts. Issuers or their representatives have been required to submit information to EMMA since July 1, 2009.

The information available on EMMA includes the official statements and continuing disclosure documents. The official statement, which is prepared by or on behalf of a municipal issuer in connection with a new issue of municipal securities, describes the terms of the bonds, including:

- interest rate;
- whether and on what terms the bonds can be redeemed prior to maturity;
- the sources pledged for repayment; and
- the consequences for non-payment by the issuer.

Continuing disclosures consists of important information about a municipal bond that arises after the initial issuance of the bond. This information would typically reflect the financial or operating condition of the issuer as it changes over time, as well as specific events occurring after issuance

that can affect the ability of issuer to pay amounts owing on the bond, the value of the bond if it is bought or sold prior to its maturity, the timing of repayment of principal, and any other features of the bond. Each bond has a unique set of continuing disclosures, and not all types of continuing disclosures apply to every bond. The specific continuing disclosures an issuer must provide under Securities Exchange Commission rules include:

- Annual financial information concerning issuers;
- Audited financial statements for issuers;
- Notices of material events such as:
  - Principal and interest payment delinquencies
  - Non-payment defaults
  - Events affecting tax-exempt status or adverse tax opinions
  - Unscheduled draws on debt service reserves reflecting financial difficulties
  - Rating changes;
- Substitution of credit or liquidity providers, or their failure to perform; and
- Notices of failures to provide annual financial statements.

Another source of information about issuances is the Municipal Advisory Council of Texas (MAC). The MAC was chartered by the state in 1954 and it operates as a private non-profit membership organization.

Prior to the development of EMMA by MSRB, MAC had a long history of being the unofficial information depository for Texas governments. Through a Governor's executive order in 1995, the MAC served a similar function to EMMA by being the official state information depository for Texas issuers for items such as annual financial reports, official statements, and continuing disclosures. The MAC continues to provide this information for issuances prior to July 1, 2009.

In addition, the MAC provides research and analysis in a variety of publications and forms about Texas issuers in its Texas Municipal Report (TMR) for each issuer, its weekly publication *Texas Bond Reporter*, and its quarterly newsletter *MAC Insights*.

The TMRs provide current financial and economic data on more than 5,000 issuers in Texas, including state agencies, cities, counties, school districts, water and municipal utility districts, universities and junior colleges, river authorities, hospital districts, and housing authorities. Each TMR includes, at a minimum, an issuer's outstanding debt and debt service schedule, its basic operating statements, its economic background, and a list of its finance-related officials. They also include tax information for all tax-supported debt. The *Texas Bond Reporter*, published weekly, gives an overview of current bond issues. Each bond issue is tracked from the election stage through the OAG's approval.

MAC is different from the other main sources of information in that its focus and intent is to be used by members or buyers of the municipal debt issuing market rather than by the public. There are charges for MAC services including a subscription service, copies of individual documents, and special research requests.

In addition to these four sources, the local governments themselves have the opportunity to provide free, easily accessed information on their websites. Issuers can choose to post the types of documents that might be included on EMMA such as official statements, annual financial reports, and other continuing disclosures.

The State of Wisconsin provides a model for how detailed a government issuer can be when it comes to debt management and issuances. Its Department of Administration website provides detailed information of its financial position including revenue and debt. The state posts information on upcoming bond sales, official statements, comprehensive annual financial reports, and monthly general fund information.

The city of Austin provides an example of how a Texas local government provides ongoing information about debt authority and how it is being used. After its 2006 bond election, which included seven bond propositions totaling $567.4 million that were approved by voters, the city established a citizens' bond oversight committee. City staff provide updates to the committee and the city council on how projects are progressing, and these updates and presentations are available online.

In addition, through its comprehensive annual financial report and annual budget documents, information on total debt outstanding, debt unissued, debt per capita, and interest paid is available. Austin also posts its official statements online. The possible challenge for a person unfamiliar with

governmental financial reporting is that these documents are contained in different sections of the website and in some cases, the details are buried in documents longer than 100 pages. This example is in contrast to the State of Wisconsin, where all of the issuance information is centralized under one department within one section of its website.

In summary, there are multiple sources for Texas local government debt issuance information, most of which are free and available online. The challenge is that the average person may not be aware of everything that is available and depending on the level of detail available, it may be more difficult for an individual to find simpler statistics such as an entity's total debt outstanding, authorized but unissued debt, and annual debt service payments.

METHODS OF SALE USED FOR BOND ISSUANCE

The sale type used in a bond issuance has a significant effect on the cost associated with issuance and each issuer must carefully weigh which sale type is most appropriate for an upcoming issue. According to researchers at the University of Arizona and the University of Nebraska, the three methods of selling municipal bonds include competitive bidding, negotiated sale, and private placement.

In a competitive sale an issuer is responsible for presale work. Usually a week prior to the bond sale, a notice is put out soliciting bids from underwriters, and the underwriter that submits the bid with the lowest interest costs wins the right to buy the bonds.

In a negotiated sale, which is used for most revenue bonds and many general obligation (GO) bonds, underwriters are selected by issuers upfront and are responsible for all aspects of the issuance, including origination and pricing.

In a private placement sale, the municipal bond is not sold to the public but rather purchased directly by a preselected group of investors. Typically only a small percentage of bonds are sold via private placement, less than 0.5 percent in 2005 according to academic researchers.

Negotiated sales are the prevalent type of sale in the national municipal bond market. The trend toward this type of sale began in the 1970s, and since the early 1980s they account for 70 to 80 percent of the municipal bond issuance market. From fiscal years 2000 to 2009, Texas local governments issued 31 percent of their debt through competitive sales compared to the state which issued 17 percent of its issuances through competitive sales.

FIGURE 2
TEXAS LOCAL GOVERNMENT DEBT ISSUANCES BY SALE TYPE
FISCAL YEARS 2000 TO 2009

SALE TYPE	NUMBER ISSUED	PERCENTAGE
Competitive	3,522	31%
Negotiated	4,923	44%
Private Placement	2,754	24%
Commercial Paper Dealer	82	1%

SOURCES: Legislative Budget Board; Bond Review Board.

In addition to tracking competitive, negotiated and private placement sales, the BRB also collects information on those sales involving a commercial paper dealer. **Figure 2** shows the breakdown of bond sale type for local governments.

From **Figure 2**, one additional analysis is that Texas local governments have a higher than average use of private placement sales, which are less than 1 percent nationally. A possible reason for this may be the volume of smaller issuers in Texas that either do not issue frequently or may have lower credit ratings.

Academic researchers believe that the national shift towards using negotiated sales can in part be explained by the increase in revenue bonds, the increase in refunding bonds, and interest rate volatility. Revenue bonds may be riskier than GO bonds due the project specific revenues and increased education needed to explain to an investor what the project entails. Refunding bonds involve a refinancing of existing debt. The use of bond refundings has increased since the late 1970s. Because many refunding issues are executed to achieve cost savings relative to interest rates, refundings are more sensitive to market fluctuations and therefore may be better suited to the use of negotiated sales. Finally, interest rate changes may affect the use of negotiated sales. If the market is experiencing a period of greater interest rate volatility, a negotiated sale may be a better choice for containing costs.

In the past three decades there have been a variety of studies about the cost effectiveness of competitive versus negotiated sales. Multiple studies have found competitive bidding saves anywhere from 19 to 46 basis points in interest costs compared to negotiated sales. Other studies have shown no difference between the costs of negotiated and competitive sales.

The debate on whether or not competitive or negotiated sales are more appropriate or cost effective for any given issuer or issuance remains unresolved. The typical recommendation is that if a bond issuance can be easily understood by

underwriters and investors and comes from an issuer that the market is familiar with, such as a simple GO bond with a high credit rating, than a competitive sale is more likely to yield a better cost.

CAPITAL APPRECIATION BONDS

When issuing bonds, municipal issuers have a choice in how they structure the debt. Some options lead to lower costs but may results in higher annual debt service payments. Other options lead to higher overall costs but can be structured in a way that offers lower annual debt service payments.

Capital appreciation bonds (CABs) are a type of financing structure that defer principal and interest payments. According to a 2003 Texas House Research Organization report CABs are a deeply discounted bond that accretes, or accumulates, interest until maturity when a single payment for principal and interest is paid. The accretions are the difference between the face value of the bond and the original discount price. CABs are a way to issue debt that can help an entity avoid a tax increase and keep debt service payments low, but they increase the overall cost of issuance of the life of the debt.

To assess the effect of the cost of CABs compared to other bond structures, **Figure 3** below compares the cost of a $10 million issuance in fiscal year 2011 with a 20-year maturity and varying interest rates across three debt service structures including a serial bond with level debt service payment, a term bond, and a CAB structure.

A level debt service payment is a repayment structure where the total annual debt service payment remains stable from year to year. A serial bond is a type of bond where the bonds from a single issuance mature in consecutive years. A term bond is usually attached to a serial bond compromising a large part of a particular issuance, and it comes due in a single maturity. Term bonds may have higher interest costs than serial bonds.

To show the change in debt service payments over time across the three debt service structures **Figure 3** includes the first full year of debt service payments (fiscal year 2012); the mid-point year (fiscal year 2021) and the final year of payment (fiscal year 2031). Annual debt service payments shown in **Figure 3** include principal and interest payments.

As **Figure 3** shows, a CAB structure in this example results in an additional cost of $10.1 million compared to a serial bond structure and $6.4 million in additional cost over a term bond structure.

According to MSRB, the legal structure of CABs is such that since the accretions count as interest, only the principal amount is counted against an issuer's statutory debt limit. This feature creates difficulties because some hold the view that the total debt is undercounted.

From fiscal years 2000 to 2009, 10 percent of local government issuances included CABs. School districts have been the largest issuer of CABs at the local level. CABs have been on the decline in the last two years due to market conditions. According to the BRB, as of September 2010 the state has a total of $487.5 million in outstanding CABs with a value at maturity of $2.2 billion; the outstanding CAB amount is less than 2 percent of the total outstanding debt the state had at the end of fiscal year 2010.

BOND REFUNDINGS

Bond refundings are a financing tool that can help an issuer achieve savings, restructure debt service for budget flexibility, or remove restrictive bond documents. Bond refundings are the municipal market equivalent of refinancing a mortgage. From fiscal years 2000 to 2009 Texas local governments issued a total of 2,865 refundings, or 25 percent of total issuances. The par amount on refunding issuances totaled $82.4 billion for the 10-year period. State agencies issued 93 refundings during that same period, or 26 percent of total issuances, for a par amount of $10.1 billion.

FIGURE 3
EXAMPLE COST COMPARISON FOR CAPITAL APPRECIATION BOND ISSUANCE

	ANNUAL DEBT SERVICE PAYMENT FOR $10 MILLION ISSUANCE			
DEBT STRUCTURE SCENARIO	FIRST YEAR 2012	MID-POINT 2021	FINAL YEAR 2031	TOTAL INTEREST COST
Serial Bond	$683,050	$680,950	$678,300	$4,125,142
Term Bond	$393,600	$393,600	$10,036,800	$7,839,200
Capital Appreciation Bond			$24,265,000	$14,263,695

SOURCES: Legislative Budget Board; Texas Public Finance Authority.

For refundings that are used for cost savings, an industry standard that is recommended by BRB is a 3 percent net present value savings. According to MSRB, present value savings is the difference in current dollars between the debt service on a refunded bond issue and the debt service on a refunding bond issue for an issuer. It is calculated by discounting the difference in the future debt service payments on the two issues at a given rate. The Texas Public Finance Authority (TPFA), which issues on behalf of multiple client state agencies, also uses a standard of 3 percent net present value savings. From fiscal years 2000 to 2009, out of 12 GO bond and revenue bond refundings issued by TPFA, all but two of them achieved a net present value savings of 3 percent; the remaining two did have positive net present value savings.

From fiscal years 2000 to 2009, local governments achieved a net present value savings of $2.5 billion. During this period, 77 percent of local government refunding issuances met the 3 percent net present value standard. Approximately 11 percent had a net present value savings between 0 percent and 3 percent, meaning there were savings but not enough to reach the industry standard. The remaining 12 percent of refundings involved a loss on net present value savings, indicating that issuers were using those refundings to restructure debt for budget reasons, trying to remove restrictive convenants, or both.

Figure 4 shows the number of bond refunding at local level by government types. The bond refundings closely trend the debt outstanding. School districts, cities, and water districts, which are the three local governmental entities with the highest amount of debt outstanding, also have the three highest number of refundings.

FIGURE 4
REFUNDINGS BY LOCAL GOVERNMENT TYPE
FISCAL YEARS 2000 TO 2009

LOCAL GOVERNMENT TYPE	REFUNDINGS	PERCENTAGE
Public School Districts	1,100	38%
Cities, Towns and Villages	947	33
Water Districts and Authorities	502	18
Counties	183	6
Community and Junior Colleges	72	3
Other Special Districts and Authorities	31	1
Hospital/Health Districts	30	1
TOTAL LOCAL GOVERNMENT REFUNDINGS	**2,865**	**100%**

Sources: Legislative Budget Board; Bond Review Board.

AMERICAN RECOVERY AND REINVESTMENT ACT FEDERAL FUNDS FOR THE STATE OF TEXAS

The American Recovery and Reinvestment Act, often referred to as ARRA, was signed into federal law February 17, 2009. The legislation included $787 billion in Federal Funds intended to stimulate the national economy through a combination of tax cuts, financial aid to state and local governments, and various additional measures. In Texas, the Eighty-first Legislature, Regular Session, 2009, appropriated a total of $14.4 billion in Federal Funds authorized by ARRA through House Bill 4586 and Article XII of the 2010–11 General Appropriations Act, the state's budget.

In addition to these appropriated awards, the state received additional ARRA awards after the General Appropriations Act passed. Some of these awards are still considered inside the General Appropriations Act because they would have been included in the budget had the state received notice of the award before the General Appropriations Act passed. Other awards, such as research grants to institutions of higher education, are typically excluded from the state budget, so they are considered outside the General Appropriations Act.

This report provides an overview and analysis of ARRA Federal Funds, including which agencies received these funds, how they were spent, and how many jobs they funded. In addition, it provides greater detail on the largest awards such as Medicaid, Highway and Bridge Construction, and several education programs. Also discussed is the type and amount of awards outside the General Appropriations Act, particularly unemployment insurance. Finally, the report summarizes Federal Funds authorized by ARRA that may be expended into the 2012–13 biennium.

FACTS AND FINDINGS

- Texas agencies and public institutions of higher education reported receiving more than $21 billion in ARRA awards by September 30, 2010.
- Of these awards, $16.2 billion are considered inside the General Appropriations Act. Awards outside the General Appropriations Act totaled $5.1 billion.
- Of awards inside the General Appropriations Act, $10 billion had been expended by September 30, 2010.
- Of these same awards, 81 percent of expenditures were grants or client services.

DISCUSSION

The American Recovery and Reinvestment Act of 2009 included $787 billion in Federal Funds, much of which were directed to states for education, transportation, healthcare, and energy-related programs. Several state agencies and public institutions of higher education received these awards. Some awards, such as the Promotion of the Arts Partnership, were competitive while others were not. ARRA awards are one-time awards to the state, and awards have timeframes during which funds must be obligated or expended.

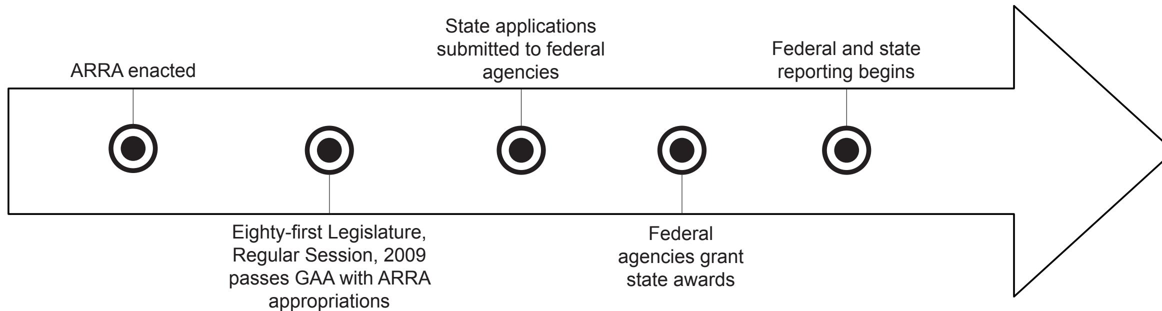
The Eighty-first Legislature, Regular Session, 2009, appropriated approximately $2.3 billion in ARRA Federal Funds through House Bill 4586 and $12.1 billion through Article XII of the 2010–11 General Appropriations Act (GAA)—a total of $14.4 billion. Article XII also required agencies and public institutions of higher education to submit quarterly reports concerning their ARRA appropriations to the Governor, Legislative Budget Board (LBB), State Auditor's Office, and Comptroller of Public Accounts. These reports include information such as project descriptions, expenditures by objects of expense and strategy, and jobs created or retained. LBB staff began collecting this data in January 2010. See **Figure 1** for a timeline of key events.

Agencies and public institutions of higher education must report all ARRA awards to the LBB, including funds that were appropriated in the 2010–11 GAA; funds that were not appropriated in the GAA but would have been had the state received notice of the award before the GAA's enactment; and awards that are typically excluded from the GAA.

As shown in **Figure 2**, the five largest ARRA awards to the state totaled $12.1 billion. As of September 30, 2010, they accounted for approximately 75 percent of all awards inside the GAA.

The Texas Medicaid program received a $4.7 billion award which comprises nearly 30 percent of all ARRA funds inside the GAA. The U.S. Department of Health and Human Services awards Medicaid, and it is administered by the state's Health and Human Services Commission (HHSC). The

FIGURE 1
ARRA TIMELINE OF KEY EVENTS, FEBRUARY 17, 2009



SOURCE: Legislative Budget Board.

FIGURE 2
FIVE LARGEST ARRA AWARDS INSIDE THE 2010–11 GENERAL APPROPRIATIONS ACT, SEPTEMBER 30, 2010

AWARD	STATE AGENCY	REPORTED AMOUNT	TOTAL APPROPRIATED AMOUNT (H.B. 4586 AND S.B.1)
Medicaid	Health and Human Services Commission	$4,706,548,405	$4,098,843,693
State Fiscal Stabilization Fund-Education	Texas Education Agency	$3,250,272,133	$3,250,200,000
Highway Planning & Construction	Texas Department of Transportation	$2,247,127,465	$2,250,000,000
Title I Grants to Local Education Agencies	Texas Education Agency	$948,737,780	$944,600,000
Special Education Grants (IDEA Part B)	Texas Education Agency	$945,636,328	$945,600,000
TOTAL		**$12,098,322,111**	**$11,489,243,693**

SOURCE: Legislative Budget Board.

award is sizeable because ARRA temporarily increased the Medicaid Federal Medical Assistance Percentage (FMAP). The FMAP determines the state and federal share of Medicaid funding, the state's largest health and human services program. ARRA Medicaid FMAP payments are made quarterly, and these payments are expected to continue through June 2011.

ARRA allowed the following three potential increases to the FMAP: (1) a hold harmless provision, which maintains the FMAP at a minimum of the 2008 federal fiscal year level; (2) a general 6.2 percent increase to the FMAP; and (3) additional increases based on increases to the unemployment rate (Tier I-II). Any unemployment-related adjustments are calculated quarterly, which can result in different FMAPs for different quarters. Texas reached Tier III in the first quarter of 2011.

At first, the increased FMAP did not apply to Medicare Part D clawback payments. In February 2010, however, HHS said it would apply the enhanced FMAP to these payments. Due to the volume of spending governed by the FMAP, even small increases in the FMAP can result in millions of dollars of federal assistance. The enhanced FMAP was set to expire in December 2010. In August 2010, the President enacted Public Law 111-226, which provided a two quarter extension of the ARRA FMAP increase, which is now set to expire in June 2011.

For the State Fiscal Stabilization Fund—Education State Grants, the U.S. Department of Education granted nearly $3.3 billion to the state to support public elementary, secondary, and postsecondary education, and in some cases, early childhood education. The Texas Education Agency (TEA) administers this award and grants most of its funds to local education agencies (typically local school districts). By September 30, 2010, TEA had reported this $3.3 billion award, which was appropriated as a method of financing state costs in the Foundation School Program. TEA also receives $362 million in State Fiscal Stabilization Fund—Government Services funds to pay for instructional materials,

but that funding is separate and is not included in this particular education state grant.

For Highway Planning and Construction, the U.S. Department of Transportation awarded more than $2 billion to the state for infrastructure developments and improvements. The Texas Department of Transportation (TxDOT) administers these funds, which are used to design, repair, and construct highways and bridges.

For Title I Grants to Local Education Agencies, the U.S. Department of Education awarded approximately $950 million to the state so local education agencies could help at-risk students meet achievement standards. TEA administers this program.

For Special Education Grants to States (IDEA Part B), the U.S. Department of Education provided nearly $950 million to the state to improve public education for children with disabilities. TEA also administers these funds, which are granted to local education agencies with respect to the federal Individuals with Disabilities Education Act.

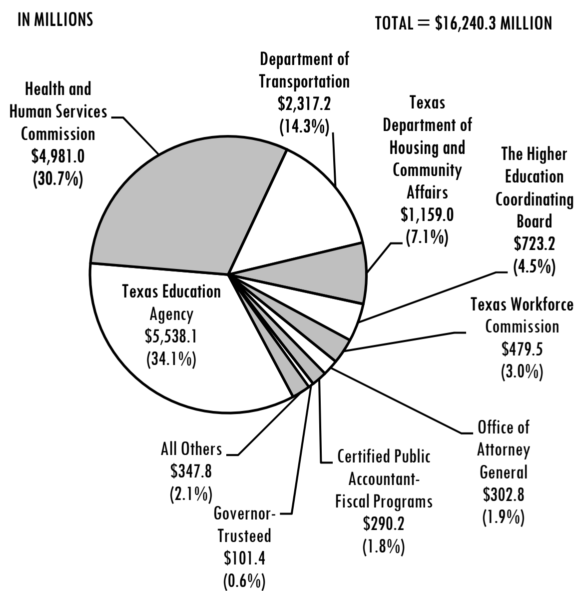
ARRA AWARDS BY STATE AGENCY

As **Figure 3** shows, TEA received $5.5 billion—one-third of all ARRA funds inside the 2010–11 GAA and the most of any state agency. HHSC received nearly $5 billion, about one-third (31 percent) of ARRA funds. Medicaid accounts for nearly all its total. Rounding out the top three, TxDOT received $2.3 billion, with nearly all these funds directed toward Highway Planning and Construction.

The Texas Department of Housing and Community Affairs (TDHCA) received $1.2 billion. Most of TDHCA's funds went towards the Housing Tax Credit Exchange Program ($594 million), weatherization ($327 million) or tax credit assistance for affordable housing ($148.4 million). As shown in **Figures 3 and 4**, the Texas Higher Education Coordinating Board (THECB) received approximately $723 million in State Fiscal Stabilization Fund—Government Services funds. As mentioned previously, TEA receives half this amount ($362 million) to fund instructional materials. THECB awards the remaining funds to public institutions of higher education, many of which use the funds to pay for salaries. Some THECB funding is also allocated to other state agencies for special and administrative projects. **Figure 5** lists the higher education and other government programs that were appropriated State Fiscal Stabilization Fund—Government Services funds in the 2010–11 GAA.

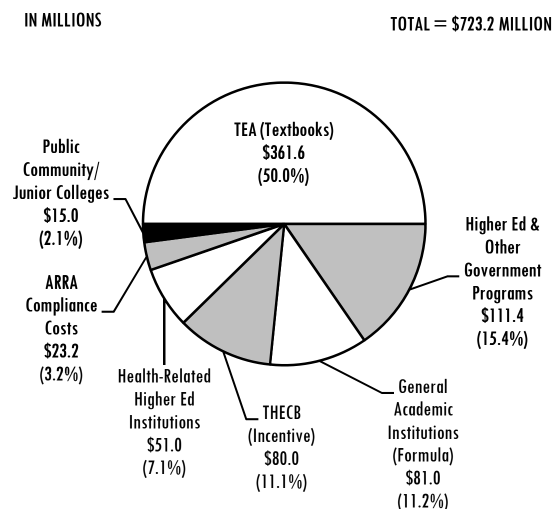
The Texas Workforce Commission administers multiple ARRA awards totaling $479.5 million. The Child Care Development Block Grant, which provides child care services for low-income families, accounted for approximately $215 million of this total. Workforce Investment Act programs,

FIGURE 3
ARRA AWARDS BY STATE AGENCY, SEPTEMBER 30, 2010



Source: Legislative Budget Board.

FIGURE 4
STATE FISCAL STABILIZATION FUND GOVERNMENT SERVICES FUNDS DISTRIBUTION



Source: Legislative Budget Board.

FIGURE 5
HIGHER EDUCATION AND OTHER GOVERNMENT PROGRAMS ARRA ALLOCATIONS

STATE AGENCY/ PUBLIC INSTITUTION OF HIGHER EDUCATION	PROJECT	APPROPRIATED AMOUNT
Angelo State University	Nursing & Allied Health	$2,000,000
Blinn College	Star of Texas	$100,000
Coastal Bend Community College	Mobile Simulation Lab	$500,000
Commission on the Arts	Cultural Trust	$1,000,000
Department of State Health Services	Vernon State Hospital	$2,500,000
Historical Commission	La Salle Artifacts and Vehicles	$1,000,000
Lamar State College-Port Arthur	Learning Center and Utilities	$500,000
Lamar University	Institutional Enhancement	$2,500,000
Midwestern State University	Autism Support Program	$220,000
Office of the Governor Trusteed Programs	Defense Economic Adjustment Assistance Grants	$5,000,000
Sam Houston State University	Institutional Enhancement	$4,000,000
Texas A&M Health Science Center	College of Medicine Expansion	$8,000,000
Temple College	Eastern Williamson County Higher Education Center	$805,000
Texas A&M Health Science Center-McAllen	Biosecurity and Import Safety	$1,000,000
Texas A&M University-Texarkana	Downward Expansion	$6,000,000
Texas A&M University-Commerce	BS Construction Engineering	$1,000,000
Texas Department of Agriculture	Fair Park Agriculture Buildings: Utilities and Security	$1,000,000
Texas Education Agency	Houston Early College High School	$1,000,000
Texas Engineering Experiment Station	Nuclear Power Institute	$4,000,000
Texas State University-San Marcos	River Systems Monitoring	$1,000,000
Texas Tech Health Sciences Center	West Texas Area Health Education Center	$4,000,000
Texas Tech University	Emerging Technologies Research	$4,000,000
University of Houston	Energy Research Utility Costs	$3,000,000
University of Houston-Downtown	Community Development	$250,000
University of North Texas	Institutional Enhancement	$2,000,000
University of North Texas	State Historical Association	$150,000
University of North Texas System	Law School Contingency & System Office	$5,000,000
University of Texas Health Science Center-Houston	Heart Institute--Adult Stem Cell Program	$5,000,000
University of Texas Health Science Center-Houston	Public Health	$9,500,000
University of Texas Health Science Center-San Antonio	Life Science Institute	$4,000,000
University of Texas Health Science Center-San Antonio	Regional Academic Health Center	$6,500,000
University of Texas-San Antonio	Life Science Institute	$4,000,000
University of Texas-Austin	Law School Clinical Program	$420,000
University of Texas-Dallas	Middle School Brain Years	$6,000,000
University of Texas-Dallas	Academic Bridge	$462,500
University of Texas-Dallas	Center for Values in Medicine, Science and Technology	$5,000,000
University of Texas-San Antonio	P-16 Council	$500,000
University of Texas Southwestern Medical Center	Institute for Genetic & Molecular Disease	$8,000,000
Vernon Community College	Workforce & Training Development	$500,000
TOTAL		**$111,407,500**

Source: Legislative Budget Board.

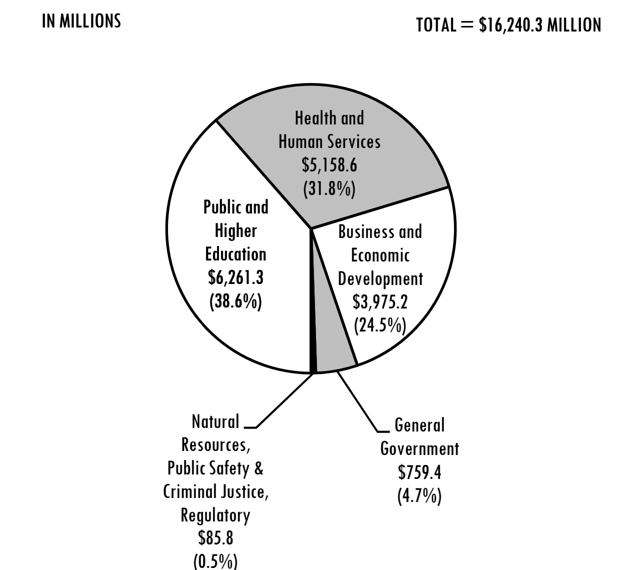
which offer job training and placement to workers, accounted for $177 million.

The Office of the Attorney General received $302.8 million, with most of the funds allocated to Child Support Enforcement. The Comptroller of Public Accounts–Fiscal Programs received $290.2 million for energy-related programs, including the State Energy Program, Energy Efficiency and Conservation Block Grant, and ENERGY STAR Appliance Rebate Program. The Trusteed Programs within the Office of the Governor received $101.4 million for various crime-reduction and public safety programs, such as the Crime Victims Assistance and STOP Violence Against Women programs and the Byrne Justice Grants.

ARRA AWARDS BY FUNCTION

As shown in **Figure 6**, more than $6 billion—or 39 percent of ARRA awards—are directed to Public and Higher Education agencies and institutions. Health and Human Services agencies received 32 percent of ARRA awards, due in large part to the Medicaid funds HHSC administers. Business and Economic Development agencies received 24 percent of ARRA funds inside the 2010–11 GAA due to the infusion of transportation funds to TxDOT, tax credits to TDHCA and child care and workforce development funds to TWC. General Government agencies received 5 percent of the ARRA funds, while Natural Resources, Public Safety and Criminal Justice, and Regulatory agencies received less than 1 percent.

FIGURE 6
ARRA AWARDS BY FUNCTION, SEPTEMBER 30, 2010

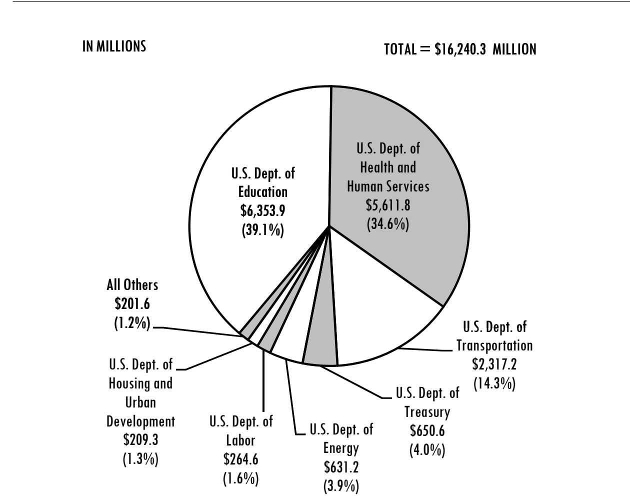


SOURCE: Legislative Budget Board.

ARRA AWARDS BY FEDERAL AGENCY

As shown in **Figure 7**, the U.S. Department of Education awarded the most funds to the state—about $6.4 billion. Accordingly, TEA and THECB received most of these funds. The U.S. Department of Health and Human Services awarded $5.6 billion, with most funds directed to HHSC for the Texas Medicaid program. The U.S. Department of Transportation, meanwhile, awarded $2.3 billion to TxDOT for highway, bridge, airport, and other infrastructure development. The remaining federal agencies' awards accounted for approximately 10 percent of ARRA awards in the 2010–11 GAA.

FIGURE 7
ARRA AWARDS BY FEDERAL AGENCY, SEPTEMBER 30, 2010



SOURCE: Legislative Budget Board.

JOB ESTIMATES/FULL-TIME EQUIVALENTS

A key goal of ARRA was job creation. Award recipients report job estimates to the federal government every quarter. Some programs such as Medicaid are exempt from this federal reporting. Article XII of the GAA, however, requires all state agencies and public institutions of higher education to report jobs estimates for all awards in the GAA to the LBB.

Job estimates are reported as full-time equivalent (FTE) positions. One FTE might be regarded as an employee who worked a standard 40-hour workweek. The federal

government initially required award recipients to differentiate between created and retained FTE positions. Recipients had to determine whether ARRA funds created a position that otherwise never would have existed or merely retained pre-existing positions. Many recipients found this determination difficult to make, and the federal Office of Management and Budget (OMB) eventually agreed the differentiation was too subjective and led to inaccuracies. Later in the reporting process, OMB decided job estimates should be reported as one figure.

LBB staff followed OMB's job reporting guidelines. For the 2009 federal fiscal year and first quarter of the 2010 federal fiscal year, agencies and public institutions of higher education were able to differentiate between created and retained jobs. Beginning with the second quarter, all jobs were reported as one figure.

Figure 8 shows overall job estimates for awards inside the 2010–11 GAA. Job figures are reported on a quarterly basis. They include jobs created and retained in that quarter only. They are not cumulative, so one quarter's job figures can not be added to a subsequent quarter because a position created in one quarter may be retained in the next. Adding the quarterly figures would count the position twice.

EXPENDITURES BY OBJECTS OF EXPENSE

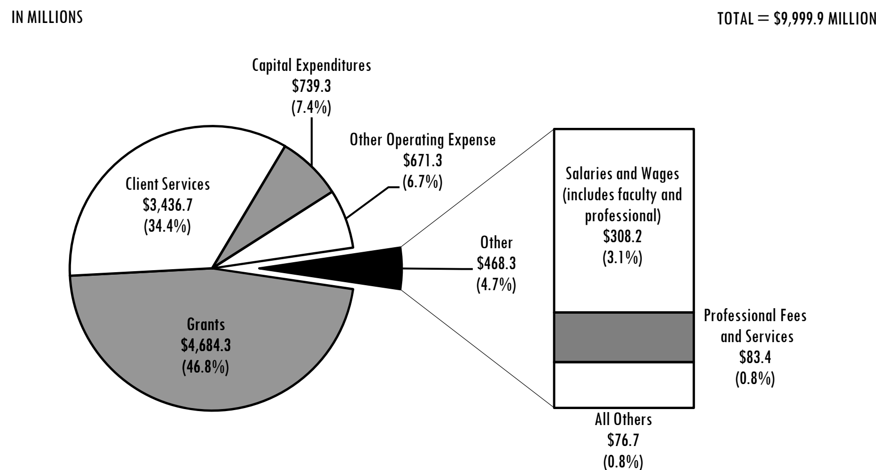
By September 30, 2010, agencies and public institutions of higher education had expended $10 billion of awards inside the 2010–11 GAA, or 62 percent of the total. Agencies and public institions of higher education were required to classify expenditures by objects of expense, or state expense codes. As shown in **Figure 9**, approximately 50 percent of all expenditures were grants. Grants are payments made to state or other units of government and to nongovernmental entities for programs and projects designed for the general

FIGURE 8
JOB ESTIMATES BY QUARTER
FISCAL YEARS 2009 TO 2010

	JOBS		AGENCY REPORTING	JOBS	
FISCAL YEAR/QUARTER	CREATED	RETAINED	MOST JOBS	CREATED	RETAINED
2009	9,851	1,293	Texas Workforce Commission	5,744	115
2010 Q1	25,337	3,076	Texas Education Agency	23,614	
2010 Q2	36,409		Texas Education Agency	27,869	
2010 Q3	40,409		Texas Education Agency	29,462	
2010 Q4	36,762		Texas Education Agency	27,161	

NOTE: Texas Education Agency's job totals in all quarters may include created or retained positions, as local education agencies did not differentiate between the two categories.
SOURCE: Legislative Budget Board.

FIGURE 9
ARRA EXPENDITURES BY OBJECTS OF EXPENSE, SEPTEMBER 30, 2010



SOURCE: Legislative Budget Board.

welfare. Some grants paid sub-contractors for services such as weatherization, construction, or workforce development. Most grants, however, went to either local education agencies to meet education needs or state health and human services agencies to administer Medicaid. For example, TEA grants State Fiscal Stabilization—Education Funds to local school districts on a reimbursement basis.

Another major expenditure ($3.4 billion) was client services. Most of these funds paid for Medicaid services. More than $739 million paid for capital expenditures, which are related to the acquisition, lease-purchase, or ancillary costs (including contracts) associated with capital items or projects. TxDOT was responsible for most of these expenditures, which paid for contracted maintenance.

AWARDS OUTSIDE THE 2010–11 GENERAL APPROPRIATIONS ACT

In addition to the awards inside the 2010–11 GAA, the state also received ARRA awards considered outside the GAA. These awards have historically been excluded from the GAA and include federal research grants and student financial aid to institutions of higher education, unemployment insurance compensation, and other non-appropriated programs.

State agencies and public institutions of higher education reported $5.1 billion in funds outside the 2010–11 GAA. The five largest awards total $4.6 billion or 90 percent of all such awards. As shown in **Figure 10**, the largest award is Unemployment Insurance-Direct Payments ($3.7 billion). Administered by TWC, these funds pay for Emergency Unemployment Compensation (EUC) for workers who have exhausted their state unemployment benefits; a state-federal extended benefit program for workers who have exhausted state and emergency benefits; and a $25 temporary increase in weekly benefits. The Governor, however, rejected seeking an estimated $555 million in Unemployment Compensation Modernization funds. In his view, the state would have to change too many statutory provisions to receive these funds, and these changes would eventually increase taxes on businesses. During the Eighty-first Legislature, Regular Session, 2009, state lawmakers also decided against enacting new requirements such as covering part-time workers, so Texas was not eligible to receive the additional unemployment funds.

The Water Development Board received more than $326 million in federal funding outside the 2010–11 GAA for the Clean Water and Drinking Water State Revolving Funds, which are used to protect the state's water quality.

Other large federal awards outside the 2010–11 GAA are Medicaid-related. The largest of these relates to the Medicaid Upper Payment Limit (UPL). Federal Medicaid law offers states flexibility regarding payments to healthcare providers. However, Medicaid payments can be no higher than the amount Medicare would pay for the same service; this is considered the UPL. These supplemental payments to high-volume Medicaid providers are tied to specific patient services. Since UPL payments have the same matching rate as medical services, the ARRA FMAP increase decreased the state share for these supplemental payments.

Another program related to Medicaid is the Disproportionate Share Hospital (DSH) program, which provides supplemental payments to hospitals that serve large numbers of Medicaid beneficiaries and low-income or uninsured patients. Hospitals receive DSH payments to offset the costs not covered by payments from Medicaid, third-party reimbursement, and patient revenue collections. ARRA provided an increase to states' DSH allotments of 2.5 percent for fiscal years 2009 and 2010. Texas non-state owned hospitals received an additional $71.1 million in DSH payments during this period.

FIGURE 10
FIVE LARGEST ARRA AWARDS OUTSIDE THE 2010–11 GENERAL APPROPRIATIONS ACT, SEPTEMBER, 30, 2010

AWARD	STATE AGENCY	REPORTED AMOUNT
Unemployment Insurance-Direct Payments	Texas Workforce Commission	$3,655,000,000
Medicaid Upper Payment Limit	Health and Human Services Commission	$502,849,262
Clean Water State Revolving Fund	Water Development Board	$171,957,024
Drinking Water State Revolving Fund	Water Development Board	$154,229,760
Medicaid Disproportionate Share Hospital	Health and Human Services Commission	$71,113,382
TOTAL		**$4,555,149,428**

SOURCE: Legislative Budget Board.

Most of the remaining awards outside the 2010–11 GAA were awarded to public institutions of higher education. These awards include National Institutes of Health and National Science Foundation research grants, federal work study and scholarships, among other programs. They totaled more than $500 million.

ARRA AWARDS THAT MAY CONTINUE INTO THE 2012–13 BIENNIUM

Each ARRA award has a timeframe during which funds must be obligated or expended, per federal requirements. Many ARRA awards appropriated by the Eighty-first Legislature, Regular Session, 2009, were supposed to be expended or obligated within two years (or by the end of the 2011 federal fiscal year). As shown in **Figure 11**, some ARRA awards can be expended past this timeframe into the 2012–13 biennium.

FIGURE 11
ARRA AWARDS CONTINUING INTO 2012–13 BIENNIUM WITH EXPENDITURE DEADLINES, SEPTEMBER 30, 2010

AWARD	STATE AGENCY	AWARDED AMOUNT	AMOUNT EXPENDED (9/30/10)	DEADLINE MUST BE SPENT
Highway Planning and Construction	Texas Department of Transportation	$2,247,127,465	$943,345,998	2015
State Energy Program	Comptroller-Fiscal Programs	$218,782,000	$5,588,390	2012
Tax Credit Assistance Program	Texas Department of Housing and Community Affairs	$148,354,769	$38,902,094	2012
Byrne Justice Grants	Governor's Office-Trusteed Programs	$90,295,773	$54,475,801	2013
Debt Service Subsidy for Build America Bonds	Public Finance Authority	$56,533,873	$4,004,382	none
Homelessness Prevention & Rapid Re-housing	Texas Department of Housing and Community Affairs	$41,472,772	$19,216,332	2012
Community Development Block Grant	Texas Department of Rural Affairs	$19,473,698	$6,757,369	2012
Broadband Technology Opportunities Program	Texas State Libraries and Archives Commission	$7,955,941	$0	2013
Electricity Delivery & Energy Reliability and Research	Comptroller-Fiscal Programs	$2,432,068	$345,070	2013
	Public Utility Commission	$1,370,056	$150,900	
Crime Victims Assistance	Governor's Office-Trusteed Programs	$2,109,000	$1,877,734	2012

SOURCE: Legislative Budget Board.

HEALTH INFORMATION TECHNOLOGY INITIATIVES IN TEXAS

Health information technology is intended to improve the quality and safety of patient care by giving practitioners instant access to clinical decision support tools and patients' medical records. Health information technology also could increase system efficiency and healthcare cost savings by facilitating early intervention in disease processes, reducing medical errors, and allowing more rapid assessment of new technologies.

The report provides an overview of the policies and implementation of state and federal health information technology (HIT) initiatives funded with federal funds provided through the Health Information Technology for Economic and Clinical Health Act (HITECH Act), which was included within the American Recovery and Reinvestment Act (ARRA) of 2009. The focus of this report is to provide information on the HIT initiatives being coordinated by HHSC for Medicaid and CHIP in coordination with other state entities.

FACTS AND FINDINGS

- ♦ Congress included $19 billion in federal funding for health information technology in the federal Health Information Technology for Economic and Clinical Health Act within the American Recovery and Reinvestment Act of 2009.
- ♦ The Texas Health and Human Services Commission received $28.8 million in Federal Funds through the State Health Information Exchange Cooperative Agreement Program. The purpose of this program is to continuously improve and expand health information exchange services to reach all healthcare providers and improve the quality and efficiency of healthcare.
- ♦ Three public institutions of higher education in Texas received a total of $13.5 million for health information technology job training programs.

DISCUSSION

ORGANIZATION OF THE REPORT

The report's discussion is divided by the following subject areas:

- National Health Information Technology Program
- Privacy and Security of Personal Health Information
- Electronic Prescribing
- Federal Funding for HIT Initiatives
- Electronic Health Record Implementation Grants
- Regional Extension Centers
- Statewide Health Information Technology
- Health Information Exchange Policies and Systems

NATIONAL HEALTH INFORMATION TECHNOLOGY PROGRAM

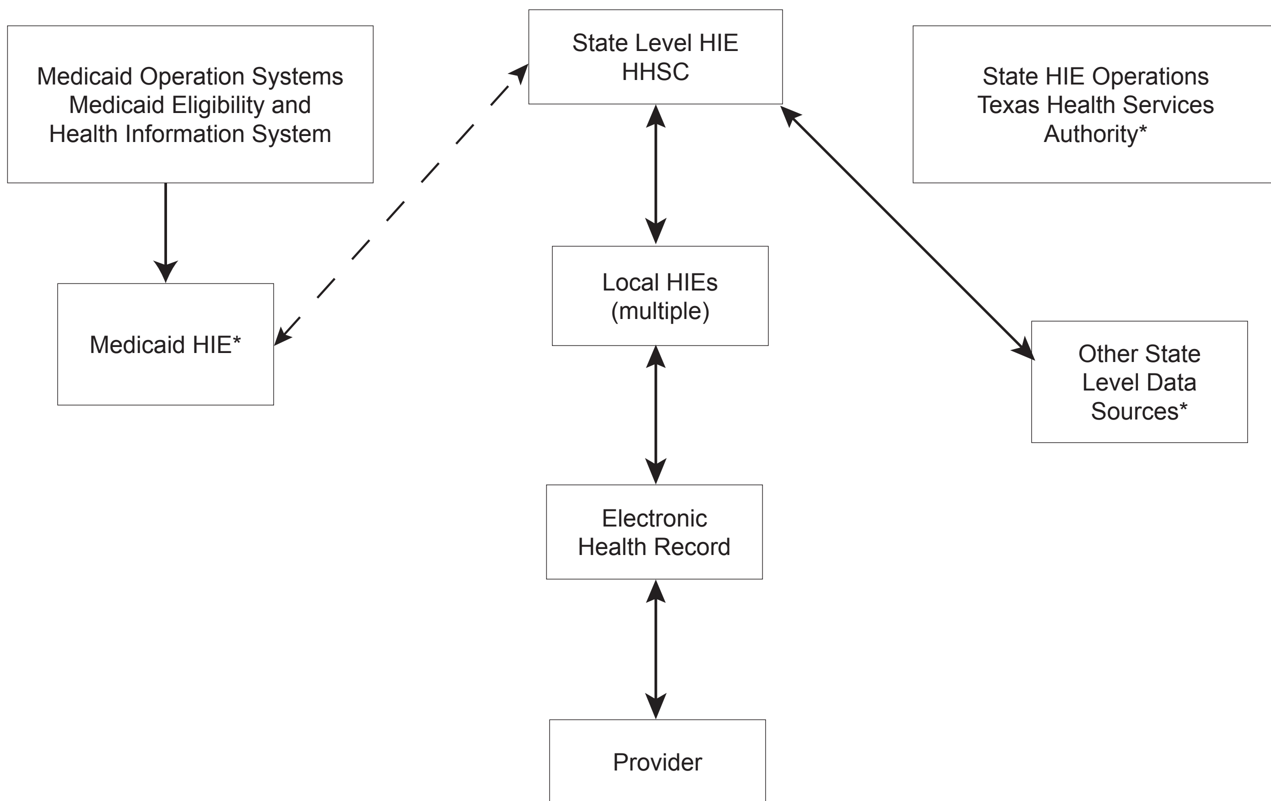
Congress included $19 billion in federal funding for health information technology (HIT) in the federal Health Information Technology for Economic and Clinical Health Act (HITECH Act). The federal initiative promised to establish standards, policies and financial incentives for physicians and other healthcare providers who implement electronic medical records (EMRs) systems in a "meaningful" way.

The provisions of the HITECH Act are designed to work together to provide the necessary assistance and technical support to providers, enable coordination and alignment within and among states, establish connectivity to the public health community in case of emergencies, and assure the workforce is properly trained and equipped to be meaningful users of electronic health records (EHRs). Combined, these programs should provide a foundation for an EHR system, as part of a modernized and interconnected system of healthcare delivery. **Figure 1** shows the frame work of the Texas HIT systems.

HIT provides a framework for the management of health information and its exchange between consumers, providers, insurers, government and quality review entities. HIT includes standardized software and hardware systems, including hand-held devices that will collect, store, retrieve and transfer clinical, financial and administrative information. The HIT systems will maintain and communicate:

- Personal health records;
- Electronic health records;
- Electronic prescriptions and drug formularies; and

FIGURE 1
TEXAS HEALTH INFORMATION TECHNOLOGY, HEALTH INFORMATION EXCHANGE OPERATIONS DIAGRAM
AS OF AUGUST 13, 2010



Note: At implementation the Medicaid Eligibility and Health Information System, Texas Health Services Authority and Other State Level Data Sources will work with specifically targeted provider populations and migrate to Local HIE's via the State Level HIE System.
Source: Legislative Budget Board.

- Clinical quality review and support systems.

The development of health information technology has taken once interchangeable terms such as medical record and health record and applied them to specific types of reports in the overall health information system. To better understand how some of these terms are applied **Figure 2** lists some of the most common HIT terms and their definitions.

PRIVACY AND SECURITY OF PERSONAL HEALTH INFORMATION

The HITECH Act improves and expands current federal privacy and security protections for health information. According to a U.S. House Ways and Means Committee report, as healthcare providers move to exchanging large amounts of health information electronically, it is important to ensure that such information remains private and secure. The HITECH Act will:

- Establish a federal breach notification requirement for health information that is not encrypted or otherwise made indecipherable. It requires that an individual be notified if there is an unauthorized disclosure or use of their health information.
- Ensure that new entities that were not contemplated when the federal privacy rules were written, as well as those entities that do work on behalf of providers and insurers, are subject to the same privacy and security rules as providers and health insurers.
- Provide transparency to patients by allowing them to request an audit trail showing all disclosures of their health information made through an electronic record. Shutting down the secondary market that has emerged around the sale and mining of patient health information by prohibiting the sale of an individual's health information without their authorization.

FIGURE 2
HEALTH INFORMATION TECHNOLOGY TERMS

HEALTH INFORMATION TECHNOLOGY TERMINOLOGY GUIDE	
TERM	**DEFINITION**
Health Information Technology (HIT)	Information processing using computer hardware and software that store, retrieve, and share healthcare information and data. The system allows for health care communication and decision making.
Health Information Exchange (HIE)	Capability to electronically move clinical information between different healthcare information systems. HIE systems facilitate provider access to clinical data to provide safe and efficient patient care.
Regional Health Information Organization (RHIO)	Multiple stakeholder organizations, combining several localities or zones, enabling the secure exchange and use of health information. RHIOs use health data to promote the improvement of health quality, safety and efficiency. RHIOs are the key components of the national health information network, providing universal access to electronic health records.
Electronic Health Record (EHR)	Real time patient health record component of a system providing access to evidence-based decision support tools that can be used to aid clinicians in decision making. EHRs are multimedia data for the primary purpose of providing health care and health-related services. These are primarily the healthcare provider's records, which may be accessed by authorized healthcare personnel with client consent.
Electronic Medical Record (EMR)	Computer-based patient medical record. An EMR facilitates access of patient data by clinical staff at any given location to support medical provider office functions such as, processing prescriptions, checking for allergy and drug interactions, lab work, and providing information to insurance companies. Does not contain the detail of an EHR.
Personal Health Record (PHR)	A personal electronic health record application to which an individual retains secure access. Individuals can maintain and manage their own health information (and that of others for whom they are authorized).

Source: West Virginia Medical Foundation.

- Require that providers attain authorization from a patient in order to use their health information for marketing and fundraising activities.
- Increasing penalties for violations and providing greater resources for enforcement and oversight activities.

There are three areas with privacy concerns:

Access—the HITECH Act included in ARRA allows an individual to protect information about services they paid for personally from being shared if they make that request. Their insurer will not have information. An individual can now request a list from an entity of what disclosures have been made of their information. Individuals also have to be notified of security breaches. The federal Health Insurance Portability and Accountability Act still applies.

Security—criminal penalties were established for cases when individuals knowingly disclose health information for improper purposes.

Marketing—individuals must consent to have information released for marketing purposes.

ELECTRONIC PRESCRIBING

Part of the overall HIT initiative includes Electronic Prescribing or e-Prescribing. e-Prescribing is an electronic method of prescribing pharmaceuticals using current communications, data management and Internet-based technology. The technology being implemented by the HIT initiative through the connections with Health Information Exchanges (HIEs) and EHRs allows healthcare providers to insure that the item being prescribed will not interfere with other medications the patient is taking and thus prevent costly medical errors. Also, a healthcare provider and

pharmaceutical provider can use the technology to prevent fraud and billing errors by verifying that a prescription is not being duplicated or prescribed at multiple locations. Centers for Medicare and Medicaid Services (CMS) requires e-Prescribing for all Medicare prescriptions by the end of federal fiscal year 2012. A study conducted by Visante Consulting for the Pharmaceutical Care Management Association estimated that the federal government will save approximately $22 billion in drug and medical costs over 10 years in the federal Medicare program through e-Prescribing.

Automating the prescribing process has many potential benefits including:

- patient safety through computerized transmission of legible prescriptions directly to the pharmacy and checks for harmful interactions;
- patient satisfaction in a process that results in fewer errors and less waiting time;
- avoidance of unnecessary phone calls for clarification between eligible professionals and pharmacies; and
- easier data collection of physician prescribing patterns and improved formulary compliance for health plans, pharmacy benefit managers and employers.

Through an e-Prescribing system, a medical provider selects a medication electronically, consults a formulary, checks drug interactions and allergies, and transmits the prescription via fax or electronically to a pharmacy. In addition to improved patient care and provider efficiencies, CMS views e-Prescribing as the nation's first major step to implement a standardized, integrated national health information technology and electronic health record system. CMS is promoting the expansion of e-Prescribing to state Medicaid programs, CHIP, other public pharmaceutical programs, and the private sector.

According to SureScripts, an operator of nationwide e-prescription network, reports that in Texas more than 13.5 million prescription transactions were sent electronically in 2009 which accounts for approximately 10 percent of eligible prescriptions, an increase from 3 percent of eligible prescriptions in 2008. SureScripts estimates there were approximately 4,888 physicians routing e-Prescriptions in Texas at the end of 2009, an increase of 1,586 physician e-Prescribers since 2008. Although the number of participants has grown significantly, the proportion they represent of all physician prescribers is relatively small 10 percent in year 2008 and 15 percent in 2009. SureScripts' 4th annual Safe-RxTM Awards rankings show that Texas rose from 30th in the nation in 2008 to 22nd in 2009, increasing the percentages of total prescriptions routed electronically from 0.96 percent in 2007 to 3.17 percent in 2009.

Based on the federal Medicare Modernization Act of 2003, CMS is requiring Medicare Part D providers to implement e-Prescribing by 2012. A qualified prescribing system, which now applies to Medicaid and CHIP as well, must include the following capabilities:

- generate a medication list;
- select medications, transmit prescriptions electronically and conduct contraindicating safety checks on medications;
- provide information on lower cost alternatives and formulary mediations; and
- provide information on patient eligibility and health plan authorization requirements.

Medicare is also taking new steps to speed the adoption of e-Prescribing by offering incentive payments to physicians and other eligible professionals who use the technology. Beginning in federal fiscal year 2009, Medicare began providing incentive payments to eligible professionals who are successful e-prescribers. These prescribers will receive a 2 percent incentive payment in federal fiscal years 2009 and 2010, a 1 percent incentive payment in federal fiscal years 2011 and 2012, and a one-half percent incentive payment in federal fiscal year 2013. One of the major barriers to e-Prescribing was lifted when the Drug Enforcement Administration implemented their final rule on e-Prescribing for controlled substances on June 1, 2010. Since 1999, pharmacies in Texas have been required by law to electronic report prescriptions of controlled substances with a high risk of abuse to the Texas Department of Public Safety (DPS). DPS uses the information to identify incidents of fraud and abuse. The federal government's initiative for e-Prescribing has resulted in greater provider participation across the nation and in Texas.

Figure 3 shows the overall increase in Texas e-Prescriptions since 2007. House Bill 1966, Eighty-first Legislature, Regular Session, 2009, and the 2010–11 General Appropriations Act (Article II, Health and Human Services Commission (HHSC), Senate Bill 1, Rider 51, Eighty-first Legislature, Regular Session, 2009) required HHSC to create an implementation plan for e-Prescribing in Texas Medicaid and the Children's Health Insurance Program (CHIP). The

FIGURE 3
TOTAL PRESCRIPTIONS IN TEXAS ROUTED ELECTRONICALLY 2007 TO 2009

	2007	2008	2009
Total Prescriptions Routed Electronically	1,179,465	4,134,930	13,513,723
Annual Growth in E-prescription Transactions		251%	227%

Sources: SureScripts; American Medical Association.

agency states that the goal of the e-Prescribing plan is to support adoption and meaningful use of e-Prescribing by Medicaid and CHIP providers that will improve the quality, safety, and efficiency of health-care services provided to individuals enrolled in Medicaid and CHIP. HHSC provided the required *Electronic Prescription Implementation Plan* on December 1, 2009. The plan reported minimal state cost savings of approximately $1.8 million for fiscal years 2010 to 2012 as a result of implementation of the e-Prescribing plan. The reason for low cost savings according to HHSC, is due modifications required in the Vendor Drug Program (VDP) system, which is currently operated and maintained by a vendor that serves as the pharmacy claims and rebate administrator (PCRA). HHSC provided an updated plan in December 2010. No significant changes were identified in the new plan but state cost savings are moved forward to fiscal years 2011 and 2012.

FEDERAL PROVIDER INCENTIVES AND PENALTIES

The Office of the National Coordinator for Health Information Technology (ONC) was designated as the lead federal agency for implementation of the HIT initiative. First the ONC established a national HIT standards committee for certified EHR technology and released those standards at the end of 2009. Secondly, the ONC established a policy committee, which released its policy recommendations in early 2010. CMS subsequently defined "meaningful use" and established parameters for public and private HIT related grants, physician incentives, hospital incentives, and Medicare and Medicaid provider specific timelines for incentives and penalties. Texas healthcare providers will have to comply with the federal standards by 2015 to be eligible for any federally funded incentives. Electronic Prescribing (e-Prescribing) incentives which were originally implemented 2003 under the Medicare Modernization Act of 2003 and expanded to Medicaid and CHIP under ARRA, will require provider compliance with meaningful use standards by the end of 2012.

MEDICAID PROVIDER INCENTIVES

The final rules for implementing HIT were approved in July 2010 for providers of healthcare, including hospitals, clinics, physicians, nurse practitioners and other similar healthcare providers. There are two parts to the final rules. The first section defines "meaningful use" as it pertains to providers and the other rule establishes standards and implementation criteria for e-records technology to help doctors and hospitals pay for installation of EHR systems by 2014. Medicaid healthcare providers, who achieve "meaningful use" of certified EHRs, as defined by the rules, will be eligible for bonus payments during the next six years. Physicians who accept Medicaid patients could earn up to $63,750 in incentives over six years. Eligible physicians who work in healthcare professional shortage areas will receive a 10 percent increase in incentive payments, which end after 2016. The HITECH Act imposes penalties for eligible physicians who do not become "meaningful users" of EHRs by the HIT implementation deadline of December 2015. However HHSC has reported that penalties are not required and will not be applied to Texas Medicaid and CHIP providers. Medicaid Providers are expected to implement 20 of 25 objectives to qualify for incentives. Providers who choose to participate in the Medicaid incentive program must opt out of the Medicare incentive program. **Figure 4** shows the five basic technology requirements and two primary incentives for Medicaid providers.

States, at their option, may receive 90 percent Federal Financial Participation (FFP) for state expenditures for the administration of an EHR incentive program for certain Medicaid providers that are adopting, implementing, or upgrading and meaningfully using certified EHR technology; and 100 percent FFP for state expenditures for those incentive payments. Under the new regulations, Medicaid incentives will use the "meaningful use" definition as the minimum standard for providers. The proposed rule allows states to add additional objectives to the definition of "meaningful use" or modify the existing objectives.

FIGURE 4
BASIC HEALTH INFORMATION TECHNOLOGY REQUIREMENTS AND INCENTIVES FOR MEDICAID PROVIDERS FOR FEDERAL FISCAL YEARS 2010 TO 2015

TECHNOLOGY REQUIREMENTS	PROVIDER INCENTIVES
• A percentage of certain types of medical records need to be online within five years. • Lists of problems, diagnoses and allergies for at least 80 percent of patients. • Patient access to test results, problem lists and medication lists. • Electronically record and chart changes in height, weight and blood pressure for at least half of patients. • Prescribe medications using electronic transmission at least 40 percent of the time.	• $63,750: Maximum incentives for physicians who participate in Medicaid incentive program.

Source: Centers for Medicare and Medicaid Services.

MEDICAID AND CHIP INCENTIVES FOR HOSPITALS

The Texas HHSC reported to the Legislature in August 2010 that hospital incentive payments are based on a formula similar to Medicare hospital methodology, which is a product of the overall EHR amount multiplied by the Medicaid share. The remainder of the incentive analysis is as follows:

- Payment is calculated, then disbursed over three to six years.
- Payments in any one year cannot exceed 50 percent of the total payment cap and payment in any two years cannot exceed 90 percent of this limit.
- Data will be derived from the hospital cost reports and other auditable data sources.
- HHSC will propose that hospitals attest regarding their own most recent state fiscal year (which will overlap with the most recent federal fiscal year).
- Annual payment amount to be paid out on a monthly basis.
- Payment will be made in the first month after incentive is approved.
- Medicaid has the flexibility to spread out hospital incentive payments over as few as three or as many as six years.

FEDERAL FUNDING FOR TEXAS HIT INITIATIVES

There are several new federal government initiatives that assist states in implementing the provisions of the HITECH Act. The U.S. Department of Health and Human Services began awarding these funds to states in late 2009 and is expected to continue distributing funds until the end of federal fiscal year 2015. Texas entities began receiving funds from some of these grants in federal fiscal year 2010. Names and descriptions of the current federal HIT initiatives are listed in **Figure 5**.

Texas entities have received several types of HIT grants. There are two types of methods authorized under ARRA and the HITECH Act to incentivize healthcare providers and the healthcare system to adopt HIT. The methods are: (1) The Medicaid EHR incentive program, providing incentive payments to healthcare providers who are meaningfully using technology for health records and e-Prescribing. Funding is provided at 100 percent federal match; and (2) regional health-information organizations which are federally funded (ARRA). The various types of grants to achieve the implementation goals are described next.

ELECTRONIC HEALTH RECORD IMPLEMENTATION GRANTS

In February 2010, the U.S. Department of Health and Human Services (HHS) awarded approximately $1 billion to educational institutions to help health care providers implement "meaningful use" HIT standards in their practices and to train people for health care IT jobs. Texas received $13.5 million for HIT job training programs. Texas public institutions of higher education that received the awards include the following:

- North Central Texas College $4.1 million
- The University of Texas Medical Branch at Galveston $4.7 million
- San Jacinto Community College District $4.7 million

Subsequently, HHS awarded $83.9 million nationally in June 2010 as grants to help networks of health centers adopt EHR and other HIT systems. The funds are part of the $2 billion allotted nationally to the HHS, Health Resources and Services Administration (HRSA) under ARRA to expand healthcare services to low-income and uninsured individuals through its health center program. The grants were awarded competitively and will support 45 enhanced EHR implementation projects as well as HIT innovation projects. Funds will allow grantees to use EHR technology to

FIGURE 5

CURRENT FEDERAL HEALTH INFORMATION TECHNOLOGY INITIATIVES EFFECTIVE FEDERAL FISCAL YEARS 2009 TO 2015

INITIATIVE	DESCRIPTION
State Health Information Exchange Cooperative Agreement Program	A $547.7 million grant program to support States or State Designated Entities (SDEs) in establishing health information exchange (HIE) capability among healthcare providers and hospitals in their jurisdictions.
Health Information Technology Extension Program	A $1.2 billion grant program to establish seventy Health Information Technology Regional Extension Centers to offer technical assistance, guidance and information on best practices to support and accelerate healthcare providers and hospitals in their efforts to become meaningful users of Electronic Health Records (EHRs).
Strategic Health IT Advanced Research Projects Program	A grant program providing $60 million nationally to fund research focused on achieving breakthrough advances to address well-documented problems that have impeded adoption: (1) Security of Health Information Technology; (2) Patient-Centered Cognitive Support; (3) Healthcare Application and Network Platform Architectures; and (4) Secondary Use of EHR Data.
Community College Consortia to Educate Health Information Technology Professionals Program	A grant program providing $80 million to create health IT education and training programs at Community Colleges or expand existing programs. Community Colleges funded under this initiative will establish intensive, non-degree training programs that can be completed in six months or less.
Curriculum Development Centers Program	A grant program providing $10 million in grants to institutions of higher education (or consortia thereof) to support health information technology (health IT) curriculum development.
Program of Assistance for University-Based Training	Approximately $1 billion is provided for a Health IT Workforce Program to rapidly increase the availability of individuals qualified to serve in specific health information technology professional roles requiring university-level training.
Competency Examination for Individuals Completing Non-Degree Training Program	A grant program to provide $6 million in grants to an institution of higher education or consortia to support the development and initial administration of a set of health IT competency examinations for the HIT Workforce Program.
Beacon Community Program	A grant program for communities to build and strengthen their health information technology (HIT) infrastructure and exchange capabilities.
Securing Health Information and Preventing Harm from Breaches	U.S. Health and Human Services Department provides guidance for all programs regarding technologies and methodologies to secure health information and prevent harm by rendering health information unusable, unreadable, or indecipherable to unauthorized individuals.
Rural Hospitals Initiative	Federal awards made in August 2010 for approximately $20 million in new technical support assistance nationally, to help 1,655 critical access and rural hospital facilities convert from paper-based medical records to certified electronic health record (EHR) technology. The funds will assist these facilities in qualifying for EHR incentive payments from Medicare and Medicaid.

SOURCE: U.S. Department of Health and Human Services.

improve healthcare quality, efficiency, and patient safety. Approximately $6.9 million was awarded to three Texas non-profit entities for Electronic Health Information Technology Implementation. HRSA reports that Texas health centers receiving awards include:

- Texas Association of Community Health Centers — $1.0 million
- Lone Star Circle of Care — $3.0 million
- Barrio Comprehensive Family Health Care Center, Inc — $2.9 million

REGIONAL EXTENSION CENTERS

The HITECH Act authorizes a Health Information Technology Extension Program. The extension program consists of Health Information Technology Regional Extension Centers (RECs) and a national Health Information Technology Research Center (HITRC). The HITRC will gather information on effective practices and help the RECs work with one another and with relevant stakeholders to identify and share best practices in EHR adoption, meaningful use, and provider support.

The RECs will support and serve healthcare providers to help them quickly become adept and meaningful users of EHRs. RECs are designed to make sure that primary care clinicians get the help they need to use EHRs. The goal of the program is to provide outreach and support services to at least 100,000 priority primary care providers within two years. RECs will:

- provide training and support services to assist doctors and other providers in adopting EHRs;

- offer information and guidance to help with EHR implementation; and
- give technical assistance as needed.

ONC has funded 60 RECs in virtually every geographic region of the U.S. to ensure support to healthcare providers in communities. Total federal awards made to date include:

- February 2010, $375 million awarded to establish 32 RECs;
- April 2010, $267 million awarded to establish an additional 28 RECs; and
- September 2010, 46 RECs received approximately $21 million in additional funding to support critical access and rural hospitals in their efforts to adopt certified EHR technology.

RECs are designed to support and accelerate provider efforts to become meaningful users of certified EHR technology. To date, the total amount of funding awarded under the HITECH Act to support the efforts of RECs is over $663 million nationally of which Texas has received approximately $37.7 million. **Figure 6** shows a total of four federal REC awards and Critical Access and Rural Hospital awards made to Texas in fiscal year 2010.

TEXAS HEALTH AND HUMAN SERVICES COMMISSION'S OVERSIGHT OF THE STATEWIDE HEALTH INFORMATION EXCHANGE

The Texas HHSC received $28.8 million in federal funding (ARRA and HITECH Act) through the State Health Information Exchange Cooperative Agreement Program. The purpose of this program is to continuously improve and expand HIE services to reach all healthcare providers and improve the quality and efficiency of healthcare. The HIEs will collect data submitted in EHRs. HHSC is required to implement a HIE system that will be compatible with a variety of state and federal policies, technical services, business operations, and financing mechanisms for HIE over a four-year period. The HHSC program will build from existing HIE systems to advance regional and state level HIE while moving toward communication with a national HIE/EHR system. HHSC also received a federal grant, in the amount of $3.8 million, in fiscal year 2009 to initiate the state's HIT/HIE plan.

There are two types of HIEs, the structure of each type can overlap with the other, which makes it difficult to quantify the extent of record sharing. First there are the regional health information organizations which operate under state oversight and are run by state or local nonprofit organizations that coordinate the exchange of information among competing providers in their area over a common network. The second type of exchange is an agreement directly between competing healthcare providers to share data, which is a HIE, though that term is sometimes used more broadly.

In Texas, there are two entities that advise and plan for HIE in conjunction with HHSC. The first is the Health Information Exchange (HIE) Advisory Committee. The advisory committee was established by House Bill 1218, relating to programs to exchange certain health information between certain healthcare entities, which was enacted by the Eighty-first Legislature, Regular Session, 2009. The committee advises HHSC and provides input on the Medicaid HIE System, the Medicaid EHR incentive program, CHIP, and privacy and security policies. The committee is composed of 16 members with diverse backgrounds. The HHSC Executive Commissioner appoints the members and the presiding officer of the committee. The committee advises HHSC regarding the development and implementation of an HIE system to improve the quality,

FIGURE 6
TEXAS REGIONAL EXTENSION CENTER AWARDS, FISCAL YEAR 2010

REGIONAL EXTENSION CENTER	INITIAL AWARD	CRITICAL ACCESS AND RURAL HOSPITALS AWARD	TOTAL PER CENTER (2010)
North Texas Regional Extension Center	$8,488,513	$108,000	$8,596,513
West Texas Health Information Technology Regional Extension Center	6,666,296	912,000	7,578,296
CentrEast Regional Extension Center	5,279,970	384,000	5,663,970
The University of Texas Health Science Center at Houston	15,274,327	612,000	15,886,327
TOTAL	$35,709,106	$2,016,000	$37,725,106

Source: U.S. Department of Health and Human Services.

safety and efficiency of healthcare services provided through the Texas Medicaid and CHIP programs.

The members must represent the geographic and cultural diversity of the state. The HIE Advisory Committee advises on the following issues:

- presentation of data;
- data to be included in an EHR;
- useful measures for quality of service and patient health outcomes;
- federal and state laws regarding privacy and management of private patient information;
- incentives for increasing healthcare provider adoption and usage of an EHR and the HIE system;
- data exchange with local or regional HIEs to enhance the comprehensive nature of the information contained in EHRs; and
- healthcare provider efficiency initiatives by supporting integration of the information into the EHR used by the providers.

The second entity is the Texas Health Services Authority (THSA), which was established to develop the state's strategic and operational plans for HIE. THSA consists of a 13-member board of directors appointed by the Governor with advice and consent of the Texas Senate. Legislation enacted by the Eightieth Legislature, Regular Session, 2007, created THSA's authority relating to health information technology. This legislation also created Texas Health Services Authority as a public-private non-profit charged with implementing state-level health information technology functions and catalyzing the development of a seamless electronic health information infrastructure to support the healthcare system in the state. HHSC and THSA entered into an HIE planning contract in fiscal year 2009. THSA fulfilled the initial portion of their contract with HHSC and submitted the Texas HIE plan to HHSC and the Office of the National Coordinator for Health Information Technology in September 2010, and approved in November 2010. THSA reported in September 2010 that the implementation of a statewide HIE system will cost approximately $6.3 million through fiscal year 2013. The plan is extensive and provides a four-year outline for the state's HIE implementation schedule which includes policy and technology system development for several state agencies, in conjunction with health technology contractors and consultants, healthcare provider organizations, healthcare providers of all types and consumer organizations and advocates. THSA's review of policy and planning began in conjunction with HHSC and the HIE Advisory Committee in 2010 with full implementation to be completed by the end of fiscal year 2014. The federal government's meaningful use deadline is scheduled for the end of federal fiscal year 2015.

Highlights of THSA's plan include:

- planning and implementation of general state level HIE Services in fiscal years 2010 and into fiscal year 2011;
- planning and implementation of local HIE programs in fiscal year 2011;
- develop, plan, and announce a request for proposal for a contractor to begin implementation of HIEs for rural or underserved areas beginning in the first quarter of fiscal year 2011.

HEALTH INFORMATION EXCHANGE FOR THE TEXAS MEDICAID AND CHIP PROGRAMS

Regarding Medicaid and CHIP HIEs specifically, House Bill 1218, legislation relating to programs to exchange certain health information between HHSC and certain healthcare entities and facilities, was enacted by the Eighty-first Legislature, Regular Session, 2009, and requires the HHSC to develop a HIE to improve the quality, safety and efficiency of healthcare services provided under the Texas Medicaid and CHIP programs. THSA and HHSC have incorporated the requirements of this legislation into the overall HIE plan.

The Medicaid Eligibility and Health Information System will organize Medicaid information to allow for it to be exchanged with other systems and shared with providers who already have EMR systems. It will replace the paper system of documenting Medicaid eligibility; allow secure Internet access of eligibility and health information on Medicaid clients; and access to an Internet-based e-Prescribing tool for healthcare providers who do not have access within their current practice. The program will be developed using standards specified by CMS. This program is different from the Texas Integrated Eligibility Redesign System in that it is not an eligibility engine. When a client visits a healthcare provider, the client will already have a card that the provider will scan. The provider will get a real-time notification of the client's eligibility and plan qualification whether it is a Primary Care Case Management (PCCM) client or health maintenance organization (HMO).

House Bill 1218 outlined three stages for HHSC to implement the Medicaid/CHIP HIE. In stage one, HHSC will develop an EHR for people with Medicaid coverage. The record will be available to providers and clients. Also in stage one, HHSC will adopt rules specifying the information required to be in the record.

Stage one also will include HHSC's efforts to replace the monthly paper documents that Medicaid clients use as proof of coverage with magnetic strip cards. These cards will contain the cardholder's information, plan information, primary care physician information and prescription drug benefit information. Cards will be readable through standard card reading devices and will direct providers to a secure network. HHSC is working with medical staff and providers to ensure usability and refine the design of this system. HHSC is still working in stage one. Implementation costs are estimated at $15.2 million for stage one, as reported in the January 2011, HHSC, Medicaid Electronic Health Information Exchange System Initial Report.

In stage two, HHSC will expand the system to children with CHIP coverage, add state laboratory results to the EHR, improve data-gathering capabilities, and create client profiles.

Stage three of the HIE will continue the expansion of the project. HHSC has the option to develop evidence-based benchmarking tools that can be used by healthcare providers to evaluate their performance on patient outcomes and overall quality. HHSC also may expand the system to engage other state agencies, additional healthcare providers, laboratories, diagnostic facilities, hospitals, and medical offices. **Figure 7** shows HHSC's anticipated rates of EHR adoption by Texas health program providers.

IMPLEMENTATION OF THE LOCAL HEALTH INFORMATION EXCHANGE PILOT

The 2009 legislation also requires the Texas HHSC to develop a HIE pilot project to determine the feasibility, costs and benefits of exchanging secure health information between HHSC and local HIEs. The pilot project is to identify local or regional HIEs that qualify for participation. The legislation requires at least two exchanges to participate in the pilot, and those exchanges must have a system that functions among clinics, hospitals and physician offices not owned by a single entity or network.

HIE organizations have been identified by the HHSC. The HIE organizations will work with HHSC to establish written guidelines to ensure that information exchanged is used only for the patient's benefit and specify which providers will use which data elements, and ensure compliance with all state and federal laws including privacy laws. Cost of the HIE pilot is estimated at 1.1 million by HHSC for fiscal year 2011.

The pilot data exchange will use the network connection between the pharmacy claims and rebate administrator and the e-Prescribing network once the e-Prescribing support is enabled. E-Prescribing is the electronic transmission of prescription information from the prescriber's computer to a pharmacy computer. This technology replaces a paper prescription that a patient would otherwise carry, or a provider would fax, to a pharmacy. The original target date for this implementation was October 2010, but due to a change in contractors, implementation pilots are now scheduled to begin on September 1, 2011. They will be

FIGURE 7
TEXAS HEALTH AND HUMAN SERVICES COMMISSION ANTICIPATED RATES OF ELECTRONIC HEALTH RECORD ADOPTION, FISCAL YEARS 2011 TO 2014

PROVIDER TYPE	2011 BASELINE (ESTIMATE)	2012	2013	2014
Acute Care Hospital	10%	20%	40%	70%
Children's Hospital	20%	40%	60%	85%
Physician	5%	10%	25%	45%
Pediatrician	5%	10%	25%	45%
Certified Nurse Midwives	5%	10%	25%	45%
Nurse Practitioners	5%	10%	25%	45%
Physician Assistants practicing in a Federally Qualified Health Center or Regional Health Center	3%	10%	20%	35%
Dentists	3%	6%	8%	15%

Source: Texas Health and Human Services Commission.

conducted with various regional and local exchanges and examine costs and benefits of exchanging information.

HHSC reported to the Legislature in May of 2010 that implementation of HHSC's HIE pilot and e-Prescribing systems would be delayed due to transition to a new claims processing contractor. The delay, according to HHSC, is due to the time it will now take the new contractor to convert data from the old system to the new one.

As mentioned previously, EHRs and e-Prescribing have been described as a benefit to patient safety and may also provide a cost benefit to providers, government programs, and businesses that use this technology. CMS is providing incentives to Medicare and Medicaid providers who adopt EMR systems and e-Prescribing into their practices to improve administrative efficiencies for both health plans and providers. Pharmacy benefit managers, pharmacy chains and information technology companies are also offering software, hardware, technical and financial assistance for healthcare providers who want to become EHR compliant.

USE FEDERAL DATA TO HELP VETERANS ACCESS FEDERAL BENEFITS AND SAVE STATE FUNDS

The U.S. Department of Health and Human Services' Administration for Children and Families began a project in 1997 to assist states to share eligibility information with one another from public assistance programs such as Temporary Assistance for Needy Families, Supplemental Nutrition Assistance Program, and Medicaid. The project resulted in the development of the Public Assistance Reporting Information System that detects and prevents fraud and improper payments in public assistance programs by comparing states' public assistance benefit recipient lists with one another. This system provides states with multiple opportunities to improve public assistance program integrity and save money on improper payments. For example, states have demonstrated savings by using the system data to adjust benefits provided to clients, close cases, recover or reduce improper payments, and coordinate medical insurance benefits between state Medicaid and other federally sponsored health insurance.

Texas is not fully utilizing its access to the Public Assistance Reporting Information System, which prevents the state from maximizing its efforts to detect and deter improper or fraudulent benefit assistance payments and ensure program integrity. Specifically, the Texas Health and Human Services Commission and the Texas Department of Aging and Disability Services do not use the system to determine if Medicaid beneficiaries are also entitled to receive benefits from the U.S. Department of Veterans Affairs, thereby missing an opportunity to increase a beneficiary's access to healthcare services and to decrease the cost of their healthcare to the state. Directing the Texas Health and Human Services Commission, the Texas Department of Aging and Disability Services, and the Texas Veterans Commission to work together to coordinate use of system data to ensure the coordination of benefits and increase third-party recovery efforts could result in savings to the state that would not have been realized through other strategies.

CONCERNS

- The Texas Health and Human Service Commission and the Texas Department of Aging and Disability Services do not use federal data to determine if Medicaid beneficiaries are also entitled to receive benefits from the U.S. Department of Veterans Affairs, thereby missing an opportunity to increase a beneficiary's access to healthcare services and to decrease the cost of their healthcare to the state.
- No interagency agreement exists between the Texas Veterans Commission and the Texas Health and Human Services Commission to share beneficiary data and ensure ongoing coordination of federal veterans' benefit assistance programs and state assistance benefit programs. The lack of formal coordination results in missed opportunities to ensure Texas veterans are receiving the full entitlement of their compensation.

RECOMMENDATIONS

- **Recommendation 1**: Include a rider in the 2012–13 General Appropriations Bill that would direct the Texas Health and Human Services Commission, the Texas Department of Aging and Disability Services, the Texas Veterans Commission, and the Texas Veterans Land Board to enter into an interagency contract to establish a permanent workgroup to coordinate the use and analysis of the data received from the Public Assistance Reporting Information System and develop new strategies to use system data that could generate savings for the state. The workgroup would also be required to submit a report by October 15, 2012, to the Governor and Legislative Budget Board describing the state's use of the Public Assistance Reporting Information System and include any savings or cost avoidance amounts resulting from its use, as well as recommendations for regarding the system's future use.
- **Recommendation 2:** Include a rider in the 2012–13 General Appropriations Bill that would transfer $50,000 of General Revenue Funds in each fiscal year from the Health and Human Services Commission to the Texas Veterans Commission and direct the Texas Veterans Commission to use the transferred General Revenue and an additional $50,000 each fiscal year from the Veterans Assistance Fund to fund two additional full-time equivalents to assist Medicaid veterans to apply for federal veteran benefits. The rider would also increase the Texas

Veterans Commission full-time equivalent cap by two.

- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill that would direct the Texas Health and Human Services Commission to participate in the Public Assistance Reporting Information System Veterans and Federal Files matches four times a year.
- **Recommendation 4:** Include a rider in the 2012–13 General Appropriations Bill that would direct the Texas Health and Human Services Commission to develop a method to calculate and track savings and costs avoided from using information received from the Public Assistance Reporting Information System.
- **Recommendation 5:** Include a rider in the 2012–13 General Appropriations Bill that would appropriate to the Texas Veterans Commission 10 percent of actual General Revenue savings verified by the Texas Health and Humans Services Commission that were the result of researching information from the Public Assistance Reporting Information System.

DISCUSSION

Ensuring the responsible use of resources in health and human services programs is one responsibility of the Texas Health and Human Services Commission Office of Inspector General (OIG). OIG staff identifies and researches possible events of fraud, waste, and abuse to ensure accountability and responsible use of resources. Investigating third-party resources is one strategy to reduce the cost of social services programs to the state. This program shifts the costs of claims expenses to a responsible third-party payer. The Medicaid program is intended to be the payer of last resort which means all other available third-party resources must meet their legal obligation to pay claims before the Medicaid program pays its portion of a claim.

The Department of Aging and Disability Services (DADS) also contributes to investigating third-party resources relating to Medicaid long-term care claims. Of the two primary ways to pursue these resources, cost avoidance and "pay and chase," DADS's efforts focus on the latter. "Pay and chase" refers to the recovery of Medicaid funds that were used to pay a claim after an eligible third party was identified as responsible for the claim. Examples of third-party resources include: individual health insurance, group health insurance, public health programs, self insurance plans, court-ordered medical support from absent parents, automobile insurance, workers compensation insurance, other casualty insurance, and tort cases. Cost avoidance activities include the identification of other resources that can be billed for the claim before it is submitted to the payer of last resort, such as Medicaid.

PUBLIC ASSISTANCE REPORTING INFORMATION SYSTEM

The U.S. Department of Health and Human Services' Administration for Children and Families began a project in 1997 to help states share eligibility information with one another from public assistance programs such as Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), and Medicaid. The result was the Public Assistance Reporting Information System (PARIS), a computer matching process by which information of public assistance recipients is compared to various federal databases and data from other states, the District of Columbia, and Puerto Rico. The purpose of PARIS is to assist states to prevent and detect fraud and improper payments in public assistance programs.

PARIS compares states' public assistance benefit recipient lists with one another using an individual's social security number, name, date of birth, address, case number, benefits received, and dates of benefits received. States submit public assistance beneficiary information to the Administration for Children and Families. The files submitted by states are compared to the following three federal data files:

1. Interstate file—contains the social security numbers of public assistance clients from all states, the District of Columbia, and Puerto Rico to determine if clients are enrolled in programs in two or more states or territories.
2. Veterans file—contains information on the eligibility of persons for veterans' benefits, including healthcare and income benefits.
3. Federal file—contains information from the U.S. Department of Defense and the Office of Personnel Management to determine if public assistance clients are receiving income from these sources or are eligible for federal healthcare coverage.

The federal Defense Manpower Data Center (DMDC) conducts file matches for PARIS four times a year in February, May, August, and November. Once a file match is conducted, the system creates a list of social security numbers matching those in other states. The list containing the matched records,

known "matched hits," are forwarded to appropriate states. States are responsible for investigating the matched hits to determine if fraud or improper payment is occurring.

The federal Centers for Medicaid and Medicare Services mandated participation in PARIS for all states as of October 2009. At a minimum, states are required to submit data of Medicaid recipients to PARIS at least once a year for the August data match. Prior to the requirement, the PARIS Interstate file match did not include comprehensive data because not all states were submitting information for matching. Through this new requirement, that limitation is now lessened. To participate in PARIS, states enter into a memorandum of understanding with the federal government and other states to ensure the information submitted by states is safeguarded properly and consistently.

PARIS provides states with multiple opportunities to improve public assistance program integrity and save money on improper payments. The system allows states and the federal government to share information that can be used to make adjustments to benefits provided to clients. PARIS also may lead to cost savings due to case closures, the recovery or reduction of improper payments, and the coordination of medical insurance benefits between state Medicaid and other federally sponsored health insurance.

USES OF THE PARIS INTERSTATE FILE

The PARIS Interstate file is most useful for identifying individuals who moved from one state to another without reporting their move to eligibility workers. Closing these types of cases results in state and federal cost savings by the terminating TANF payments and SNAP benefits (formerly known as the Food Stamp Program), and eliminating any payments for that client to managed-care organizations participating in the Medicaid program. Medicaid is a joint federal-state program that provides health coverage for low-income children, senior citizens, and families. Its eligibility requirements vary by state but all operate under federal rules and guidance.

Detecting a change in a client's status takes on added importance since the shift in Medicaid from fee-for-service to a managed-care environment. Previously, state costs were usually incurred when the beneficiary sought medical treatment. If a Medicaid beneficiary did not seek treatment in state, there was no cost to the state. However, Texas like many states has shifted from a fee-for-service to a managed-care environment. Now, the state makes a fixed monthly payment to a managed-care organization for each Medicaid beneficiary regardless of whether the beneficiary seeks medical treatment or not. Therefore if a Medicaid recipient moves out of state and neglects to notify eligibility workers, the state continues to pay the managed-care organization for the recipient.

States that have been participating in the PARIS Interstate match for several years believe it is an effective way to identify improper TANF, SNAP, and Medicaid benefit payments in more than one state. Eliminating duplicate recipients allows states to prevent future improper payments and save program funding. PARIS allows states to identify duplicate payments in bordering and non-bordering states by submitting one file to one agency. Additionally, a standard data-sharing agreement covers the exchange of information and the DMDC adjusts for some incompatibilities between different computer systems in various states. According to the U.S. Government Accountability Office, several states have most of their matched hits with non-bordering states, despite these states conducting their own border-matching program for years prior to PARIS. The system gave the states the ability to identify numerous instances of potential duplicate benefits that would have gone undetected because previous efforts did not provide the same information as PARIS.

New York has participated in PARIS using the Interstate match since 2002. **Figures 1** and **2** show the savings realized from PARIS matches and the number of individuals removed from public assistance cases for state fiscal years 2003 to 2007. New York calculated the average annual cost savings for each case type (TANF, Medicaid, or SNAP) and then multiplied the number of removed individuals by the average annual cost savings for each case type to determine total savings generated by PARIS matches.

USE OF THE PARIS VETERANS AND FEDERAL FILES

Other states have successfully used the PARIS Veterans and Federal files to assist veterans and save state funds. The Veterans and Federal files allow states to verify income from the U.S. Department of Veterans Affairs (VA) and other federal sources and coordinate benefits between Medicaid and other federal insurance coverage. The data files can assist states in determining whether income was reported, if it was reported accurately, and whether a client's income should have been considered in determining eligibility. This verification can lead to an adjustment of benefit levels or to the discontinuation of benefits for clients whose income levels exceed the eligibility requirements.

FIGURE 1
ANNUAL NEW YORK SAVINGS FROM PARIS MATCHES
FISCAL YEARS 2003 TO 2007

FISCAL YEAR	AMOUNT OF SAVINGS (IN MILLIONS)
2003	$40.0
2004	$61.4
2005	$44.6
2006	$45.6
2007	$40.8

SOURCE: U.S. Department of Health and Human Services Administration for Children and Families.

FIGURE 2
INDIVIDUALS REMOVED FROM ACTIVE PUBLIC ASSISTANCE CASES IN NEW YORK
FISCAL YEARS 2003 TO 2007

FISCAL YEAR	PUBLIC ASSISTANCE CASES REMOVED
2003	5,371
2004	8,047
2005	6,516
2006	6,396
2007	6,370

SOURCE: U.S. Department of Health and Human Services Administration for Children and Families.

Coordination of benefits between state Medicaid and federal insurance coverage allows states to ensure that the proper agency is covering the cost of a client's health insurance benefits. Washington state is using the Veterans file in innovative ways that benefit both veterans and the state. The process works the same as the Interstate file match except instead of comparing the state data to other states, it is compared to information at the VA. Information in the Veterans file can identify if a person may be entitled to healthcare services, income, and medical assistance payments from the VA. If a recipient is eligible for healthcare benefits, then the VA assumes responsibility for the veteran's care instead of Medicaid, which results in savings for state Medicaid programs and possibly enhanced benefits to the recipient through the VA. An additional benefit for individuals and their families is that the VA has no requirement for repayment of long-term care services, also known as estate recovery, as in the Medicaid program. This benefit is an important advantage for veterans who are receiving long-term care because it allows the families of veterans to retain assets that may have been subject to recovery in the Medicaid program.

The PARIS Veterans file may also be used to identify veterans and surviving spouses of veterans who may be entitled to receive medical assistance payments from the VA. This additional amount, added to a VA payment amount, is known as an Aid and Attendance allowance. The Aid and Attendance benefit may be available to wartime veterans and surviving spouses who have expenses for in-home care, nursing-homes, or assisted-living facilities for which they do not receive reimbursement. To qualify, individuals must be incapable of self support and in need of regular personal assistance. The basic criteria for the Aid and Attendance benefit include the inability to feed oneself, to dress and undress without assistance, or to take care of one's own bodily needs. Persons who are bedridden or need help to adjust special prosthetic or orthopedic devices may also be eligible, as well as those who have a physical or mental injury or illness that requires regular assistance to protect them from hazards or dangers in their daily environment.

According to the Code of Federal Regulations, VA allowances for Aid and Attendance may not be considered income for eligibility purposes of Medicaid. However, the Aid and Attendance allowance is recognized by the Centers for Medicaid and Medicare Services (CMS) as a third-party resource to be applied toward the cost of Medicaid long-term care services, thereby reducing the state's portion of the cost of an individual's long-term care. Using the Aid and Attendance allowance to offset the cost of a Medicaid-eligible veteran's long-term care assists the veteran's family too because it reduces the veteran's estate liability to Medicaid.

Washington state also uses the PARIS Veterans file to identify Medicaid recipients who are eligible to receive service-connected compensation at a 50 percent disability rating or higher because these veterans do not pay co-pays for prescription drugs obtained through the VA. This group of veterans can obtain prescriptions from their physician, instead of a VA doctor, who provides it to a VA pharmacy. Ensuring this group of Medicaid-eligible veterans use VA prescription drug coverage not only transfers the cost of their medications to the VA, but it may provide access to a wider formulary of prescription drugs than those available in Medicaid and at no cost to the veteran.

Figure 3 shows other uses of the PARIS Veteran file information developed by Washington state that benefits states and veterans by maximizing VA benefits.

Washington state maximizes the benefits the information PARIS provides by establishing an interagency agreement

FIGURE 3
VA-ELIGIBLE CLIENTS WHO CAN BE IDENTIFIED USING THE PARIS VETERANS FILE, 2010

CLIENT	DESCRIPTION
Long term care recipients not living in a nursing facility	VA-eligible clients receiving the reduced $90 per month VA pension but who no longer reside in a nursing facility can be eligible for enhanced benefits. This situation can occur if a veteran once resided in a nursing facility but has moved back home or to another long-term care setting, such as an assisted living facility, and has not requested reinstatement of their previous pension amount. Veterans who reside in nursing facilities are subject to a reduced VA pension of $90.
Clients with a VA claim for benefits but are not receiving any payment	The PARIS Veterans file provides information which may indicate a reason for nonpayment by the VA which can include easy-to-correct situations such as filing the proper income questionnaire or updating address information.
Veterans receiving compensation based on a low degree of service-connected disability, but now have a worsened condition	States can compile condition and disease profiles for Medicaid-eligible veterans through the collection of Medicaid medical claim history and pharmaceutical claim history to detect which may be eligible for an increase in service-related compensation from the VA.

Source: Washington State Department of Social and Health Services.

between the Washington Department of Social and Health Services (WDSHS) and the Washington state Department of Veterans Affairs (WDVA). The WDSHS provides medical care, long-term care, economic assistance and other social services to clients and the WDVA assists state veterans apply for VA benefits and other military service-related compensation. WDSHS contracted with the WDVA to identify and enroll potentially eligible veterans and their dependents through the use of various sources including following up on data/information received from PARIS. The project has been credited with saving an average of $3.5 million per year.

Initially the WDSHS paid the WDVA a yearly sum of $225,000 via an interagency contract to hire one additional staffer to process PARIS-related VA claims. The following year the contract was amended to a performance-based contract so the WDVA would receive 10 percent of the actual savings verified by WDSHS. Due to its continued success, the performance contract was no longer needed because the Washington state Legislature appropriated $1 million and four staff to the WDVA to work exclusively on PARIS matches.

In addition to linking eligible Medicaid clients to VA benefits, others states have found that the PARIS Federal file is also a valuable resource that can verify eligibility for other types of federal healthcare coverage. Washington state uses the PARIS Federal file to identify persons eligible for TRICARE military health insurance, the Department of Defense's worldwide healthcare program for active duty and retired uniformed services members and their families. In fiscal years 2005 and 2006, Washington state estimated it saved $690,506 and $420,799, respectively through identification of federal health insurance coverage for Medicaid long-term care clients.

Federal officials encourage state public assistance agencies to work with other agencies in their state to take advantage of all matching potential that PARIS can offer in accordance with inter-agency data sharing agreements.

USE OF PARIS IN TEXAS

Texas began participating in PARIS in 2009 by submitting information for the PARIS Interstate file match. According to the Texas Health and Human Services Commission (HHSC), the next phase of Texas' participation in PARIS occurred in July 2010. Phase II provides HHSC staff the ability to review and follow-up on returned matched hits from the PARIS Interstate file and will replace Texas' Border State Matches system. Phase II of PARIS implementation includes automation processes to filter, assign, track actions taken by an investigator/eligibility specialist based on the matched hits identified by PARIS.

The automation processing allows the OIG and Medicaid Eligibility for the Elderly and People with Disabilities (MEPD) program to receive the PARIS recipient match information via the Automated System for the Office of Inspector General (ASOIG). ASOIG automation processing filters through the data to verify the information is formatted correctly and provides automated assignment of the matched hits received from PARIS. Matched hits related to MEPD programs will be assigned to MEPD staff, while other

matched hits will be assigned to OIG. Other functions ASOIG provides include: a worksheet to allow assigned HHSC staff to request recipient residency information and track action taken for clearance; a method of communication with Texas Works staff for cases requiring analysis by HHSC eligibility staff; the generation of an OIG referral if further investigation is needed; and the reporting and tracking of the PARIS recipient matches.

RECOMMENDATIONS

HHSC is taking steps to comply with federal regulations to participate in the data matching process PARIS provides for Interstate file matches. The agency is using a variety of other resources including other data matching systems to help protect the state from fraud and improper payments in benefit assistance programs. However in addition to these efforts, opportunities exist to further avoid improper payments and seek out responsible third-party resources. Using PARIS to coordinate benefits for dual beneficiaries of long-term care Medicaid services and the VA as well as ensuring all responsible third-party payers are identified could save state funds it would not realize through other means.

Recommendation 1 would include a rider in the 2012–13 General Appropriations Bill that would direct HHSC, DADS, Texas Veterans Commission (TVC), and the Texas Veterans Land Board to enter into an interagency contract jointly to coordinate the use and analysis of the data received from the PARIS system and develop new strategies to use PARIS data that could generate savings for the state. Each agency offers a service and expertise that could be utilized to improve communication and services to veterans. The rider would also require the workgroup to submit a report to the Governor and Legislative Budget Board describing the state's use of the PARIS system and include any savings or cost avoidance amounts resulting from PARIS information, as well as recommendations regarding its future use by October 15, 2012.

Recommendation 2 would include a rider in the 2012–13 General Appropriations Bill that would transfer $50,000 of General Revenue Funds in each fiscal year from the Health and Human Services Commission to the Texas Veterans Commission and direct the Texas Veterans Commission to use the transferred General Revenue and an additional $50,000 each fiscal year from the Veterans Assistance Fund to fund two additional full-time equivalents to assist Medicaid veterans to apply for federal veteran benefits. The rider would also increase the Texas Veterans Commission full-time equivalent cap by two.

The two FTE positions would work exclusively on following up the PARIS data/information and facilitating any claims resulting from PARIS data. Proper analysis of the PARIS data is important to realizing savings and maximizing federal VA benefits. TVC processed more than 168,000 claims in fiscal year 2010 for Texas veterans and their families. An additional 12,000 to 15,000 claims per year may be filed in Texas due to the VA broadening health coverage and service connected compensation regulations pertaining to Vietnam era Agent Orange exposure and nine new disabilities presumed to be related to service in the Gulf War and Afghanistan. Moreover, any delay in claims assistance is costly to the veteran and to the state.

No additional FTE positions would be needed at HHSC because the agency is already using its current resources to comply with federal regulations and submitting data to PARIS.

Due to the documented success of other states' use of PARIS Veterans and Federal files, Recommendation 3 would include a rider in the 2012–13 General Appropriations Bill that would direct HHSC to participate in the PARIS Veterans and Federal files matches four times a year. The HHSC Office of the Inspector General would submit appropriate state data from all state health and human service programs that may serve veterans to receive match results from the PARIS system and forward the information received to the appropriate state agencies for analysis and further investigation.

Recommendation 4 would include a rider in the 2012–13 General Appropriations Bill that would direct HHSC to develop a method to calculate and track savings and costs avoided from using the information from the PARIS system.

To incentivize TVC efforts and acknowledge their key role in analyzing the PARIS data/information, Recommendation 5 would include a rider in the 2012–13 General Appropriations Bill that would appropriate to the TVC 10 percent of actual General Revenue savings verified annually beginning in fiscal year 2013 by the HHSC that were the result of researching information obtained from the PARIS system. The savings would be verified by HHSC and transferred to TVC upon verification.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations require HHSC and TVC to use a minimal amount of existing resources to explore the potential of realizing greater savings from using PARIS data to its maximum potential. In addition to Washington state and New York, many other states such as Colorado, North Carolina, Oklahoma, Pennsylvania, Rhode Island, Tennessee, and Washington D.C. have achieved substantial savings through the use of PARIS data. Due to the variations in state Medicaid programs and veteran populations, savings cannot be estimated until the program is operational at least one biennium.

No new appropriations would be required to implement Recommendation 1. TVC, the Texas Veterans Land Board, DADS, and HHSC would be directed to use existing resources to enter into an interagency contract to establish a workgroup to coordination the use of PARIS data and report to the Governor and the LBB. Recommendation 2 would direct TVC and HHSC to jointly fund two new FTE positions at TVC with existing appropriations. HHSC could use existing General Revenue Funds appropriated in Goal B, Medicaid and TVC could use revenue from the Veterans' Assistance Fund to pay their portion of the cost of the positions. The Veterans' Assistance Fund was established by legislation enacted by the Eightieth Legislature, Regular Session, 2007. According to the statute, the appropriations from this fund may be used for enhancing or improving veterans' assistance programs, including veterans' representation and counseling; and making grants to local communities to address veterans' needs. Processing claims for Medicaid-eligible veterans and their families would qualify as a proper use of the fund. As of September 29, 2010, the current balance of the fund was $4 million. During the Eighty-first Legislature, Regular Session, 2009, Senate Bill 1655 dedicated revenue collected from a newly created instant-ticket game to be transferred to the Veterans' Assistance Fund.

Recommendations 3 would have no fiscal impact because HHSC is already submitting the required data to the federal government. Recommendation 4 would have no fiscal impact because through existing resources HHSC is directed to develop a methodology for tracking and calculating the savings generated from TVC investigating data received from the PARIS files. Recommendation 5 would not require additional appropriations because the cost would be paid from General Revenue savings identified by HHSC.

The introduced 2010–13 General Appropriations Bill includes riders implementing Recommendations 1 through 5.

STRENGTHEN THE REGULATION OF FOOD-RELATED INDUSTRIES TO IMPROVE FOOD SAFETY IN TEXAS

The Texas Department of State Health Services estimates that there are 6 million illness, 26,000 hospitalizations, and 400 deaths in Texas each year due to food-related illnesses. The state's food safety system is ill-equipped to address these statistics because it is fragmented into federal, state, and local systems. Texas lacks a cohesive strategy for managing food-related licenses, regulating aquaculture, monitoring food-borne pathogens, and regulating the bottled water industry.

By improving communication between state agencies and authorizing agencies to regulate food-related industries, the state can improve the safety of the food supply in Texas.

FACTS AND FINDINGS

- Texas' food safety system is fragmented into four federal agencies, five state agencies, and 64 local systems.
- In 2007, the U.S. Department of Agriculture Agriculture Census estimated that Texas farms produced $21 billion in agriculture products from 247,437 farms. Texas ranks second among the 50 states for the value of the products that it produces.

CONCERNS

- There is no system in place to ensure companies opening a food-related business secure the proper licenses from the Texas Department of State Health Services.
- The uncertainty of the definition of cage free eggs has caused confusion in the marketplace.
- Texas is the tenth largest aquaculture producer in the U.S. at an estimated value of $46.1 million per year; however, Texas' regulatory system provides no disease and pest surveillance for this industry.
- Many food manufacturers conduct third-party testing of the products they manufacture and are not required to submit tests indicating positive food-borne pathogens to any governmental agency.
- The regulation of bottled water and tap water is divided between two federal agencies, and each agency applies different regulatory standards. Some states regulate bottled water by applying the more stringent federal guidelines. Currently Texas uses the less stringent Food and Drug Administration regulations.

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the introduced 2012–13 General Appropriations Bill that directs the Texas Department of State Health Services to request a monthly report of the food manufacturers that apply for a Franchise Tax License and a Sales Tax License from the Comptroller of Public Accounts.
- **Recommendation 2:** Amend statute to transfer authority of the regulation of bottled water from the Department of State Health Services to the Texas Commission on Environmental Quality.
- **Recommendation 3:** Include a contingency rider in the introduced 2012–13 General Appropriations Bill that transfers funding and personnel necessary to regulate bottled water from the Department of State Health Services to the Texas Commission on Environmental Quality.
- **Recommendation 4:** Amend statue to establish a program for aquaculture disease eradication and pest treatment at the Texas Animal Health Commission.
- **Recommendation 5:** Include a contingency rider in the introduced 2012–13 General Appropriations Bill that would provide the Texas Animal Health Commission with the funding necessary to regulate aquaculture facilities.
- **Recommendation 6:** Amend the Texas Agriculture Code, Title 6, to include a definition of "cage-free" eggs.

DISCUSSION

The United States Department of Agriculture (USDA) estimates that the average American eats about 2,200 lbs. of food per year. The production and handling of food is regulated by multiple federal, state, and local entities to ensure that the food we eat is safe. Unfortunately some contaminated and dangerous food makes it into the food

supply where due to the size of food production and distribution systems, the potential scope of an outbreak is magnified. When food is not safe, recalls can span entire nations. In 1986, Britain's discovery of mad-cow disease led to an eventual ban on British meat in the European Union; and what began as a recall of 228 million salmonella-tainted eggs on August 13, 2010, has expanded to cover more than half a billion eggs produced by two Iowa companies—making it the largest egg recall in U.S. history.

In fiscal year 2008 the Department of State Health Services (DSHS) reported that there were 5,585 confirmed cases of *Salmonella* and 332 cases of *E. coli O157:H7*, in Texas. The U.S. Center for Disease Control (CDC) estimates that for every 1 reported case of *Salmonella* there are 38 unreported cases and that for every 1 reported case of *E. coli O157:H7* there are 20 unreported cases, for an estimated 218,870 unreported cases of food related illnesses in Texas from just these two biological contaminants. The total number of unreported cases is much higher as there are other biological contaminates and toxins that go unreported to health officials. Most of these cases go unreported because they are mild cases; however, DSHS estimates that there are 6 million illnesses, 26,000 hospitalizations, and 400 deaths in Texas each year due to food-related illnesses.

On August 13, 2010, the Food and Drug Administration (FDA) announced that Wright County Eggs company had begun a voluntary recall of its eggs for *Salmonella Enteritis*, an infection in the lining of the small intestine caused by Salmonella bacteria. A second producer, Hillandale Farm, was added to the recall totaling a combined recall from the two companies of about one-half billion eggs. To date, this is the largest recall of eggs in the U.S. Twenty-three states were affected by the recall, including Texas. As of August 2010, 1,800 cases of *Salmonella Enteritis* were attributed to the tainted eggs. Eggs infected with *Salmonella* do not show any appearance of being infected. There is a vaccine available to protect flocks from being infected by *Salmonella Enteritis*, which can be administered on a voluntary basis by the egg producers. The Texas Animal Health Commission (TAHC), estimates there are 13.3 million egg layers in Texas and approximately 13 million of those have been vaccinated. It is important to note that the vaccine only protects against a single strain, *Salmonella Enteritis*. Texas imports eggs from other states where the producers may or may not vaccinate their egg laying flocks.

On February 12, 2009, the Texas Department of State Health Services (DSHS) ordered the peanut processing plant owned by the Peanut Corporation of America in Plainview, Texas to be closed after it was discovered that there were dead rats, rat excrement, and feathers in the ventilation system. The contaminated peanut butter killed nine persons while sickening over 600 people. The plant was never licensed by DSHS to manufacture food and no inspections had been done in its four years of operation. The company had knowingly shipped products tainted with *Salmonella* after a lab had found that their products were tainted. The federal investigators found the company had discovered *Salmonella* 12 times since 2007 and continued to ship the contaminated product. Neither the U.S. Food and Drug Administration (FDA) nor DSHS requires manufactures to test their products for pathogens that may cause human diseases, except for milk, meat, and bottled water. Some manufacturers voluntarily test their products but are not required to submit positive tests to any government agency.

On February 17, 2008, Westland/Hallmark Meat Company issued a recall for 143 million pounds of ground beef, the largest recall of ground beef in U.S. history. The beef was recalled after an undercover video, given to the USDA, showed cows unable to walk on their own being slaughtered and sent to the food supply. USDA strictly prohibits such a practice, unless the animal has been cleared by a USDA veterinarian, because of the risk of disease entering the food supply. Some of the meat that was recalled was used in the National School Lunch Program as well as other federal nutrition programs. By the time of the recall, most of the meat that had been produced had probably been eaten by the general public.

On September 14, 2006, the FDA issued a warning to the American public to stop eating raw spinach because of a food-borne outbreak of *E. Coli O157:H7*. The warning was not directed at a specific brand or lot number of spinach; rather this was a warning for an entire category of food. Later the FDA narrowed a recall to all spinach packaged by the Natural Selection Company which packaged raw spinach for over 34 different brands. The FDA investigators narrowed the list of producers to a single farm that matched the deadly *E. Coli* strain. There were 205 illnesses and 5 deaths attributed to the contaminated spinach. The exact cause of the *E. Coli* contamination was never determined. The contamination could have come from wild pigs or from proximity to a livestock pasture.

ECONOMIC COST OF FOOD-BORNE ILLNESS

The USDA Economic Research Service (ERS) released a tool in May 2010 that allows for estimating the cost of each food-borne illness including loss of productivity, medical cost, and the cost of premature death based on market trend surveys. The tool is called the Food-borne Illness Cost Calculator and includes estimates for Salmonella and E. Coli. The Illness Cost Calculator can be modified to adjust the cost per illness for four severity levels:

Level 1: Illness did not result in a physician visit and survived the illness;

Level 2: Illness resulted in a physician visit and survived the illness;

Level 3: Illness resulted in both a physician visit and hospitalization with patient living;

Level 4: Illness resulted in both a physician visit and hospitalization; with patient dying.

It is estimated that there were 150,632 cases of *Salmonella* in Texas in 2009. Using the cost per hospital visit and loss of productivity per illness it is estimated that Texas had a cost of $24.5 million in medical expenses, $10.6 million in lost productivity, and $252 million in premature death due to loss of wages, for a total estimated cost of over $287 million. **Figure 1** shows the cost by severity level for fiscal year 2009.

FEDERAL REGULATION

As shown in **Figure 2**, the federal food safety system is divided among four federal agencies: (1) the Food and Drug Administration (FDA), (2) the U.S. Department of Agriculture (USDA), , (3) the Environmental Protection Agency (EPA), and (4) the Centers for Disease Control (CDC).

The FDA is responsible for the regulation of food manufacturing, food labeling and nutritional information, food retail establishments, restaurants, and fresh produce among other functions.

Food safety regulation dates back to the federal Pure Food and Drug Act of 1906 and was replaced by the Federal Food, Drug, and Cosmetic Act of 1938 which established the modern day FDA.

Unlike Texas, which can mandate a company remove an item from the shelves of a store, the FDA does not have recall authority. Instead the FDA can only request that a company remove the suspect item from the shelves. Federal legislation, the Food Safety Modernization Act, that would give the FDA recall authority and improve the FDA's ability to trace food contamination outbreaks was signed into law in January 2011. Even with the new legislation the gaps within Texas food safety system will still exist.

The FDA has developed resources and guidelines for states to help ensure that the food consumers eat is safe. Among these resources the most far reaching is the federal Food Code. This code provides the most current science in food safety and covers emerging issues within the food system. Texas has adopted the 2005 Food Code with the supplements provided in 2007. In November of 2009 the FDA released the 2009 Food Code. DSHS is reviewing the 2009 Food Code and working through the adoption process.

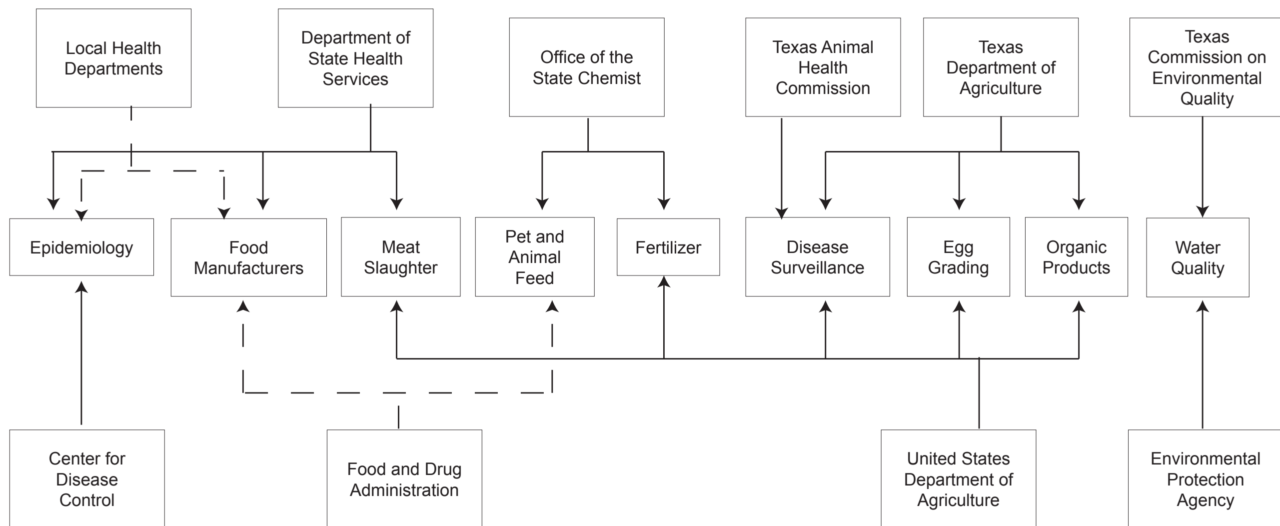
The FDA writes guidelines such as the Good Manufacturing Practices and Good Warehousing Practices for industry, both of which are mandatory in Texas. The FDA also has developed Hazard Analysis Critical Control Point (HACCP) guidelines for meat, juice, milk and seafood; all of which are mandatory for businesses to follow in Texas. The HACCP is a set of procedures used during the manufacturing process to reduce

FIGURE 1
FOOD-BORNE ILLNESS COST CALCULATOR, SALMONELLA CASES FOR TEXAS
FISCAL YEAR 2009

LEVEL		NUMBER OF CASES	MEDICAL COST (IN MILLIONS)	PRODUCTIVITY, NONFATAL (IN MILLIONS)	PREMATURE DEATH (IN MILLIONS)	TOTAL COST (IN MILLIONS)
1	Did not visit physician; survived	132,019	NA	$6.9	NA	$6.9
2	Visited Physician; survived	17,006	$6.5	2.9	NA	9.4
3	Hospitalized survived	1,562	17.6	0.7	NA	18.3
4	Visited physician / hospitalized; died	45	0.5	0.0	252.0	252.5
TOTAL		**150,632**	**$24.5**	**$10.6**	**$252.0**	**$287.1**

Sources: Texas Department of State Health Services; U.S. Department of Agriculture.

FIGURE 2
FEDERAL AND STATE AGENCIES AND LOCAL GOVERNMENTS FOOD REGULATORY AUTHORITY



Source: Legislative Budget Board.

the risk of food-borne pathogens. These techniques include proper handling of food, proper chilling and heating of the product to limit the growth of, or kill, bacteria.

Within FDA there are four main offices that are responsible for the food safety system: (1) the Center for Food Safety and Applied Nutrition (CFSAN), (2) the Center for Veterinary Medicine (CVM), (3) the Office of Regulatory Affairs (ORA), and (4) the National Center for Toxicological Research (NCTR).

The CFSAN is responsible for standard setting and compliance strategies for domestic and imported food. It also regulates food additives used by companies in their production.

The CVM regulates pet food, animal feed, and animal drugs, which can affect an animal's flesh, eggs, or milk when it is consumed. The CVM monitors the use of animal drugs by taking blood and/or urine samples for testing to check for drug residue to make sure of compliance within the tolerance levels. Any testing that reveals drug residue higher than the tolerance level can result in the animal being removed from the food system until the levels are in compliance.

ORA is the main regulatory branch of FDA and houses most of the inspectors, compliance officers, and testing laboratories. The ORA heads the pesticide residue monitoring program which monitors the use of pesticides on foods to make sure pesticide levels are within the tolerance levels set by the EPA.

The NCTR is a research facility that examines the toxicity of chemicals and microorganism to humans. It is researching methods for detecting these chemicals and organisms, and studies toxins to understand the risk they pose to the public and develops methods to minimize the risk.

The USDA receives its authority to inspect the slaughtering, processing, and handling of meat from the federal Meat Inspection Act of 1906 and the federal Wholesome Meat Act of 1967. The USDA is required by law to inspect every slaughter of cattle, sheep, poultry, and goats that is intended for human consumption. The USDA has eight divisions which are responsible for a portion of the food safety system. For the purposes of this report, the main three divisions of the USDA are the Food Safety and Inspection Service (FSIS), the Animal and Plant Health Inspection Service (APHIS), and the Food and Nutrition Service (FNS).

The Food Safety and Inspection Service is the largest division within USDA with a budget of nearly $1 billion per year. The FSIS regulates the nation's meat, poultry, and processed egg products. FSIS inspects each slaughtering plant daily.

The Animal and Plant Health Inspection Service regulates the animal care programs of the nation's farms, and tracks communicable and zoonotic diseases. The APHIS also provides information on managing plant pest and the importing of plants into the country.

The Food and Nutrition Service manages the school lunch program, which provided lunches to approximately 2.4 million Texas students eligible for free or reduced meals in fiscal year 2010. **Figure 3** shows the number of students who have been served in the USDA School Lunch Program for the last four fiscal years.

FIGURE 3
NUMBER OF STUDENTS FROM ELIGIBLE FOR FREE OR REDUCED COST MEALS AT SCHOOLS IN TEXAS
FISCAL YEARS 2007 TO 2010

FISCAL YEAR	ELIGIBLE FOR FREE MEALS	ELIGIBLE FOR REDUCED MEALS	TOTAL
2007	1,794,872	374,572	2,169,444
2008	1,837,096	391,318	2,228,414
2009	1,917,345	398,089	2,315,434
2010	2,068,469	380,139	2,448,608

Source: Texas Education Agency.

The EPA's primary role in food safety is the regulation of pesticide residue in foods. There are three offices within EPA that have a role in food safety: (1) The Office of Prevention, Pesticides, and Toxic Substances (OPPTS), (2) The Office of Water, and (3) The Office of Research and Development (ORD).

The Office of Prevention, Pesticides, and Toxic Substances is responsible for establishing the legal limits on the amount of a particular pesticide that can be in a food. The OPPTS is considered to have the most authority of any governmental agency to regulate the safety of chemicals.

The Office of Water ensures the safety of drinking water and water used in food manufacturing by setting the limits for chemicals and pollutants that can be present in water. Standards for water are based on risks to fish that are consumed by consumers. These standards do not apply to bottled water.

The Office of Research and Development is responsible for testing the safety of pesticides in foods and also determines risk assessments of water for waterborne pathogens. ORD researches methods to prevent pollution within the water system as well as the soil used to grow the nation's food supply.

The CDC role in food safety is tracking the incidences of food-borne illness outbreaks and coordinating with other federal, state and local officials in containing and managing food-borne illness outbreaks. To assist other governmental agencies the CDC has created several tracking tools and databases which governmental officials can view and update with current information. There are three main systems which the CDC uses: (1) FoodNet, (2) PulseNet, (3) OutbreakNet and its associated system the Electronic Food-borne Outbreak Reporting System (eFORS).

FoodNet is a surveillance system for food borne illnesses that CDC manages along with FDA and FSIS. The system provides trend data on disease cases and also provides information on follow-up surveys on disease cases to better understand risk factors and illnesses attributed to foods.

PulseNet is a network of federal, state, and local laboratories which contain all analysis performed by laboratories on food samples to develop a database of molecular fingerprints for food borne illnesses. Texas is an active participant in PulseNet and lends its expertise to help track food borne illness trends.

OutbreakNet is the human network of epidemiologist at all levels of government who track and investigate outbreaks. Epidemiologists submit data to the CDC through the eFORS system. The CDC manages and compiles national data from these outbreaks. The CDC has 20 surveillance systems in places that it uses to track a wide variety of food borne illnesses including systems for *E. Coli*, *Salmonella*, Viral Hepatitis, and Typhoid Fever.

STATE REGULATION OF FOOD SAFETY

As displayed in **Figure 2**, in the State of Texas there are five primary entities that regulate food safety: (1) The Department of State Health Services (DSHS), (2) The Texas Department of Agriculture (TDA), (3) The Texas Animal Health Commission (TAHC), (4) The Texas Commission on Environmental Equality (TCEQ), and (5) The Office of the Texas State Chemist (OTSC).

DSHS receives authority to regulate food from Chapters 431–438 and 440–441 of the Texas Health and Safety Code. The majority of state regulations for regulating the production and manufacturing of foods such as: the sanitization of restaurants; the slaughter of animals for human consumption; the warehousing, distribution, and storage of food; the bottling of water; the milk produced by dairy animals; and the harvesting of shellfish is regulated by DSHS. In the 2010–11 biennium DSHS was appropriated $54 million in All Funds for Food (Meat) and Drug Safety. For fiscal year 2011, DSHS is funded to employ 469.2 full-time-equivalent positions to regulate food.

In fiscal year 2009, DSHS inspectors witnessed the voluntary destruction and detainment of foods that were adulterated, contaminated, or severely misbranded: 142,998 pounds of meat, the value of the meat destroyed was $496,735; 106,959 units of food, the value of the food destroyed was $317,593; and 7,338,401 pounds of milk, the value of the milk destroyed was $734,213. **Figures 4 and 5** show the amount and value of products (respectively) voluntarily destroyed because they were either adulterated, contaminated, and/or severely misbranded.

FIGURE 4
NUMBER OF SEVERELY MISBRANDED, ADULTERATED, OR CONTAMINATED FOOD AND DRUG PRODUCTS DESTROYED OR DETAINED
FISCAL YEAR 2007 TO 2009

FISCAL YEAR	MEAT (IN POUNDS)	FOOD (NUMBER OF UNITS)	MILK (IN MILLIONS OF POUNDS)
2007	46,271	123,471*	13.1
2008	139,451	123,471*	6.2
2009	142,998	106,959	7.3

*Estimated values from Department of State Health Services.
Source: Department of State Health Services.

FIGURE 5
VALUE OF SEVERELY MISBRANDED, ADULTERATED, OR CONTAMINATED FOOD AND DRUG PRODUCTS DESTROYED BY FISCAL YEAR

FISCAL YEAR	MEAT	FOOD	MILK
2007*	$177,675	$422,500	$1,489,663
2008*	$414,780	$422,500	$468,129
2009	$496,735	$317,593	$734,213

*Estimates from Department of State Health Services.
Source: Department of State Health Services.

In fiscal year 2009 DSHS performed 25,626 lab tests of food-borne related contaminates and performed 31 genetic fingerprints of bacteria. **Figure 6** shows the number of lab test and **Figure 7** shows the number of genetic fingerprints of bacteria performed by DSHS.

DSHS not only performs tests of food borne bacteria but also performs tests of other toxins such as elevated levels of lead in food products. When routine samples of a food product show bacterial toxicity or other abnormalities more samples are taken and tested. In fiscal year 2009, a routine sample of dried plums indicated elevated levels of lead. DSHS confirmed that imported salted and dried plums were the source of the contamination and worked with the FDA to put the products on an import advisory list. Through talks with distributors, the agency coordinated a media release resulting in the product being removed from Texas store shelves.

FIGURE 6
NUMBER OF FOOD SAMPLES TAKEN BY CATEGORY
FISCAL YEARS 2007 TO 2009

FISCAL YEAR	MEAT	FOOD	MILK	SEAFOOD
2007	1,977	n/a	20,367	4,024
2008	1,671	n/a	19,094	3,848
2009	2,088	1,402	19,145	2,991

*Estimate from Department of State Health Services
Source: Department of State Health Services.

FIGURE 7
NUMBER OF MICROBIAL GENETIC FINGERPRINTS PERFORMED
FISCAL YEARS 2007 TO 2009

FISCAL YEAR	MEAT	FOOD	MILK	SEAFOOD
2007	11	0	2	0
2008	7	0	2	0
2009	8	20*	3	0

*Estimate from Department of State Health Services.
Source: Department of State Health Services.

The DSHS has authority over the harvesting, handling, shipping and sale of molluscan shellfish (i.e., edible species of oysters, clams, mussels, and scallops) and crab meat. DSHS regularly tests and monitors the waters for chemical and microbiological contaminates in the harvesting zones. At anytime DSHS can close an area for harvesting if contaminates are found. DSHS also monitors public waterways for contaminates for fish and can place advisories or bans depending on the level of contamination. The enforcement of the bans is handled by the Texas Parks and Wildlife Department.

As indicated by **Figure 2**, TDA has several roles in the food safety system. TDA's food safety regulation responsibilities can be further broken down into five main areas: (1) pesticides, (2) egg quality, (3) organic products, (4) aquaculture, and (5) perishable commodities.

TDA regulates the distribution, application and purchase of certain pesticides. There are certain pesticides that are for general use that anyone can apply, other pesticides are of more restricted use and must be applied by a certified pesticide applicator or under the direct supervision of a certified pesticide applicator. State-limited use pesticides

have active ingredients that can cause adverse effects to non-targeted vegetation which could result in pesticide residue higher than legal limits.

TDA regulates the grading and transportation of eggs within Texas. Title 6 of the Texas Agriculture Code, Chapter 132, which regulates eggs in Texas does not apply to persons selling eggs that are produced from their own flock and where no grade claim is made. This allows individuals to sell their eggs at local farmers markets without costly inspections and licensing. Any claim to grading eggs must be inspected by an inspector from the TDA or the USDA. The USDA has ultimate authority on egg grading but the FDA has authority on the transportation, refrigeration, handling, and rodent control plans at the egg farms. Before July 9, 2010, eggs were not required by the FDA to be refrigerated during transport or storage. FDA had not inspected egg farms before the new rules were put into place because there were no standards or authority. Now FDA has authority to inspect egg farms. Texas has required eggs being shipped in, or to, the state to be refrigerated at 45 degrees Fahrenheit since 1981.

While in 1990 the USDA established the first set of national organic guidelines, Texas had begun its organic program in June of 1988. By 1989 more than 20 states had established organic labeling laws. In 1993, Texas changed its organic certification program from voluntary certification to mandatory certification for in-state and out-of-state unpacked bulked-bin organic products. Texas has been accredited by the USDA as a certifying agency of the National Organic Program (NOP). Since 2003, any livestock or poultry, except aquatic animals, can be certified organic in Texas. In the 2007 USDA Agriculture Census Texas had 333 organic farms, the total sales from organic farms was estimated to be $149.3 million. It is estimated that all Texas farms produced $21 billion in agriculture products from 247,437 farms. Texas ranks second among the 50 states for the value of the products that it produces.

Aquaculture, which is the farm raising of fish and shellfish for food, is regulated by TDA. The biggest impediments to successful aquaculture are the dangers of diseases. In July 2007, the USDA released a three-phase study related to the risk of contracting disease for select species of fish and shellfish. The USDA reported that high stocking densities cause stress in fish that compromise the fishes' immune systems. TDA lacks the authority to set proper density ratios in aquaculture settings that would help reduce the risk of a farm contracting a disease. However, TDA does have licensing control over aquaculture farmers and authority over the transportation of aquaculture species.

TDA regulates shippers, wholesalers, brokers, and food processors of perishable commodities (i.e., fruits and vegetables). Anyone who handles perishable commodities must have a license with TDA. TDA also implements the USDA voluntary Good Agriculture Practices (GAP) self-audit for growers and handlers which focuses on the sanitization and traceability of fruits and vegetables as they are picked from the fields.

As **Figure 2** indicates, there are several agencies involved in the production of meat. The Texas Animal Health Commission (TAHC) is responsible for the surveillance of livestock and poultry for communicable and zoonotic diseases. A zoonotic disease is an animal disease that can be transmitted to humans, while communicable diseases can be transmitted through animals, surfaces, foods, or air. TAHC has responsibility of the animal's health before it reaches slaughter; the DSHS Meat Safety Assurance Unit regulates the meat from slaughter to consumption. TAHC has a budget of $27.2 million in All Funds for fiscal years 2010 and 2011, which includes $22.4 million for surveillance and field operations. TAHC is funded for 214 employees for fiscal years 2010 and 2011.

In a single fiscal year TAHC collects approximately 1.5 million blood samples from cattle to test for *Brucellosis*, an infectious disease that may take years to fully treat. Eating meat that is contaminated with *Brucellosis* can result in the passage of pathogens to humans; resulting in parasites that cause chronic disease, which usually persists for life. As a result of the widespread nature of the meat distribution system, a single infected animal could result in the spread of pathogens to thousands of individuals. Texas has remained *Brucellosis* free since 1994.

The Texas Commission on Environmental Quality (TCEQ) regulates the use of water and water quality in Texas. TCEQ requires municipalities to test the quality of municipal water supplies on a regular schedule. The interval is determined by the population that is served by the water supply and the type of contaminate that is being tested. Microbiological contaminates are the most frequently tested contaminates. For example, an area with a population of 1,000 or less, once a month testing is required; while for a population of 3,960,001, or more 480 tests per month are required. TCEQ also monitors the level of organic and inorganic contaminates in the water. TCEQ has a budget of $30.3 million in All

Funds for fiscal years 2010 and 2011 for drinking water and water utilities oversight.

The Office of the Texas State Chemist, which is located on the Texas A&M University Campus, protects consumers and enhances agribusiness through its feed (including pet food) and fertilizer regulatory compliance program. The OTSC receives its authority to regulate fertilizer and animal feed from Chapters 63 and 141 of the Texas Agriculture Code. Authority for the regulation of pet food comes from the Texas Administrative Code, Title 4, Chapter 63. The OTSC regulates animal feed and fertilizer with a budget of $8.6 million in All Funds for fiscal years 2010 and 2011. As of July 2010, the OTSC licensed approximately 3,555 feed manufacturers and 1,133 fertilizer manufacturers.

LOCAL REGULATION

Local health departments have a wide variety of programs that they can implement such as: vaccinations, mental health services, substance abuse services, bioterrorism preparedness, and food and restaurant regulation. Local health department is a broad term that covers local health units, local health departments, and public health districts. Each is defined in Chapter 121 of the Texas Health and Safety Code. Full service health departments are departments that are eligible to receive grants, normally federal grants, distributed through DSHS on a non-competitive basis. Other health departments that are considered non-participating are still eligible to receive some of those funds but they must go through a competitive process to receive them.

Most of the food safety funding received by local health departments are from fees collected by the local department from the restaurants and other food establishments that they are regulating.

GAPS AND OVERLAP IN REGULATION

The salmonella outbreak of 2009 associated with the Peanut Corporation of America (PCA) provides an example of a company operating with a business license but without proper licensing and oversight from DSHS. The factory in Plainview had opened in March 2005, but had never been licensed as a food manufacturing facility and the state had not done any inspections until problems with other PCA plants became widely reported by the media. The plant had been certified for organic production in November 2005, based on incomplete information obtained by the U.S. Department of Agriculture. PCA failed to apply for a Texas health certificate, which would have required an inspection by state inspectors. State health officials were not aware the plant existed until the company released a list of its plants. One way to avoid such situations in the future is to require business owners applying for a business license to operate a food establishment, to have their business license put on hold until the proper paperwork with DSHS has been filed.

When a business applies for a sales or franchise license in Texas they must provide a North American Industry Classification System (NAICS) number. This number is determined by the U.S. Census Bureau and provides a way for the agency to track the types of businesses being opened. The Comptroller of Public Accounts could place a hold on a license if the business has a NAICS number for food or beverage manufacturing, food wholesalers, or a food service business. The hold would be cleared and the sales tax license would be issued once the appropriate license with DSHS has been filed.

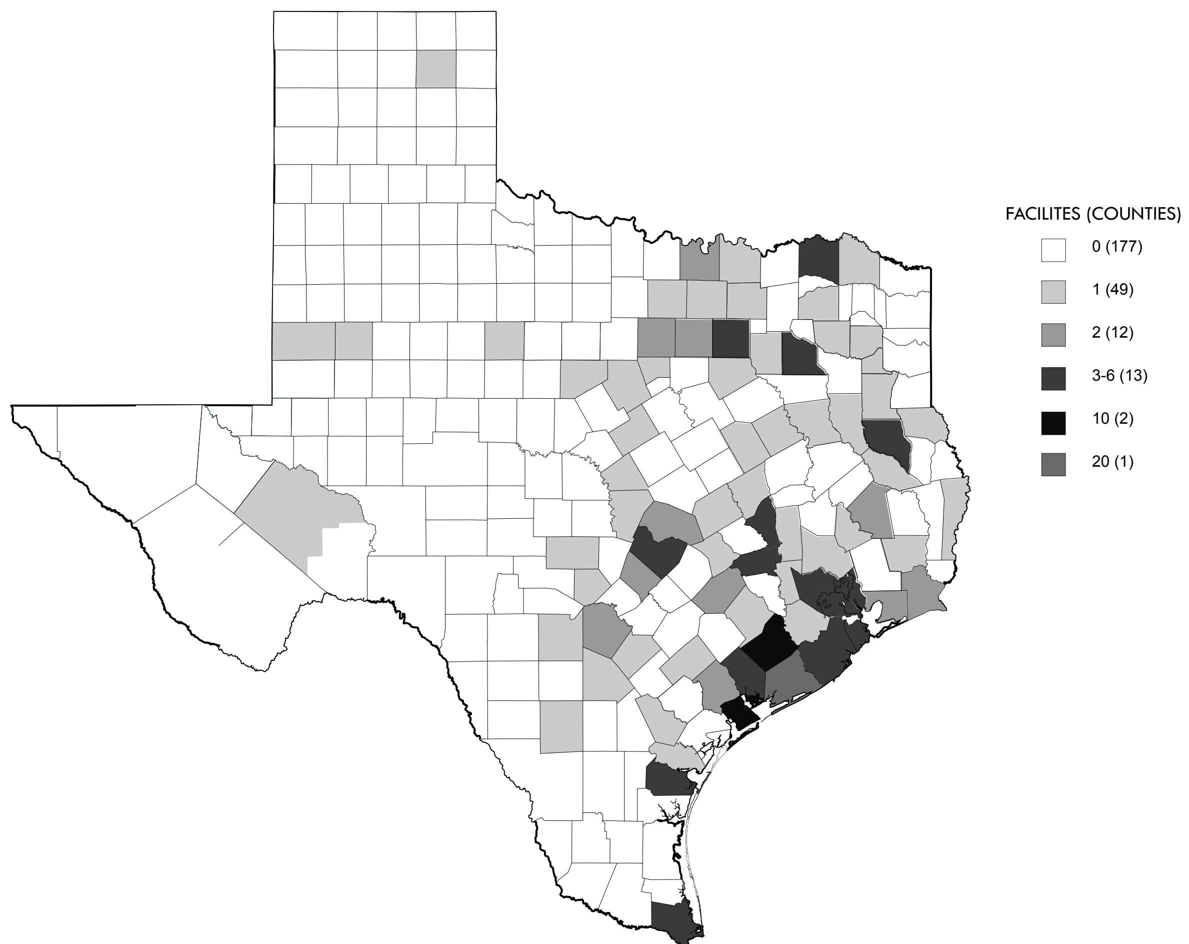
Such a requirement would prevent a business from starting without a proper license and without proper regulation for food production. This requirement would not result in additional work for the business owners since it is already a requirement to be licensed. This requirement would assure that all licenses would be procured before the beginning of food production. It should be noted that if a business is not required to pay sales tax or a franchise tax that there would be no paperwork filed with the Comptroller.

The regulation of bottled water, which includes vended water at stores, is one of the more misunderstood processes in the state of Texas due to the different stages in the bottling process, and the different agencies with oversight roles (see **Figure 2**). Tap water is regulated by the EPA and TCEQ. Once the pipeline of water crosses into the bottled water facility the FDA and DSHS have regulatory control over the processing and testing of the water. Bottled water falls under FDA oversight as a food and is no longer under regulation by EPA standards. In July of 2009, the U.S. Government Accountability Office released a report finding that the FDA's standards for safety and consumer protection for bottled water are less stringent than the EPA's standards for tap water. Kentucky, Massachusetts, New Mexico, and Wisconsin regulate bottled water the same as tap water which holds bottled water to the higher standard for safety and consumer protection. In Texas, to hold bottled and vended water to the higher EPA standards, Chapter 441 of the Texas Health and Safety Code would need to be amended to authorize TCEQ to regulate bottled and vended water facilities.

As more people eat fish, and as concerns that pollution and overfishing are resulting in a decline in the wild fish population, the need for farm raised fish has taken greater importance. In 2002, Texas aquaculture was valued at $35.4 million by the USDA Agriculture Census, in the 2007 Agriculture Census Texas aquaculture was valued at $46.1 million; a 30 percent increase. According to the USDA, the U.S. is the third largest consumer of fish and shellfish in the world. The USDA tests the most popular farm raised fish and shellfish for infectious diseases. Testing for infectious diseases is important because there are very few antibiotics that are approved specifically for treatment of diseases in an aquaculture environment, and the aquaculture industry does not use veterinarians for health management because most veterinarians are not trained in aquatic animals.

Texas does not have specific regulations regarding aquaculture in the surveillance, treatment, or containment of infectious diseases and pests. Texas however does require TCEQ to test the water quality of aquaculture facilities before it is discharged into the public waterways and water tables. TDA requires aquaculture facilities to have a license for the facility and any transport trucks are required to be licensed with the type of fish and the destination of the cargo. **Figure 8** shows the number of aquaculture facilities by county, with most located on or near the Texas Coast.

FIGURE 8
AQUACULTURE FACILITIES IN TEXAS, FISCAL YEAR 2010



SOURCES: Legislative Budget Board; Texas Department of Agriculture.

To manage diseases and pests in aquaculture facilities, the Texas Animal Health Commission would require funding at $431,600 in General Revenue Funds the first year and $298,800 in General Revenue Funds for subsequent years. These fiscal year amounts would fund a veterinarian specializing in aquatic animals and two administrative staff. Aquaculture facilities would be assessed a fee to pay for disease and pest management services. A first-time initial inspection fee and compliance evaluation of $2,800 would be assessed to each facility; an annual fee of $1,800 would be assessed in subsequent years for additional inspections and health monitoring services. The inspections would include

The recall of one-half billion eggs at risk of being tainted by salmonella has resulted in an increasing demand for specialty poultry and eggs that are not produced at conventional poultry and egg farms. Practices associated with conventional poultry and egg farms are shown in **Figure 9**.

According to the USDA, the number of certified organic layer hens represented 1.5 percent of the total egg layers in 2008. The Economic Research Service of the USDA released a report in December 2006 entitled *Organic Poultry and Eggs Capture High Price Premiums and Growing Share of Specialty Markets*. The report highlights and defines the labels commonly used in specialty poultry and eggs, which are shown in **Figure 10**.

In Texas there are no guidelines for what is required to label eggs as "cage-free." Until July 2009 there was no legal definition in any state or by the federal government to define cage-free eggs. California now defines cage-free eggs as eggs where the laying hens are not confined to a space that will not allow the hen to sit down, stand up, turn around, and fully extend its wings without touching a confinement cage or another animal. By 2015, all eggs produced in California must comply with the recently adopted definition of cage-free eggs.

It is important to point out that all eggs carry the risk of Salmonella contamination, regardless the type of farm setting. Scientific studies have not clearly indicated that any particular farm setting has a positive impact on safety from Salmonella contamination. A vaccine has been developed to prevent the *Salmonella Enteritis* strain of Salmonella from infecting chickens. Other nations, such as Great Britain, require the use of the vaccine and it is estimated that the percentage of total hens infected is as low as one percent.

FIGURE 9
CONVENTIONAL POULTRY AND EGG FARM PRACTICES, 2010

PRACTICE	DESCRIPTION	CONCERN
Antibiotics	Producers who raise eggs thru conventional means may use antibiotics on the hens as a preventative measure even if there is no disease outbreak.	Since it is not practical to treat chickens individually, producers mix antibiotics into the flock's drinking water, so each chicken receives the antibiotic whether they need it or not. Such widespread use of antibiotics is thought to contribute to antibiotic resistance, where antibiotics are losing their effectiveness.
Battery Cages	Producers cage the hens in battery cages, which are an industrial agricultural confinement system used for egg-laying hens. Battery cages are between 67 to 86 square inches while a piece of letter size paper is 93.5 square inches.	Opponents of battery cages indicate that research has shown that salmonella is likely to be higher in intensively produced eggs in comparison to free-range or organic produced eggs. In 2012, battery cages are due to be banned in the European Union after a 10-year phase-out period. California's Proposition 2 (2008), is intended to reduce problems associated with battery cages, by setting the standard for space relative to free movement and wingspan, rather than cage size.
Forced Molting	Forced molting is the artificial process of allowing the hen's reproductive tracts to regress and rejuvenate. After a molt, the hen's production rate usually peaks slightly below the previous peak rate and egg quality is improved, thus molting is a technique for increasing profitability in the flock's second or third laying seasons. The molting is achieved by reducing a hen's body weight by 30 to 35 percent by withdrawing feed for as long as two weeks until the hen goes into molt.	Critics of forced molting often state that it is a practice that is inhumane to chickens. To prevent cannibalism, producers may debeak the hens, where the beak is trimmed by up to one-half of the normal length of both the upper and lower half. Some producers only trim the upper beak.

Source: U.S. Department of Agriculture.

FIGURE 10
COMMON LABELS USED IN SPECIALTY POULTRY AND EGG PRODUCTION, 2010

LABEL	USE	CONCERN
Free-range or Free Roaming	For producers to obtain a free range or free roaming designation, they must demonstrate to the USDA Food Safety and Inspection Service (FSIS) that the poultry have been allowed access to the outside. The free range or free roaming label only applies to poultry (meat) and not to eggs.	The USDA does not specify an amount of time the poultry be allowed outside and the stocking density of cages in not addressed by the FSIS
Organic	Producers may label poultry and eggs organic if they have been certified by the USDA by meeting the following standards: (1) are not given antibiotics except for outbreaks or diseases, (2) are not fed meat products or by products, feed that has been treated with pesticides or genetically modified organisms, (3) are not debeaked, and (4) are not confined to cages.	The National Organic Program would allow hens to be forced molted if it would promote the welfare of the animals.
Natural	Producers may label poultry as “natural” if it contains no artificial ingredients or added color and is minimally processed. Minimally processed is defined as a process which does not fundamentally alter the raw product. The label for natural poultry must explain what natural means.	Unlike the organic label, the “natural label” does not have to meet feed requirements, antibiotic use, or pasture requirements. There is no third party certification of natural poultry.
No Antibiotics	Producers may include the term “no antibiotics” if sufficient documentation has been provided to the USDA FSIS indicating that antibiotics have not been used.	
No Hormones	The USDA does not allow the use of hormones in poultry.	A producer may only use the label “No Hormones” if the producer follows the statement with the following: “Federal regulations prohibit the use of hormones.” The USDA does not allow “hormone-free” labels.
Cage-free	Only relevant to hens raised for eggs; birds raised for meat are rarely caged except when being transported.	Has little if any relevance on animal welfare when buying meat. The label is useful to consumers for buying eggs because hens used in conventional egg raising operations are kept in small battery cages. The “cage-free” label does not guarantee that the poultry had outdoor access and the label is not regulated by the USDA nor does it require third party inspection.

Source: U.S. Department of Agriculture.

While there is no way of knowing the total number of *Salmonella* infected eggs produced, the USDA has developed an estimation tool for the number of salmonella-infected eggs nationwide. It is estimated that there are 4 million *Salmonella* infected eggs produced for every 80 billion eggs produced annually, which equates to less than one-half of one percent of all eggs produced being *Salmonella* infected.

SUMMARY OF RECOMMENDATIONS

The production and handling of food is regulated by multiple federal, state, and local entities to ensure that the food we eat is safe. The recommendations in this report are independent of the passage of the federal Food Safety Modernization Act. The recommendations would address existing gaps in food safety at the state level.

There have been occurrences in Texas where food processing and preparation plants have operated without ever being licensed or inspected by DSHS. To avoid these occurrences in the future, require the Comptroller of Public Accounts (CPA) to send to the DSHS a monthly list of food manufacturers that applied for a Franchise Tax License or a Sales Tax License. DSHS would then reconcile the list received from CPA with those companies who have filed a license with DSHS. Additionally, require CPA to investigate better methods of identifying food processing and food preparation manufacturers through the North American Industry Code, such an improvement would help in identifying unlicensed food processing and preparation plants. The recommendation relating to ensure compliance

in licensing can be accomplished with existing agency resources.

Consumers in Texas expect the bottled water they drink to be of the same quality, and with the same oversight, as tap water. Because the EPA regulations for tap water are more stringent than the FDA's standards for bottled water, it is recommended that the regulation of bottled water be moved from DSHS to TCEQ. Such a move would require bottled water companies to follow the same guidelines and procedures that are in place for tap water. This can be accomplished by amending the definition of "Department" in Title 6 of the Health and Safety Code Subtitle A Chapter 441 to the "Texas Commission of Environmental Quality." A transfer of $29,932 in General Revenue Funds, and of one employee, from DSHS to TCEQ would be necessary to implement this recommendation.

The TAHC has a long history of protecting livestock and poultry from communicable and zoonotic disease. Aquaculture farms in Texas are vulnerable to disease and pest outbreaks which can quickly destroy entire schools of fish if proper interventions are not applied in a timely manner. The creation of the Texas Aquaculture Disease Eradication and Pest Treatment (ADEPT) Program would provide testing and treatment of aquaculture livestock through self-funded fees. For such services, the TAHC would require $431,600 in General Revenue Funds in the first fiscal year and $298,800 in General Revenue Funds for subsequent fiscal years.

The recall of eggs contaminated with salmonella and the proliferation of labels related to the egg and poultry industry has resulted in a desire for poultry produced by organic or natural means and clarity on what consumers are exactly purchasing. These labels, most notably the "cage free" label, are often misunderstood by consumers. By amending Chapter 132 of the Texas Agriculture Code with a definition of "cage free" much of the misunderstanding could be removed. It is recommended that the definition be modeled after the California definition of "cage free" eggs. The adoption of a "cage free" label would not result in a significant fiscal impact to the state and can be accomplished with existing agency resources.

Even with federal initiatives to update and streamline the food safety system through the federal Food Safety Modernization Act, the food safety system will continue to be a fragmented system at the state and local levels. The recommendations contained within this paper address several steps in updating and strengthening the food safety system in Texas.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 4 and 5 would result in an increase of General Revenue Funds for the 2012–13 biennium offset be equal expenditures. Revenue would result from charging a fee to aquaculture facilities $730,000 for the 2012–13 biennium as shown in **Figure 11**. This estimate is based on aquaculture facilities being charged a $2,800 fee for initial licensing and inspection and a $1,800 fee each subsequent year.

Recommendation 2 and 3 would transfer regulation authority of bottled water from DSHS to TCEQ. Funds associated with the regulation of bottled water would be transferred from DSHS to TCEQ of $30,000 each fiscal year of the 2012–13 biennium.

FIGURE 11
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COST) IN GENERAL REVENUE FUNDS
2012	$431,600	($431,600)
2013	$298,800	($298,800)
2014	$298,800	($298,800)
2015	$298,800	($298,800)
2016	$298,800	($298,800)

SOURCE: Legislative Budget Board.

No significant fiscal implications are associated with the implementation of Recommendations 1 and 6. The introduced 2012–13 General Appropriations Bill includes a rider in Article II to implement Recommendation 1, requiring DSHS to request a monthly report of food manufacturers who apply for a Franchise Tax License from the CPA.

CONSOLIDATE THE TEXAS REGIONAL POISON CONTROL CENTERS

The Texas Poison Control Network consists of six statutorily mandated centers that provide 24-hour, toll-free telephone referral and emergency treatment information for poisonings and other toxic exposures. The centers also provide education programs on poison prevention methods to the public and healthcare professionals. Thirty-nine other states maintain a poison control center in-state and most of these states have one or two poison control centers that serve their population. If a state does not have a poison control center, it may contract with other states to provide poison control services for their population. Technological advances have reduced the need for multiple regionally-based poison control centers. Although the Texas Poison Control Network is successful in providing poison control services, the network's operations carry unnecessary administrative and indirect costs as a result of maintaining multiple regional poison control centers. By reducing the number of regional poison control centers, the state could save approximately $2.3 million during the 2012–13 biennium while continuing to address the safety concerns of Texans.

CONCERNS

- Call takers are not equipped with statewide data on hospital capabilities, making it difficult to refer patients to appropriate healthcare facilities in regions outside of the receiving center's jurisdiction
- There is no evidence that the current structure and format of educational programs offered by the Texas Poison Control Network have a significant effect on target populations.
- While successful in providing poison control services for the state, the Texas Poison Control Network carries unnecessary administrative and indirect costs as a result of maintaining six regional centers.

RECOMMENDATIONS

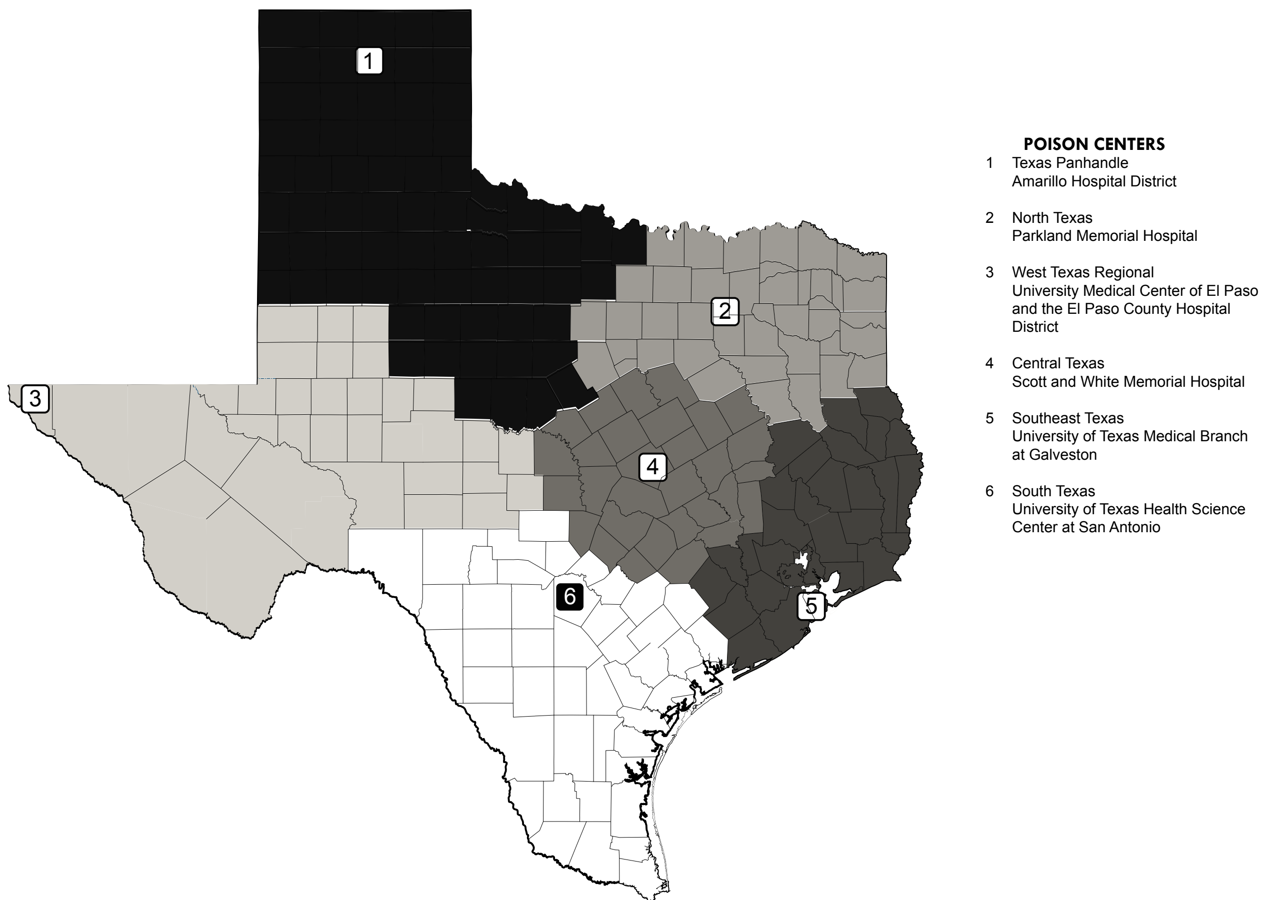
- **Recommendation 1**: Require the Commission on State Emergency Communications to develop a database that contains a comprehensive statewide listing of hospitals, including their capabilities and areas of specialization, which will be available to poison control center call takers.
- **Recommendation 2**: Amend the Texas Health and Safety Code, Section 777.003 to require the public education subcommittee of the Poison Control Coordinating Committee to establish an objective evaluation process for public education programs and redesign the program using a statewide standardized model.
- **Recommendation 3**: Amend the Texas Health and Safety Code, Section 777.001 to consolidate the six regional poison control centers by March 1, 2012.
- **Recommendation 4**: Include a contingency rider in the 2012–13 General Appropriations Bill to reflect reduction of appropriations for poison call center operations by $2,300,000 of General Revenue–Dedicated Funds and require the Commission on State Emergency Communications to submit a plan for consolidating the regional poison control centers to the Governor and the Legislative Budget Board by October 1, 2011.

DISCUSSION

The Texas Poison Control Network (TPCN) was established by the Texas Legislature in 1993 to reduce morbidity, mortality, and costs associated with poisonings and public exposure to toxic materials. TPCN consists of six statutorily mandated Regional Poison Control Centers, located at Texas Tech University Health Sciences Center at Amarillo, the Dallas County Hospital District, the University Medical Center and El Paso County Hospital District, the University of Texas Medical Branch at Galveston, the University of Texas Health Science Center at San Antonio, and the Scott and White Memorial Hospital in Temple. **Figure 1** shows the location of the regional poison control centers in Texas.

Each regional poison control center provides 24-hour, toll-free telephone referral and emergency treatment information services for poisonings and toxic exposures. These services are available to the general public and healthcare professionals. Callers can reach the poison control centers through a statewide toll-free telephone number. The centers provide specific information to allow for the prevention, diagnosis, and treatment of poisonings without automatically dispatching emergency medical services or requiring a visit to

FIGURE 1
TEXAS POISON CONTROL NETWORK LOCATIONS, FISCAL YEAR 2009



SOURCE: Commission on State Emergency Communications.

a healthcare facility. According to the Centers for Disease Control and Prevention, poison centers save $7 in medical expenses for every $1 spent.

In addition to telephone referral and information services, the poison control centers offer community education programs on poison prevention methods to the public and health professionals. The centers are also required to provide technical toxicological services to state agencies and consultative medical toxicology services upon request.

According to the Texas Department of State Health Services, the six-site distribution of the poison control centers was established to provide regionally-based services that would be sensitive to the state and its populations. The regionalization of poison control centers was also intended to aid the state in working with area hospitals to refer patients to local medical facilities quickly and efficiently. Other benefits of regionalization noted by the poison control centers include the following:

- A system of six poison control centers makes the state more likely to successfully manage a large event, such as a natural disaster, than one poison control center is capable of handling. For example, Hurricanes Katrina and Rita were managed without disruption to daily service provided by the TPCN.
- The regional distribution of each center provides a larger staffing pool for the specialized area of poison control.
- The regional distribution of each center facilitates direct outreach as well as public and professional education efforts throughout the state.

OVERSIGHT AND MONITORING

The Commission on State Emergency Communications (CSEC) has full oversight of the TPCN. This oversight includes disseminating state and federal funding, managing regional center grant contracts, and overseeing general program administration related to the network. CSEC maintains three full-time equivalent positions with responsibilities related to the TPCN. CSEC staff monitor contracts, ensure network operability to support call handling and processing, provide technical support to the poison control centers, and train call takers to comply with state and federal standards.

The governing body of CSEC consists of nine members appointed for six-year terms by the Governor, Lieutenant Governor, or Speaker of the House. The commissioners make policy decisions, provide strategic direction, and exercise oversight responsibility for commission activities. The Poison Control Coordinating Committee was established by CSEC to coordinate the activities of the regional poison control centers and advise the commission on TPCN operations. The committee consists of nine members, including: six members, each representing one of the poison control centers; a healthcare provider representative; a member representing the commissioner of DSHS; and a public member appointed by CSEC.

Under previous law, the Department of State Health Services (DSHS) and CSEC jointly administered the network. In 2009, the Eighty-first Legislature amended Texas Health and Safety Code, transferring full oversight and administrative responsibility of the regional poison control centers to CSEC. DSHS currently participates on the Poison Control Coordinating Committee through an appointed member, and provides epidemiological support to the regional poison control centers upon the request of CSEC. Epidemiological support includes: functions related to TPCN database management; analysis, reporting, and quality assurance activities; and coordination of poison control programs with other public health initiatives.

SOURCE OF FUNDING

The primary funding source for TPCN operations is the state's equalization surcharge fee imposed on customers receiving intrastate long-distance service in Texas, set at a rate of 1 percent of total long-distance service fees. Half of the 1 percent surcharge goes to the poison control centers, while the other half goes to the 9-1-1 Program. Surcharge revenues are deposited into a General Revenue–Dedicated Fund. For the 2010–11 biennium, appropriations for the poison control center network totaled $17.8 million in General Revenue–Dedicated Funds. Most of the state appropriations for the poison control center network were allocated to providing grant funding for the regional poison control centers' call taker salaries and equipment.

CSEC negotiates yearly contracts with each of the poison control centers with funding levels based on historical need. Beginning with the 2012–13 biennium, CSEC plans to execute biennial contracts with the centers' host institutions.

In addition to state appropriations, regional poison control centers receive funding from federal grants, such as the Public Health Emergency Preparedness grant, and local sources. Host institutions provide in-kind contributions to the poison control centers, including office space, utilities, facility maintenance, human resource services, grant management activities, and administrative support. **Figure 2** shows poison control center operation funding levels for fiscal year 2009.

FIGURE 2
POISON CONTROL CENTER FUNDING LEVELS, FISCAL YEAR 2009

CENTER	STATE FUNDS	PERCENTAGE OF CENTER TOTAL	FEDERAL FUNDS	PERCENTAGE OF CENTER TOTAL	OTHER FUNDS	PERCENTAGE OF CENTER TOTAL	CENTER TOTAL
Galveston	$1,475,478	71%	$599,222	29%	$15,109	1%	$2,089,809
Dallas	$1,346,307	68%	$613,786	31%	$11,608	1%	$1,971,701
San Antonio	$1,118,815	69%	$455,203	28%	$48,423	3%	$1,622,441
Temple	$987,212	69%	$411,743	29%	$23,750	2%	$1,422,705
Amarillo	$813,885	75%	$250,559	23%	$18,132	2%	$1,082,576
El Paso	$805,120	74%	$263,784	24%	$25,303	2%	$1,094,207
TOTAL	**$6,546,817**	**71% (Average)**	**$2,594,297**	**28% (Average)**	**$142,325**	**2% (Average)**	**$9,283,439**

NOTE: Amounts do not include in-kind contributions from the host site.
SOURCE: Sunset Commission Staff Report.

In fiscal year 2009, 91 percent of poison control center expenditures were related to personnel costs while the remaining 9 percent of center expenditures were related to administrative and overhead expenses. In fiscal year 2009, average annual salaries for call takers at the poison control centers ranged from $44,744 to $82,334 due to regional differences. Support and other staff positions at each center vary and can include unit coordinators, account managers, community education specialists, administrative support, and office managers. Non-call taker average annual salaries at the poison control centers ranged from $20,000 for a grants manager to $181,485 for a medical director. The average overhead cost per center was $104,000 in fiscal year 2009.

TPCN RESPONSE TO POISON EMERGENCY CALLS

In fiscal year 2009, the six poison control centers were staffed by 80.3 full-time-equivalent (FTE) positions, which include 53.3 call takers. These call takers responded to 365,846 poison emergency and information inquiries. Call takers are trained nurses and pharmacists with targeted training or experience in poisoning emergency treatment and prevention. The poison control centers respond to various types of emergency calls including human and animal poisoning exposures, informational inquiries, and drug identification requests. Ninety-seven percent of poison exposure calls in 2009 were related to human exposures and most involved patients under the age of five. From fiscal years 2007 to 2009, the top three substance categories for human exposures across all regions were analgesics, cosmetics and personal care products, and cleaning substances. **Figure 3** shows the top 10 human exposure calls received by the poison control centers by major substance category for fiscal year 2009.

Regional differences in the type of poison exposure calls that are addressed at each center are minimal. In fiscal year 2009, the poison control centers collectively responded to 177,498 human exposures calls with Dallas and Galveston responding to more than half the total call volume. Of the total calls received by the poison control centers, 71.4 percent were managed without referral to a healthcare facility.

FIGURE 3
TOP 10 TYPES OF EXPOSURES FOR ALL TEXAS POISON CONTROL CENTERS
FISCAL YEAR 2009

TOP 10 EXPOSURES FOR ALL TEXAS POISON CONTROL CENTERS FISCAL YEAR 2009		PERCENTAGE OF TOTAL
1	Analgesics	13%
2	Cosmetics/personal care products	9%
3	Cleaning Substances	8%
4	Sedatives/hypnotics/antipsychotics	6%
5	Foreign bodies/toys, misc.	5%
6	Topical preparation	4%
7	Antihistamines	4%
8	Cold and Cough preparations	4%
9	Alcohols	4%
10	Antidepressants	4%
TOTAL, TOP 10		**61%**

Source: Department of State Health Services.

Services provided by the centers must meet national standards established by the American Association of Poison Control Centers (AAPCC). According to AAPCC's instructions for accreditation and reaccreditation of regional poison centers and systems, centers are required to maintain a minimum staffing level to allow for no fewer than 2,000 and no more than 3,500 human exposure cases per year per call taker. Based on the 177,498 human exposure calls received by the centers in fiscal year 2009, the TPCN needs a minimum of 51 specialists to meet AAPCC requirements. **Figure 4** shows

FIGURE 4
HUMAN EXPOSURE CASES MANAGED BY TEXAS POISON CONTROL CENTERS, FISCAL YEAR 2009

CENTER	HUMAN EXPOSURE CASES MANAGED	PERCENTAGE OF TOTAL CASES	TOTAL CALL-TAKER STAFF	HUMAN EXPOSURE TO CALL TAKER RATIO
Dallas	51,898	29%	13	3,992
Galveston	40,604	23	12	3,384
Temple	25,331	14	5.63	4,499
San Antonio	25,290	14	9	2,810
El Paso	18,866	11	7	2,695
Amarillo	15,509	9	6.67	2,325
TOTAL	**177,498**	**100%**	**53.3**	**3,284**

Source: Commission on State Emergency Communications.

the number of human exposure cases managed and the human exposure to call-taker ratio for each poison control center in fiscal year 2009.

The effectiveness of the poison control centers are evaluated by both CSEC and the Legislature through quarterly performance measures that describe operational levels based on call volume for the different types of calls and the number of human exposures per full-time-equivalent position.

CONTROL CENTER TECHNOLOGY

The poison control centers are interconnected by a telecommunications network. When a regional center cannot answer an incoming call due to heavy call volumes, the call is automatically re-routed to an available poison control specialist within the network. In fiscal year 2009, 16 percent of incoming calls to the TPCN were automatically rerouted from their original center to another center in the network. The centers in Galveston, San Antonio and Temple received the most re-routed calls.

Remote agency workstations allow call takers to log-on to the network from home. This technology enhances the ability to distribute and absorb increases in call volume across the network. The telecommunications network and remote workstation capabilities proved to be effective during the 2008 hurricane season, when regional evacuations were required, including at the Galveston poison control center.

Each center has access to a centralized database that includes call details from operations throughout the network. As required by the AAPCC, each center has a list of the healthcare facilities within their regional area, including each facility's capabilities and available areas of specialization. The listings are under review for deployment as a statewide listing. When a call taker handles a case that requires hospitalization and the caller or patient is outside of their region, the call taker must ask the caller which hospital they are in route to and follow-up with the hospital and the poison center in that patient's region. Call takers are not equipped with statewide data on hospital capabilities, making it difficult to refer patients to appropriate healthcare facilities in regions outside of the receiving center's jurisdiction. Recommendation 1 would require CSEC to develop a database that contains a comprehensive statewide listing of hospitals, including their capabilities and areas of specialization, for the use of poison control center call takers.

POISON CONTROL EDUCATION PROGRAMS

In addition to providing telephone referral and information services, state poison control centers are statutorily required to provide community education programs on poison prevention methods, offer professional and technical assistance to state agencies requesting toxicological assistance, and consult on medical toxicology as requested. A public education subcommittee of the Poison Control Coordinating Committee develops a strategic operation plan that drives the public education activities of the poison control centers. Members in the Public Education Subcommittee include educators from each of the poison centers. The centers collaborate on projects such as the revision of educational brochures, needs assessments, and identification. The subcommittee facilitates sharing, strategizing, and project evaluation among centers.

The six centers provide much of the same standard educational information, including poison prevention tips, center activity awareness, and emergency contact numbers. Some education needs are consistent throughout the network, such as addressing child exposures to medication, household chemicals, and cleaners, or preventing potential exposures from venomous animals. While the educational information shared by centers is standardized, the format of the public education programs varies. Educators develop individual presentations, displays, and a variety of educational outreach materials to engage the target population, including school and community presentations, health fairs, mailings, contests, media outreach, publications, website development, and community coalition building. Community education specialists consider cultural characteristics, population size, and regional differences when planning the delivery of regional educational activities. Each center conducted an average of 1,414 public education presentations a year from fiscal year 2004 to 2008. The usefulness of this statistic is diminished by the lack of a standard definition of "educational presentation" throughout the network. **Figure 5** shows the number of public educational presentations by centers for fiscal years 2004 to 2008.

In addition to educating the public, state poison centers provide educational programs to hospitals and healthcare providers to improve general knowledge of poison control. Centers may provide training to medical residents and interns through internal professional development programs and conduct research for submission to professional journals and other publications.

FIGURE 5
EDUCATIONAL PROGRAMS CONDUCTED BY TEXAS POISON CONTROL CENTERS, FISCAL YEARS 2004 TO 2009

CENTER	2004	2005	2006	2007	2008	2009	TOTAL 2004 TO 2009	YEARLY AVERAGE
Amarillo	184	173	206	151	168	110	992	165
Dallas	149	544	440	414	775	767	3,089	515
El Paso	139	137	224	285	210	209	1,204	201
Galveston	141	201	99	678	292	277	1,688	281
San Antonio	617	390	539	398	460	768	3,172	529
Temple	353	274	358	216	177	244	1,622	270
TOTAL	**1,583**	**1,719**	**1,866**	**2,142**	**2,082**	**2,375**	**11,767**	**1,961**

Source: Commission on State Emergency Communications.

The effectiveness of educational programs is assessed informally through immediate feedback at presentations, surveys, and testing. To determine awareness of poison center functions, one of the centers established a Poisoning Prevention Coalition consisting of school nurses from elementary schools. The coalition helps the center assess knowledge of services that are provided by the center. According to one of the poison control centers, evaluating educational program effectiveness is an ongoing concern.

Centers must submit quarterly performance measures to CSEC that focus on outputs such as the number of educational materials distributed, presentations conducted, persons contacted, professional education participation, and the geographic distribution of presentations and outreach activities. Centers do not track outcomes of their education efforts. Data on the impact of educational programs on audience awareness and use of poison control center resources is not collected. In addition, performance measures do not capture or distinguish the effectiveness of various educational methods such as mailings of publications, presentations, displays, media outreach and website use. Recommendation 2 would amend statute to require the public education subcommittee of the Poison Control Coordinating Committee to establish a more effective and standardized way to evaluate the public education programs, measure outcomes, and reformat the program using a consolidated standardized model.

POISON CONTROL CENTERS IN OTHER STATES

Thirty-nine states operate a total of 60 poison control centers providing 24-hour professional assistance throughout the 50 states. All 60 poison control centers are accredited by the American Association of Poison Control Services and can be reached by calling the same toll-free telephone number. Most states with poison control operations maintain a single center location. According to the AAPCC poison centers in the U.S. are staffed by pharmacists, physicians, nurses and poison information providers who are toxicology specialists. Collectively, poison control centers across the United States receive four million calls annually with 70 percent of calls managed on-site, reducing costly emergency room visits.

Nationally, poison control centers are funded through a combination of federal, state, and private sources. Host hospitals and universities also provide non-financial support for poison control operations. In 2009 and 2010, many state Legislatures proposed, or enacted, reduced funding of poison control operations due to general state budget constraints including: California, Louisiana, Michigan, New Jersey, Washington, and Illinois. Poison control centers in Colorado, Florida, New York, Ohio and Pennsylvania all noted that the greatest challenge in poison control operations is maintaining adequate funding because federal grants are not consistently available and state funding is not guaranteed. **Figure 6** compares characteristics of five poison control centers throughout the country.

All of the centers in **Figure 6** also provide public education programs that seek to increase awareness of common poisonings, but the extent and coverage of public education programs provided by each state varies. For example, the Philadelphia poison control center's public education program is limited to mailing printed materials to health fairs, whereas poison control centers in Florida provide more than 150,000 interactive education programs annually. Professional education at centers includes lectures for health professional staff at hospitals and participation in medical rotations for doctors and pharmacy students.

The Colorado and Pennsylvania poison control centers are examples of operations that provide services to populations of other states. The Philadelphia Poison Control Center

FIGURE 6
POISON CONTROL CENTERS IN OTHER STATES, 2009

POISON CONTROL CENTER	POPULATION IN SERVICE AREA (MILLIONS)	CALL-TAKER STAFF AT CENTER (POSITIONS)	HUMAN EXPOSURES CASES MANAGED	RATIO OF CALL-TAKER STAFF TO HUMAN EXPOSURE CASES	FUNDING SOURCES
Texas	24.5	58.6	177, 498 poisoning	3,029	state, federal and local funds
Florida (all centers)	19.0	35.0	117,367 poisoning	3,353	state and federal funds
Colorado (also serves Montana, Idaho, Hawaii & Nevada)	10.5	32.0	175,000 poisoning	5,469	state funds
Pennsylvania (also serves Delaware)	9.5	12.0	60,000 poisoning	5,000	state and federal funds
New York City	8.1	14.0	45,000 poisoning	3,214	state and local funds
Ohio Central	3.8	13.0	39,000 poisoning	3,000	federal and local funds (no state funding since 2004)

Source: Legislative Budget Board.

serves southeastern Pennsylvania and the state of Delaware. Calls from Delaware are managed like those received from in-state. Standards set by the AAPCC require that all poison control centers be familiar with the clinical capabilities of all their service areas. The Pennsylvania poison control center has not encountered any issues that have affected its ability to provide services to Delaware.

The Rocky Mountain Poison and Drug Center (RMPDC) in Colorado provides poison control services for the entire populations of Colorado, Montana, Hawaii, Idaho and Nevada. The inter-state services are provided through contractual agreements that arose out of responses to solicited contracting opportunities and development of relationships over time. According to the RMPDC, there have not been regional or geographic challenges in providing poison control services for the other states because the top five poison exposure types are consistent across all states. The greatest obstacle for the RMPDC in providing services for other states has been the absence of a legislative advocate for the poison control centers in the contracted states.

The RMPDC relies heavily on the use of remote workstations in the event of system failure at the poison control center facility. Poison specialists have the ability to work remotely from home and are located across the state of Colorado and in some cases out-of-state. The RMPDC also has a mutual aid agreement with Utah, Minnesota, Nebraska and Missouri to provide back-up services in the event of a disaster, but this system is rarely used. Back-up centers were chosen based on the development of positive ongoing inter-state relationships with the other states' poison control centers.

CONSOLIDATING THE TEXAS REGIONAL POISON CONTROL CENTERS

While successful in providing poison control services for the state, TPCN operations carry unnecessary administrative and indirect costs as a result of maintaining multiple regional centers. In fiscal year 2009, the average overhead cost per center was $104,021 or $624,127 total for all centers. By consolidating the poison control centers, the state could realize savings by reducing overhead costs and eliminating duplicative staff positions while maintaining enough call takers to meet population needs. Texas has the technological capability to provide poison control services under a single-center model without reducing service levels. Allowing call takers and community educators to work from remote workstations can address staff capacity needs, community accessibility and outreach needs, disaster response, and office space requirements. States such as Colorado effectively provide poison control services for the population of their state and other states by using a single-center model.

Recommendation 3 would amend Section 777.001 of the Texas Health and Safety Code to require the CSEC to consolidate the six regional poison control centers by March 1, 2012. Recommendation 4 would include a contingency rider in the 2012–13 General Appropriations Bill to reduce appropriations for poison call center operations by

$2,300,000 of General Revenue–Dedicated Funds and require the Commission on State Emergency Communications to submit a plan for consolidating the regional poison control centers to the Governor and the Legislative Budget Board by October 1, 2011.

Factors CSEC should consider while developing a plan for the consolidation of the regional poison control centers include, but are not limited to:

- establishing a natural disaster and business continuity plan that could include the use of remote centers or secondary back-up centers in other states;
- exploring the use of remote workstations for call takers and community educators to maintain accessibility to various regions within the state;
- hiring a diverse staff pool with specialized knowledge of regional differences in the state;
- considering operational cost differences and the availability of local funding resources in various regions of the state; and
- considering the accessibility to a consolidated center and the risk of natural disasters in various regions of the states.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 3 requiring the consolidation of the TPCN would save approximately $2.3 million in General Revenue–Dedicated Funds during the 2012–13 biennium. Recommendations 1, 2 and 4 can be implemented with existing agency and state resources and have no fiscal impact.

The fiscal impact shown in **Figure 7** is based on eliminating overhead costs by consolidating six regional centers into a single statewide center and eliminating 18 non-call taker FTE positions. These reductions can be achieved without risk to the accreditation of the centers and the call takers. The fiscal impact estimate accounts for projected overhead costs at the consolidated center and allows for potential increased travel expenditures by education program staff post-consolidation.

FIGURE 7
FIVE-YEAR FISCAL IMPACT OF CONSOLIDATING THE TEXAS POISON CONTROL NETWORK
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS IN GENERAL REVENUE–DEDICATED FUNDS
2012	$760,152
2013	$1,520,306
2014	$1,520,306
2015	$1,520,306
2016	$1,520,306

SOURCE: Legislative Budget Board.

The introduced General Appropriations Bill includes a contingency rider reflecting the budget reductions from Recommendation 3.

PROVIDE FOR THE COST EFFECTIVE STORAGE OF STATE RECORDS AND ARCHIVES

The Texas State Library and Archives Commission is charged with the custody of 56,000 cubic feet of archival materials, more than 250 million historical documents and artifacts related to the development of Texas society and government. The agency estimates the state's archival collection will increase by approximately 42,000 cubic feet of documents by 2028. Already, the state's primary storage facility is near capacity with another 21,572 cubic feet of archival records housed within the State Records Center, a facility which does not provide adequate archival protection and security for historical state records. To adequately preserve documentation of the state's rich history and culture, the Texas State Library and Archives Commission requires additional archival-quality storage space to house state documents and artifacts.

The agency is also responsible for the management of the State and Local Government Records Management Program. This program operates a storage facility for non-archival, inactive government documents that have not reached an appropriate destruction date as defined by the state's record retention schedules. The State Records Center holds a rotating inventory of up to 350,000 cubic feet of government documents for state and local agencies. The records storage program has historically been managed as a cost-recovery program but is currently recovering only half of the state's total actual cost of operation. To operate a full cost-recovery program, the state records storage program should improve its system for allocating program costs and calculating yearly program fees.

CONCERNS

- The fee schedule developed by the State Library and Archives Commission for the State and Local Records Management Program is insufficient to recover the full cost to the state of operating the program. State statutes and agency rules require the agency to recover both the direct and indirect costs of storing state documents.
- The current state archive facility, the Lorenzo de Zavala State Library and Archives Building, is insufficient to house the state's entire archival collection; and the State Records Center, available for overflow documents, does not provide an adequate long-term archival storage option.

RECOMMENDATIONS

- **Recommendation 1:** Reduce the Texas State Library and Archives Commission's appropriation of General Revenue Funds for document storage program expenses in fiscal years 2012 and 2013, and increase the agency's appropriations for Interagency Contract and Appropriated Receipt revenue, to reflect the required establishment of a full-cost recovery fee schedule for the program.
- **Recommendation 2:** Develop additional archival quality space to house the state's current collection of historical documents and artifacts, as well as estimated near-term additions to the collection. Additional space could be developed by: (1) building a new archival facility on underused land within the capitol complex; (2) renovating the State Records Center to offer adequate protection for the storage of archival materials; or (3) contracting with a private vendor for the use of temporary archival storage space.

DISCUSSION

In 1876, Texas became the third state to establish an official state archives, following Vermont in 1778 and California in 1850. By 1895, Texas had entered into a document exchange agreement with the federal government. The need for a dedicated administrative organization to oversee state documents was recognized in 1909 with the creation of the Texas Library and Historical Commission, renamed the Texas State Library and Archives Commission (TSLAC) in 1979. TSLAC is tasked with two primary objectives: (1) safeguard the state's significant historical materials; and (2) provide information services that inspire and support research, education and reading, and enhance the capacity for achievement of current and future generations. Historically, up to three percent of government records contain a level of enduring value sufficient to justify permanent retention by the state.

The state's archival and records storage facility operations are tied predominantly to the first of these objectives. While archival needs have been a focus of the program since its origination, records management activities first emerged in response to significant increases in governmental records during World War II. Texas helped lead the development of

such programs nationwide with the initiation of an official records management program in 1947. Today, TSLAC has 193 full-time-equivalent positions working in seven programmatic divisions, funded by yearly appropriations of approximately $35.5 million in All Funds, including $20.6 million in General Revenue–Related Funds.

In fiscal year 2010, the state's archival holdings totaled 55,993 cubic feet of materials, approximately 7,500 standard five-drawer letter-size file cabinets. These holdings are located within two facilities in Austin with another 19,855 cubic feet of documents stored at the Sam Houston Library and Research Center in Liberty. An additional 100,580 archival micro-fiche and microfilm files are stored by the agency, as well as millions of dollars in state artifacts, including maps, battle flags, and original oil paintings. The state archives holds more than 250 million historical documents related to the development of Texas society and government. TSLAC also manages a rotating average inventory of more than 345,000 cubic feet of inactive general state records. The maintenance of these records is required for a stated period outlined by the state record retention schedules, and any archival designations are made at the end of the related retention periods.

A 2007 survey by the Council of State Archivists reported 13 states maintaining archives of greater than 50,000 cubic feet. At the time of the survey Texas reported the ninth largest state records archive in the country. New York, North Carolina, California, and Kentucky maintain the largest state archives, with holdings ranging from 84,306 cubic feet to more than 100,000 cubic feet. The smallest archives are held in Vermont, Arkansas, Arizona, and Hawaii, all holding fewer than 10,000 cubic feet of archival materials. From 1986 to 2006, Texas archival holdings increased by 217 percent, faster than all but 16 states. Texas also manages the one of the largest state records center, second only to California's more than 700,000 cubic feet of managed records.

ARCHIVAL PROGRAM

The Legislature appropriated funding for the construction of a state archive building in 1957, and the Lorenzo de Zavala State Archives and Library Building opened on April 10, 1962. Still the center-piece, and primary archival depository, of TSLAC operations, the Zavala building is an 111,000 square-foot four-story granite building located on the eastern edge of the Capitol grounds, with 85,913 square-feet of usable space. The building's configuration allows for the current storage of 34,421 cubic feet of archival materials, 61.5 percent of the total archives stored in Austin. The remaining 21,572 cubic feet of documents are stored at the State Records Center, three miles north of the Capitol Complex in central Austin.

A 2008 study conducted for TSLAC by Hunter Information Management Services, Inc., determined the archival storage needs of the state reached the capacity of the Zavala building in 1988. Additions to the state archival collection are referred to as accessions, and the quantity of accessions varies from year to year, often dramatically. Yearly accessions since 1977 have ranged from 18 cubic feet to almost 5,000 cubic feet. The variation in size is because many of the records are part of larger record sets; for example, court records, such as Supreme Court of Texas case files, are submitted in sets that cover a period of many years, and can be hundreds or thousands of cubic feet in size. The non-uniformity of yearly accessions also make it difficult to predict or estimate future space needs on a year-to-year basis, and requires that storage needs planning be considered on a long-term basis, not as a reaction to immediate near-term needs. The 2008 study projected that state accessions over a 20-year horizon would reach approximately 26,000 cubic feet, not including two currently deferred large-scale accessions: 10,000 cubic feet of Supreme Court of Texas case files; and 6,000 cubic feet of files from the Court of Criminal Appeals. When added to the archival materials currently stored at the State Records Center, these projections translate to more than 63,000 cubic feet of additional archival storage space needed by 2028.

ZAVALA BUILDING RENOVATION

Beginning in the early 1990s, as the limits of available archival storage space became increasingly apparent, TSLAC sought assistance in developing a solution to the state's future archival needs. Various studies and analyses were conducted from 1992 to 2004. The studies provided options for addressing the state's historical document storage needs, including: the 1998 recommendation of a new facility of approximately 189,000 gross square feet expected to serve the state's archival needs through 2025 at a cost of $50 million; consideration of including archival space in the development and construction of the Bob Bullock State History Museum; and multiple studies related to renovations and expansions of the existing Zavala building. Each of these studies was deemed either insufficient or too costly to implement. During the same period, four other Capitol Complex buildings of similar age received approval and funding for full renovations: the Texas Supreme Court

Building, constructed in 1960 and renovated in 1995; the Sam Houston Building, constructed in 1959 and renovated in 1999; the John H. Reagan Building, constructed in 1961 and renovated in 2003; and the Insurance Annex Building, constructed in 1959 and renovated in 2004.

The Seventy-ninth Legislature, Regular Session, 2005, appropriated $15.5 million, in General Obligation (GO) bond funding, for rehabilitation of the Lorenzo de Zavala State Library and Archives Building, based on a $21.2 million request by TSLAC for the modernization, renovation, and remodeling of the facility. The request included funding of additional projects at the State Records Center and the Sam Houston Regional Library and Research Center, which were ultimately not approved. TSLAC stated in its original request that the renovation project would result in energy efficiencies, increased customer service opportunities, reduction of operational resource needs, and increased application of technology. The Texas Facilities Commission (TFC), began project planning work in September 2005, and by April 2006 had awarded contracts for architectural, engineering, and construction management services.

By the summer of 2006, TSLAC and TFC had determined the project, as originally funded, was inadequate to meet the ongoing needs of the archival collection, a result of an incomplete initial feasibility study, upon which the funding was based, and increasing building material costs during the interim period. This discovery lead TSALC to request an additional $22 million to increase the scope of the renovation project to include archival storage expansion, bringing the total proposed project budget to $37.5 million. The Legislature chose not to fund this additional amount in the 2008–09 General Appropriations Act, and instead appropriated $11.9 million in unspent GO bonds from the original project issuance. The Legislature also included a rider in the 2010–11 General Appropriations Act, stipulating that approved funding for the renovation of the Zavala building does not include amounts for expansion of the existing facility.

Renovation construction work at the Lorenzo de Zavala building began on May 5, 2008. Still concerned that the approved funding did not meet the agency's critical need for expanded archival space, TSLAC again requested supplemental funding for the project in August 2008, seeking $25.5 million for additional environmentally appropriate storage. The Legislature again appropriated unexpended balances from previous project appropriations but did not approve any additional funding to increase the scope of the project. The renovation project was completed in July 2010 at a final cost of $15.6 million. While the facility has undergone significant improvements, including modernization and service area expansion, the storage areas remain unable to accommodate the state's full archival collection, increasing available storage capacity from 33,482 cubic feet to 39,883 cubic feet, still short of the state's total need.

RECORDS MANAGEMENT PROGRAM

Established in 1947, the state records management program provides document storage to state agencies, institutions of higher education, and local government entities through the State Records Center (SRC) facility located in central Austin. The original 43,000 square-foot facility opened in 1972, and was expanded by 90,000 square-feet in 1988. The SRC holds an average of 345,000 cubic feet of state and local government records for 85 agencies and organizations, and provides vault storage facilities for microfilm and microfiche, as well as storage of disaster recovery materials. Due to space limitations of the primary archival building, 38.5 percent of the state's archival collection is also housed within the SRC. At the beginning of fiscal year 2010, 80 percent of the allocated storage space at the SRC was consumed by the top 10 client agencies, lead by the Office of the Attorney General with more than 86,000 cubic feet of records on file. The SRC storage consumption of the top 10 agencies, in fiscal year 2010, is listed in **Figure 1**.

FIGURE 1
STORAGE CONSUMPTION OF THE TOP 10 STATE RECORDS CENTER CLIENTS
FISCAL YEAR 2010

AGENCY	VOLUME (CUBIC FEET)
Office of the Attorney General	86,720
Texas Department of Insurance	39,095
Department of State Health Services	36,268
Texas Department of Criminal Justice	34,904
Texas State Library and Archives Commission	21,572
Texas Commission on Environmental Quality	20,843
Texas Workforce Commission	14,125
Comptroller of Public Accounts	11,547
Secretary of State	6,326
Health and Human Services Commission	6,133

Source: Texas State Library and Archives Commission.

TSLAC is statutorily authorized to operate the SRC on a cost-recovery basis by assessing user agencies fees based on their use of the facilities. Texas Administrative Code further requires that the fees be sufficient to recover all direct and indirect costs of providing storage services. Fee schedules are approved by TSLAC by July 31 for the following fiscal year, but can be amended during the year to respond to changes in the program's cost structure. The approved records storage services fee schedule for fiscal year 2010, unchanged from fiscal year 2009, is set at $0.1875 per cubic foot per month for materials stored in the general stack areas, $0.0425 per roll of microfilm stored in the microfilm vault, and $1.54 to $2.38 per cubic foot of material stored in the disaster recovery vault. A minimum fee of $25 per year will be charged to any agencies incurring a cost of less than that amount.

Although the SRC is operating at near full capacity, its use by agencies in storing non-archival inactive records is not mandated by statute; agencies have several options when records storage and management activities are required. Even some of the center's largest client agencies, such as the Office of the Attorney General (OAG), use various storage options to manage the large amount of documentation created by government operations. The OAG uses approximately 22,000 square feet of a multi-agency state facility in southeast Austin to store case files, rulings, opinions, open records decisions, and records related to the operations of the State Office of Risk Management. Other agencies—such as the Department of Aging and Disability Services, the Department of Transportation, the Department of Criminal Justice, and the Department of Health Services—contract with private document storage operators or lease private storage facilities for inactive records storage.

TALKING BOOKS PROGRAM

The SRC also houses the Texas Talking Books Program, in a 62,000 square foot annex. The Talking Books Program is a federal initiative to assist individuals who cannot read standard print materials due to a visual, physical, or learning disability. TSLAC began providing Talking Book services in 1931, with the inception of the National Library Service program, and today provides reading materials to clients in recorded, Braille, and large-print formats. Recorded materials, in both cassette tape and digital formats, comprise 88 percent of the program's 700,000-piece collection. The program is operated primarily as a distribution center to facilitate the delivery of program materials to approximately 18,000 Texas residents, with 8,000 to 12,000 items moving in and out of the facility each day.

While a limited amount of physical space is allocated to processing the receipt and distribution of materials, more than 50,000 square feet is assigned to the storage of permanent collection items. To minimize the storage space required, the program uses a computer-assisted inventory management system that allows for non-traditional organization of storage stack shelving; instead of holding shelf space open for items distributed out to clients, the program can fill spaces with incoming items and easily locate them when requested using the inventory tracking system. This control system also allows the program to store the most requested, or newest, items closest to processing areas, reducing the collection time necessary to complete a request. Due to federal regulations, most of the program's materials are considered archival, and are retained as a permanent collection. On a national level, the program is transitioning from cassette tape materials to digital recordings, which require less space. Due to this transition, expected to reach completion during fiscal year 2011, additions to the program's collection are not expected to increase space needs in the near future.

ELECTRONIC STORAGE OPTIONS

During the last decade, much discussion has centered on the transition from traditional paper-based archives to electronic document storage, as a solution to reduce both physical space and program costs. Unfortunately, modern electronic document storage does not realize the potential that was once promised. Using a combination of in-house scanning operations and out-sourced contracts, TSLAC has undertaken several large document imaging projects and now hosts more than 300,000 digital documents. Agency resources allow only for the scanning of standard letter and legal sized documents, requiring contracts for the processing of maps or other items of non-standard size. Examples of imaging projects undertaken by the agency in the last 10 years include: Texas maps; Republic of Texas claims files; Adjutant General Military Services Records; and Confederate Pension applications. Other digitization projects have resulted in online history exhibits, provided through the agency's public website. Such projects, however, represent a fraction of the 250 million historical documents available through the state archives.

Many of the items that have been digitized by TSLAC are high use files and the electronic record provides for the continued preservation of fragile original materials while simultaneously increasing access to the record. Even after materials are scanned, the digitized document is not

considered a permanent archival record and the original paper document is retained. Much of the reason for this distinction is related to future access to the document. Original paper documents are directly accessible to researchers, no machinery or software is necessary to read or view the recorded information; digitized records require technological assistance to recover the stored data. From an archival perspective, the continuous development of new electronic storage media and refreshment of software systems creates the potential to lose access to records maintained only through electronic means. As one data storage medium replaces another—as in the transition from floppy disks, to compact disks, to removable memory devices and portable hard drives—the files must be reformatted, or migrated, to the new medium to preserve access to the documents. Such data migrations, due to either hardware or software changes, are historically required every three to five years.

Aside from the resource intensive nature of continuous migrations, the financial costs associated with electronic storage is substantial. A 2006 analysis by TSLAC estimated the initial cost of digitizing the current state archives, using preservation scanning, at $923 million, with an additional $5 million required to create microfilm backups of the digital images. In addition to these initial costs, the state would also face annual costs of at least $1.9 million for electronic media storage and unknown expenses associated with necessary periodic migrations, as described above. None of these expenses would resolve concerns over the long-term archival applicability of electronic documents.

INSUFFICIENCY OF TSLAC COST RECOVERY METHODOLOGIES

TSLAC is authorized to operate the SRC document storage program on a full-cost recovery basis, charging state and local agencies a unit fee for access to the facility. The fiscal year 2010 fee schedule called for a monthly storage fee of $0.1875 per cubic foot, roughly the size of a standard file box. Monthly fees are also set for microfilm storage, $0.0425 per roll, and disaster recovery vault storage, $1.54 to $2.38 per cubic foot. These fees remained unchanged from fiscal year 2009.

In a July 2010 report, the Texas State Auditor's Office (SAO) found that TSLAC had not maintained sufficient documentation to support fee schedules published in fiscal year 2009 and 2010, and as of April 10, 2010, had not approved a cost-recovery schedule for fiscal year 2010. The audit also found that TSLAC's fees for document storage have remained substantially unchanged for the last decade. Analysis by Legislative Budget Board (LBB) staff confirmed the conclusions of the SAO findings and identified structural deficiencies with the calculation of the program's fee schedule. First, both direct and indirect costs were under-calculated, allowing for the recovery of only 65.5 percent of total actual program costs in fiscal year 2010. Many items, such as employee benefit costs, maintenance costs incurred by TFC, and agency indirect expenses are not fully included in the TSLAC cost calculations. State agencies also experienced increases in numerous costs for personnel, energy and utility services, fuel, and building maintenance fees in recent biennia. For example, TSLAC experienced an average annual growth rate in utility expenses of 5.6 percent for fiscal years 2006 to 2009. These increases are not reflected in recent price schedules. The second structural error is the agency's allocation of program costs across the maximum available storage capacity of the facility, a level that is operationally unachievable and approximately 15 percent higher than the recent usage of the facility. TSLAC should be using actual usage statistics as a base to allocate fees to unit measures.

LBB analysis of fiscal year 2010 costs concluded that TSLAC should be charging $3.96 per year, or $0.33 per month, for each cubic foot of records stored within the facility. Actual cost for microfilm storage is $0.88 per year, $0.07 per month; and disaster recovery storage options average $47.52 per year, $3.96 per month. In total, fiscal year 2010 program operating costs exceeded collections by approximately $800,000. **Figure 2** shows a comparison of TSLAC approved storage fees for fiscal year 2010 and LBB calculated actual unit costs in the same year.

Recommendation 1 would require TSLAC to calculate the cost-recovery fee schedule for its state and local government document storage program based on the fully articulated costs to the state. This recommendation would be implemented by restructuring TSLAC appropriations to reflect a shift of fund sources for the program from General Revenue Funds to interagency contract revenue. While General Revenue Fund appropriations were previously needed to offset the costs of the storage program not recovered through fee schedule billings, Interagency Contract Funds would be available to cover full operational costs through the development of a complete fee structure. General Revenue Funds would be reduced and a corresponding increase to Interagency Contract Funds would be applied to support program operations.

FIGURE 2
COMPARISON OF COST RECOVERY FEE CALCULATIONS
FISCAL YEAR 2010

	2010 TSLAC PUBLISHED FEE		2010 LBB CALCULATED COST		DIFFERENCE	
MATERIAL	MONTHLY	YEARLY	MONTHLY	YEARLY	MONTHLY	YEARLY
Stack Storage	$0.19	$2.25	$0.33	$3.96	($0.14)	($1.71)
Microfilm Storage	$0.04	$0.51	$0.07	$0.88	($0.03)	($0.37)
Disaster Recovery	$2.38	$28.56	$3.96	$47.52	($1.58)	($18.96)

NOTE: TSLAC disaster recovery storage service prices range from $1.54 to $2.38 per cubic foot per month.
SOURCES: Legislative Budget Board; Texas State Library and Archive Commission.

Because use of the TSLAC records storage program by state agencies is not statutorily mandated, it is possible that current program clients could choose to consider private sector alternatives once the methodology change is implemented. For example, the statewide term contract for document storage services for fiscal year 2010, negotiated by the Comptroller of Public Accounts Texas Procurement and Support Services division, carries a rate of $1.62 per year per cubic foot of materials. While private sector contracts can include additional costs not incurred by SRC clients, such as delivery fees and initial set-up fees, the state spent an estimated $2.34 million more on SRC document storage operations during fiscal years 2009 and 2010 combined than equivalent private sector options. A statewide contract, based on actual use, enacted by a group such as the State Council on Competitive Government, would have the potential to further reduce costs through negotiated state pricing structures based on defined quantities. Several agencies use private storage contractors to supplement their use of the SRC with many reporting rates ranging from $1.93 to $3.85 per cubic foot for standard paper storage, comparable to SRC operations. These rates result in an average of $2.85 per cubic foot in fiscal year 2010, 28 percent less than the total cost-based rate TSLAC incurred for storage access at the SRC.

ARCHIVAL EXPANSION NEEDS

The permanent storage facility for the Texas archival collection, the Lorenzo de Zavala State Library and Archives building located on the eastern edge of the Capitol grounds, has storage space for 39,883 cubic feet of documents and artifacts. The state archival collection contains 55,993 cubic feet of materials, 21,572 cubic feet of which is temporarily housed within the State Records Center. However, storage areas available at the SRC cannot provide the security and protection required for long-term storage of archival quality documents. Ongoing building deficiencies, caused primarily by aging building systems, have resulted in inefficient utility and electrical systems, structural foundation failings, and leaks. These types of deficiencies affect the facility's ability to protect archival documents from the harmful effects of moisture, mold, air pollutants, and fire during long-term storage. These concerns will be compounded by future accessions of new documents into the collection. Two outstanding accessions of significant size have been temporarily deferred due to lack of immediately available space, including: 10,000 cubic feet of State Supreme Court files; and 6,000 cubic feet of files from the Court of Criminal Appeals. Additionally, 26,000 cubic feet of archival quality materials are estimated to be added to state collections by 2028. These estimates, when added to the archival documents stored in the SRC, demonstrate a need for a minimum of 63,000 cubic feet of additional archival document storage space.

Recommendation 2 proposes developing additional state-owned archival quality physical space to house the state's current collection of historical documents and artifacts, as well as estimated near-term additions to the collection. Such space could be developed in a number of different ways with various associated costs and long-term impacts. The following three options have been identified by LBB staff as the most appropriate based on long-term, mid-term, and short-term considerations: (1) build a new state-owned archival facility on underused land within the capitol complex; (2) renovate the State Records Center to offer adequate protection for the continued storage of archival materials; or (3) contract with a private vendor for the use of temporary archival storage space.

Option 1, the construction of a second state-owned archival facility within the borders of the Capitol Complex, is a long-term solution to address the state's archival storage needs. The proposed building, estimated at approximately 105,000 square feet, would house the state's Talking Books Program, administrative space for archive-related programs, and

80,000 cubic feet of archival storage capacity. Based on current estimates, this amount of space could sustain state archival programs past the 2030 fiscal year. To avoid excessive land acquisition costs, the building could be constructed on underused state land within the Capitol Complex currently occupied by a street-level parking. The facility would cost approximately $40 million and could be offset by an estimated $10 million through the sale of the SRC and adjacent property. The SRC property is located in the middle of a highly desirable residential neighborhood in the northern sector of central Austin. If financed through the issuance of GO bond debt, the facility would carry an estimated total 20-year cost of $65.5 million, $40 million in GO bond proceeds, and $25.5 million in General Revenue Funds.

A secondary approach to Option 1 would be to leave the SRC intact and construct a new facility to meet only the archival storage needs of the agency, leaving the Talking Books Program and related administrative space in its current space within the SRC. This option would cost an estimated $28.9 million, resulting in total 20-year bond financing costs of $47.3 million, $28.9 million in GO bond proceeds, and $18.3 million in General Revenue Funds. Either option to construct a new facility could be funded from existing GO bond authorizations by appropriating the funds to the Texas Facilities Commission, who would oversee the project.

Option 2, a mid-term solution, would seek to renovate the SRC to adequately accommodate the storage of archival quality records. Archival space created at the SRC would be most appropriate for the storage of the state's least accessed records due to the distance from public document observation spaces within the Lorenzo de Zavala building. The building would require extensive renovation work, including possible corrections to the building's foundation, structural framework, installation, heating and cooling systems, and electrical systems. Based on recent state renovation work, such a project is estimated to cost between $18 and $20 million. Pursuing Option 2 would systematically reduce the amount of SRC space available to the cost recovery program for the storage of state and local documents not included in the archival collection. Because TSLAC is not included as an approved agency in existing GO bond authorizations, debt funding of a renovation or expansion project would require the authorization of new GO bond authority listing the agency as a potential recipient.

Option 3 is a short-term option that would provide for the adequate protection and storage of state archival records, through the use of a private storage contractor, while a long-term solution was developed, funded, and implemented. This option would limit public access to archival records and create additional program costs when related records were requested for public viewing. The estimated cost to move the 21,572 cubic feet of archival documents stored at the SRC and the 16,000 cubic feet of deferred accession documents to a private facility for a year of storage is approximately $129,000. The estimated biennial contract cost for fiscal years 2012 and 2013 would total $215,000 in General Revenue Funds, based on current state contract rates.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would result in an estimated net savings of $1.6 million in General Revenue Funds during the 2012–13 biennium. These savings are based on reducing appropriations of General Revenue Funds to the TSLAC to support the State and Local Records Storage Program through an increase in Interagency Contract and Appropriated Receipt revenue generated by operating the program as full-cost recovery.

Recommendation 1 proposes requiring TSLAC's State and Local Records Storage Program to operate as a full cost-recovery program, thereby increasing the program's revenue to cover the total costs to the state of offering the related services. These recommendations would result in an estimated Interagency Contract and Appropriated Receipt revenue increase of approximately $800,000 per year, allowing for a reduction in appropriations of General Revenue Funds to the TSLAC.

Recommendation 2 proposes developing or obtaining new physical space to house archival storage of state records added to the collection in the mid- to long-term. This recommendation could be implemented in several ways, including: (1) construction of a new facility to house archival storage, possibly offset by the sale of the existing SRC; (2) renovation of the SRC to provide adequate storage space for archival quality materials; or (3) obtaining sufficient private sector storage space to temporarily house the archival records stored at the SRC. Cost estimates anticipate that primary funding for Options 1 and 2 would be provided through the issuance of General Obligation bonds. Biennial costs for Options 1, 2, and 3 are estimated from $215,000 to $1.4 million in General Revenue Funds, with five-year costs ranging from $473,000 to $14.1 million in General Revenue Funds. These potential costs are not shown in **Figure 3**.

FIGURE 3
FIVE-YEAR FISCAL IMPACT OF REQUIRING FULL-COST RECOVERY OF TSLAC RECORDS STORAGE OPERATIONS FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS
2012	$808,413
2013	$808,413
2014	$808,413
2015	$808,413
2016	$808,413

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes provisions addressing Recommendation 1, implemented through method of finance changes for TSLAC appropriations. The introduced 2012–13 General Appropriations Bill does not contain provisions to implement Recommendation 2.

OPTIMIZE THE USE OF STATE PARKING FACILITIES

The Texas Facilities Commission maintains 17,267 parking spaces in 46 lots and garages in the Austin area, 85 percent of the agency's total parking capacity statewide. More than half of this parking capacity is located within the Capitol Complex corridor and downtown Austin, areas of limited parking options for non-state employees commuting to work and school. Average daily usage rates for state parking lots and garages in central Austin range from 21 percent to 94 percent, averaging 72 percent. Given a 28 percent average vacancy level, optimizing the use of the state's parking facilities would increase revenue and improve the management and maintenance efficiency of this large set of state assets.

Through the development and continued maintenance of the state's building inventory, Texas provides access to parking facilities free of charge to state employees occupying government offices. The state expends General Revenue Funds for this employee benefit. Requiring employees to financially contribute to the maintenance of these facilities would enable the state to reduce the General Revenue cost of maintaining state facilities.

CONCERNS

- An average of 4,835 parking spaces in state-owned facilities remain unused in the Austin area on a daily basis, costing the state directly in maintenance and management expenses and indirectly in potential lost revenue.
- State parking facilities are underused, with 88 percent achieving average daily usage rates of less than 90 percent and 27 percent maintaining average rates of less than 60 percent. This excess capacity represents both a direct cost to the state and a loss of potential revenue.
- Texas provides state-employees free parking within government facilities, a benefit that carries a direct cost to the General Revenue Fund from maintaining and managing the parking structures. The Texas Facilities Commission incurred an average annual cost of $977,000 in operational and utility expenses for state parking facilities from fiscal year 2008 through 2010.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Government Code to authorize the Texas Facilities Commission to lease excess parking spaces in state-owned lots and garages to private motorists during regular working hours.
- **Recommendation 2:** Include a contingency rider in the 2012–13 General Appropriations Bill that would appropriate $120,715 in General Revenue Funds to the Texas Facilities Commission, and increase the agency's full-time-equivalent position cap by one position to administer a private leasing program.
- **Recommendation 3:** Amend the Texas Government Code to authorize the Texas Facilities Commission to lease underused parking lots and garages to institutions of higher education or local governments.
- **Recommendation 4:** Amend the Texas Government Code to charge state employees a parking fee for access to Texas Facility Commission maintained lots and garages and remove the exemption for state employees to use contract managed parking facilities free of charge during non-business hours.

DISCUSSION

The Texas Facilities Commission (TFC) maintains 4.7 million square feet of usable space in 58 buildings within the Austin city limits, primarily general office space located in areas immediately surrounding the state capitol building. To support the 17,610 state employees working in these buildings the agency also manages 46 parking facilities, lots and garages, in Austin containing 17,267 parking spaces. More than half of this capacity, 10,589 spaces, is located in the Capitol Complex and the downtown business district. TFC also manages more than 3,000 parking spaces in 12 parking lots and garages located outside the Austin area.

Several non-capacity factors contribute to state employee demand for parking spaces. According to the U.S. Department of Transportation, 21 percent of Texans commute to work by means other than driving a personal vehicle, immediately reducing parking demand by state employees. Other factors reducing parking demand include employees' use of sick leave or vacation time, telecommuting

and variable shift schedules, attending offsite meetings, and conducting site visits or work outside of home office settings.

These factors reduce the demand for state parking by agency employees. Actual use of state-owned parking facilities resulted in an average daily usage rate of 72 percent, leaving 28 percent of available parking spaces vacant. Vacancy rates at individual parking facilities range from a low of 21 percent to a high of 94 percent.

More efficient management and non-traditional use of these assets could generate additional revenue for the state. By leasing individual excess parking spaces, leasing entire underused parking facilities, and charging employees for access to state facilities, the state would realize additional recurring non-tax revenue streams to offset related maintenance, utility, and building costs.

OPTIMIZING CAPACITY WITH NON-TRADITIONAL DEMAND

The state has an opportunity to realize a new non-tax stream of revenue by leasing unused individual parking spaces in state-owned parking facilities managed by TFC. The availability of commercial parking in Austin's central business district has been declining due to the recent redevelopment of private parking facilities into office buildings and condominium towers. Much of the remaining parking available is divided into parking reserved for building occupants, monthly contract parking, and daily rate pay parking. Secure, controlled-access contract parking on the northern edge of downtown Austin, in the blocks adjacent to the Capitol Complex, can range from $110 per month to $165 per month for reserved parking. Daily pay parking rates in Austin are typically capped between $5 and $10 per day, with hourly rates starting around $3 for the first hour.

The north side of the Capitol Complex is immediately bordered by the University of Texas' Austin campus. Although the university operates an extensive inventory of garage facilities, the campus faces continual parking shortages for students, staff, faculty, and visitors. Parking fees at the University of Texas, Austin campus, range from $10 to $15 per month for surface lot passes and from $44 to $83 per month for garage access. Daily access to campus garages can cost between $3 and $18 per visit.

By leasing excess parking spaces in state-owned parking lots and garages the state would generate new non-tax revenue that could offset the maintenance and operational costs of state facilities while improving citizen access to business, government, and educational opportunities in the Austin area. Parking facilities operating at less than 90 percent capacity would be appropriate for inclusion in a leasing program. Facilities achieving usage levels above 90 percent would be more difficult to incorporate in a leasing plan because they lack sufficient overflow flexibility to accommodate visitors to state facilities and mid-term and seasonal growth in state employee numbers, in addition to leasing individual spaces.

Based on local statistics, lease rates for open contract parking in state facilities could range from $25 to $75 per month depending on specific demand, availability, and facility proximity to destination sites. Based on an average daily vacancy rate statistics for the immediate area, there are 2,982 excess spaces available for lease in state garages in the downtown Austin area. By leasing 40 percent of these spaces to private individuals at an average rate of $50 per month, the state would receive $715,647 in new revenue per year, or $1.4 million per biennium. At an upper range, the state could generate $4.3 million per biennium by leasing 80 percent of the available excess spaces at an average rate of $75 per month. **Figure 1** shows the potential yearly revenue projections for various rates based on the percentage of available excess parking spaces leased.

FIGURE 1
YEARLY REVENUE PROJECTIONS FOR PARKING LEASE PROGRAM

MONTHLY LEASE RATE	LEASING 40 PERCENT OF EXCESS SPACES	LEASING 60 PERCENT OF EXCESS SPACES	LEASING 80 PERCENT OF EXCESS SPACES
$25	$357,823	$536,735	$715,647
$35	$500,953	$751,429	$1,001,906
$50	$715,647	$1,073,470	$1,431,294
$75	$1,073,470	$1,610,206	$2,146,941

SOURCE: Legislative Budget Board.

Charging private motorists for access to state parking facilities during non-working hours was statutorily approved by the Legislature in 2003, providing TFC the ability to develop private, commercial uses for state-owned parking facilities in Austin outside of regular business hours. The program was implemented using a combination of contract parking operators and single-use event specific contracts with local entities, such as the University of Texas. Parking revenue from after-hours use totaled $778,158 in fiscal year 2009

and $774,324 in fiscal year 2010. Sixty percent of parking revenues are deposited to the General Revenue Fund with the remainder paid as sales tax payments and contractor fees. TFC has also entered into an agreement with Ballet Austin, providing 50 parking spaces for the ballet's teaching staff on the top floor of Garage N. TFC does not charge the ballet for this use. Through the implementation of this recommendation, allowing TFC to charge for parking in state facilities during working hours, the state could realize revenue from such operations.

Recommendation 2 provides the resources necessary to manage a program of leasing excess individual parking spaces within state facilities through a contingency rider in the 2012–13 General Appropriations Bill. In addition to appropriating a limited amount of parking revenue receipts, the rider would increase the TFC full-time-equivalent position cap by one position to staff the new operations. This rider would be contingent on the enactment of legislation amending Texas Government Code, Chapter 2165.

FULL FACILITY LEASE OPTIONS

Significantly underused facilities, those with usage rates below 50 percent, should be considered for more extensive leasing models. For such facilities it would be more efficient to lease the entire facility to a single university, local government, or non-profit entity rather than attempt to lease most of the excess spaces to individuals. By implementing Recommendation 3, the state could recover the cost of maintaining parking facilities through a flat-rate payment structure and receive a percentage of revenue collected by the lessee in their use of the facility.

While 12 percent of the state's current parking facilities might meet the classification requirements set above, not all would be suitable for full facility leases. Garages and lots identified for lease would need to be located within close walking distance of large universities, or local governmental or non-profit entities, such as hospitals and city offices, that have limited or insufficient parking. An appropriate opportunity would also require other immediately adjacent state parking with adequate excess capacity to absorb state employees displaced by the lease of a full facility. State parking garages B and G, located along San Jacinto Avenue between Sixteenth and Seventeenth Streets, meet these requirements. The daily usage rates of garages B and G are 32 percent and 35 percent, respectively. The garages are less than one block from multiple available open state parking facilities, with average vacancy rates ranging from 59 percent to 66 percent, adequate to fully accommodate state employees now using garages B and G. Finally, both facilities are located within two blocks of the University of Texas, Austin campus, which continues to struggle with limited parking options for its students, staff, faculty, and visitors.

The state could generate an estimated $172,000 in new revenue annually by leasing garages B and G to the University of Texas at Austin through a 5- to 10-year split structure contract based on a set yearly lease rate and supplemental profit-sharing agreement. That level of revenue would address the maintenance and management costs of the facilities while retaining the properties in the state inventory as they continue to appreciate. Lease contract terms could be set at appropriate lengths to allow the state to continually re-evaluate the advantages of the lease operation and potentially return the facilities to use as state employee parking or convert the properties to another state use at a later date.

The University of Texas, Austin campus is not the only party with potential interest in leasing state garage facilities. There are several large hospital complexes within walking distance of the Capitol Complex, and the city of Austin has previously expressed interest in acquiring and operating existing parking facilities in the downtown business district.

EMPLOYEE ACCESS TO STATE PARKING FACILITIES

Texas provides state employees access to parking facilities near government offices free of charge. This is an employee benefit for which the state expends General Revenue Funds. During fiscal year 2010, TFC expended $1 million managing and maintaining parking facilities. Parking facility expenses increased in the current biennium after relatively flat total expenditures of $951,000 in fiscal year 2008 and $952,000 in fiscal year 2009. Implementation of Recommendation 4 would require state employees to contribute to the financial maintenance and upkeep of TFC parking facilities, through a monthly or yearly parking fee, allowing the state to continue to provide this benefit. This fee could be paid on a pre-tax basis resulting in additional savings to the state, through reduced FICA payments, and a reduction to individual state employee income tax liability.

During times of budget contraction, when the state is forced to consider various adjustments to benefits provided to state employees, the effect of changes made to state parking policies can be controlled by individual employee actions and, therefore, bear a lesser individual cost. Were the state to begin charging employees for access to state parking facilities during business hours, each employee could choose whether

to incur the related cost rather than alter their personal transportation patterns to avoid the new fee. While statewide projections indicate most employees would continue to use the parking facilities by continuing to drive their personal vehicles to work each day, there is a sub-set of state employees who would select an alternative form of transportation, such as bus or rail routes, car-sharing, biking, or car-pooling. Such decisions would have a positive effect on both the environment and traffic congestion in the urban areas where most state employees work.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would generate an estimated net gain of $5.5 million in General Revenue Funds during the 2012–13 biennium. The exact amount of new revenue is dependent on the number of facilities to which the recommendations are applied and the mix of recommendations applied to those facilities. **Figure 2** shows yearly revenue resulting from a conservative implementation of these recommendations.

FIGURE 2
FIVE-YEAR FISCAL IMPACT OF OPTIMIZING THE USE OF STATE PARKING FACILITIES
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/(COST) TO GENERAL REVENUE FUNDS	PROBABLE REVENUE GAIN/ (LOSS) TO GENERAL REVENUE FUND	PROBABLE ADDITION/ (REDUCTION) OF FULL-TIME-EQUIVALENTS
2012	($62,933)	$2,833,646	1
2013	($57,781)	$2,833,646	1
2014	($57,897)	$2,833,646	1
2015	($57,897)	$2,833,646	1
2016	($57,897)	$2,833,646	1

SOURCE: Legislative Budget Board.

Recommendation 1 proposes leasing individual parking spaces in state lots and garages with excess capacity to private motorists. Implementing this recommendation across 40 percent of the excess spaces available in Capitol Complex facilities at $50 per month would generate an estimated $1.4 million in General Revenue Funds during the 2012–13 biennium. TFC would require an additional full-time employee, at a total cost of $63,000 in the first year, to implement a parking lease program as described in Recommendation 1. Recommendation 2 provides these resources. Program staff would report to the director of the Facilities Leasing Division at TFC.

Recommendation 3 proposes leasing entire parking facilities for use by universities, local governments, or non-profit entities. Limited implementation of this recommendation as defined in the example to lease state garages B and G, would generate an estimated $344,000 in General Revenue Funds during the 2012–13 biennium. This recommendation could be implemented with existing agency resources at no additional cost to the state.

Recommendation 4 proposes charging state employees a fee to access state-owned parking facilities managed and maintained by TFC. Based on current use statistics, accounting for a 10 percent change in behavior, a $10 per month charge for open parking and a $25 per month charge for reserved parking would result in yearly revenue of $1.95 million, or a $3.9 million gain to the General Revenue Fund in the 2012–13 biennium.

The introduced 2012–13 General Appropriations Bill contains contingency rider language to implement Recommendation 2. The bill does not contain provisions for the implementation of Recommendations 1, 3, or 4 which require changes to existing statute.

MAINTAIN THE PENSION SOLVENCY OF THE EMPLOYEES RETIREMENT SYSTEM AND THE TEACHER RETIREMENT SYSTEM

In recent years due to budget shortfalls and increased disclosure, greater attention has been given to the funding status of public pension plans in the United States. Texas has two major public pension systems at the state level, the Employees Retirement System for state employees and the Teacher Retirement System for employees of public school districts and public institutions of higher education. Unlike other states, Texas' two major systems are not in a state of funding crisis, but both systems have long-term funding challenges that need to be addressed to maintain solvency.

FACTS AND FINDINGS

- ♦ In August 2010, both the Employees Retirement System and the Teacher Retirement System, had a funded ratio, or ratio of assets to liabilities, greater than 80 percent, which experts generally consider an adequate level of funding for a sustainable pension system.
- ♦ Due to state constitutional requirements, Texas has made annual payments to the Employees Retirement System and the Teacher Retirement System. Foregoing annual contributions due to lean budget years or boom investment returns is one reason several other state pension systems are experiencing major solvency issues.
- ♦ Pension benefits paid by the Employees Retirement System and the Teacher Retirement System do not include an automatic cost of living adjustment for retirees. Not including this feature in the state plans has helped prevent major funding issues, but it also means the value of retirees' annual pension decreases over time.

CONCERNS

- ♦ Defined benefit retirement plans such as the Employees Retirement System and the Teacher Retirement System are dependent upon investment earnings and full funding by employer and employee contributions. If either of these factors underperform, these plans incur unfunded liabilities.
- ♦ Though the funded ratio is greater than 80 percent for both systems, each system has experienced a decline in funded ratio that began in 2001. As of August 2010, the funded ratio for the Employees Retirement System was 83.2 percent and for the Teacher Retirement System, it was 82.9 percent. Though an 80 percent funded ratio is considered adequate, best practices for pension systems would be to maintain a funded ratio of 100 percent or greater to help systems weather downturns in the financial market.
- ♦ The Employees Retirement System and Teacher Retirement System pension plans incur more liabilities than are funded by annual contributions to the systems. Both systems have unfunded liabilities. As of August 2010, the unfunded liability was $4.8 billion for the Employees Retirement System and $22.9 billion for the Teacher Retirement System.
- ♦ Though the state has not missed annual contributions to the Employees Retirement System and the Teacher Retirement System, there have been multiple years when the systems have not received enough state and member contributions to cover normal costs, which are the costs of pension plan benefits and expenses for each year. There were multiple years when the systems did not receive enough contributions to meet the actuarially required contribution based on statutory requirements intended to provide a level of funding that both meets normal costs and reduces a portion of unfunded liabilities.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Maintain the solvency of the Employees Retirement System and the Teacher Retirement System pension funds by implementing one of three options: (1) fully funding both systems; (2) refining current system benefits to make current funding levels sufficient to fully fund the systems; or (3) developing a new structure for the pension plans that features elements of both defined benefit and defined contribution plans.
- ♦ **Recommendation 2:** Include a rider in the 2012–13 General Appropriations Bill that requires the Employees Retirement System and the Teacher Retirement System to explore options to maintain

pension plan solvency and to submit a report to the Governor and the Legislative Budget Board no later than September 1, 2012, if the Legislature does not enact any options under Recommendation 1.

DISCUSSION

During an era that spanned the period from the Great Depression through the early post-World War II years, the state's two largest pension systems, the Teacher Retirement System (TRS) and the Employees Retirement System (ERS), were created to provide a secure retirement benefit for the populations served. TRS was approved by voters in November 1936 to provide retirement service and disability benefits to teachers and school administrators; legislation later expanded the system to cover all employees of public schools and universities. ERS was approved by voters in November 1946 as the state employee pension.

The goal of providing public education employees and state employees with a secure retirement benefit as a part of the overall compensation package has continued today. As of the end of fiscal year 2010, the ERS and TRS systems had a membership of 1.3 million, including approximately 937,000 active members and 367,000 retirees or beneficiaries. Approximately $8.0 billion in benefits were paid by the systems to retirees and their beneficiaries during fiscal year 2010. **Figure 1** shows an overview of system membership.

As shown in **Figure 1**, in fiscal year 2010 the average retiree annuity from ERS was $18,372 and for retirees in TRS, $21,354. Among other states' defined benefit plan for state employees, in 2009 the average annuity ranged from $8,600 to $35,400. For 2009, the average annuity of $18,191 from ERS was close to the median among 49 states for the same plan year, and was less than the average of $19,034. The range in annuity payments is a product of the differences between plan design, benefit level, regional cost of living, and salary levels relative to cost of living.

FIGURE 1
ERS AND TRS MEMBERSHIP PROFILE, AUGUST 2010

MEMBER INFORMATION	ERS	TRS
Active members	142,490	834,060
Average Annual Pay	$41,022	$43,916
Average Years of Service	9.2	9.7
Average Age	43.8	44.2
Retired members/Beneficiaries	79,311	296,491
Average Annual Benefit	$18,372	$21,354
Average Years of Service	22.5	24.6
Average Age of Current Retirees	67.7	70.2
Average Age at Retirement	58.4	59.8

Sources: Legislative Budget Board; Employees Retirement System; Teacher Retirement System.

Both ERS and TRS have an important economic impact on Texas. Ninety-eight percent of the $1.4 billion in retirement benefits paid by ERS in fiscal year 2010 were paid to retirees living in Texas. During fiscal year 2010, TRS paid almost $6.7 billion in benefits to its retirees, of which 95 percent were paid to retirees living in Texas. The benefits paid to ERS and TRS members in fiscal year 2010 represented 1 percent of the state's total personal income.

The research summarized in this report was undertaken to address growing concerns over the costs of public pensions and offer a menu of options to maintain the long-term solvency of the plans for legislative consideration based on policy preferences. This report includes a discussion of current plan features and performance for both systems, trends in other state systems, and a discussion of plan structures. The approach assumes the Legislature prefers to maintain a mandatory retirement system for the covered populations and offer a secure, stable retirement benefit to plan members that serves as a recruitment and retention tool for covered employers.

RETIREMENT PLAN TYPES AND FEATURES

There are three main types of retirement plans public and private sector employers offer: defined benefit (DB) plans; defined contribution (DC) plans; and hybrid plans, which include DB and DC features. In addition to plan type, another key feature of a plan is whether or not participation by the member is mandatory or voluntary. All 50 states have a mandatory retirement plan for state employees, most of which are defined benefit plans, and most states offer voluntary retirement plans to supplement benefits from the mandatory plan and Social Security. These voluntary plans are typically defined contribution plans offered by states as either a 401(k) or 457, permissible under federal law.

Each plan type has advantages and disadvantages. DB plans offer greater flexibility in plan design, reward longer service employees, can be less costly to administer than DC plans, and offer a stable, secure retirement benefit to plan members. However, DB plans are vulnerable to not being fully funded; the benefit they provide is harder to explain; and the benefits are not as portable as a DC plan. In a DB plan, the investment risk is borne by the employer.

DC plans, in contrast, are easier for employees to understand, represent no investment risk to the employer, benefits are typically portable, and are often more attractive to the younger or shorter service employee. However, DC plans do not necessarily offer a secure, stable retirement benefit for the employee. Hybrid plans, which have both DB and DC elements, have a mix of the DB and DC advantages and disadvantages, depending on plan design.

ERS and TRS, along with many states and local governments throughout the United States, offer employees a DB plan design. A DB plan is one where the benefit received by the employee upon retirement is certain and determined using a formula. A DB plan offers a guaranteed annual or monthly benefit for the retiree.

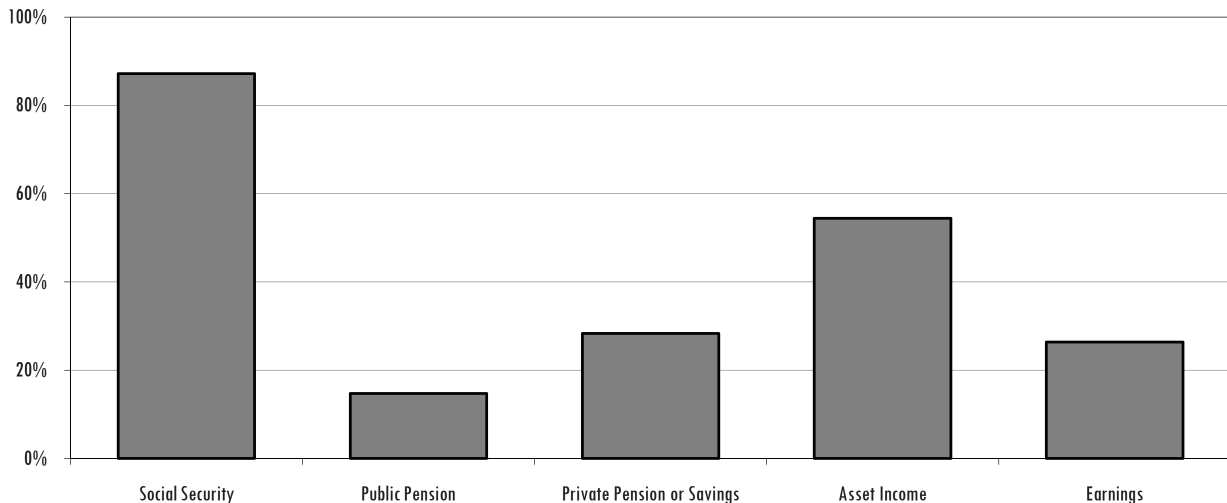
One of the concerns regarding DB plans such as ERS and TRS is funding the benefit costs. The experience of these two systems shows that about 20 percent of benefits are paid by employer contributions. As of fiscal year 2010, the value of the ERS system assets break down into the following: 20 percent from state contributions; 18 percent from employee contributions, and 62 percent from investment income and market appreciation. TRS reports a similar asset composition. Within the TRS system, as of fiscal year 2010 investments account for approximately 61 percent of the system assets, while the state and employer contributions account for 19 percent, and member contributions account for 20 percent. This means that for every $1.00 in plan assets for both ERS and TRS, approximately $0.20 is paid by the state/employer from taxpayer dollars.

When considering the types of plans offered to an employee group, other types of retirement benefits such as Social Security and personal savings are important factors. ERS promotes the three-legged stool of retirement, which includes the ERS pension plan benefit, Social Security, and personal savings such as a 401(k) or a 457 plan. The more diverse the sources of retirement benefits and savings are, the less vulnerable a retiree is to changes in any one source. Based on data from the Social Security Administration (SSA), **Figure 2** shows the percentage of Americans 65 or older and their sources of retirement income including: Social Security; public pensions; private pensions or regular payments from savings such as a 401(k); asset income from other investment accounts and real estate; and earnings from salaries or self employment.

As shown in **Figure 2**, most of the U.S. population age 65 or older receive Social Security and have asset income. A smaller percentage of persons receive income from public pensions, private pensions or savings, or earnings. Further data from the SSA shows that 10 percent of persons age 65 or older do not receive any income; 52 percent receive income from only one source, mostly Social Security; 36 percent receive benefits from two sources of retirement income; and 2 percent receive income from three or more sources.

Members covered by ERS also pay into Social Security. According to the Government Accountability Office (GAO), 96 percent of all U.S. workers are covered by Social Security, while the majority of remaining four percent are usually public employees. According to the National Association of

FIGURE 2
SOURCES OF RETIREMENT INCOME FOR PERSONS AGE 65 OR OLDER, 2008



SOURCES: Legislative Budget Board; Social Security Administration.

State Retirement Administrators (NASRA), one-fourth of state and local government employees are not covered under Social Security, including almost half of public school teachers. In seven states, most or all public employees are not covered by Social Security. In Texas, while ERS members are covered, approximately 80 percent of TRS members do not pay into Social Security. For those school districts that do not contribute to Social Security, the cost to employ a teacher or other type of school employee is less expensive than it otherwise would be. By not making Social Security payments for these members there is a cost savings for the taxpayer on the front end. However, the lack of Social Security makes district employees like teachers more dependent on the defined benefit pension provided to them by TRS. Any plan changes need to consider whether or not a member is covered by Social Security.

RETIREMENT INCOME NEEDS AND SALARY REPLACEMENT RATE

To cover living expenses during retirement, financial planners recommend a minimum salary replacement rate of 70 percent to 80 percent for retirees. However, there is a difference between salary replacement and the amount of income needed. Retirement income needs will vary considerably depending upon the circumstances each individual faces when entering retirement, including health, living situation, family responsibilities, and financial obligations, such as a mortgage that is not yet paid off.

When measuring the value of a pension plan, it is helpful to know how much of pre-retirement salary the pension is intended to replace and how that benefit fits among other sources of retirement funds. **Figure 3** shows the average monthly benefit for those members retiring in fiscal year 2009 for ERS and TRS based on years of service groupings.

As shown in **Figure 3**, for ERS retirees who retired during fiscal year 2009, the salary replacement rate of retirees' final average salary ranged from 16 percent to 73 percent, depending on years of service. The higher the years of service, the greater the amount of salary replaced. Fiscal year 2009 retirees from TRS had a similar experience. For TRS retirees, the salary replacement rate of retirees' final average salary ranged from 14 percent to 69 percent depending on years of service. Under ERS, if a member elects to takes a standard annuity upon retirement, depending on years of service the member can replace anywhere from 0 percent to 100 percent of their final average salary, which is based on either the 36 highest or 48 highest months of earnings. If an employee covered under ERS accrues 43.5 years of service or more, the ERS standard annuity payment will replace 100 percent of the employee's final average salary. Under TRS, the provisions are similar, but if a member has 44 years of service or more, it is possible for a member to replace more than 100 percent of his or her final average salary, although higher compensation levels ($195,000 or more per year for Plan Year 2010) are restricted by the Internal Revenue Code.

Several state employee pension plans have restrictions on the amount of final average salary that can be replaced. States such as Colorado and Idaho permit no more than 100 percent of final average salary replacement in benefit determination. Other states set a maximum of final average

FIGURE 3
ERS AND TRS ANNUAL BENEFIT BASED ON YEARS OF SERVICE, FISCAL YEAR 2009 RETIREES

	YEARS OF CREDITED SERVICE					
ERS	**5 TO 10**	**10 TO 15**	**15 TO 20**	**20 TO 25**	**25 TO 30**	**30+**
Average Annual Benefit	$5,898	$9,650	$15,675	$22,582	$31,495	$42,519
Average Final Average Salary	$38,003	$37,052	$41,421	$46,219	$51,376	$58,402
Number of Members Retiring	210	491	519	632	553	410
Percentage of Salary Replaced	16%	26%	38%	49%	61%	73%

	YEARS OF CREDITED SERVICE					
TRS	**5 TO 10**	**11 TO 15**	**16 TO 20**	**21 TO 25**	**26 TO 30**	**30+**
Average Annual Benefit	$4,218	$7,885	$14,598	$21,089	$31,331	$43,573
Average Final Average Salary	$29,884	$32,999	$40,326	$45,245	$54,722	$62,942
Number of Members Retiring	1,278	1,230	1,749	2,629	3,065	2,971
Percentage of Salary Replaced	14%	24%	36%	47%	57%	69%

SOURCES: Legislative Budget Board; Employees Retirement System; Teacher Retirement System.

salary replacement less than 100 percent. These states include Georgia, with a maximum of 90 percent and Iowa, with a maximum of 65 percent. For these states, the replacement rate restriction is based on the highest possible benefit, usually called a standard annuity or straight-life annuity, which pays an annuity only during the life of a member. If a plan member takes advantage of any of the survivorship payment options, the standard annuity payment is reduced to reflect the cost of providing an annuity that covers both the member and covered survivors. In addition to these limits, the Internal Revenue Code limits the amount of salary that qualified pension plans may use in calculating benefits.

Some states have specific targets for salary replacement or retirement income for their members. The Georgia State Employees' Pension & Savings Plan (GSEPS), a hybrid plan featuring both DB and DC components, is intended to replace approximately 59 percent of salary for a member with 30 years of service. The Employees' Retirement System of Georgia anticipates that GSEPS and Social Security combined could replace 90 percent or more of salary. Idaho suggests that its state employee pension plan, when paired with Social Security, should provide between 50 percent to 95 percent of retirement income, depending on years of service. Under its two-part hybrid, the Oregon Public Service Retirement Program (OPSRP) is designed to replace an estimated 60 percent to 65 percent of final average salary, with approximately 45 percent of salary being replaced by defined benefit component and 15 percent to 20 percent being replaced by the defined contribution component.

In considering pension plan design, if ERS and TRS were to communicate a specific salary replacement target to members, based on average years of service at retirement, then members could better understand their pension benefit and how it might compare with retirement income sources such as Social Security or personal savings through a 401(k). Having a salary replacement rate target for ERS and TRS member benefits, based on average years of service, would greatly affect plan design by managing members' expectations and help them plan for retirement.

Social Security also replaces a portion of a retiree's pre-retirement income. Much like pension benefits under ERS and TRS, an employee's Social Security earning replacement rate will depend upon how many years an employee was in the workforce and what salary was earned over time. The SSA provides general ranges for Social Security earnings replacement from retirement benefits which are:

- for the worker earning minimum wage over his or her lifetime, a replacement rate of 60 percent;
- for the worker earning average wages over his or her lifetime, a replacement rate of 42 percent; and
- for the worker earning maximum wages over his or her lifetime, a replacement rate of 26 percent.

Social Security benefits are weighted to favor the low wage earner since he or she has fewer opportunities for saving. In addition, Social Security is intended to provide a retirement income level that meets basic costs of living. In 2010, the average monthly Social Security benefit for a retired worker was $1,164, with a maximum possible monthly benefit of $2,346.

Under the ERS plan, a regular class employee who retires at age 62 with 25 years of service and whose average final salary totaled $40,000 would receive a monthly benefit of $1,916 from ERS. When paired with an estimated Social Security benefit of $900, the monthly amount in retirement income from ERS and Social Security is $2,816, representing a final average salary replacement rate of 84 percent.

MEASURES OF PENSION PLAN FUNDING PROGRESS

DB pension plans are generally pre-funded, meaning that contributions are made during the working career of the employee with the objective that at the time of retirement, those contributions and their investment earnings will be sufficient to pay the entire cost of the employee's pension benefits. To determine the health of a DB pension plan and how well it is meeting pre-funding objectives, most plans commission a periodic actuarial valuation prepared by a certified actuary. An actuarial valuation is a financial check-up, using accepted practices and measures, to:

- identify plan contribution requirements;
- measure funding progress, including unfunded liabilities;
- meet disclosure requirements, such as those set forth by the Government Accounting Standards Board (GASB); and
- provide a basis for pricing any plan changes.

ERS and TRS have actuarial valuations performed at the end of every fiscal year. The actuarial valuation includes metrics that assess how well a plan is funded. Some of the key metrics include funded ratio; normal cost amount and rate; unfunded

actuarial accrued liability (UAAL); and the actuarially sound contribution amount and rate.

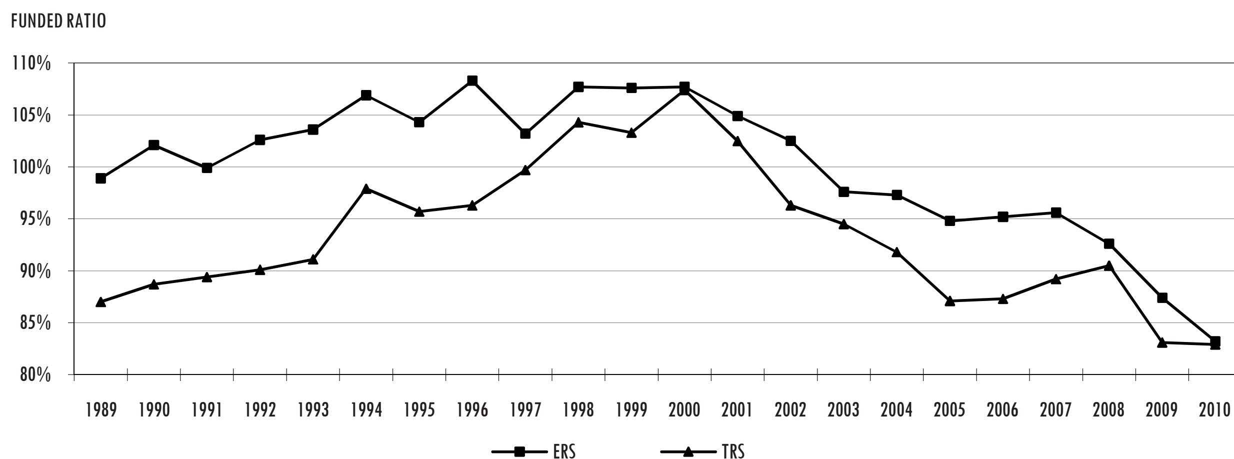
The funded ratio is a ratio of assets to liabilities. According to the Government Accountability Office (GAO), plans are considered adequately funded if they have at least an 80 percent funded ratio. While a one-year snapshot of funded ratio status is important, the trend of funded ratio over time is indicative of a plan's financial health. As of August 2009, the funded ratio for ERS and TRS was greater than 80 percent for both systems, but the ratio for each system has declined since fiscal year 2001. **Figure 4** shows the trend of the end of fiscal year funded ratio for each system.

As **Figure 4** shows, from fiscal years 1989 to 1997, there was a wider gap in the funded ratio between ERS and TRS, with ERS having a higher funded ratio historically. As of August 2010, the funded ratio for ERS was 83.2 percent and for TRS was 82.9 percent. Among all state employee pension plans, the average funded ratio for 2009 was 77 percent, which places the funded ratios for ERS and TRS above average during that time period. According to actuaries, best practices for pension systems would be to maintain a funded ratio between 100 percent to 125 percent to help systems weather downturns in the financial market.

Another key metric determined in the actuarial valuation is the normal cost amount and rate, which is one piece of the contributions that plans need to be fully funded. Normal cost is the portion of the present value of pension plan benefits and expenses allocated to each valuation year. There are three methods of calculating normal cost, two of which can create increases in the year-to-year normal cost of an individual member. To keep contribution rates relatively stable from year to year, most public plans use the Entry Age Normal Cost Method, which allocates the cost of benefits for each plan member on a level basis over the earnings or service of the member between plan-entry age and assumed-exit age. If all normal costs for a plan member are met each year and the plan experience matches actuarial assumptions, then the costs of a member's benefits would be fully funded when the member retires. However, actuarial assumptions will not be met every year and pension systems will experience either overfunding, resulting in surpluses, or underfunding, resulting in unmet liabilities. Evaluating the plan assumptions compared to actual experience, and adjusting the normal cost rate accordingly, highlights the need to conduct actuarial valuations on a regular basis. From fiscal years 1989 to 2010, ERS did not receive enough state and employee contributions to meet the normal cost rate in 11 of 23 years. During the same period, TRS did not receive enough state and employee contributions to meet the normal cost rate in 3 of 23 years.

If a plan is underfunded, it will result in the plan having an unfunded actuarial accrued liability (UAAL), meaning the actuarial accrued liability exceeds the actuarial value of plan assets. If a plan has an UAAL, that unfunded liability must be paid off over time as part of the annual plan contributions. This need will be in addition to meeting the normal cost rate. In August 2009, ERS had an UAAL of $3.4 billion. For the same period, TRS had an UAAL of $21.6 billion. The difference in UAAL between the two plans is in part a reflection of the difference in the number of members in each

FIGURE 4
FUNDED RATIO TREND FOR ERS AND TRS, FISCAL YEARS 1989 TO 2010*



*Funded ratio reflected is for the end of each fiscal year.
Sources: Legislative Budget Board; Employees Retirement System; Teacher Retirement System.

plan. ERS has about one-quarter of the members of TRS. **Figure 5** shows the trend in end of fiscal year actuarial accrued liability, including years when the plans were overfunded, reflecting a surplus, and years when the plans were underfunded, reflecting an UAAL.

As shown in **Figure 5**, ERS has had a smaller range in the overfunding or underfunding of the actuarial accrued liability. TRS has had a wider range of change than ERS in being overfunded or underfunded, particularly since 2005. However, the UAAL in fiscal year 2010 is the highest it has been in the last 30 years for both systems.

Along with the normal cost amount and rate, another metric related to annual plan contributions is the actuarially sound contribution amount and rate, which for ERS and TRS is defined by the Texas Government Code, Sections 811.006 and 821.006, respectively. The actuarially sound contribution rate is one that would meet normal costs and pay off the annual portion of any UAAL over a period of no more than 31 years. From fiscal years 1989 to 2011, ERS did not receive enough state and employee contributions to meet the actuarial sound rate in 9 of 23 years. During the same period, TRS did not receive enough state and employee contributions to meet the actuarially sound contribution rate in 7 of 23 years.

Figure 6 shows the trend of ERS contribution rates, including the actual contribution rate, the normal cost rate, and the actuarially sound rate.

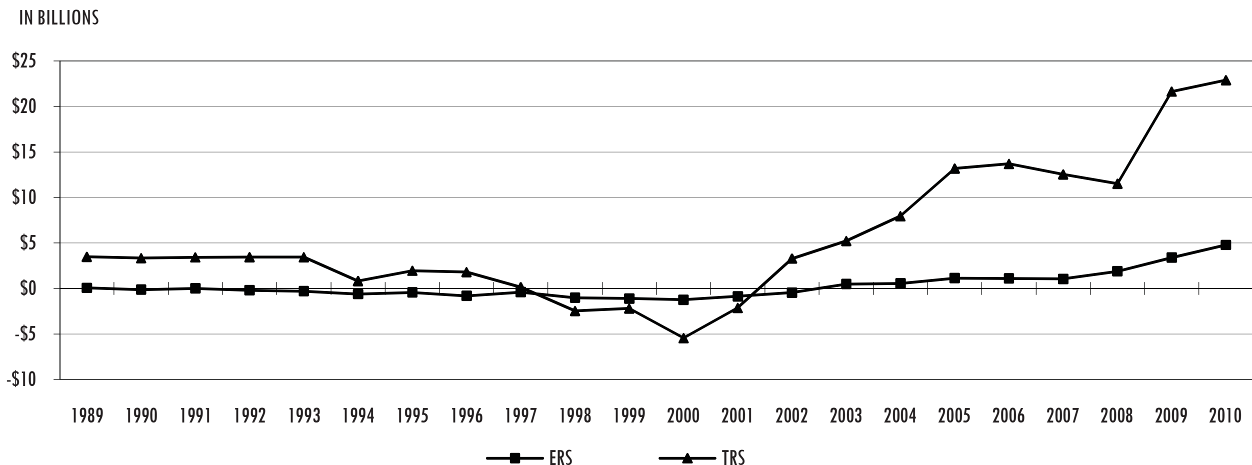
As shown in **Figure 6**, from fiscal years 1989 to 1995, the actual contribution rate, comprised of the state and member contributions, met or exceeded both the normal cost and actuarially sound rates. Beginning in fiscal year 1996, the actual contribution rate dropped to 12 percent and remained there until fiscal year 2007. Since fiscal year 1996, the actual contributions to ERS have not consistently met the normal cost and actuarially sound rates, which is a contributing factor to the increase in the system's UAAL.

Figure 7 shows the trend of TRS contribution rates, including the actual contribution rate, the normal cost rate, and the actuarially sound rate.

As shown in **Figure 7**, from fiscal years 1989 to 2001, the actual contribution rate, comprised of the state and member contributions, met both the normal cost and actuarially sound rates. Beginning in fiscal year 1996, the actual contribution rate dropped from 13.71 percent to 12.4 percent and remained there until fiscal year 2008. Since fiscal year 2004, the actual contributions to TRS have generally met the normal cost rate but have not consistently met the actuarially sound rate, which is a contributing factor to the increase in the system's UAAL.

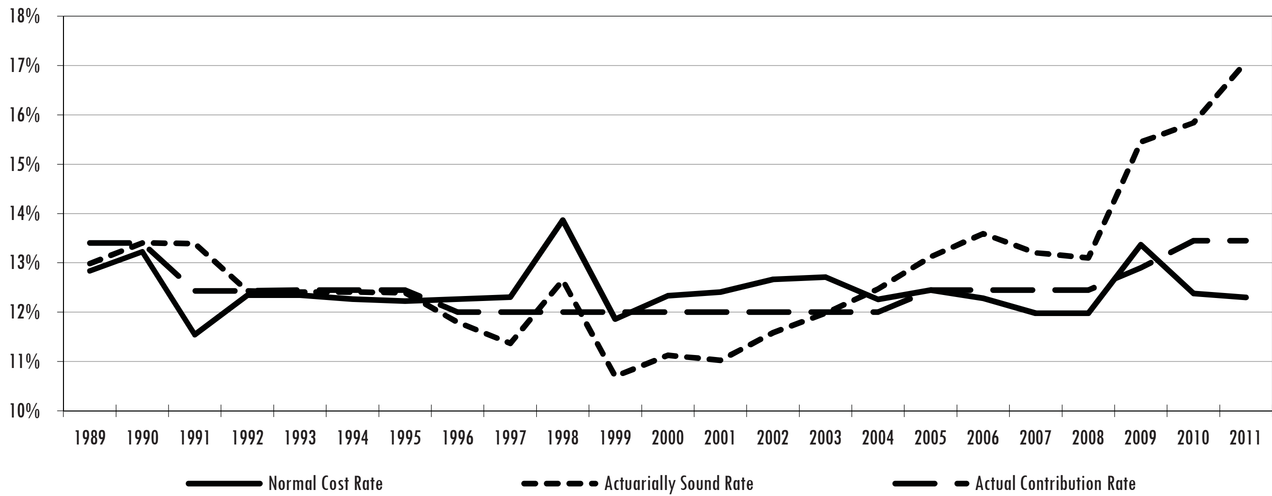
In addition to the annual actuarial valuation, another best practice for monitoring pension health is to perform a periodic experience study that reviews the key assumptions used in actuarial valuations and makes recommendations for changes to plan assumptions based on recent plan experience

FIGURE 5
ERS AND TRS TREND OF OVERFUNDING OR UNDERFUNDING FOR ACTUARIAL ACCRUED LIABILITY*
FISCAL YEARS 1989 TO 2010



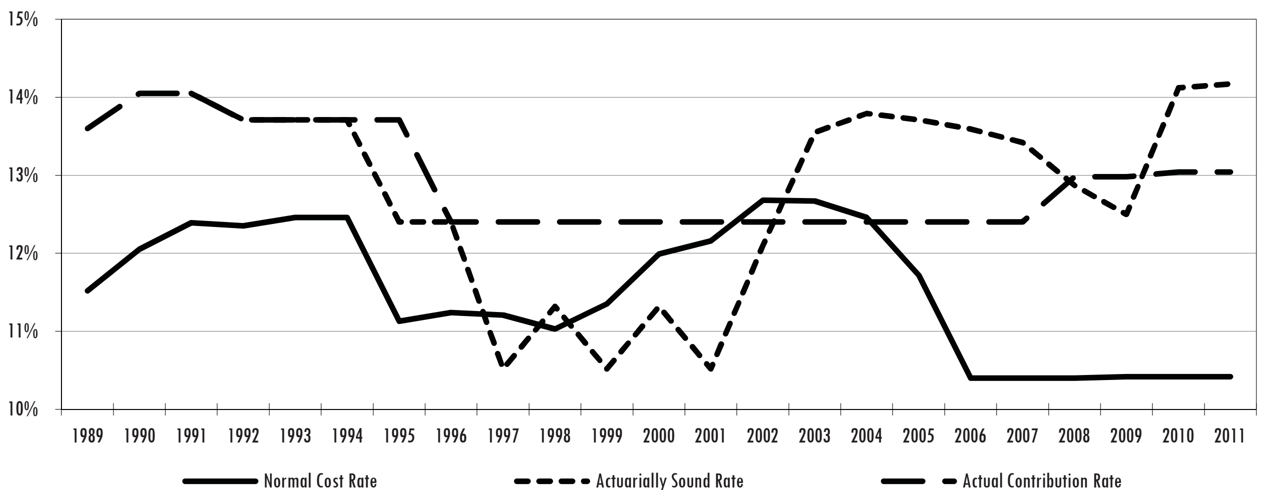
*Negative amounts represent overfunding, or a surplus, and positive numbers represent underfunding, or an UAAL, for the end of each fiscal year.
Sources: Legislative Budget Board; Employees Retirement System; Teacher Retirement System.

FIGURE 6
TREND OF ERS CONTRIBUTION RATES, FISCAL YEARS 1989 TO 2011



NOTE: The normal cost rate and actuarially sound rate for each year represent the projected cost rates by the previous year's valuation. The actual contribution rate is the amount contributed during the year.
SOURCES: Legislative Budget Board; Employees Retirement System.

FIGURE 7
TREND OF TRS CONTRIBUTION RATES, FISCAL YEARS 1989 TO 2011



NOTE: The normal cost rate and actuarially sound rate for each year represent the projected cost rates by the previous year's valuation. The actual contribution rate is the amount contributed during the year.
SOURCES: Legislative Budget Board; Teacher Retirement System.

compared to those assumptions, such as investment earnings, rate of retirement, and mortality rates. ERS and TRS perform experience studies every five years and the most recent experience studies for both systems were completed in 2008.

DEFINED BENEFIT PLAN FUNDING CHALLENGES

According to policy researchers and professionals in the pension field, such as the Pew Center on the States, multiple factors contribute to the funding challenges DB plans face. These factors include:

- volatility of plan investments;
- failing to making regular contributions to the plan or making contributions that fail to cover normal costs or unfunded liabilities;
- unfunded benefit increases;

- early retirement incentives;
- cost of living adjustments (COLAs);
- sharing excess returns;
- return to work retirees, who will receive a pension and a salary; and
- spiking final salaries through overtime, sick leave, or last minute raises prior to retirement.

Of the factors mentioned above, all but the volatility of plan investments are factors that the state can control or significantly influence for ERS and TRS. Even given market volatility, the state can influence investment earnings through prudent investment practices. Investments earnings comprise approximately 60 percent of plan assets for ERS and TRS, so the impact of the financial market is significant. While the investment policies and practices used by the ERS and TRS boards are important to the health of both plans, this report focuses on the elements of pension plans for which the Legislature and system administrators have the most control. These elements are the plan design options for the two retirement systems, which greatly affect the costs for the state and employee, and the benefit level received by the member upon retirement.

One of the key factors in the health of ERS and TRS pension funds, especially compared to other states, is that the state has not missed annual contributions to the two systems. Under the requirements of Article 16, Section 67 of the Texas Constitution, the state must pay between 6 percent and 10 percent of an employee's salary into the system, while the employee must contribute a minimum of 6 percent. These provisions were added to the constitution in 1975. By comparison, according to the Pew Center on the States, several of the states with serious funding issues in their pension plans including Colorado, Illinois, Oklahoma and New Jersey missed or severely underfunded annual payments. While Texas has not missed annual payments to ERS and TRS, it has not always paid the full amount required to cover normal costs or pay off a portion of the unfunded liability. Both systems have had years when state and employee contributions did not meet normal costs, the actuarially sound rate, or both.

Another important factor in pension plan health is appropriate funding of benefit changes. One benefit change that has proved problematic for other public systems is the inclusion of an automatic Cost of Living Adjustment (COLA). Neither the ERS Regular Employee Class nor TRS include an automatic COLA. Among state employee plans most closely matching ERS, 35 plans have an automatic COLA, usually set to a certain range and often tied to the Consumer Price Index (CPI). These plans have annual COLAs that range from 0 percent (if there is no inflation and the COLA is CPI-based), to a maximum of 6 percent. Generally, COLAs compound from year to year. Not including this feature in the state plans has helped prevent solvency issues, but it also means the value of retirees' annual benefit decreases over time.

In lieu of adding a COLA, both ERS and TRS have occasionally provided other post-retirement benefit increases. One ad-hoc supplement has been in the form of a 13th check, which was given to ERS retirees six times between fiscal years 1994 and 2001 at a total cost of $201 million. TRS has only had one 13th check in its history, paid in fiscal year 2008 at a cost of $359.7 million. The total cost of the 13th checks is less than each system's annual contribution. However, the 13th checks were a supplemental benefit increases and not promised benefits for which there was a legal obligation to fund. There have been other instances of post retirement increases in both systems, such as general annuity increases, retroactive multiplier changes, or ad-hoc COLAs. For ERS, a portion of these increases had a cost of almost $600 million from fiscal years 1990 to 2001. The challenge raised by 13th checks or other post retirement benefit increases is that the state does not pre-fund benefit increases for retirees and therefore it supplements retiree benefit payments with a bonus payment in some years when funding is available. However, the state is not always contributing sufficient amounts to fund the plan in a given year. As a result, the Legislature has appropriated funds for increases for retirees that could have been used to maintain the health of the ERS and TRS pension funds and eventually pay accrued benefits for which there is a legal obligation to pay.

If the Legislature would like to maintain the current level of benefit and plan features under ERS and TRS, under Recommendation 1, Option 1, it would require increased contributions to achieve a fully funded plan. Within each of the systems' Legislative Appropriations Request (LAR), the two systems approached meeting the actuarially sound rate differently.

In its 2012–13 LAR, ERS requested funds to meet the full projected actuarially sound rate of 15.84 percent for the ERS pension plan, which assumed a 6.5 percent employee rate and 9.34 percent state rate. To meet the actuarially sound

rate would require appropriations of $1.1 billion in All Funds for the 2012–13 biennium.

TRS did not request funds to meet the full actuarially sound rate as ERS did. Instead, TRS requested an incremental increase of 0.5 percent per year in the state contribution rate to work towards meeting the actuarially sound rate over a period of several years. In its 2012–13 LAR, TRS requested funds to meet the projected actuarially sound rate of 13.6 percent for fiscal year 2012 and 14.1 percent for fiscal year 2013 for the TRS pension plan, which assumed a 6.4 percent employee rate. To meet the actuarially sound rate would require appropriations of $4.3 billion in All Funds for the 2012–13 biennium.

LEGAL CONSIDERATIONS FOR PLAN CHANGES

Depending on state law and constitutional provisions, as well as federal requirements, benefits earned under a DB pension system at a private or public employer are considered to be implicit contractual rights. Generally, if an employer chooses to make changes to the plan or benefits accrued, almost any change is legal and permissible for future hires. Making benefit reductions for current retirees is usually not allowed. For the remaining group, active and inactive members who have not yet retired, some changes are permitted. Permissible changes may depend on whether or not an active member is vested, or how far a vested member is from retirement. It would be difficult to change any benefits earned to date, but it is possible to change the benefit accrual for future service of current members depending on the change considered, such as applying a new multiplier for service earned after a specific effective date.

ERS AND TRS PLAN DESIGN OPTIONS FOR PENSION SOLVENCY

To ensure the long-term solvency of the ERS and TRS DB plans, the Legislature can employ a variety of strategies. How solvency is achieved and maintained is a policy choice based on what type of retirement the state wants to provide to employees. If the Legislature wants to preserve the current benefit levels and plan features, under Recommendation 1, Option 1 it would need to fund the plans at the actuarially sound rate as recommended by each plan's actuaries and system administrators. If the Legislature would like to maintain the defined benefit plan structure but change some of its features to make it more affordable, the Legislature and system boards could implement plan design changes while maintaining the DB structure. Plan design changes under Option 2 could involve retirement eligibility and benefit formula.

RETIREMENT ELIGIBILITY

Age and years of service requirements for retirement eligibility have an impact on the health of a defined benefit system. Initially, to be vested in a retirement plan, a member must meet a minimum number of service years. Being vested means a member is eligible to receive retirement benefits if the other requirements for retirement are met. The average vesting period among all state employee DB plans is 5.8 years; 27 out of the 49 states with vesting information available use a vesting period of five years.

Once a vesting period is met, plan members must meet other retirement eligibility requirements. ERS and TRS use the Rule of 80, meaning the employee's combined age and years of service must total 80. At ERS, employees beginning work after September 1, 2009 who retire before age 60, incur a reduction in annuity of 5 percent each year prior to 60 up to a maximum reduction of 25 percent. Other states have an average normal retirement age of 62, with a range between ages 50 and 67. Among the 14 states that use a "Rule of" requirement for retirement eligibility:

- four states use the Rule of 80;
- five states use the Rule of 85;
- one state uses the Rule of 87;
- one state uses the Rule of 88; and
- three states use the Rule of 90.

Virginia is an example of a state that recently made significant changes to its DB plan. Under Virginia Retirement System (VRS) Plan 2, which affects members beginning employment after July 1, 2010, the normal retirement age from the plan matches whatever that individual's normal retirement age is under Social Security. Currently, the normal retirement age under Social Security ranges from 65 to 67, depending on year of birth. The alternative retirement eligibility for members under VRS Plan 2 is to meet an age and years of service requirement of 90, making it a Rule of 90, as compared to the Rule of 80 under the Texas ERS and TRS plans.

In August 2010, the average age of all ERS retirees at retirement was 58.4. For TRS, the average age of retirees at retirement was 59.8. If the Legislature wanted to make further changes to the ERS and TRS retirement eligibility for

future employees, revising the minimum age or changing the "Rule of" requirement would be options although it may be less desirable since changes were made in 2009 for ERS.

DEFINED BENEFIT PLAN BENEFIT FORMULA

Within a DB retirement plan, the traditional retirement benefit formula consist of three parts: years of service, final average salary, and the benefit multiplier. In most state retirement systems that offer a DB plan, the formula for benefit determination is:

Years of Service (X) Final Average Salary (X) Benefit Multiplier = Retirement Benefit

These three components are multiplied in order to determine the member's annual retirement benefit. To alter the benefit level received by the member, adjustments can be made to the requirements for calculating final average salary and the multiplier used for benefit determination.

FINAL AVERAGE SALARY

Final average salary can be computed in many ways. Two of the factors for final average salary include the number of years or months covered in the computation and the period for which those years or months must fall within for the purposes of computing final average salary. Among the DB plans in other states that most closely match the Texas ERS plan, the period used to calculate final average salary ranges from 24 to 60 months with a median period of 36 months and an average period of 44 months among 49 states.

For the ERS plan, final average salary for members starting prior to September 1, 2009, is based on the highest average 36 months of salary. For those members starting after September 1, 2009, based on changes from House Bill 2559, Eighty-first Legislature, Regular Session, 2009, final average salary is based on the highest average 48 months of salary. Under TRS, average final salary is determined using the highest five years of salary after legislative changes made in 2005.

With the development of Plan 2 within the Virginia Retirement System (VRS), one of the changes Virginia made in addition to retirement eligibility involved raising the highest average salary calculation from 36 months to 60 months. Rhode Island also made a similar change to its state employee plan beginning in September 2009, which changed the average final salary computation to the highest five years rather than the highest three years.

If the Legislature wanted to make further changes to the ERS and TRS plans, revising the final average salary requirement would be an option. To achieve a goal of having comparable plans, the Legislature may choose at some point to have the final average salary computation within ERS and TRS use the same period. Changes to the final average salary calculation may be less desirable since changes were made for ERS in 2009.

BENEFIT MULTIPLIER

The multiplier in the DB formula is the percentage used to determine a member's retirement benefit. The higher the multiplier, the higher the benefit will be. For ERS and TRS, the multiplier is set in statute. ERS increased its multiplier from 2.00 percent to 2.25 percent in fiscal year 1998. It was later increased to 2.3 percent in fiscal year 2001. TRS had a 2.0 percent multiplier from fiscal years 1980 until 1999, when the multiplier was increased to 2.2 percent. The TRS multiplier was last increased in fiscal year 2005 to 2.3 percent.

In reviewing the state employee defined benefit retirement plans among the 46 states using a multiplier in their formula, the multiplier ranged from 1.10 percent to 3.00 percent, with an average multiplier of 2.06 percent and a median of 2.00 percent. The multiplier used by both ERS and TRS is 2.3 percent, which is higher than the average among other states.

A benefit multiplier can be structured in several ways. To determine a retirement benefit, a single multiplier can be used, which 27 of 46 states including Texas use to determine benefits for their members. Among states that use a single multiplier, the average multiplier for currently earned service is 1.97 percent. Using a single multiplier means that the same multiplier is applied for benefit determination regardless of any other factors such as years of service.

Another way to structure a multiplier is to tier it, meaning more than one multiplier may apply depending on the criteria and whether or not a member meets that criteria. The most common basis for a tiered multiplier is years of service. In states where the multiplier is tiered based on years of service, there is a break point in service years where a higher multiplier applies. For example, in Wyoming's DB plan, a multiplier of 2.125 percent applies to the first 15 years of service. For years of service more than 15, a multiplier of 2.25 percent is applied when determining the benefit. Some states will apply the higher tiered multiplier to all years of service. In Montana, a multiplier of 1.785 percent is used for less than 25 years of service. However, if a member has 25

years or more of service, then a 2.0 percent multiplier applies. Prior to 1990, ERS used a tiered multiplier for years of service—1.8 percent for the first 10 years of service and 2.0 percent multiplier for more than 10 years.

There are other options for structuring tiered benefit multipliers. One way is to base the multiplier on age, which is what the California Public Employees Retirement System (CalPERS) does. Under CalPERS, members receive a multiplier ranging from 1.1 percent at age 50 to 2.2 percent for age 63 and older. Another option for structuring tiered multipliers is based on Social Security coverage. In Florida's DB plan for police officers and county employees, the state uses a 1.5 percent multiplier for those employees covered under Social Security and a 2.0 percent multiplier for those employees not covered under Social Security. Illinois' State Employees Retirement Systems (SERS) uses a similar strategy. Under SERS, the multiplier is 1.67 percent for those employees with Social Security coverage and 2.20 percent for those without coverage. This last type of tiered multiplier may be a good choice to consider for TRS since 80 percent of its members are employed by public school districts that do not pay into Social Security.

Figure 8 shows details on how a tiered multiplier is applied by state defined benefit plans from seven of the 19 states that use tiered multipliers based on years of service, age or Social Security coverage. These seven states represent the variety of options that can be used for structuring tiered benefit multipliers.

Among the 19 states that tier their plan multiplier based on years of service or age, the average highest multiplier used is 2.19 percent.

In addition to tiering multipliers based on years of service, age, or Social Security coverage, differential multipliers may be applied when a plan changes the benefit level permanently and applies those changes for service earned after the effective date. Delaware changed the multiplier used in its defined benefit plan for service starting in 1997. For service earned prior to 1997, the state applies a 2.0 percent multiplier for benefit determination. For service earned since 1997, Delaware applies a 1.85 percent multiplier. Sixteen states use this type of differential multiplier.

FIGURE 8
SELECT STATES USING TIERED MULTIPLIERS IN STATE EMPLOYEE DEFINED BENEFIT PLANS, OCTOBER 2010

STATE	FACTOR FOR TIER	MULTIPLIERS APPLIED
Arizona	Years of Service	2.10% for up to 19.99 years
		2.15% for 20.00 to 24.99 years
		2.20% for 25.00 to 29.99 years
		2.30% for 30.00 plus years
Alaska	Years of Service	2.00% for first 10 years
		2.25% for second 10 years
		2.50% for each year greater than 20
California	Age*	1.10% for age 50
		2.00% for age 55
		2.50% for age 63 and older
Illinois	Social Security	1.67% for covered members
		2.00% for those not covered
Kentucky	Years of Service	1.10% for less than 10 years
		1.30% for 10 to 20 years
		1.50% for 20 to 26 years
		1.75% for 26 to 30 years
		2.00% for more than 30 years
Massachusetts	Age*	1.00% for age 50
		1.50% for age 55
		2.00% for age 60
		2.50% for age 65 and older
Missouri	Social Security	1.70% for covered members
		2.50% for those not covered

*California's and Massachusetts' age-based tiering includes more levels than shown in this figure.
SOURCE: Legislative Budget Board.

One of the changes that could be implemented in ERS and TRS pension plans to maintain the long-term solvency of the retirement systems is to use a different multiplier. The options for multipliers include:

- lowering the current multiplier from 2.3 percent a lower amount, such as 2.0 percent;
- applying a new, lower multiplier to years of service after a certain date;
- developing a tiered multiplier based on years of service where a lower multiplier applies to a certain number of years, such as 25 years, and then a higher multiplier would apply for years in excess of that

point, which would provide employees an incentive to work longer; or

- developing a different multiplier for plan members covered by Social Security versus those service members not covered by Social Security (appropriate for TRS).

During the Eighty-first Legislature, Regular Session, 2009, ERS provided estimates on the fiscal impact of potential changes to the system. One such change involved lowering the multiplier to 2.0 percent, which at that time would have lowered the normal cost rate by 1.14 percent. For its August 2010 valuation, TRS estimated that reducing its multiplier to 2.2 percent would reduce cost in fiscal year 2012 by $67 million if applied to new hires or $168 million if applied to all future service accruals. Ideally any changes to the multipliers used by ERS and TRS would lower the overall costs for the systems, encourage employees to work longer, and recognize the different retirement risks relative to an employee's Social Security coverage status.

HYBRID PLAN OPTIONS

Alternative retirement plan structures can be considered as a method for reducing liabilities associated with the ERS and TRS retirement plans. Alternatives to a DB pension plan include hybrid plans, which contain features of both DB and DC plans. Under Recommendation 1, Option 3, a hybrid retirement plan for ERS and TRS would fit the criteria of being affordable while providing a stable benefit to employees. A DC only plan is not proposed because such plans do not provide a secure benefit or a good value for the state/employer compared to DB plans.

One consideration for whether or not to choose a hybrid plan is which employee population will benefit the most from a hybrid. Those employees who are younger or have fewer years of service will see the greatest benefit from a hybrid or DC plan. Those employees with a longer service will see the greatest benefit from a traditional defined benefit plan.

CASH BALANCE PLAN

One type of hybrid plan that could be used as an alternative to the current ERS and TRS plans is a cash balance plan. According to the U. S. Department of Labor (DOL), a cash balance plan is a defined benefit plan that defines the benefit in defined contribution terms, as a stated account balance. In a cash balance plan, typically the member's account is credited each year with a pay credit, usually a percentage of salary. Each account also receives an interest credit, which can be a fixed rate or a variable rate linked to an index such as the one-year Treasury rate. The increases and decreases in the plan's value do not impact a participant's benefit, so the investment risk is borne by the employer. Upon retirement, the payment options available to an employee are similar to a traditional defined benefit plan, including a standard annuity and survivorship options, but also include the option of a lump sum payment.

Among state employee pension plans, only one currently has a cash balance plan. The Nebraska Public Employees Retirement System (NPERS) was originally established as a defined contribution plan in 1964. After a 2000 benefit adequacy study, through statute the Nebraska Legislature created a mandatory cash balance plan for all new hires as of January 2003, with the option for current employees to join the new plan. The NPERS cash balance plan includes the following features:

- an employee contribution equal to 4.8 percent of salary;
- a state contribution equal to 7.49 percent of salary;
- investment of contribution by the plan;
- member accounts receive an interest rate credit equal to the greater of 5 percent or the federal mid-term rate plus 1.5 percent;
- multiple benefit payment options including lump sum and annuity; and
- the ability for a member to use his or her account balance to purchases an annuity with or without a COLA.

Since 2003 when the cash balance plan was implemented, the quarterly interest rate credit to NPERS member accounts has ranged from 5.00 percent to 6.55 percent. As of January 2010, the average annual retiree and beneficiary benefit from NPERS cash balance plan was $12,887, which is less than the average benefit from ERS and TRS.

In addition to the variable interest rate with a minimum guarantee, NPERS can add benefit enhancements. Each year, the Public Employees Retirement Board (PERB) uses the results of the annual actuarial valuation and the actuary's recommendation to determine if a benefit improvement can be made, such as payment of a dividend. The PERB is required to ensure benefit adequacy and must maintain a 10 percent asset cushion. Dividends are not issued when poor

market returns reduce plan assets. Effective 2007, any dividends granted must conform to the dividend policy where a dividend plus the annual interest credit cannot exceed 8.0 percent unless a majority of the PERB agrees. From calendar years 2004 to 2010, based on the previous year's market performance, the dividend ranged from 0 percent to 13.54 percent, though in 2009 and 2010 no dividends were paid.

The NPERS cash balance plan has existed for seven years, so at this stage it is difficult to determine how it will fare in the long term. However, as of the end of calendar year 2009, NPERS had a funded ratio of 93.9 percent and its unfunded actuarial accrued liability (UAAL) was less than 10 percent of payroll.

In Texas, there are two local government retirement systems designed as cash balance plans. These two systems are the Texas Municipal Retirement System (TMRS) and Texas County and District Retirement System (TCDRS), neither of which receive any state funding. Both plans cover multiple local government employers, have similar plan structures and features, and allow each participating local government employer to customize their plan based various options, including:

- employee contribution amount, as a percent of salary;
- level of employer matching contributions;
- vesting requirements; and
- upon retirement, monthly benefit offered as annuity with several survivorship options.

Figure 9 shows the specific details of the cash balance plan design for TMRS and TCDRS.

In both of these plans, the employer assumes the investment risk and the system is responsible for investing the contributions. TMRS and TCDRS have similar features overall and provided a comparable average annual benefit in 2009, though this benefit is less than the 2009 average benefit from ERS or TRS. TCDRS currently has a higher funded ratio and lower UAAL than TMRS. Within TMRS, in 2009 almost 70 percent of participating employers selected the 7 percent employee contribution rate and almost 60 percent of participating employers chose the 2:1 employer matching ratio.

FIGURE 9
CASH BALANCE PLAN FEATURES AND METRICS FOR THE TEXAS MUNICIPAL RETIREMENT SYSTEM AND THE TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM DECEMBER 2009

PLAN FEATURES OR METRICS	TEXAS MUNICIPAL RETIREMENT SYSTEM (TMRS)	TEXAS COUNTY AND DISTRICT RETIREMENT SYSTEM (TCDRS)
Created	1948	1967
Total Employers	837	602
Total Members	178,081	217,913
Member Contribution	5, 6, or 7%	4, 5, 6 or 7%
Employer Matching Rate	1:1, 1.5:1, or 2:1	Ranges from 1:1 to 2.5:1
Average Employer Contribution	13.50%	9.87%
Interest Rate for Member Accounts	Minimum 5%	7%
Unfunded Actuarial Accrued Liabilities	$5.2 billion	$1.9 billion
Funded Ratio	75.8%	89.8%
Average Annual Benefit	$15,737	$15,504

SOURCES: Legislative Budget Board; Texas Municipal Retirement System; Texas County and District Retirement System.

TWO-PART HYBRID

In addition to the cash balance plan, another type of hybrid plan is a two-part plan that includes separate DB and DC components. Generally, the DB portion of the plan will yield a smaller benefit than a plan that is wholly DB. As of November 2010, there are seven states that offer this type of retirement plan for their state or school district employees.

Generally, these two-part hybrids in other states have the following features:

- mandatory enrollment in the DB portion of the plan;
- optional or mandatory enrollment in the DC portion of the plan;
- a member contribution, which is usually deposited into the DC portion of the plan;
- a state contribution that is usually deposited into the DB portion of the plan;
- investments for the DB portion is chosen by state and investments for the DC portion is chosen by member; and

- a multiplier ranging from 1.0 to 1.5 percent for the DB portion of the plan, which reflects the smaller DB benefit associated with these plan types.

Figure 10 compares some of these features across the seven states that have these plans.

Among these seven states, Ohio and Washington offer a choice in plans. For Ohio, 2 percent of employees were enrolled in its hybrid plan as of December 2009. For Washington, 18 percent of employees were enrolled in its hybrid plan as of June 2009. As shown in **Figure 10**, all state hybrid plans except Indiana have been in effect for 10 years or less, so it is difficult to compare their funding levels. Georgia's hybrid plan has only been in effect since January 2009; Michigan's hybrid plan for school employees was implemented in July 2010; and Utah's new hybrid plan for public employees does not begin until July 2011.

Among these seven states, Indiana is the best example for how a two-part hybrid plan could work over the long term,

FIGURE 10
STATE RETIREMENT SYSTEMS WITH TWO-PART HYBRID PLANS, OCTOBER 2010

STATE	YEAR EFFECTIVE	MEMBERS	DEFINED BENEFIT ENROLLMENT	DEFINED CONTRIBUTION ENROLLMENT	STATE CONTRIBUTION	MEMBER CONTRIBUTION	DEFINED BENEFIT MULTIPLIER	INVESTMENT CHOICE
Georgia	2009	State Employees	Mandatory	Auto-enrolled with opt out	DB - 7.42% DC - 1.00-3.00%	DB - 1.25% DC - 1.00%; can be increased	1.00%	DB - State DC - Member
Indiana	1955	State, School, and University Employees	Mandatory	Mandatory	DB - 6.50%	DC - 3.00%; can be increased up to 10%	1.10%	DB - State DC - Member
Michigan	2010	Public School Employees	Mandatory	Auto-enrolled with opt out	DB – Actuarially Determined DC - 1.00%	DB - $510 plus 6.4% of annual salary above $15,000 DC - 2.00%, can be increased	1.50%	DB - State DC - Member
Ohio	2003	State, Education, and Local Employees	Members must choose among DB, DC, or hybrid	Members must choose among DB, DC, or hybrid	DB - 14.00% (plus health plan)	DC - 10.00%	1.00% (less than 30 years) 1.25% (more than 30 years)	DB - State DC - Member
Oregon	2003	State, Education, and Local Employees	Mandatory	Mandatory	DB - 5.81%	DC - 6.00%	1.50%	DB - State DC - State
Utah	2011	State, Education, and Local Employees	Members must choose between DC or hybrid	Members must choose between DC or hybrid	DB - 10.00%	DB – Up to 10% DC – Amount not needed for DB goes into DC	1.50%	DB - State
Washington	2002	State, University and Local Employees	Members must choose between DB or hybrid	Members must choose between DB or hybrid	DB - 5.31%; adjusts annually	DC - Ranges from 5.00-15.% depending on six options, some of which adjust with age	1.00%	DB - State DC - Member

SOURCE: Legislative Budget Board.

given that its plan has been in place since 1955. Indiana's Public Employees' Retirement Fund (PERF) is a well-funded plan, ending fiscal year 2009 with a funded ratio of 93.1 percent. For employees, the retirement benefits will vary. In 2009, for those PERF members receiving their DB benefit plus the DC benefit as an annuity, the average annual benefit for members with 25 to 29 years of service was $12,444. This benefit is significantly lower than a member under ERS and TRS with comparable years of service, where the average benefit would have been over $31,000.

These hybrid plan descriptions and other plan examples provide an overview of how cash balance plans and two-part hybrid plans have been implemented in other state and local governments. Another consideration for whether or not implementing a hybrid structure is an appropriate choice for Texas involves analyzing the impact such a plan structure would have on ERS and TRS.

EFFECT OF HYBRID PLAN OPTION ON ERS AND TRS

To determine what effects a hybrid plan option might have on ERS and TRS, actuarial analysis was performed using the ERS Regular Employee class to provide an example of potential benefit and fiscal impacts for plan members and the state. Using the 2009 ERS actuarial valuation, actuaries modeled the impact of changing to a cash balance plan and to a two-part hybrid comparable to other states that includes a DB component and a DC component.

The results from this analysis vary depending on the plan option, employee participation assumptions, and the perspective of either the state or the employee. For the cash balance plan, actuaries performed analysis with varying pay credits and freeze types. Pay credits represent a target percentage of salary contributed to the member's account. Freezes affect current employees who transition to the cash balance plan because benefit accruals under the current DB plan would be frozen. Under a hard freeze, only service for purposes of vesting and benefit eligibility continues, which is the more restrictive type of freeze. Under a soft freeze, compensation is not frozen and future compensation increases are reflected in the frozen benefits from the current DB plan. The plan options examined included:

- a cash balance plan with a hard freeze and 11 percent pay credit;
- a cash balance plan with a soft freeze and 8 percent pay credit; and
- a two-part hybrid with DB and DC components.

For the cash balance plan options, actuaries assumed an interest rate of 5.75 percent, based on an assumed annual average for the yield on the 30-year Treasury bonds plus the assumed annual inflation rate of 3.5 percent used by ERS. When developing a cash balance plan, any interest rate could be used, but it is important that actual earnings are enough to cover the interest rate credit members will receive and any expenses.

Within each of the alternative plan options, multiple employee participation scenarios were examined including:

- new hires with mandatory participation in the new option and mandatory participation for the future service of current employees;
- new hires with mandatory participation in the new option and optional participation for the future service of current employees (with a small percentage choosing to do so); and
- new hires with mandatory participation in the new option and no participation by current employees.

The actuarial analysis used the plan statistics from the 2009 ERS valuation, which included such items as number of current employees, projected salary increases over time, projected payroll growth, employment termination rates, retirement rates, and mortality rates as of August 2009.

From the employee perspective, the most beneficial plan largely depends on age and the projected length of service with the state. According to actuaries, the key elements driving the range of income replacement for a member covered under the current DB plan is age and years of service at plan transition. Younger employees who have short service with the state and terminate prior to retirement eligibility would likely benefit the most from one of the potential alternative plan options. Actuaries attribute this effect to the flatter benefit accrual pattern under the cash balance plan option and the DC component of the two-part hybrid option, where benefit accrual is based on each year's annual pay rather than final average pay formula used in the current DB plan.

By comparison, those employees at mid-career, with approximately 15 years of service, would be the population most sensitive to plan changes. Those employees who are closer to retirement eligibility and have lengthy state service years would have minimal impact if their future benefit accruals were to transition to an alternative plan.

To show the affect on various employees, the actuaries presented eight sample employees at various ages and length of state service, to provide an example of what might happen to their benefits if they transition to one of the alternatives. Each sample employee is assumed to earn a salary of $40,000 per year as of August 2009, with estimates for annual salary increases projected from that date forward. These benefit estimates show what the benefit amount would be at the time the employee is eligible for retirement under the Rule of 80, so it assumes continuous state service until that age. **Figure 11** shows the estimated monthly benefits for the eight sample employees.

As shown in **Figure 11**, the impact on the potential benefit for each sample employee largely depends on the combination of age and years of service at plan transition. The estimates in **Figure 11** are based on the employee reaching normal retirement eligibility. The shorter service employees receive smaller decreases in benefits compared to mid-career employees. Younger employees would likely experience a benefit increase under one of the hybrid options if they have a shorter career with the state and terminate prior to normal retirement eligibility. Mid-career employees would likely experience larger benefit reductions compared to shorter and longer service employees. Longer service employees in **Figure 11** are near or at the Rule of 80 retirement eligibility. Longer service employees would be expected to experience little or no cutback in their benefits under the hybrid plan options. Since sample employee H has already met the Rule of 80, the accrued monthly benefit is the same for all options under this example.

If all of the sample employees in **Figure 11** reach normal retirement eligibility, the current defined benefit plan will provide the highest level of benefit for these employees. The second highest benefit for these employees is the two-part DB plus DC plan. The third highest benefit for most of the employees is the cash balance plan with soft freeze.

The employer perspective is also an important factor in determining whether or not it is appropriate to switch to a hybrid plan. The two major cost considerations include the impact on normal cost and the impact on actuarial accrued liability. Due to the use of entry age normal cost by ERS actuaries and basing normal cost on new hires, cost savings from plan changes would typically be reflected in normal cost. The advantage to this cost methodology is that it will keep normal cost relatively stable from year to year. However, the change in cost for future benefit accruals does not address the underfunding from previous years. A byproduct of the normal cost methodology used under ERS is that when benefit reductions are applied, the normal cost will decrease,

FIGURE 11
ESTIMATED MONTHLY BENEFITS AND SALARY REPLACEMENT RATIO UNDER HYBRID PLAN OPTIONS

	SHORTER SERVICE			MID-CAREER			LONGER SERVICE	
Member at Plan Transition	A	B	C	D	E	F	G	H
Age	35	45	55	40	45	55	45	55
Years of Service	5	5	5	15	15	15	25	25
Annual Salary	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
Estimated Monthly Benefit*								
Current Defined Benefit	$5,278	$3,154	$1,723	$3,775	$2,855	$1,740	$2,656	$3,098
Cash Balance/Hard Freeze	3,693	1,602	964	2,694	1,973	1,315	2,286	3,098
Cash Balance/Soft Freeze	3,587	1,769	1,068	3,271	2,426	1,522	2,609	3,098
DB plus DC	4,742	2,481	1,384	3,645	2,676	1,610	2,646	3,098
Salary Replacement Ratio at Age 60								
Current Defined Benefit	68%	46%	23%	79%	68%	46%	90%	68%
Cash Balance/Hard Freeze	31%	21%	14%	34%	32%	32%	42%	50%
Cash Balance/Soft Freeze	32%	24%	16%	50%	46%	38%	68%	61%
DB plus DC	52%	35%	19%	65%	57%	41%	79%	63%

*Monthly benefit estimates represent the amount the employee has accrued upon attaining eligibility for normal retirement.
Sources: Legislative Budget Board; Milliman.

but it will increase the UAAL in the short and medium term because the level percentage of payroll amortization does not cover interest accruing in the UAAL in the early years of any plan transition, unless the employer increases the total contribution rate.

According to actuarial analysis, all plan options would result in lower normal costs. Within the various member participation scenarios for each option, all but one option would result, at least temporarily, in an increased UAAL. The exception to increasing the UAAL impact is the scenario under which participation in the hybrid options is mandatory for new hires and the future service of existing employees.

Figure 12 shows the actuarial impact to ERS under the five options and employee participation scenarios. New hires after the effective date of the new plan options are assumed to have mandatory participation in any new plan. The distinction in participation is whether or not existing employees would accrue future benefits under the new plan after the effective date. The scenarios shown here involve mandatory participation for existing employees; optional participation by existing employees with a modest percentage choosing to join; and a scenario where no existing employees join the new plan.

Among the three options, the DB/DC hybrid produces the lowest normal costs going forward. However, this plan also produces the highest UAAL as a result of the normal cost

FIGURE 12
ACTUARIAL RESULTS FROM ALTERNATIVE HYBRID PLAN DESIGNS FOR ERS , BASED ON ERS ACTUARIAL VALUATION RESULTS, AUGUST 2009

CASH BALANCE PLAN, HARD FREEZE, 11 PERCENT PAY CREDIT

	BASELINE	EXISTING EMPLOYEE PARTICIPATION SCENARIOS		
ACTUARIAL COSTS	CURRENT ERS DEFINED BENEFIT	MANDATORY PARTICIPATION	OPTIONAL PARTICIPATION	NO PARTICIPATION
Total ERS Normal Cost (millions)	$705.2	$521.5	$521.5	$521.5
Accrued Liability (billions)	$26.9	$24.3	$27.6	$28.0
Unfunded Accrued Liability (UAL) (billions)	$3.4	$0.7	$4.0	$4.5
Normal Cost Rate	12.13%	8.97%	8.97%	8.97%
Total Contribution Rate with UAL Amortization	15.84%	9.96%	13.24%	13.73%

CASH BALANCE PLAN, SOFT FREEZE, 8 PERCENT PAY CREDIT

	BASELINE	EXISTING EMPLOYEE PARTICIPATION SCENARIOS		
ACTUARIAL COSTS	CURRENT ERS DEFINED BENEFIT	MANDATORY PARTICIPATION	OPTIONAL PARTICIPATION	NO PARTICIPATION
Total ERS Normal Cost (millions)	$705.2	$456.2	$456.2	$456.2
Accrued Liability (billions)	$26.9	$25.1	$28.0	$28.4
Unfunded Accrued Liability (UAL) (billions)	$3.4	$1.6	$4.5	$4.9
Normal Cost Rate	12.13%	7.85%	7.85%	7.85%
Total Contribution Rate with UAL Amortization	15.84%	9.72%	12.59%	13.00%

DB/DC HYBRID

	BASELINE	EXISTING EMPLOYEE PARTICIPATION SCENARIOS		
ACTUARIAL COSTS	CURRENT ERS DEFINED BENEFIT	MANDATORY PARTICIPATION	OPTIONAL PARTICIPATION	NO PARTICIPATION
Total ERS Normal Cost (millions)	$705.2	$404.2	$404.2	$404.2
Accrued Liability (billions)	$26.9	$26.0	$28.5	$28.9
Unfunded Accrued Liability (UAL) (billions)	$3.4	$2.5	$5.0	$5.4
Normal Cost Rate	12.13%	6.95%	6.95%	6.95%
Total Contribution Rate with UAL Amortization	15.84%	9.66%	12.18%	12.54%

SOURCES: Legislative Budget Board; Milliman.

methodology used by ERS, at least for the short and medium term.

As stated previously, the best options for maintaining the solvency of the ERS and TRS pension plans depend upon the balance between containing costs and the desired level of retirement benefit the state prefers to provide to employees. Traditional DB pension plans can be healthy with disciplined funding by the employer and employee, and they offer a secure benefit. But DB plans are more difficult to understand and generally provide the richest benefit to those employees with longer service careers. Defined contribution (DC) plans, by contrast, have benefits and features that are easier to understand, create fewer unfunded liability concerns, and typically provide the best benefit for shorter service employees that need a more portable benefit. Hybrid plans such as a cash balance plan and a two-part hybrid provide a mixture of DB and DC plan features that may create a middle ground for cost, benefit security, and benefit richness, but these plans require careful plan design and funding.

In evaluating the fiscal impact of making changes to a defined benefit plan, it is important to note the difference between the costs associated with the new plan compared to costs accrued under the old plan. According the National Tax Journal, 2007, making plan changes that reduce benefit level—whether it involves revising the current DB plan or changing to an alternative structure such as a DC plan or hybrid plan—will help reduce the costs associated with funding the plan overall, but it does not address past underfunding. The only way to truly reduce or contain costs over the long term is to make permanent reductions in the benefit level, either by changing the features of the current plan or developing a new plan structure.

In order to maintain pension plan solvency, Recommendation 1 offers three options: (1) fully funding both systems; (2) refining current system benefits to make current funding levels sufficient to fully fund the systems; or (3) developing a new structure for the pension plans that features elements of both defined benefit and defined contribution plans. Under Recommendation 1, the Legislature may act by increasing contributions for option 1, or amending statute as necessary for changes under options 2 or 3.

If no changes under Recommendation 1 are enacted by the Legislature, Recommendation 2 would include a rider in the 2012–13 General Appropriations Bill that requires the Employees Retirement System and the Teacher Retirement System to explore options to maintain pension plan solvency and to submit a report to the Governor and the Legislative Budget Board no later than September 1, 2012.

FISCAL IMPACT OF THE RECOMMENDATIONS

The fiscal impact of Recommendation 1 would depend upon which option the Legislature pursues.

Under Option 1, increasing the total contribution rate to fully-fund both systems would maintain the ERS and TRS plans with their current features. Under this option, the Legislature would need to establish a policy to begin fully funding the plans to meet the actuarially sound rate. This policy could be achieved incrementally by gradually increasing the total contribution to the plans over a period of several years to meet the rate identified by the plan actuaries as necessary to be actuarially sound.

To meet the full funding requirement for ERS would require $1.1 billion in All Funds for the 2012–13 biennium. To meet the full funding requirement for TRS, which is requesting a gradual increase in the state rate to become actuarially sound, would require $4.3 billion in All Funds for the 2012–13 biennium. ERS and TRS typically provide a mid-session update on funding rates. This option would require the Legislature take a conservative approach to future benefit design changes, supplemental benefit increases, and focus instead on the solvency of the program.

Under Option 2, refining current system benefits to make current funding levels sufficient to fully fund the systems would maintain a defined benefit plan structure for ERS and TRS, but revise plan features to contain the costs associated with plan funding. Cost savings would depend upon which plan features the Legislature and system boards change, such as the minimum retirement age, retirement eligibility, the final average salary computation, the benefit multiplier, or other plan features. The best cost savings estimates could be provided directly by ERS and TRS actuaries. If interested in these options, the Legislature should request estimates from the systems.

Under Option 3, developing a hybrid structure for the pension plans that may feature elements of both DB and DC plans would provide an alternative structure to the current ERS and TRS plans. Fiscal impact from these alternative structures would depend on the specific plan design used. Actuarial analysis indicates that most alternative plans would lower the ongoing normal cost, though the unfunded actuarial accrued liabilities would increase as a result, as least for a period.

If the Legislature is interested in reviewing the impact of changes identified under the second and third options, it can require ERS and TRS to study the issue, via rider, and report back in advance of the convening of the Eighty-third Legislature, Regular Session, 2013. If the Legislature requires ERS and TRS to study potential changes identified under the second and third options, the systems would incur costs associated with performing the actuarial analysis estimated to be $40,000 to $80,000 per system during the 2012–13 biennium.

If no changes under Recommendation 1 are enacted by the Legislature, Recommendation 2 would include a rider in the 2012–13 General Appropriations Bill that requires the Employees Retirement System and the Teacher Retirement System to explore options to maintain pension plan solvency and to submit a report to the Governor and the Legislative Budget Board no later than September 1, 2012.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendation 2.

REDUCE THE STATE CONTRIBUTION FOR EMPLOYEE HEALTH INSURANCE TO PRESERVE BENEFITS

The Employees Retirement System insurance program healthcare expenses in fiscal year 2010 were $2.3 billion in All Funds. The Employees Retirement System modified the health benefit plan member cost sharing for fiscal year 2011 to address a $140 million gap between appropriations and expenditures. The agency anticipates health plan costs to increase 9 percent in each fiscal year of the 2012–13 biennium and requested an additional $575.6 million All Funds to cover cost increases. State employee salaries and benefits continue to be one of the largest single state expenditures. Changes to the employee premium cost sharing arrangement would result in a revenue gain of $298.1 million in All Funds reducing the Employees Retirement System's need for $187.8 million in General Revenue and General Revenue–Dedicated Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- In calendar year 2009, Texas was one of five states that offered an employee health plan that paid 100 percent of all active state employees' health insurance premiums and did not require members to pay a medical deductible.
- The Employees Retirement System is the only Texas state employee health plan that does not require active employees to pay a premium or medical deductible. The Teacher Retirement System and Texas A&M University require employees to contribute toward their health insurance premium. The University of Texas System does not require employees to pay a portion of the premium, but does require a $350 per person and $1,050 per family annual deductible.

CONCERN

- Without changes to employee and dependent premiums or increased funding, the Employees Retirement System would be required to significantly modify benefits, copayments, coinsurance and deductibles to continue to offer a similar health benefit plan to members.

RECOMMENDATION

- **Recommendation 1:** Amend Rider 6 of the Employees Retirement System bill pattern in the 2012–13 General Appropriations Bill to reduce the state contribution for group insurance by up to 10 percent and require the Employees Retirement System to develop a waiver process for employees with a household income less than 200 percent of the federal poverty level.

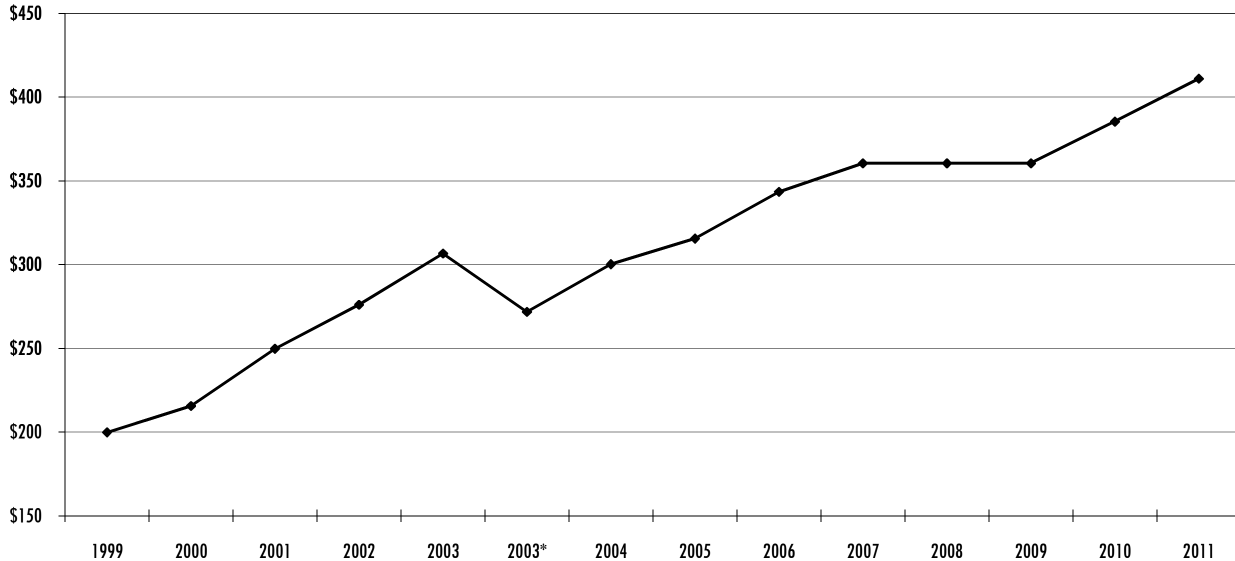
DISCUSSION

The state employee health plan at the Employees Retirement System (ERS) was established in 1976 as a fully insured indemnity plan. The board adopted a self-insured managed healthcare plan, HealthSelect, in 1992. HealthSelect is a preferred provider organization (PPO) and covers approximately 90 percent of participants eligible to enroll in an ERS health plan. The remaining 10 percent are enrolled in a health maintenance organization. Enrollment in the ERS Group Benefit Program in fiscal year 2010 was 534,813 participants, and the monthly health insurance premium in fiscal year 2011 is $411 per member per month. The monthly premium the state sets aside to cover the cost of healthcare paid for by the Group Benefit Program continues to increase. **Figure 1** shows the trend in the cost of premiums for the health plan since 1999.

The state contribution for employee health insurance is part of the total compensation package provided to employees. According to the State Auditor's State Classification Office, the main components of the state employee total compensation other than salary are health benefits, retirement contributions, paid time off, longevity pay, and payroll taxes. **Figure 2** shows the amount the state pays for non-salary compensation to employees. The value of this package has increased by 16.8 percent since fiscal year 2005. In fiscal year 2009, the average full-time classified state employee's base salary was $38,461, and with additional state payments for benefits of $18,423, average state employee compensation was $56,884.

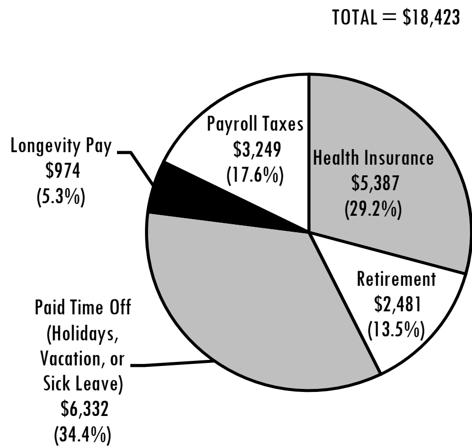
Since fiscal year 2006, the relative proportion of wages and benefits for state employees in Texas has remained fairly constant, 67 percent wages, 33 percent benefits. According to the U.S. Bureau of Labor Statistics, the compensation breakdown for U.S. private and public sector employers in March 2009, was 70 percent wages, 30 percent benefits.

FIGURE 1
TREND OF MONTHLY GROUP BENEFIT PROGRAM PREMIUMS, FISCAL YEARS 1999 TO 2011



NOTE: Because of mid-year plan changes, premiums decreased in May 2003.
SOURCE: Employees Retirement System.

FIGURE 2
NON-SALARY COMPENSATION PAID TO THE AVERAGE STATE EMPLOYEE (IN DOLLARS)
FISCAL YEAR 2009



SOURCE: State Auditor's State Classification Office.

Segal, a national benefits and compensation consulting firm, stresses the importance of making measured benefit changes to manage costs, and encourages decision makers to consider health benefits as they relate to the total compensation package for employees. Health plan administrators have two options to contain cost: reduce the cost or use of healthcare services or increase the members' share of costs. Cost sharing for healthcare can take a variety of forms, including:

- premiums—an amount a beneficiary pays each month to be a part of a health plan;
- deductibles—an amount that must be paid before some or all services are covered;
- copayments—fixed dollar amounts paid for service such as a doctor's office visit; and
- coinsurance—a percentage of the charge for services such as lab work or an x-ray.

The Kaiser Family Foundation and the Health Research & Educational Trust (Kaiser/HRET) conducts an annual survey of employer-sponsored health benefits. Kaiser interviewed 2,046 public and private employers about health plan features and cost sharing from January to May 2010. Survey results include:

- PPO is the most common plan type offered by employers (like ERS HealthSelect);
- the average annual premium for single coverage in a PPO plan is $4,922 per year or $410 per month; and
- on average, employees pay 19 percent of the premium for single coverage; the public employee average being 11 percent;
- 76 percent of workers in PPOs with single coverage have a general annual deductible and the average deductible for large employers PPO plans is $478 per year.

The ERS board has the authority to make changes to the benefit design and cost sharing arrangement in the health plan at anytime. ERS modified the cost sharing arrangement between health plan members and the state in fiscal year 2011 to address a $140 million budgetary shortfall. The changes increased member out of pocket costs by increasing copayments and coinsurance. The ERS board did not change medical deductible or premiums. Premiums are established in the Employees Retirement System bill pattern in the 2010–11 General Appropriations Act. ERS anticipates that health plan costs will increase 9 percent in each year of the 2012–13 biennium and requested an additional $575.6 million All Funds to cover cost increases. If sufficient funds are not available to pay Group Benefit Program expenses, ERS could achieve savings by changing benefits such as:

- increasing copayments and coinsurance;
- establishing a medical deductible;
- reducing the types of services covered; or
- reducing the size of the healthcare provider network to achieve discounts.

The Teacher Retirement System and Texas A&M University require employees to contribute toward their health insurance premium. The University of Texas System does not require employees to pay a portion of the premium, but does require $350 per person and $1,050 per family annual deductible. In calendar year 2009, Texas was one of five states that offered an employee health plan that paid 100 percent of all active state employees' health insurance premium and did not require members to pay a deductible.

Currently, Rider 6 of the Employees Retirement System bill pattern in the 2010–11 General Appropriations Act specifies that funds identified for group insurance are intended to fund the total cost of health coverage for all active and retired employees and 50 percent of the cost of health coverage for the spouses and dependent children. Recommendation 1 would amend the rider in the 2012–13 General Appropriations Bill to decrease the state contribution for group insurance by up to 10 percent for employees and their dependents. Recommendation 1 would require state and higher education employees enrolled in the ERS Group Benefit Program to pay up to $41 per month or $492 per year for employee only health insurance coverage. The recommendation would also increase the employees' share of dependent coverage from 50 percent to 60 percent of the monthly premium. **Figure 3** shows the increase premium costs to employees under Recommendation 1.

This change would provide the state and ERS board another option to manage costs by modifying premium cost sharing. Increasing premiums allows the state to evenly distribute the additional cost of healthcare to employees. ERS employees who responded to the 2010 survey about benefit preference indicated they preferred to be able to budget for medical costs. The employee premium is a flat amount paid monthly which allows employee to budget for the cost. A premium increase is more equitable than increasing deductibles because a deductible requires health plan members to pay the full cost of services until they reach a set dollar amount at which point the plan begins to cover costs. Every member would pay the same premium, but members would pay varying increases if the ERS board implemented a medical deductible. Increasing deductibles would have greater financial impact on health plan members who receive services and would make the monthly cost of healthcare less predictable. Recommendation 1 would also require ERS to develop a waiver process for employees with a household income less than 200 percent of the federal poverty level. The

FIGURE 3
EFFECT OF RECOMMENDATION 1 ON EMPLOYEE MONTHLY PREMIUM COSTS BASED ON FISCAL YEAR 2011 PREMIUMS

COVERAGE TYPE	CURRENT PREMIUM	STATE PAYS	MEMBER PAYS	RECOMMENDATION STATE PAYS	RECOMMENDATION MEMBER PAYS	INCREASE COST TO EMPLOYEE
Employee Only	$411	$411	$0	$370	$41	**$41**
Employee and Spouse	$884	$647	$236	$559	$325	**$88**
Employee and Children	$728	$569	$158	$497	$231	**$73**
Employee and Family	$1,200	$806	$395	$686	$515	**$120**

Sources: Legislative Budget Board; Employees Retirement System.

process ERS establishes to waive premiums for low income employees should consider future provisions of federal healthcare reform which establishes maximum charges for employee premiums.

Current law allows employees who have health insurance comparable to what the state provides to waive ERS health insurance coverage and receive a credit toward certain optional coverage. Some employees may choose to opt-out of the health plan rather than pay a premium. Currently, if a person waives coverage and would like to re-enroll in health coverage, the person is subject to evidence of insurability (EOI) requirements. EOI means those who desire to re-enroll in the health plan must provide information about their health to the insurance company to prove reasonably good health. The purpose of EOI is to prevent persons from leaving the plan some years to avoid cost and then re-enrolling only in the years they intend to access care. Allowing persons to move in and out of the plan typically drives up plan costs. According to the National Association of Insurance Commissioners, the Patient Protection and Affordable Care Act of 2009 will prohibit health plans from basing eligibility on certain health status factors. Therefore, beginning in fiscal year 2015, ERS will no longer be able to manage movement in and out of the health plan with EOI.

As an alternative, ERS may choose to offer another health plan for employees who waive coverage to avoid the premium. If the ERS board chooses to create a low or no premium option for employees, the new plan design should encourage members to seek appropriate preventative services and reduce unneeded discretionary procedures. Legislation enacted by the Seventy-Ninth Legislature, 2005, required ERS to contract with an actuary to study the impact of implementing a consumer driven health plan such as a High Deductible Health Plan and Health Saving Account (HDHP/HSA) in the Group Benefit Program. The results of the study published in November 2006 found that it would be appropriate for ERS to incorporate an optional HDHP/HSA into the Group Benefit Program that is actuarially equivalent to the HealthSelect program. This alternative may be appropriate as the structure of the Group Benefit Program changes to address budgetary shortfalls.

FISCAL IMPACT OF THE RECOMMENDATION

Figure 4 shows that Recommendation 1 would result in a revenue gain of $298.1 million in All Funds from implementing a monthly premium. This revenue gain would reduce ERS' appropriation needs by the same amount in the 2012–13 biennium, resulting in a cost savings of $187.8 in General Revenue Funds and General Revenue–Dedicated Funds during the biennium.

The estimate holds enrollment and premiums flat and assumes 10 percent of employees would not pay the premium either because they receive a waiver or opt out. The estimate does not include the tax benefits the employee earns when employees pay premiums. ERS applies mandatory premium conversion to premiums which is an IRS program that allows health plan participants to pay certain premium on a pre-tax basis reducing the employee portion of certain payroll taxes. The estimate assumes ERS would perform the income verification process for the waiver program within current resources.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

FIGURE 4
FIVE-YEAR FISCAL IMPACT CHANGING STATE EMPLOYEE PREMIUM CONTRIBUTIONS, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	$84,972,653	$8,944,490	$29,814,966	$25,342,721
2013	$84,972,653	$8,944,490	$29,814,966	$25,342,721
2014	$84,972,653	$8,944,490	$29,814,966	$25,342,721
2015	$84,972,653	$8,944,490	$29,814,966	$25,342,721
2016	$84,972,653	$8,944,490	$29,814,966	$25,342,721

Source: Legislative Budget Board.

IMPLEMENT A TOBACCO USER SURCHARGE ON EMPLOYEES RETIREMENT SYSTEM HEALTH PREMIUMS

Health insurance is a valuable benefit that state employees receive as part of their compensation package. To maintain this benefit and contain costs, the state continues to look for opportunities for appropriate employee cost sharing. In recent years, there has been an increasing trend of private and public employers applying financial incentives that promote wellness and motivate employees to change unhealthy behaviors. Tobacco use, which is a contributing factor to many diseases, is one of those areas where employers are applying premium surcharges, higher deductibles, and other increased costs to encourage employees to change behavior. Implementing a comprehensive tobacco cessation program with prescription drug coverage and a monthly tobacco user surcharge within the Employees Retirement System health plan would result in a net cost savings of $24.5 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium, and encourage state employees to stop using tobacco.

FACTS AND FINDINGS

- Smoking causes a variety of health problems and diseases. It is linked to cancer, especially lung cancer, and cardiovascular problems such as stroke and coronary heart disease. According to data from the U.S. Census and the Centers for Disease Control and Prevention, Texas adults smokers are estimated to cost employers an additional $1,065 per year, which includes $682 in lost productivity and $383 in healthcare costs.
- In 2010, the Centers for Disease Control and Prevention reported that an estimated 18.5 percent of Texans smoke. Applying this rate to the Employees Retirement System health plan, an estimated 77,409 adults enrolled in the health plan smoke.
- The state has a patchwork of tobacco cessation programs available to state employees. Most employees can access telephone coaching or an online tool and through December 2011 they can receive eight weeks of free nicotine replacement therapy via the quitline. Employees of the health and human services agencies have prescription drug coverage as part of a pilot tobacco cessation program.
- In September 2010, nine states had financial incentives for tobacco cessation, seven of which were a monthly premium surcharge for tobacco users and one of which has a wellness surcharge that includes tobacco use. The average monthly surcharge among those states is $36 per tobacco user.

CONCERNS

- Although Texas has expanded its tobacco cessation programs for state employees since 2008, the available programs are not as intensive nor as effective as programs offered by other states.
- Tobacco users cost more due to their increased likelihood of developing chronic diseases that are expensive to treat.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Insurance Code, Chapter 1551, to require the Employees Retirement System to offer a more comprehensive tobacco cessation program to state employees, retirees, and their dependents that includes prescription drug coverage.
- **Recommendation 2:** Amend the Texas Insurance Code, Chapter 1551, to require the Employees Retirement System to apply a monthly premium surcharge for tobacco users in the Employee Retirement System health plans, including employees, retirees, and their dependents.
- **Recommendation 3:** Include a contingency rider in the 2012–13 General Appropriations Bill for the Employees Retirement System which sets the monthly tobacco user surcharge at $30 per tobacco user.
- **Recommendation 4:** Amend the Texas Insurance Code, Chapters 1575, 1579 and 1601, to permit the University of Texas System, the Texas A&M University System, and the Teacher Retirement System to apply a premium surcharge for tobacco users within their system health plans.

DISCUSSION

In 2010, the Centers for Disease Control and Prevention (CDC) reported that nationally 18.4 percent of American adults and 18.5 percent of Texan adults smoke. Applying this rate to the state employee health plan under the Employees Retirement System (ERS), an estimated 77,409 adult members smoke. Smokers are more likely to develop conditions such as heart disease and certain types of cancer that are costly to treat. According to CDC and U.S. Census data, it is estimated that each Texas smoker could cost $1,065 per year, which includes $682 in lost productivity and $383 in additional healthcare costs. Providing incentives for employees and family members to quit smoking would improve health and reduce healthcare costs. Reducing the cost of health care would help the state afford to provide health insurance benefits to its employees.

TOBACCO CESSATION PROGRAMS

Tobacco cessation programs can include a variety of features. According to a 2006 study by Milliman Consultants, effective tobacco cessation programs offer a temporary pharmaceutical benefit and counseling. The pharmaceutical benefit can include nicotine replacement therapy (NRT), the anti-depressant bupropion, and medications like Chantix, which aids with nicotine withdrawals and cravings. The counseling and supportive services offered in a cessation program can include telephone coaching via quitlines, individual therapy sessions or group therapy sessions. Programs vary based on employer-employee cost sharing; the kind and duration of pharmaceutical support; and the number and type of therapy or counseling sessions offered.

Milliman reviewed six types of cessation programs of varying cost and intensity. **Figure 1** shows the features of these six program types.

Three of the state employee health plan options under ERS offer tobacco cessation programs. ERS HealthSelect is the health plan used by over 90 percent of state employees, retirees, and their covered dependents. The program offered to ERS HealthSelect members began in November 2008 and includes telephone coaching, where members develop a personal action plan that includes goals, and a telephone coaching schedule with a licensed counselor. This program is intended to be nine months long, but may vary depending on individual need. During fiscal year 2009, a total of 49 plan members enrolled. Though not a coordinated part of the tobacco cessation program, office visits with doctors are also covered by the plan for a $25 member copay. In addition to the HealthSelect program, the two HMO plan options, Community First and Scott & White, offer an online tool but not telephone counseling. None of these programs cover the cost of nicotine replacement therapy or other pharmaceutical components. Using the intensity categories for cessation programs laid out by Milliman, ERS classifies its current programs as very low intensity.

In addition to the programs offered through ERS plans, there are two pilots underway to aid state employees in tobacco cessation. The first pilot began in summer 2010 and involves a federal grant to the Texas Department of State Health Services (DSHS) for expanded quitline access for state employees. The quitline is operated by the American Cancer Society through a contract with DSHS. Under the pilot,

FIGURE 1
TOBACCO CESSATION PROGRAM TYPES BY COST AND INTENSITY, DECEMBER 2006

PROGRAM INTENSITY	PHARMACEUTICAL COMPONENT	PROFESSIONAL COMPONENT	PERCENTAGE OF SMOKERS WHO EFFECTIVELY QUIT	HEALTH PLAN COST PER PERSON PER MONTH
Quitline	None	Self-help booklet and up to 5 telephonic counseling sessions	10	$0.02
Very Low	8 weeks NRT	1 doctor evaluation and 1 advice session with social worker or nurse practitioner	16	$0.19
Low	8 weeks NRT and/or bupropion	1 doctor evaluation, no advice or therapy sessions	19	$0.24
Moderate	8 weeks NRT	1 doctor evaluation, 1 advice session, and 6 individual/group therapy sessions	21	$0.28
High	8 weeks NRT	1 doctor evaluation, 1 advice session, and 12 individual/group therapy sessions	24	$0.35
Very High	8 weeks NRT and bupropion	1 doctor evaluation, 1 advice session, and 12 individual/group therapy sessions	31	$0.45

Source: Milliman Consultants.

state employees can have up to eight weeks of free nicotine replacement therapy (NRT), which is available through December 2011. An estimated 1,600 state employees are expected to participate, with 720 employees estimated to take advantage of the NRT.

The second pilot involves the employees of the health and human services agencies, which began in October 2010 and is designed to last one year. This pilot allows employees accessing the quitline to receive a prescription drug coverage benefit based on drug co-pays in the ERS health plan options. Chantix is a prescription drug that aids with nicotine withdrawals and cravings. If a patient resumes smoking while on Chantix, the drug lowers the satisfaction a smoker receives from tobacco use. The drug manufacturer of Chantix is providing a $30 coupon to employees during the pilot to offset the co-pay. An estimated 432 state employees out of 86,030 eligible are expected to participate, with an estimated 143 enrolling in the prescription drug coverage benefit.

Other states offer more extensive tobacco cessation programs for state employees and covered family members. The Kentucky Employees Health Plan offers quitline access, group support, and NRT. Plan members choose to enroll using the quitline or a group class-based program which involves 13 weekly classes. Plan members enrolling in the cessation program receive up to 12 weeks of NRT at a cost of $5 in co-pays for each two-week supply. In West Virginia, the Public Employees Insurance Agency offers a cessation benefit that can be accessed through an office visit with a medical provider. The benefit includes up to 12 weeks of drug therapy. Nicotine patches are free, and other over-the-counter and prescription drugs are covered under the plan if they are dispensed with a prescription.

To improve employee wellness, Recommendation 1 would amend the Texas Insurance Code, Chapter 1551, to require ERS to include a tobacco cessation program of medium intensity with prescription drug coverage as part of the state health plan. According to ERS estimates from October 2010, the cost for this type of program is $0.27 per plan member per month resulting in an estimated $1.7 million per year cost to ERS.

TOBACCO USER SURCHARGE

A premium surcharge of up to 20 percent of the monthly health insurance premium is permissible under federal regulations. Health plans that include wellness programs, such as a tobacco use or smoker surcharge, must meet five standards:

1. limits on reward—rewards for wellness programs, whether they are premium discounts or surcharges, co-pay waivers, etc. may not exceed more than 20 percent of the premium for a health plan classification (employee only, employee and dependents);
2. reasonably designed to promote health or prevent disease;
3. eligible individuals are given the chance to qualify for the reward at least once a year;
4. reward is available to all similarly situated individuals in the plan and accommodates individuals for whom it is unreasonably difficult due to a medical condition to qualify for the reward; and
5. plan discloses in all materials information about wellness programs, describing the terms of the program and the availability of a reasonable alternative standard.

If Texas chooses to implement a tobacco user surcharge, it would need to develop a program that meets federal requirements. Typically a tobacco user surcharge would be based on paying, on a monthly basis, an amount in addition to the employee's regular share of the health insurance premium.

Nine states include tobacco related monetary incentives as part of their health plan for state employees. Of these, eight states include a tobacco user or wellness surcharge on monthly premiums that range from $20 to $80 per person per month. These surcharges are paid by covered members who use tobacco products. The average surcharge amount among these states is $36 per person per month. **Figure 2** shows state tobacco user surcharges.

The states that include a tobacco user surcharge on monthly premiums have had small differences in the number of plan members enrolling as tobacco users. Alabama, which implemented its tobacco user surcharge in 2005, had 18 percent of its plan members paying the surcharge. This amount has declined from 21 percent of plan members paying the surcharge in 2006. In its 2010 plan year, Kansas had approximately 22 percent of plan members paying the surcharge. For the West Virginia 2010 plan year, 26 percent of plan members paid the surcharge.

FIGURE 2
TOBACCO USER PREMIUM SURCHARGES IN OTHER STATES, SEPTEMBER 2010

STATE	MONTHLY SURCHARGE
Alabama	$30 per employee or spouse
Georgia	$80 per tobacco user
Kansas	$20 for employee tobacco users in the health plan
Kentucky	$25.50 for employee only coverage $52.32 for employee & dependent coverage
Missouri	$25 for employee or spouse only $50 for employee & spouse Surcharge is part of overall wellness program, which includes tobacco cessation.
North Carolina	No surcharge. Instead state has two plans. The plan for non-tobacco users has lower co-pays, deductibles and other costs.
South Carolina	$25 per employee or family member
South Dakota	$60 per employee or spouse
West Virginia	$25 for employee only coverage $50 for employee & children or family coverage

Source: Legislative Budget Board.

Implementing a tobacco user surcharge on monthly premiums involves several administrative and policy issues including:

- whether to apply the surcharge only to tobacco using employees or to all tobacco using plan members including spouses and dependents age 18 or older;
- to avoid paying the premium surcharge, whether or not a plan member must be completely tobacco free for a specific period of time or if a plan member can be enrolled in a tobacco cessation program and also avoid the surcharge;
- the process used to identify tobacco users;
- for enforcement purposes, how the plan member's tobacco use status can be verified or audited after enrollment; and
- consequences of misrepresenting the tobacco use status to avoid the surcharge.

The first implementation issue needing to be addressed is whether to apply the surcharge only to tobacco using employees or to apply the surcharge to all tobacco using plan members including spouses and children age 18 or older. To best address the cost associated with tobacco users, it would be more equitable to apply the cost to all tobacco users and not just tobacco using employees. Among the states that have a tobacco user surcharge in their health plans, Kansas applies its surcharge to employees only. Alabama, Georgia, Kentucky, South Carolina, South Dakota, and West Virginia apply their surcharges to employees, spouses and dependents.

The second implementation issue involves establishing when the plan member would be required to pay the premium surcharge. Among the states with a tobacco user surcharge in their health plans, only Kansas allows an employee to be a user but enroll in a tobacco cessation program to avoid the surcharge. Alabama, Georgia, Kentucky, South Carolina, South Dakota and West Virginia allow members to avoid paying the surcharge only if the plan member has been tobacco free for a specified of time. Among the six states requiring a plan member to have been tobacco free for a specified period, the period ranges from 60 days to 12 months. To ensure a tobacco user has the biggest incentive to quit, requiring the user to have been tobacco free for a specified period to avoid paying the surcharge is the most restrictive.

The third implementation issue involves how to identify tobacco users. In other states, employees complete an affidavit that verifies tobacco usage and in lieu of not paying the surcharge, the employee and any family members covered by the state's health plan agree not to use tobacco products for that plan year.

The fourth implementation issue is how to identify if a plan member has misrepresented his or her tobacco use status. Some states with surcharges, such as Kentucky and Kansas, do not have a specific mechanism to identify a tobacco user who has misrepresented his or her status but rather operate on an honor system. Kansas did consider permitting random tobacco testing at a cost of about $10 per test, but to date has not approved testing employees. The affidavit signed by plan members affords an opportunity to identify such a mechanism.

Alabama specifies on its form that by signing the affidavit, a plan member agrees to allow the agency access to medical records or to conduct random tobacco testing. To date Alabama has chosen not to use these methods. Another mechanism for identifying tobacco users is by use of tobacco cessation benefits. In Kentucky and West Virginia, tobacco cessation program benefits are denied to any plan member enrolled as a non-tobacco user. In West Virginia, the Public Employees Insurance Agency has occasionally identified the user status discrepancy when a plan member enrolled as a

non-tobacco user tries to access tobacco cessation products. In addition to a formal mechanism, in some states employees have reported the tobacco use of another employee. Since implementing tobacco user surcharges, Alabama, Kansas, Kentucky, and West Virginia have all had employees report other employees in a small number of cases.

The fifth implementation issue is what consequences to apply if it is determined that a plan member has misrepresented his or her tobacco user status. State affidavits typically outline any consequences of misrepresentation. The consequences can range from repaying surcharges, losing health coverage for a year, losing health coverage permanently, or even job loss. In the four states where employees reported other employees, if an employee claiming non-tobacco user status admitted to smoking, the state required either that the employee pay the surcharge going forward or they were required to repay surcharges from the beginning of the plan year. None of these states have imposed a stricter penalty than repaying surcharges, even though most of them permit stricter penalties under plan rules.

Recommendation 2 would amend the Texas Insurance Code, Chapter 1551, to require ERS to charge tobacco users in the state employee health plan a monthly premium surcharge. Recommendation 3 would include a contingency rider in the 2012–13 General Appropriations Bill for ERS which sets the monthly tobacco user surcharge at $30 per tobacco user, including employees, retirees, and their dependents.

The Legislature would need to determine an appropriate timeframe for ERS to implement the surcharge. A period of no less than three months and no longer than one fiscal year would be a reasonable timeframe for implementation.

Figure 3 shows the fiscal impact of implementing a tobacco user surcharge based on three different surcharge levels—$30 per month; 10 percent of the monthly premium, and 20 percent of the monthly premium. By federal rules, this type of wellness incentive charge cannot exceed 20 percent of the total health insurance premium. The estimates in **Figure 3** are based on the total number of enrolled health plan members from all of the ERS health plan options but uses the 2011 plan year monthly premium amount from the BlueCross BlueShield HealthSelect Plan for the 10 percent and 20 percent estimates. The revenue estimate in **Figure 3** uses the recent CDC statistic of 18.5 percent of Texan adults who smoke.

The recommendation would set the same dollar amount be used for all plan members covered under the ERS health plan options. If a 10 percent or 20 percent surcharge were implemented, it is recommended that the surcharge be based on the HealthSelect premium rates since that plan option covers most of the employees, retirees, their spouses, and their dependents covered under ERS, although the state would need to ensure that amount does not exceed 20 percent of the premium rates for the two HMO plans.

This report primarily focuses on changes to the health plan options for state employees, retirees, and their dependents covered under ERS. However, over 630,000 employees, retirees and dependents are covered under health plans administered by the Teacher Retirement System (TRS), the

FIGURE 3
FISCAL IMPACT OF CHARGING A TOBACCO USER SURCHARGE ON ERS HEALTH PREMIUMS

	SURCHARGE AMOUNT - ANNUAL REVENUE		
	FLAT RATE OF $30	10 PERCENT OF EMPLOYEE ONLY PREMIUM	20 PERCENT OF EMPLOYEE ONLY PREMIUM
Estimated Adult Smokers in Health Plans	77,409	77,409	77,409
Smokers Paying Surcharge (90%)	69,668	69,668	69,668
Monthly Surcharge	$30.00	$41.10	$82.21
Monthly Surcharge Collections	$2,090,043	$2,863,637	$5,727,275
Annual Surcharge Collections	$25,080,514	$34,363,649	$68,727,298
Annual Cost for Cessation Program*	($1,732,794)	($1,732,794)	($1,732,794)
Annual Net Cost Savings (All Funds)	$23,347,720	$32,630,855	$66,994,503
Biennial Net Cost Savings (All Funds)	$46,695,441	$65,261,709	$133,989,007

*Includes cost for drug benefit.
Sources: Legislative Budget Board; Employees Retirement System.

University of Texas System, and the Texas A&M University System. Generally, when changes have been made to the plans under ERS, changes are also made to these other plans to offer comparable coverage and cost containments features across the various state, public university and school district employee populations.

Recommendation 4 would amend the Texas Insurance Code Chapters 1575, 1579, and 1601 to permit the University of Texas System, Texas A&M University System, and the Teacher Retirement System to apply a premium surcharge for tobacco users within the system health plans. This recommendation is permissive for the plans rather than required.

Implementing a tobacco user surcharge would improve employee health and contain costs for the ERS health plan, allowing the state to continue to provide affordable health coverage for employees and their families.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1 to 3 would result in a net gain of $24.5 million in General Revenue and General Revenue–Dedicated Funds for the 2012–13 biennium. Because Recommendation 4 is permissive, savings from implementing a surcharge in other state health plans is not estimated.

Recommendation 1 would result in a cost of $2.9 million in All Funds from implementing a more comprehensive tobacco cessation program for the 2012–13 biennium.

Recommendations 2 and 3 would result in a revenue gain of $41.8 million in All Funds from implementing a monthly $30 premium surcharge for all tobacco users in the state health plans. This revenue gain would reduce ERS' appropriation needs by a net $38.9 million in All Funds for the 2012–13 biennium, resulting in a savings.

As shown in **Figure 4**, charging ERS health plan members who use tobacco a premium surcharge of $30 would save the state $24.5 million in General Revenue Funds and General Revenue–Dedicated Funds, and $38.9 million in All Funds for the 2012–13 biennium. This estimate assumes expanded tobacco cessation benefits would commence and the tobacco user surcharge would be assessed beginning January 1, 2012. The savings shown in **Figure 4** are net of the costs associated with implementing a tobacco cessation program.

The estimates in **Figure 4** are based on the fiscal year 2011 number of all adult enrolled health plan members in the BlueCross BlueShield HealthSelect Plan, the Scott & White Health Plan, and the Community First Health Plan. This estimate assumes that any tobacco users would be required to have been tobacco free for six months to avoid paying the surcharge and would have the opportunity to change their tobacco user status once per year during open enrollment.

The introduced 2012–13 General Appropriations Bill includes a contingency rider to implement Recommendation 3. No other adjustments have been made to the introduced General Appropriations Bill.

FIGURE 4
FIVE-YEAR FISCAL IMPACT
CHARGING TOBACCO USERS A $30 MONTHLY HEALTH INSURANCE PREMIUM SURCHARGE, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/(COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	$8,872,134	$933,909	$3,113,029	$2,646,075
2013	$13,308,201	$1,400,863	$4,669,544	$3,969,112
2014	$13,308,201	$1,400,863	$4,669,544	$3,969,112
2015	$13,308,201	$1,400,863	$4,669,544	$3,969,112
2016	$13,308,201	$1,400,863	$4,669,544	$3,969,112

Source: Legislative Budget Board.

IMPLEMENT A TIERED COINSURANCE PLAN FOR STATE EMPLOYEES

Employee and retiree healthcare costs are a significant factor in the state's budget, and are currently rising more than 9 percent a year. Research has shown that costs and utilization are lower when patients share some of the costs, yet more than one-third of expenditures at the Employee Retirement System HealthSelect plan have no employee share. Employees do pay 20 percent of costs up to $10,000, but have a $2,000 coinsurance maximum. Once the cost of a procedure exceeds $10,000, employees no longer share in the costs and have no incentive to be concerned with additional costs.

Requiring employees to pay 20 percent of higher amounts would reduce utilization, but many employees would have difficulty with affording their coinsurance and this could convince many to avoid care. However if coinsurance percentages decreased as expenditures increased, employees would still be able to afford to get the care they need, and they would have incentives to either decrease utilization, or at least be more particular about the costs of procedures to be performed and consider alternatives.

If coinsurance were extended to 5 percent up to $50,000, and 2 percent up to $100,000 of costs, the Employee Retirement System HealthSelect plan would save $35.6 million in All Funds for the 2012–13 biennium from passing costs on to employees. A 5 percent reduction in utilization from procedures covered by these increased costs would add additional biennial savings to the plan of $48.9 million in All Funds. A tiered coinsurance plan could also be applied to specialty prescription drugs as a way to share costs and reduce utilization of the fastest growing portion of plan expenditures. This would save the plan an additional $8.0 million in All Funds during the 2012–13 biennium directly, with potential additional savings to the plan of $8.5 million in All Funds from utilization reduction.

FACTS AND FINDINGS

- Even with a reduction in benefits in fiscal years 2003 and 2004, from years 2000 to 2009 state costs for the Employee Retirement System plan have increased by 76.3 percent, from $878.2 million to $1,548.2 million.
- The Employee Retirement System made benefit reductions of approximately 6 percent to save $140 million during fiscal year 2011. Few additional funds are available to cover the 9.1 percent cost trend, so further reductions will likely be necessary to keep the plan adequately funded.
- Implementing a tiered coinsurance plan will produce savings without interfering with routine and preventative care, which tends to be the most cost efficient.

SIGNIFICANT CONCERNS

- In fiscal year 2009, 25,000 HealthSelect plan participants, or 4.8 percent, had medical expenditures greater than $10,000, and they accounted for 60 percent of plan costs. Every year fewer and fewer people consume a larger portion of the plan benefits. So the largest cost growth trend comes from high dollar cases, yet few or no steps are taken to reduce these types of expenditures. Also, this effectively means fewer benefits are available for the remaining plan members.
- Medicare eligible retirees share in almost no medical expenses, with virtually all medical expenses fully paid between Medicare or the Employee Retirement System. These retirees have no copays for doctor visits and pay coinsurance only in rare circumstances. The deductibles they pay only affect their first annual medical costs, and do not discourage overutilization of medical services.

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill advising the Employee Retirement System board to implement a tiered coinsurance plan for medical expenditures to reduce plan costs and increase participants' cost sharing for a large portion of health plan costs.
- **Recommendation 2:** Include a rider in the 2012–13 General Appropriations Bill advising the Employee Retirement System board to implement a tiered coinsurance plan for pharmaceutical expenditures to reduce plan costs and increase participants' cost sharing for a large portion of health plan costs.

- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill advising the Employee Retirement System board to change the Medicare coordination of benefits so that Medicare eligible retirees pay coinsurance for most medical procedures, as do other retirees and active employees.

DISCUSSION

Most of the health care expenditures for insurance plans come from patients with large medical claims in a given year. These large claims tend to be distributed throughout the population, with relatively few of the participants with high cost claims in one year having high cost claims the next year. State employees and many higher education employees are covered by the Employee Retirement System Group Benefits Plan. Approximately 93 percent of employees are in the HealthSelect plan, a preferred provider plan administered by the Employee Retirement System (ERS), with the other 7 percent in Health Maintenance Organizations (HMOs). In fiscal year 2009, approximately 60 percent of the medical costs in the ERS HealthSelect plan arose from less than 5 percent of the participants, as shown in **Figure 1**. Plan costs for prescription drugs are also skewed towards large claims, though not by as much since 60 percent of plan costs come from claims under $5,000.

An effective method to reduce utilization of healthcare is to require plan members to share in the costs. Often various care options for a given medical condition have significantly different costs to the ERS plan. With the current plan design, if all options are of moderate cost or higher, there is no cost difference to the member. Healthcare providers have economic incentives to recommend more expensive procedures. The provider-patient relationship makes it difficult for a patient to question a proposed medical procedure based on cost if there is no cost difference for the patient.

Tiered coinsurance would give members a reason to question the effectiveness and cost-effectiveness of all options and become more involved in their own care. Additionally, for an extensive incident, patients could question smaller decisions, such as the need for additional tests, or additional days in a hospital stay when they feel they would not contribute to their well-being. Currently there is little or no economic incentive to do so.

Finally, patients would have a reason to review their medical billing. If they had no responsibility for their costs, many employees might prefer not to see any of their medical bills. But if their out-of-pocket costs are dependent on the amount they are billed, most would review their bills, and could flag items which were not provided, a common billing mistake. This would an additional type of utilization reduction, with no negative impact to employees.

A balance needs to be struck between affordability for members, incentives for members, and providing appropriate and necessary care. Increasing the patient share of costs requires careful plan design, because participants may avoid care if those costs are too high. This could lead to greater future costs to the plan than is saved by cost sharing. High deductibles and high coinsurance costs are frequently viewed

FIGURE 1
DISTRIBUTION OF HEALTHSELECT MEDICAL BENEFITS
FISCAL YEAR 2009

	PARTICIPANTS			BENEFITS ACCOUNTED FOR		
RANGE OF BENEFITS	NUMBER	PERCENTAGE OF TOTAL	CUMULATIVE PERCENTAGE OF TOTAL	AMOUNT IN MILLIONS	PERCENTAGE OF TOTAL	CUMULATIVE PERCENTAGE OF TOTAL
$100,000 or greater	1,276	0.2%	0.2%	$262.0	18.7%	18.7%
$50,000 to $99,999	2,372	0.5%	0.7%	164.0	11.7%	30.4%
$25,000 to $49,999	5,035	1.0%	1.7%	175.8	12.6%	43.0%
$10,000 to $24,999	16,196	3.1%	4.8%	243.2	17.4%	60.4%
$5,000 to $9,999	26,683	5.2%	10.0%	186.3	13.3%	73.7%
$1 to $4,999	377,276	72.9%	82.8%	368.0	26.3%	100.0%
$0	88,971	17.2%	100.0%	0.0	0.0%	100.0%
TOTAL	**517,809**			**$1,399.2**		

Note: Does not include drug benefits.
Source: Employees Retirement System.

as barriers to care. Reducing the coinsurance percentage as expenditures get higher would allow employees to share in costs even when they become higher, without incurring costs far beyond what they can afford and thereby becoming a barrier to care.

Tiered coinsurance would have those who benefit the most from the plan pay a somewhat greater share of their costs, which would be equitable. Provided that it is accompanied by effective affordability mechanisms as described below, it will save money directly and reduce utilization without having an outsized negative impact on employees. Recommendation 1 adds coinsurance of 5 percent for medical expenditures greater than $10,000, and 2 percent for expenditures greater than $50,000. The most direct way to apply this method would be to continue applying coinsurance where current levels of coinsurance no longer apply because participants reach the $2,000 coinsurance maximum, but it would not apply to situations where there already is an adequate copay. ERS should review participants' copay amounts to ensure they cover at least 25 percent to 30 percent of plan costs.

Implementing a tiered medical coinsurance plan as per Recommendation 1 is estimated to directly save the plan $35.6 million in All Funds during the 2012–13 biennium, which would save the state $23.4 million in General Revenue Funds and General Revenue–Dedicated Funds. Additionally, a 5 percent reduction in utilization in procedures and prescriptions covered by this coinsurance would save the plan $48.9 million in All Funds during the 2012–13 biennium. A tiered prescription coinsurance plan as per Recommendation 2 is estimated to directly save the plan $8.0 million in All Funds during the 2012–13 biennium, which would save the state $5.3 million in General Revenue Funds and General Revenue–Dedicated Funds. Additionally, a 5 percent reduction in utilization in prescriptions covered by this coinsurance would save the plan $8.5 million in All Funds during the 2012–13 biennium.

The extent to which actual reductions in utilization would occur is difficult to accurately predict, but a 5 percent reduction is a modest assumption and likely achievable. Greater reductions in utilization have been achieved from prior plan changes, but since the changes proposed here are related to more serious illnesses, a modest assumption is appropriate. These additional savings are not built directly in to the savings estimates presented here. Since data from ERS was not specifically tailored to the exact details described here, even with deliberately conservative estimates it is possible that some small portion of the savings amounts listed would come from utilization savings. Additional utilization savings would reduce future plan needs and the utilization changes would additionally constrain future plan cost increases, or could be used to improve affordability mechanisms.

Prescription drug expenditures currently incur copays, not coinsurance. The maximum a participant pays for any prescription is a $60 copay; although copays are incurred for each month for which the prescription is supplied. However, most of the higher-cost drugs are not taken for long periods, and therefore do not generate significant copays. Recommendation 2 would apply 5 percent coinsurance on prescriptions whose annual cost was greater than $2,400 a year, along with 2 percent coinsurance on amounts greater than $50,000. This would allow the current copay structure to cover almost all prescriptions, but still have participants share in the costs for higher cost drugs. A relatively low coinsurance rate is proposed since prescriptions are often viewed as cost effective treatment. This approach would have a maximum coinsurance amount of $3,250. The estimate was reduced by 20 percent to allow this amount to be coordinated with the medical coinsurance amounts and limit maximum coinsurance for medical and pharmaceutical expenditures to $6,000.

The best implementation of tiered coinsurance would involve an extensive education campaign, to inform employees the goal is to get them more involved in their care and save money, but not to discourage them from seeking appropriate care. The employees who would be affected by the additional tiers of coinsurance will generally have serious conditions and need extensive treatment. Employees will have a greater incentive to seek less invasive or expensive alternatives where time permits. Even in emergency procedures, sharing in the costs will give employees an incentive to review their billing for errors.

State employees with lower incomes would have more difficulty affording the additional coinsurance amounts recommended here. Employees whose household income is less than 200 percent of federal poverty level (FPL) could be fully exempted from the additional tiers. This exemption would require additional administrative efforts on the part of ERS to determine family income levels, as it is not data that ERS currently collects. Approximately 10 percent of the employee population would fall under these guidelines, since approximately 9 percent of members with child or family coverage are enrolled in the SKIP program. Employees with

incomes less than 300 percent of FPL could have coinsurance maximums set at $3,500. ERS could exempt retirees from the impact of tiered coinsurance on the same basis as active employees, i.e. if their household income was less than 200 percent of FPL. Retirees who elected to take Partial Lump Sum Option annuities should have their income determined as if their annuity had not been reduced by that choice.

Also, the ERS board could develop rules to consider a limit to total medical costs paid by a household to an amount such as $10,000, with lower limits for those with incomes less than 300 percent or 400 percent of poverty level. Finally, those who are chronically ill would have more difficulty affording the higher coinsurance, and ERS could limit coinsurance amounts for the next two years to $3,500 if the full $5,000 were reached in a year. The savings for the recommendations were reduced by 20 percent so the ERS board could add protections for lower income and chronically ill members.

A fair number of state and higher education employees would face some additional costs if Recommendation 1 were implemented, approximately 22,000 participants. However, only 8,500 participants would have increased costs greater than $750 in a given year, while the remaining 13,500 participants would have any additional costs under $750. If Recommendation 2 were also implemented, approximately 10,000 participants would have increased costs greater than $750.

Medicare eligible retirees currently have a much more generous plan than employees since these retirees effectively pay no coinsurance for medical procedures. This is because Medicare pays 80 percent of the costs of a procedure, and ERS then pays the remaining 20 percent of costs. Since these retirees are considered out-of-area, ERS would generally pay 70 percent of the allowable costs and the retiree would pay 30 percent. However, under the current ERS Medicare coordination of benefits (COB), ERS pays up to 70 percent of the allowable costs which generally has them paying the full remainder after Medicare. Additionally, the plan design for out-of-area has fewer medical expenses incurring copays, so these retirees do not pay for doctor visits or emergency care, unlike active employees or other retirees. They do have a $200 deductible and have copays for hospitalizations and surgery, and even pay coinsurance for procedures not covered by Medicare, although these are not common.

The Teacher Retirement System (TRS) uses a Medicare COB plan design called "integrated coordination of benefits." Under this plan design, the remaining claim after Medicare is processed the same as any other claim and TRS pays the same coinsurance percentage as they would for other claims or participants in TRS-Care; likewise the Medicare eligible retirees pay the same coinsurance on the Medicare remainder as other participants pay for their care.

ERS should adopt an integrated Medicare coordination of benefits plan design, which would result in Medicare eligible retirees effectively paying a 6 percent coinsurance on medical claims, since they would pay 30 percent of the remaining 20 percent after Medicare, or 6 percent of the total. ERS would then pay 14 percent of the claim instead of 20 percent. The direct savings to the plan for this change for the 2012–13 biennium would be $47.4 million in All Funds. Because of the long-term growth in retirees, this plan design change would significantly reduce the state's long-term liabilities for health care.

The Governmental Accounting Standards Board recently released Statements 43 and 45 relating to accounting for Other Post Employment Benefits (OPEBs), or benefits after retirement other than a retirement annuity. These statements require governmental employers to account for long term costs for OPEBS similar to how pensions are accounted for, with future payments discounted by an appropriate interest rate. In Texas, nearly all OPEBs are comprised of retiree health benefits. The accrued liability is an estimate of all current and future costs which are allocated to prior service by the employee; for persons already retired, this mostly consists of all future retiree health costs. ERS's calculations for 2010 show an OPEB liability for all participants covered by the ERS health insurance plan to be $22.3 billion. Implementing an integrated coordination of benefits with Medicare would reduce this liability by approximately $2 billion, or up to 10 percent of the current accrued liability for state employees covered by ERS.

Another option would be for ERS to change the Medicare COB to where the Medicare eligible retiree and ERS each pay 50 percent of the claim costs for the Medicare remainder. This would result in effectively a 10 percent coinsurance rate, much closer to that paid by active employees and other retirees. The direct savings to the plan for this change for the 2012–13 biennium would be $66.7 million in All Funds. This plan design change would reduce the state's accrued liabilities for OPEBS by approximately $3 billion, or up to 15 percent of the current accrued liability for state employees covered by ERS.

Either change would more closely align the costs paid by retirees with actives, as well as provide additional incentives for reduced utilization, in line with the tiered coinsurance strategy. Tiered coinsurance by itself would have virtually no impact on Medicare eligible retirees, since the ERS Medicare COB policy results in no coinsurance being paid by these participants. In addition to treating these retirees more like active employees and other retirees, these changes would likely reduce utilization by some degree, though it would likely be much lower than the utilization savings from tiered coinsurance. ERS could choose to apply tiered coinsurance for these retirees in addition to the coordination of benefits change, but this change is not included in the recommendations. In line with the affordability concerns expressed in the tiered coinsurance recommendations, it is assumed that the full $3,000 coinsurance maximum would not apply to those Medicare eligible retirees whose household income is less than 200 percent of Federal Poverty Level, rather a $1,500 coinsurance maximum would apply, well below the $2,000 coinsurance maximum for active employees. Again, retirees who elected to take Partial Lump Sum Option annuities could have their income determined as if their annuity had not been reduced by that choice.

FISCAL IMPACT OF THE RECOMMENDATIONS

The fiscal impact of implementing Recommendations 1, 2, and 3 is shown in **Figure 2**. HealthSelect expenditure data from fiscal year 2009 data broken into various cost brackets for different levels of expenditures was used to estimate the fiscal impact of applying additional tiers of coinsurance. For the tiered coinsurance recommendations, these amounts were increased at the same 9 percent level as the current medical cost trend for ERS, along with an adjustment for the benefit reductions in fiscal year 2011. Savings from the Medicare coordination of benefits design change are based on the change to integrated coordination of benefits, not on the proposal to evenly split costs after Medicare. No cost savings have been shown for HMOs, although they would presumably have to reduce their costs somewhat to compete with HealthSelect. They could choose to use the same methods recommended here. The recent changes in Federal healthcare laws are not anticipated to have any impact on the savings.

In fiscal year 2011, it is estimated that public community colleges comprise approximately 13.1 percent of state contributions, and 18.1 percent of General Revenue Fund contributions to the ERS health plan. There is a proposal that community college employees receive a $75 monthly stipend from the state, with any other funds made up from local funds by the community colleges. Assuming the community colleges maintain their current level of participants in ERS, the All Funds savings numbers might not change, but the savings in General Revenue Funds would be decreased by 18.1 percent under this proposal.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendation 1.

FIGURE 2
FIVE-YEAR FISCAL IMPACT
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS IN FEDERAL FUNDS	PROBABLE SAVINGS IN OTHER FUNDS
2012	$26,470,720	$2,105,833	$7,124,772	$7,893,570
2013	$28,850,560	$2,295,157	$7,765,322	$8,603,239
2014	$32,099,029	$2,553,583	$8,639,669	$9,571,932
2015	$35,761,856	$2,844,973	$9,625,544	$10,664,188
2016	$39,895,711	$3,173,835	$10,738,199	$11,896,903

Source: Legislative Budget Board.

ESTABLISH PILL-SPLITTING PROGRAMS TO REDUCE OUT-OF-POCKET EXPENSES FOR STATE EMPLOYEES

"Pill splitting" is a strategy for containing prescription drug costs. It allows user of a qualified medication to buy half as many pills at twice the dose and split them in half to achieve the prescribed strength. This strategy is safe and effective with medications that split easily, meet pricing criteria, and have a low risk of toxicity.

Prescription drug spending for Texas employee health plans exceeded $1.5 billion in All Funds for the 2007–08 biennium. Out-of-pocket costs for state employees were over $1.1 billion. By establishing voluntary pill-splitting programs, Texas can help to contain out-of-pocket prescription drug costs for state employees.

CONCERN

- Texas is not taking full advantage of opportunities to reduce prescription drug costs for the state health plans and state and university employees.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Insurance Code to require the Employees Retirement System, Teacher Retirement System, The University of Texas System Administration, and the Texas A&M University System Administrative and General Offices to each establish a voluntary pill-splitting program with a mandatory copay reduction incentive for member participation.

- **Recommendation 2:** Amend the Texas Occupations Code to require the Texas Board of Pharmacy to establish an advisory committee of pharmacists and physicians to develop a list of medications that are appropriate for pill splitting as well as education materials on safe pill splitting practices and the voluntary nature of the program for potential participants.

DISCUSSION

The costs of medications do not necessarily increase proportionately to the dosage. They often reflect packaging, advertising, and research and development. For instance, Employees Retirement System (ERS) paid an average of $3.32 per 100 mg tablet of Lamictal (an anticonvulsant) in fiscal year 2007. For the same year, ERS paid $3.94 per 200 mg tablet. The relative costs of Lamictal in the other state employee health plans were similar.

Prescription drug spending for Texas employee health plans exceeded $1.5 billion in All Funds for the 2007–08 biennium. Out-of-pocket costs for state employees were over $1.1 billion.

Pill-splitting is a strategy for containing prescription drug costs. Savings accumulate when, month after month, a user of a qualified medication buys half as many pills as normal at twice the dosage. The user obtains the prescribed dose by using a splitting device or knife to cut the pills in half. The goal of an optional pill-splitting program is to save money at the state and individual level without compromising participants' health.

ELIGIBLE INDIVIDUALS AND MEDICATIONS

Only a relatively small number of medications are appropriate for a pill-splitting program. Medications less suited for splitting include those with the following characteristics:

- have some sort of external coating;
- are capsules, gels, or liquid;
- are extended-release formulations;
- are prepackaged (such as an oral contraceptive pill);
- are in a capsule form or asymmetrically shaped; or
- splitting the medication would alter its chemical stability.

It is also not practical to split medications that only come in a single dose or for which there is no per-dosage cost savings in a pill-splitting program.

Likewise, not all individuals are appropriate candidates for a pill-splitting program. Individuals who have limitations in vision or dexterity may find splitting pills a challenge. For such reasons program participants must consult with a doctor to obtain medications in appropriate doses and quantities.

EFFICACY AND SAFETY OF PILL-SPLITTING PROGRAMS

Even if individuals use a splitting device to divide their pills, the resulting halves can vary in size by up to 15 percent. Therefore, medications whose long-term efficacy is unaffected by day-to-day fluctuations in dosage are best suited for splitting.

Drugs that are safe for splitting have a high therapeutic index. The therapeutic index is the ratio of the therapeutic and toxic quantities of the drug. A drug with a narrow index (such as seizure medications and blood thinners) is a drug that could be toxic within those day-to-day fluctuations. A drug with a high index will not have a toxic effect if the user takes slightly more than prescribed but will still be therapeutic if occasionally taken in doses slightly less than prescribed.

Statins, a type of medication used to lower cholesterol, have proven to have both savings and safety associated with splitting. In 2000, a one-year study involving over 2,000 patients at the Veterans Affairs Palo Alto Health Care System in California found that splitting three statin drugs saved over $138,000. Splitting medications had no adverse effect on any of the participants' cholesterol levels. Certain medications used for the treatment of migraines, sexual dysfunction, depression, and anxiety are also candidates for splitting.

PILL SPLITTING IN OTHER CONTEXTS

Pill splitting has long been used by physicians in pediatric and geriatric dosing. It has also been an informal cost-containment strategy for consumers. A 2008 poll conducted by the Harvard School of Public Health and the Kaiser Family Foundation for National Public Radio found that approximately one-fifth of the respondents in Ohio and Florida had split their pills to save money.

Navitus, Minnesota's pharmacy benefit manager (PBM) offers state employees a 50 percent copay reduction if they split eligible prescriptions. Their formulary consists of 14 medications. Since the program's implementation in 2008, the participation rate has been between 10 percent and 25 percent. It now has a pool of more than 150,000 members who split 21 percent of their eligible medications and realize out-of-pocket savings of $10,000 every quarter.

The Texas Health and Human Services Commission contracts with an agency for retrospective drug utilization reviews. This entails looking at paid claims to find patterns of inappropriate or unnecessary uses of some medications and advising the doctor on more efficient prescribing strategies. Pill splitting is one of the strategies used to maximize the cost/benefit ratio of drug therapy. For fiscal year 2007, the Texas Medicaid program saved more than $142,000 in General Revenue Funds from pill splitting resulted.

ESTABLISHMENT OF A PILL-SPLITTING PROGRAM

Through a review of studies and current programs in other states, Legislative Budget Board (LBB) staff identified 31 medications that appropriate users could safely split to achieve savings. More than 350,000 Texas state employees used these medications in fiscal years 2006 and 2007. State health plan expenditures for these medications exceeded $146.0 million and $131.6 million for fiscal years 2006 and 2007, respectively.

Because pill splitting can reduce prescription drug costs for both the state and its employees, Recommendation 1 would direct the Employees Retirement System, Teacher Retirement System, The University of Texas System Administration, and Texas A&M University System Administrative and General Offices to establish a pill-splitting program. A reduced copay incentive should be included in the program to encourage eligible plan members to participate.

This recommendation would also require each agency to report to the Governor and the LBB on the plan design, medication formulary, participation, and cost savings relating to their pill-splitting program no later than December 1, 2012.

Recommendation 2 would require the Texas Board of Pharmacy to establish an advisory committee of pharmacists and physicians to develop a list of medications that are safe and appropriate for splitting as well as education materials on the voluntary program and safe pill splitting practices. This recommendation would standardize pill-splitting formularies and practices across state employee health plans.

FISCAL IMPACT OF THE RECOMMENDATION

Recommendation 1 would save $710,190 in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium.

The fiscal impact in **Figure 1** considers the following factors:

- medications with more than 100 users would have a 7.5 percent participation rate for the first year and 15 percent each year thereafter. The 15 percent assumption was derived from Minnesota's experience with participation rates between 10 percent and 20 percent at the end of their program's first year; and
- medication strengths with fewer than 50 users, or a per pill cost of less than $1, would have no participants.

The costs for setting up and advertising these programs could be met with existing resources.

The copay reduction incentive would result in over $1 million in out-of-pocket savings for plan members. This estimate presumes a 50 percent copay reduction, though lesser reductions would still result in savings to state employees. Since a significant portion of both the UT and A&M health insurance expenditures fall outside the appropriations process, the savings to appropriated funds would be in addition to the savings to UT and A&M's non-appropriated funds.

Figure 2 shows estimated General Revenue Fund savings by agency, relying on the same assumptions.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

FIGURE 1
FIVE-YEAR FISCAL IMPACT, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	SAVINGS IN GENERAL REVENUE FUNDS	SAVINGS IN GENERAL REVENUE–DEDICATED FUNDS	SAVINGS IN FEDERAL FUNDS	SAVINGS IN OTHER FUNDS	SAVINGS IN LOCAL FUNDS	TOTAL SAVINGS
2012	$226,249	$10,481	$35,984	$28,473	$116,564	$417,750
2013	$452,498	$20,962	$71,968	$56,946	$233,128	$835,501
2014	$452,498	$20,962	$71,968	$56,946	$233,128	$835,501
2015	$452,498	$20,962	$71,968	$56,946	$233,128	$835,501
2016	$452,498	$20,962	$71,968	$56,946	$233,128	$835,501

Source: Legislative Budget Board.

FIGURE 2
ALL FUNDS SAVINGS BY PLAN, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	EMPLOYEES RETIREMENT SYSTEM	UNIVERSITY OF TEXAS SYSTEM	TEACHER RETIREMENT SYSTEM ACTIVE CARE	TEACHER RETIREMENT SYSTEM CARE	TEXAS A&M UNIVERSITY SYSTEM
2012	$174,680	$67,911	$57,572	$95,397	$22,367
2013	$349,359	$135,822	$115,143	$190,794	$44,733
2014	$349,359	$135,822	$115,143	$190,794	$44,733
2015	$349,359	$135,822	$115,143	$190,794	$44,733
2016	$349,359	$135,822	$115,143	$190,794	$44,733

Source: Legislative Budget Board.

REQUIRE STATE RETIREES TO PAY A GREATER SHARE OF THEIR HEALTH INSURANCE COST TO PRESERVE BENEFITS

Texas does not require Employees Retirement System health plan members to pay a monthly premium or an annual medical deductible. The state also pays 50 percent of a retirees' dependent's premium. During the 2010–11 biennium, the state will spend approximately $482.4 million in General Revenue and General Revenue–Dedicated Funds for retirees' health insurance premiums and approximately $88.5 million in General Revenue and General Revenue–Dedicated Funds for its share of retirees' dependent's premiums.

Monthly health insurance premiums for the Employees Retirement System have increased from $216 to $411 a month from fiscal years 2000 to 2011—a net increase of $195 a month, or 90.7 percent. The cost of providing retiree health benefits continues to increase as both the cost of the program and the number of retirees increases. Texas can reduce its expense for retiree health benefits by requiring retirees to contribute more toward their and their dependent's health insurance costs. This change would assist the state in managing costs and preserving health benefits for employees and retirees and would save $60.1 million in General Revenue and General Revenue–Dedicated Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- ♦ From fiscal years 2000 to 2010, the number of Employees Retirement System retirees increased from 47,310 to approximately 78,619, a 66.2 percent increase.
- ♦ Texas A&M University and the Teacher Retirement System retirees' contribute toward their health insurance premium. University of Texas retirees pay a $350 annual deductible but no premium.
- ♦ In calendar year 2009, Texas was one of five states with a state employee health plan that did not require retirees to pay anything for their health plan premium or medical deductible.
- ♦ In calendar year 2008, at least 10 states varied retiree premium contributions based on years of service.

CONCERN

- ♦ Increases in the cost of health benefits and the number of retirees and dependents have made it more difficult for the state to continue to afford to provide the same level of health benefits. Additional cost sharing would help preserve health benefits for employees and retirees.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend Rider 6 in the Employees Retirement System bill pattern in the 2012–13 General Appropriations Bill to require retirees to pay a portion of their health insurance premium based on years of service.
- ♦ **Recommendation 2:** Amend Rider 6 in the Employees Retirement System bill pattern in the 2012–13 General Appropriations Bill to reduce the state contribution for retirees' dependents from 50 percent to 40 percent of the premium.

DISCUSSION

Most states' retirees are eligible for health insurance during retirement if they meet specific age and service criteria set by the state. Some states allow all retired employees to participate in their health plan, while other states require the retiree reach a minimum age, have a minimum number of years of service (e.g., 20 years of service), or be receiving an annuity to qualify for health benefits in retirement. New York and West Virginia require an employee be enrolled in the health plan immediately prior to retirement to enroll in the health plan as a retiree.

The premiums retirees pay to participate in retiree health plans vary substantially. Some states provide the same health insurance for retirees as they do for active workers and charge the same premiums. At least 10 states, including California, Oregon, Ohio, and Nevada vary retiree premiums based on years of service. A few states require retirees to pay the full cost of their health insurance or cease retiree health coverage when a person becomes eligible for Medicare, the federal health insurance program for those ages 65 or older. In most states, persons who are eligible for Medicare pay a reduced premium because Medicare is their primary health insurance and the state health plan is their secondary health insurance.

In lieu of enrollment in the state health plan, some states offer a subsidy for the retiree to enroll in a state sponsored Medicare supplement plan or a Medicare Advantage plan.

Generally, retirees covered by the Employees Retirement System (ERS) health plan do not pay a monthly premium or medical deductible (ERS requires retirees 65 and over to pay a deductible). In calendar year 2009, Texas was one of five states with a state employee health plan that did not require retirees to pay for their health plan premium or medical deductible (the amount the health plan participant pays before health plan begins to reimburse for services). University of Texas retirees pay a $350 annual deductible and no premium. Texas A&M University and the Teacher Retirement System (TRS) retirees contribute toward their health insurance premium. In TRS-Care 3, a health plan for retired teachers comparable to the ERS HealthSelect plan, retirees pay a portion of their premiums based on the number of years the retiree worked in the school district. **Figure 1** shows the premiums for retirees in the TRS-Care 3 plan. TRS retirees pay the most if they have less than 20 years of service and the least if they have 30 years of service or more. Retirees under age 65 pay more than those age 65 or older because older retirees have coverage from the Medicare program. These policies manage costs and reward retirees who worked the longest with the lowest cost benefit.

FIGURE 1
RETIREE PAID MONTHLY PREMIUMS FOR TEACHER RETIREMENT SYSTEM, TRS-CARE 3, FISCAL YEAR 2011

RETIREE ONLY COVERAGE TYPE	PREMIUMS FOR LESS THAN 20 YEARS	PREMIUMS FOR 20 TO 29 YEARS	PREMIUMS FOR 30 OR MORE YEARS
Retirees with Medicare Part A and B	$110	$100	$90
Retirees with Medicare Part B Only	$245	$230	$215
Retirees Not Eligible for Medicare	$310	$295	$280

Source: Teacher Retirement System.

QUALIFYING FOR RETIREE HEALTH INSURANCE AT THE EMPLOYEES RETIREMENT SYSTEM

A state employee hired prior to September 1, 2009, is eligible to retire and receive an annuity if their age plus their number of years of service equal 80 (Rule of 80) or if they are age 60 with at least 5 years of state service. Persons can retiree from active service (employed immediately prior to retirement) or inactive status (previously employed with the state, but becomes eligible after terminating employment) and receive an annuity payment and sometimes health insurance. Regardless of status, to be eligible for state paid health insurance at retirement, an employee must meet the Rule of 80 with at least 10 years of service or be age 65 with at least 10 years of service. **Figure 2** shows a variety of combinations that may be used to retire with ERS health insurance. The state health insurance becomes the retiree's secondary health insurance when the retiree becomes eligible for Medicare at age 65 or at a younger age due to a disability.

FIGURE 2
EMPLOYEES RETIREMENT SYSTEM RETIREES ELIGIBLE FOR HEALTH INSURANCE, FISCAL YEAR 2011

AGE	YEARS OF SERVICE	ELIGIBLE FOR AN ANNUITY	ELIGIBLE FOR HEALTH INSURANCE
50	30	Yes	Yes
55	25	Yes	Yes
60	20	Yes	Yes
60	10	Yes	No
60	5	Yes	No
65	10	Yes	Yes

Note: Retirement eligibility changed for employees hired on or after September 1, 2009. The new provisions maintain the Rule of 80, but reduce the annuity by 5 percent for each year an employee retires before age 60 (with a maximum reduction of 25 percent). Alternate vesting for retirement is the same as health insurance, age 65 with 10 years of service.
Source: Legislative Budget Board.

COSTS AND TRENDS AT THE EMPLOYEES RETIREMENT SYSTEM

Currently, the Employees Retirement System bill pattern in the 2010–11 General Appropriations Act specifies that funds identified for group insurance are intended to fund the total cost of health coverage for all active and retired employees and 50 percent of the cost of health coverage for the spouses and dependent children. Monthly health insurance premiums for the Employees Retirement System have increased from $216 to $411 a month from fiscal years 2000 to 2011—a net increase of $195 a month, or 90.7 percent. During the 2010–11 biennium, the state will spend approximately $482.4 million General Revenue and General Revenue–Dedicated Funds on retirees health insurance premiums and approximately $88.5 million in General Revenue and General Revenue–Dedicated Funds on its share of retirees' dependent premiums.

The liability of providing retiree health benefits continues to increase as the number of retirees continues to increase. From fiscal years 2000 to 2010, the number of ERS retirees increased from 47,310 approximately 78,619, a 66.2 percent increase. In fiscal year 2011, there will be approximately 16,800 active state employees eligible to retire and approximately 5,100 additional employees will become eligible each year over the next five years. Some employees retire months or years after they become eligible. Based on recent experience, it is reasonable to assume between 4,500 and 5,500 employee will retire each year over the next five years.

Figure 3 shows the medical and pharmacy claims costs for retirees by age group. At ERS, retirees' healthcare is more expensive than their active counterparts and younger retirees are more expensive than retirees age 65 and older. Retirees younger than age 50 may be the most expensive because there were 776 persons in the group, and in a small group a few high cost claims can exaggerate the cost of the group. Another factor is that employees with health problems may retire early or as soon as they are eligible because health issues make it more difficult to continue to work.

FIGURE 3
MONTHLY HEALTH CLAIMS COST FOR RETIREES AT THE EMPLOYEES RETIREMENT SYSTEM, FISCAL YEAR 2009

RETIREES' AGE	NUMBER OF RETIREES	AVERAGE ANNUAL CLAIMS COST PER RETIREE	TOTAL CLAIMS (IN MILLIONS)
Younger than Age 50	776	$11,776	$9.1
Age 50 to 64	26,115	$7,940	$207.4
Age 65 and older (Medicare Primary)	47,694	$3,905	$186.3

Source: Employees Retirement System.

In fiscal year 2009, the cost of providing healthcare to the average retired plan member between the ages of 50 and 64 is $7,940 per year, $3,614 per year more than the state's premium contribution. Retirees age 65 and older are the least expensive because ERS is the second payer on claims after Medicare.

ACCOUNTING FOR RETIREMENT BENEFITS

Health insurance is not prefunded like the state employee pension plan, therefore, each fiscal year the state must provide additional funding to provide the same level of health benefits to retirees. In 2004, the Governmental Accounting Standards Board (GASB) established new standards for government employers to account and report liabilities on their financial statements associated with other post-employment benefits (OPEB).The goal was to provide a transparent assessment of government employers liabilities associated with promised retiree health insurance benefits, the largest OPEB benefit. The standard applies a similar approach to health benefits as is used with public sector pension, and the changes mirrored accounting standards that had been in place in the private sector since the early 1990s. GASB requires employers to identify the cost of the liability of promised OPEBs and either continue to "pay-as-you-go" or begin to prefund the costs.

For governments and actuaries, developing long-term liability estimates for retiree healthcare and other non-pension benefits can be complicated because several new assumptions must be established. These new assumptions include the annual rise in healthcare costs and the number of retirees who will take the benefits. States' liabilities are determined not only by the size of states' contribution to retirees' insurance premiums, but also by such factors age at retirement, the number of retirees covered, the vesting period, the type of health plan coverage, and dependent and spousal coverage. In response to this requirement, public employers have examined the benefits offered to retirees and sometime made adjustments to reduce the future cost of their programs.

In 2009, the Government Accountability Office reported the total unfunded OPEB liability reported in state and the largest local governments' financial reports exceeded $530 billion. The fiscal year 2009 Annual Financial Reports for Texas state agencies that provide retiree healthcare (ERS, TRS, UT, A&M) reflect a combined OPEB accrued liability of $51.9 billion. The liability is an estimate of all current and future costs associated with health benefit earned by employees, and the liability associated with future healthcare costs of current retirees. ERS's actuary estimated the ERS plan's unfunded liability as $22.0 billion. ERS reported that the increase in copayment and coinsurance that employees and retirees began paying in fiscal year 2011 to cover the ERS health plan shortfall reduced the OPEB obligation by

approximately $1.7 billion below the level that otherwise would have been reported at the end of fiscal year 2011.

Legislation enacted by the Eightieth Legislature, 2007, authorized governmental health plans in Texas to continue to account for retiree health benefits on a pay-as-you-go basis. The Texas Legislature determines the level of funding for state employee health benefit plans and has no obligation to provide those benefits beyond each fiscal year. The legislation also required that state retirees be informed that health and other insurance benefits for health plan members and retirees are subject to change based on available state funding.

REDUCING THE STATE'S EXPENSE FOR HEALTH BENEFITS

Texas can reduce its expense for retiree health benefits by requiring retirees to contribute toward their health insurance premium based on years of service and reducing the state contribution for retirees' dependents coverage. When prioritizing benefit changes, policymakers may consider whether it is more important to preserve health benefits for employees and retirees who have given the longest service to the state or to continue to provide benefits to other groups such as retirees' dependents.

Recommendation 1 would amend Rider 6 in the ERS bill pattern to require retirees to pay a portion of their health insurance premium based on years of service. Persons who work for the state for 30 years or more would continue to pay nothing for health insurance premiums and those who retire with less than 30 years of service would contribute toward their health insurance premium. This arrangement would allow retirees to retain low cost health insurance coverage and reward those who work the longest with the greatest benefit. ERS health plan members who responded to the 2010 survey regarding benefit preferences indicated they were willing to pay retiree premiums based on years of service more than other options offered to manage retiree health plan costs.

Figure 4 shows the percentage of retirees, based on recent retirements, in each tier of service and the premium each group would pay for retiree only insurance coverage. The percentage of retirees in each group is based on the years of service of ERS retirees who retired in fiscal years 2008 to 2010. The proposed premium for ERS retirees is lower than the amount TRS charges its retirees, and on the low end of the range of premiums charged in other states.

Figures 5 and **6** show the fiscal impact of Recommendation 1. If Recommendation 1 were to apply to all current and future state and higher education retirees enrolled in ERS, that state would save $40.1 million in General Revenue and General Revenue–Dedicated Funds in the 2012–13 biennium. If Recommendation 1 were to apply only to retirees who retire in fiscal year 2012 or later (grandfathering) the savings would be $2.9 million in General Revenue and General Revenue–Dedicated Funds in the first two years. Savings would increase each year as more employees retired under the new policy. The fiscal impact of Recommendation 1 assumes a 4.5 percent increase in the number of retirements and the same distribution of years of service and premium rates shown in **Figure 4**. The estimate assumes an employee who is eligible to retire under Law Enforcement and Custodial Officers Supplemental Retirement Fund is treated in the same manner as a general state retiree.

FIGURE 4
PROPOSED HEALTH INSURANCE PREMIUM TO BE PAID BY THE RETIREE, FISCAL YEAR 2011 PREMIUM RATES

YEARS OF SERVICE	EXPECTED PERCENTAGE OF RETIREES IN RANGE	AMOUNT AND PERCENTAGE OF MONTHLY PREMIUM
10 or more, but less than 15	17.3%	$82 or 20%
15 or more, but less than 20	15.2%	$41 or 10%
20 or more, but less than 30	44.9%	$21 or 5%
30 or more	15.0%	$0 or 0%

SOURCE: Legislative Budget Board.

According to ERS, the most expensive participants in the health plan are dependent spouses. Twenty-six percent of ERS health plan participants report that their dependent has access to other health coverage, but enrolled in the ERS health plan instead. Most retirees' dependents are spouses, however, a small number of retirees' cover children on the state's health plan in retirement. In fiscal year 2009 the average claims cost for retirees' dependent spouses age 50 to 64 was $6,394 per year. Some states cover only retirees dependents that were enrolled in the health plan when the retiree was an active employee and other states require retiree's pay more in premiums for dependent coverage. Recommendation 2 would amend Rider 6 in the ERS bill pattern in the 2012–13 General Appropriations Bill to reduce the state contribution for retirees' dependents from 50 percent to 40 percent of the premium. **Figure 7** shows the fiscal impact of Recommendation 2. Recommendation 2 would save the state $20 million in General Revenue and General Revenue–Dedicated Funds during the 2012–13

FIGURE 5
FIVE-YEAR FISCAL IMPACT OF RECOMMENDATION 1, CURRENT AND FUTURE RETIREES, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	$17,745,411	$1,867,938	$6,226,460	$5,292,491
2013	$18,543,955	$1,951,995	$6,506,651	$5,530,653
2014	$19,378,433	$2,039,835	$6,799,450	$5,779,533
2015	$20,250,462	$2,131,628	$7,105,425	$6,039,612
2016	$21,161,733	$2,227,551	$7,425,169	$6,311,394

Source: Legislative Budget Board.

FIGURE 6
FIVE-YEAR FISCAL IMPACT OF RECOMMENDATION 1, FISCAL YEAR 2012 RETIREES AND AFTER, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	$526,832	$55,456	$184,853	$157,125
2013	$2,134,721	$224,708	$749,025	$636,671
2014	$3,826,221	$402,760	$1,342,534	$1,141,154
2015	$5,605,679	$590,072	$1,966,905	$1,671,869
2016	$7,477,669	$787,123	$2,623,744	$2,230,182

Source: Legislative Budget Board.

FIGURE 7
FIVE-YEAR FISCAL IMPACT OF RECOMMENDATION 2, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	9,063,274	954,029	3,180,096	2,703,082
2013	9,063,274	954,029	3,180,096	2,703,082
2014	9,063,274	954,029	3,180,096	2,703,082
2015	9,063,274	954,029	3,180,096	2,703,082
2016	9,063,274	954,029	3,180,096	2,703,082

Source: Legislative Budget Board.

biennium. The estimate assumes the state cost of retirees' dependent premiums is constant at the fiscal year 2011 rate and enrollment is constant. However, it is reasonable to assume fewer retirees could enroll dependents in ERS health insurance as the cost of the coverage increases.

FISCAL IMPACT OF THE RECOMMENDATIONS

The combined fiscal impact assumes Recommendations 1 and 2 are implemented and the change in Recommendation 1 affects all current and future retirees. As shown in **Figure 8**, the combined fiscal impact would save the state $60.1 million in General Revenue and General Revenue–Dedicated Funds and $95.5 in All Funds during the 2012–13 biennium. The fiscal impact does not address interaction between these recommendations and others that have overlapping impact. The recommendations would generate revenue to the ERS trust fund, which would reduce the amount of state contribution in equivalent amounts of General Revenue and General Revenue–Dedicated Funds during the 2012–13 biennium.

FIGURE 8
FIVE-YEAR FISCAL IMPACT, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COSTS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/ (COSTS) IN FEDERAL FUNDS	PROBABLE SAVINGS/ (COSTS) IN OTHER FUNDS
2012	26,808,686	2,821,967	9,406,556	7,995,573
2013	27,607,229	2,906,024	9,686,747	8,233,735
2014	28,441,707	2,993,864	9,979,546	8,482,614
2015	29,313,737	3,085,656	10,285,522	8,742,693
2016	30,225,007	3,181,580	10,605,266	9,014,476

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

PROVIDE COMMUTER CHOICE INCENTIVES FOR STATE EMPLOYEES

Commuter benefits are an environmentally responsible way Texas could help state employees while encouraging transportation options that reduce congestion and pollution from motor vehicles. The Transit Benefit Program established by the federal government allows employers to subsidize employees' cost of commuting to work by mass transit and allows employees to use pre-tax income to pay for mass transit passes. The federal government also offers a bicycle commuting reimbursement, which allows employers to reimburse employees for certain costs associated with bicycling to work and exclude these reimbursements from gross wages so they are nontaxable. Incentives can be offered to encourage employees to live near their workplace so that walking and bicycling are commuting options. Implementing these options for state employees would provide an employee benefit that also reduces vehicle emissions and congestion.

FACTS AND FINDINGS

- At least 44 percent of state employees work in counties with access to a transit system. The largest concentration of state employees is in Travis and Williamson Counties, in which 24.2 percent of all state employees work.
- The Employees Retirement System of Texas is statutorily authorized to include a qualified transportation benefit in its supplemental optional benefits program.
- Forty-three percent of state employees would consider joining a carpool if the state assists with finding a matching ride according to a 2010 survey conducted by Legislative Budget Board staff.

CONCERNS

- The Employees Retirement System of Texas has not included qualified transportation benefits in its supplemental optional benefits program. As a result, state employees pay more to use public transportation options and the state loses an opportunity to reduce pollution, congestion, and payroll taxes.
- Currently, 3 percent of Texas state employees carpool and 90 percent use their personal vehicle to get to work. Approximately 2 percent of state employees ride a bus or train as their primary means of commuting to work.

RECOMMENDATIONS

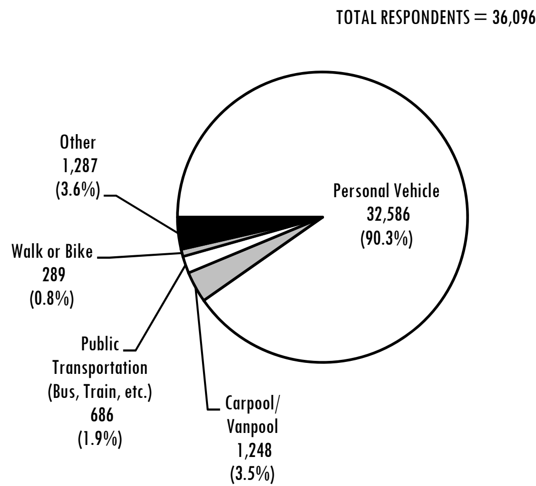
- **Recommendation 1:** Amend the Texas Government Code, Chapter 659, to require, rather than authorize, the Employees Retirement System to establish a statewide Qualified Transportation Benefit Program for state employees that choose to ride trains, buses, vanpools, bike, or walk to work.
- **Recommendation 2:** Amend the Texas Government Code, Chapter 659, to require state agencies to designate an employee transportation coordinator who will serve as the administrator of the commuter choice benefits program at the agency level, act as a liaison between the Employees Retirement System and employees, and provide information regarding carpooling.
- **Recommendation 3:** The Employees Retirement System and other state agencies should attempt to negotiate employee discount options with apartments that are within walking and/or bicycling distance to state office buildings.

DISCUSSION

According to a 2010 survey of almost 37,000 employees across all state agencies conducted by Legislative Budget Board (LBB) staff, 90.3 percent of Texas state workers use a personal vehicle to travel between their home and office. The second most-used method for commuting to work is other, which primarily consists of motorcycles, state vehicles, and telecommuting. **Figure 1** shows how state employees commute to work.

Vehicle emissions are a primary source of air pollutants in Texas and release nitrogen oxides into the air that can lead to the formation of ground-level ozone. Three areas of the state do not meet federal eight-hour ozone standards, including the Dallas-Fort Worth and Houston metropolitan areas and Beaumont-Port Arthur. The Dallas-Fort Worth and Houston areas make up the second and third largest concentrations of state employee work places. Additional areas of the state are classified as Ozone Early Action Compact areas, meaning

FIGURE 1
METHODS STATE EMPLOYEES USE TO COMMUTE TO WORK
AUGUST 2010



NOTE: Numbers may not sum due to rounding.
SOURCE: Legislative Budget Board.

they have been required to implement strategies to meet eight-hour ozone standards. This includes the Austin area, the location of the largest concentration of state employees with 24.2 percent of the state's workforce.

A Qualified Transportation Benefit Program (QTBP) would provide a way for the state to encourage its employees to reduce vehicle emissions contributing to air pollution. Additionally, a QTBP takes advantage of federal tax incentives for using alternative methods to commute to work and improves the practicality and awareness of commuting choices for employees. Even though many state office buildings are located in areas where employees could travel by bus, train, bike, or walk to work, nearly all state employees use a personal vehicle to commute. LBB staff found that at least 44 percent of state employees live in areas where mass transit is provided, yet less than 2 percent of state employees travel by train or bus to work.

QUALIFIED TRANSPORTATION BENEFIT PROGRAMS

The Transit Benefit Program, established by the federal government in 1998, authorizes an employer to subsidize employees' cost of commuting to work by transit and allows employees to use pre-tax income to pay for transit passes. The Internal Revenue Code, Section 132(f)(4), allows employers to offer employees current or future compensation and "qualified transportation fringes," including transit, vanpool, and qualified parking benefits. Employers can offer compensation via three methods:

1. Tax-free benefit—Employers may subsidize transit or vanpool fares up to $230 per month. Employees receive the benefit tax-free and employers do not pay payroll taxes or other costs on the amount provided.
2. Pre-tax benefit—Employees can use up to $230 per month of their gross income, before taxes, to pay for transit or vanpool fares. Employers do not pay payroll taxes and other costs that would normally be paid on the amount set aside by their employees.
3. Share the fare—Employers may combine the two options above to provide a tax-free benefit of $115 per month and allow employees to use $115 of their pre-tax salary to pay for the remaining portion of the tax-free amount. The employer receives a reduction of taxable income to avoid payroll taxes from the amount set aside.

Qualified transportation benefits can be provided directly by an employer or through a bona fide reimbursement arrangement, depending upon the technology used by local transit providers. Cash reimbursements for transit passes qualify only if a voucher or similar item that the employee can exchange for a transit pass is not available for distribution by the employer. In this case, a smart or debit card must be used. Mass transit includes buses and rail that are publicly or privately operated and vanpools that seat at least six adults and for which 80 percent of the vehicle's use is for transportation between employee homes and work places.

A bicycle commuting reimbursement was added to the list of qualified transportation fringe benefits covered by the Internal Revenue Service Code, Section 132(f), in 2008. For a calendar year, $20 multiplied by the number of qualified bicycle commuting months during that year can be reimbursed to employees that commute by bicycle. Reimbursements can be excluded from an employee's gross income so employees and employers will save on their portion of payroll taxes. The reimbursement is for reasonable expenses incurred by the employee and includes the purchase of a bicycle, bicycle improvements or repair, and storage. The bicycle must be regularly used for travel between the employee's residence and office. A qualified bicycle commuting month is defined as any month an employee regularly uses a bicycle for a substantial portion of travel from their residence to their office and does not commute via

highway vehicle, transit pass, or receive qualified parking benefits.

PROGRAM IMPLEMENTATION

The Texas Government Code, Section 659.102, authorizes ERS to establish a QTBP and requires the Employees Retirement System (ERS) to determine a fee or charge that may be paid as a qualified transportation benefit. In April 2004, ERS decided not to implement this program because it was determined no significant benefits or cost savings for the state would be realized and that it would compete with similar programs offered by institutions of higher education. As a result, state employees using mass transit to commute to work lose an opportunity to reduce the payroll taxes they pay. The state loses an opportunity to reduce its payroll taxes and encourage alternative commuting options to reduce congestion and pollution. Recommendation 1 would require the ERS to establish a QTBP for state employees. Public institutions of higher education could be exempted from requirements to participate in the program because many of them already offer various programs in which their employees may use transit at reduced rates.

ERS should determine the practicality of implementing a Guaranteed Ride Home program as part of the state's QTBP. A Guaranteed Ride Home Program would offer employees choosing to walk or bicycle to work or that take advantage of mass transit options to have an alternative transportation option available in case an emergency or unexpected overtime makes it unsafe or impossible for them to commute without a car. The federal government allows occasional cab fare to be provided as a nontaxable de minimis fringe benefit to any employee if it is reasonable, occasional, and provided to allow the employee to work overtime. Federal law also allows the use of cabs in unusual circumstances (such as an unexpected change in working hours) and unsafe conditions (such as having to leave the office late at night) and allows employers to provide cabs for employees, taxable to the employee as wages at a maximum rate of $1.50 each way.

ERS currently operates the TexFlex Program, which allows state employees to have money directly withdrawn from their pay-check tax-free and deposited into a flexible spending account for out-of-pocket health and dependent day-care expenses. An annual administrative fee of $1 per month is charged to users to cover the costs of administering the TexFlex program. A QTBP could be implemented in a manner similar to the TexFlex Program, with a nominal fee charged to cover administrative costs.

Transportation fringe benefits are considered easier to administer than other, similar, cafeteria benefits. This is because they are regulated under Section 132 of the Internal Revenue Code which is more flexible than Section 125 that regulates most cafeteria plans. The differences are outlined in **Figure 2**.

Numerous businesses as well as several governmental entities have implemented commuter choice benefits programs. The City of Richardson offers employees discounted monthly transit passes, subsidized vanpool services, and support for carpooling. Additionally, Richardson provides employees attending meetings or training for work free daily transit passes. The City of Austin purchases bus, rail, vanpool, and special transit services for its employees at no cost to the employee. Other entities including The University of Texas at Austin; Austin Community College; Boulder, Colorado; Palo Alto, California; the State of Ohio; and Western Washington University offer commuter choice programs for

FIGURE 2
COMPARISON OF SECTION 125 AND SECTION 132 BENEFIT PLANS, AS OF AUGUST 2010

CHARACTERISTIC	SECTION 125 PLANS	SECTION 132 PLANS
Enrollment period	Must be annual	Determined by employer
Reimbursement period	Employee can be reimbursed the full amount of one year's reserved income at any time during the year	Employee can be reimbursed only the amount that has been reserved within a given period
Distribution of pre-tax income remaining at end of enrollment period	Employee forfeits money ("use-it-or-lose-it")	No "use-it-or-lose-it" provision
Employee eligibility	Must meet nondiscrimination test	May be made available to any employee or groups of employees
Reporting requirements	Annual reporting required	No reporting requirements
Plan documentation	Written plan documentation required	No written plan documentation required

Source: San Diego Metropolitan Transit System.

their employees that include a variety of benefits such as cost reimbursements, federal tax incentives, guaranteed ride home programs, and assistance with carpooling. Federal statute and an Executive Order authorize all federal employees to spend up to $230 per month of their pre-tax income for transit benefits.

Companies have implemented bicycle commuting benefits in different ways. Meredith Corporation, a national publishing company, requires employees participating in the program to sign a statement that they bicycled to work for three or more days per week during each month for which they submit receipts for reimbursement. Additionally, employees complete a tracking log to be submitted with receipts that includes information on which days the employee commuted to work via bicycle. AustinEnergy provides employees that do not use a parking pass $100 per month instead of purchasing a parking spot. At the federal level, the National Indian Gaming Commission offers a bike subsidy to its employees along with other transportation fringe benefits.

A review of programs offered by public and private companies found that successful programs make information regarding commuting options readily available to employees. A variety of methods were used to inform employees about QTBP's, including websites and regular newsletters. Recommendation 2 would amend statute to require state agencies to designate an employee transportation coordinator that can publicize the QTBP to agency employees as well as work with ERS to implement the program as needed. This could include maintaining records for the purchase of vouchers for transit or vanpool use or records demonstrating expenditures under the benefit as required by federal law. A survey conducted by Legislative Budget Board staff found that 43 percent of state employees would consider joining a carpool if assistance in finding a ride were provided. When appropriate, the employee transportation coordinator should also collect and allow for the exchange of information about sharing rides with other commuters.

LIVE NEAR YOUR WORK PROGRAM

Tax incentives for persons who choose to walk to work are not available from the federal government. However, walking is an alternative transportation method that meets the goals of a commuter choice benefits program because it reduces air pollutants and congestion as well as easing employee commutes. The state could promote walking by increasing access to living options near state office buildings. "Live Near Your Work" programs provide incentives for employees to live near their place of employment. A simple way to implement this option would be to encourage or require state agencies to negotiate agreements with apartment facilities near state office buildings for employer discounts.

Many apartments in the Austin area offer discounts for employees of places such as the University of Texas. These discounts range from waiving administrative fees to reductions in monthly rents. ERS has negotiated discount programs with numerous vendors, including mortgage benefits offered through the financial services industry. However, to date ERS has not negotiated discounts with any apartment facilities. Recommendation 3 directs ERS to negotiate discounts with appropriate apartment complexes. Additionally, other state agencies in a position to negotiate with apartment facilities should attempt to negotiate discounts for their employees when appropriate. These discounts would encourage state employees to live near their place of employment; reducing commute times and enabling them to use alternative commute options such as walking to work.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations would save $82,590 in All Funds during the 2012–13 biennium, as shown in **Figure 3**. This savings is calculated based on current usage rates of mass transit by state employees and assumes ERS implements a qualified transit benefit program that provides pre-tax benefits only. The savings would be realized from reduced payroll taxes paid by the state as a result of reductions in taxable income.

The cost to ERS to implement Recommendation 1 could be covered by the inclusion of an administrative fee. Agencies would be able to absorb the cost of implementing Recommendation 2 as they are already required to have an employee that serves as the benefits coordinator and a wellness coordinator.

State employees would also realize a small savings from the reduction of their payroll taxes. Depending upon the location of the employee, this would result in an annual amount of $25 to $190 in non-taxable income.

FIGURE 3
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COST) IN ALL FUNDS
2012	$41,295
2013	$41,295
2014	$41,295
2015	$41,295
2016	$41,295

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

2011 UPDATE ON THE STREAMLINED SALES TAX

Federal courts have ruled that states may not require a firm to collect state and local sales tax on interstate sales unless the firm has a physical presence, or nexus, in the taxing state. Prior to the mid-1990s, the rulings affected primarily interstate catalog and telephone sales and some transactions between businesses conducted on proprietary computer systems. With the growth of the Internet, the potential for sales tax losses from remote sales increased dramatically.

In response to these potential revenue losses, a group of states formed the Streamlined Sales Tax Project in 2000. The goal of the project was to establish a simplified framework for collecting sales tax on remote sales either through voluntary compliance by remote sellers or through congressional action authorizing states to require vendors to collect taxes on interstate sales. The project produced the multi-state Streamlined Sales and Use Tax Agreement (SSUTA), which took effect in October 2005. Under the key provisions of the agreement, participating remote vendors voluntarily collect state and local sales taxes on remote sales on behalf of Streamlined Sales and Use Tax Agreement member states. Federal legislation that would ratify the agreement and mandate tax collections by remote sellers has been introduced in U.S. Congress, but has made little progress in the federal legislative process. Texas is not a member of the Streamlined Sales and Use Tax Agreement, and Texas statutes do not conform to the agreement guidelines in several respects. Becoming a member would require Texas to take legislative action to amend the state's sales and use tax law.

FACTS AND FINDINGS

- The Streamlined Sales and Use Tax Agreement was amended to allow states to use origin-base sourcing of local sales taxes for intrastate sales of tangible personal property and digital goods, removing the primary obstacle to Texas membership in the agreement.
- Amending Texas sales tax statutes to conform to Streamlined Sales and Use Tax Agreement requirements, absent congressional action mandating collection of taxes on remote sales, would result in a net revenue loss to the state of $88.3 million during the 2012–13 biennium.
- The Texas Comptroller of Public Accounts estimates that if the U.S. Congress enacts legislation authorizing state to require sellers to collect taxes on remote sales, and Texas becomes a member of the Streamlined Sales and Use Tax Agreement, the state could gain $500 million annually.

DISCUSSION

Forty-five states and approximately 7,600 units of local government impose sales and use taxes. The U.S. Census Bureau reports that in 2008 states general sales tax collections totaled $241 billion and accounted for 30.8 percent of all state taxes. Census Bureau numbers indicate that Texas is significantly more dependent on sales tax than the national average with sales taxes accounting for 48.5 percent of Texas state tax revenue in 2008.

The Census Bureau reports that in 2008, local governments collected $63.4 billion in sales taxes, 11.6 percent of all local taxes. In Texas, local taxing jurisdictions imposed $5.4 billion in sales taxes, with sales taxes accounting for 13 percent of local tax revenue in Texas according to Census Bureau definitions.

The Texas Comptroller of Public Accounts (CPA) uses a more restrictive definition of state tax revenue than the Census Bureau. According to CPA definitions, the state sales tax accounted for 55.6 percent of state taxes in fiscal year 2009. The CPA reported local government sales tax allocations in Texas of $5.9 billion in fiscal year 2009.

As of January 1, 2010, state sales tax rates ranged from 2.9 percent to 8.25 percent. At that time, California had the highest state rate, Colorado had the lowest, and Texas, with its 6.25 percent state rate, ranked tenth highest, tied with Illinois and Massachusetts. The National Conference of State Legislatures indicates that three states—Arizona, Kansas, and New Mexico—have increased their sales tax rates in 2010, with Arizona and Kansas now imposing higher rates than Texas, making Texas sales tax rate tied for twelfth highest.

State and local sales taxes are levied on purchases of taxable goods and services. Typically, sales tax liability is incurred when a purchaser buys a taxable good or service within the boundaries of the taxing unit and takes possession of the good or receives the service at the point of purchase. In the

typical case, the seller is legally responsible for collecting the sales tax on behalf of the taxing entity.

Most jurisdictions that impose a sales tax also impose a complementary tax called a use tax. The intent of the use tax is to prevent remote vendors from having an economic advantage over local vendors. When a seller has no physical presence in the taxing unit, but a good is shipped to the taxing unit, a use tax is imposed. Unless the seller voluntarily collects the tax on behalf of the taxing unit, the purchaser is liable for payment of the use tax. In many cases, use taxes are more difficult for state and local taxing units to audit, enforce, and collect than sales taxes. The issue of taxing Internet, catalog and other remote sales when the seller does not have nexus in the taxing jurisdiction is largely about collection of the use tax.

LEGAL BACKGROUND ON THE TAXATION OF INTERSTATE COMMERCE

In a series of rulings, the U.S. Supreme Court delineated the authority of states to collect taxes on interstate sales. In National Bellas Hess, Inc. v. Department of Revenue State of Illinois, 1967, the vendor argued that the sales tax imposed by Illinois violated both the Commerce Clause and the Due Process Clause of the Fourteenth Amendment to the U.S. Constitution. See **Figure 1** and **Figure 2.**

FIGURE 1
COMMERCIAL CLAUSE

Article I, Section 8, Clause 3, United States Constitution [The Congress shall have the power] “To regulate commerce with foreign nations, and among the several states, and with the Indian tribes;”

Source: U.S. Constitution.

FIGURE 2
DUE PROCESS CLAUSE

All persons born or naturalized in the United States and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Source: U.S. Constitution.

Illinois attempted to collect tax from National Bellas Hess, a mail-order firm based in Missouri. All the contacts the firm had with the state were through the mail or via common carrier. The U.S. Supreme Court ruled against the state, noting the burden on interstate commerce that would be created if every state and political subdivision with their various rates and exemptions could impose a sales tax on remote sales.

In Quill Corp. v. North Dakota, 1992, the U.S. Supreme Court re-affirmed that a business must have a nexus in a state for that state to require that the business collect use tax. The Court, however, explicitly separated the Commerce Clause and Due Process arguments, ruling that North Dakota had not violated the Due Process Clause. This is an important distinction for the prospect of state taxation of interstate sales because Congress does not have the authority to suspend the Due Process Clause. In contrast, Congress has the authority to regulate interstate commerce; therefore Congress has the power to enact legislation granting states the authority to collect taxes from remote sellers.

STREAMLINED SALES TAX PROJECT

In response to losses and potential losses of sales and use tax revenue to remote sales, several states initiated the Streamlined Sales Tax Project (SSTP) in 2000. The purpose of the SSTP was to simplify state and local sales tax collections and provide uniformity in the application of sales tax statutes and rules. By simplifying the sales tax the SSTP hoped to address some of the legal concerns about the burden on interstate commerce set out in Bellas and reiterated in Quill. The goal was to establish a framework for the collections of sales tax on interstate mail order and Internet sales. The SSTP produced the Streamlined Sales and Use Tax Agreement (SSUTA) in 2005. The agreement provided major elements of sales tax simplification including:

- state-level administration of sales and use taxes;
- limiting state and local governments to one tax rate except on food, vehicles, and utilities;
- common state and local tax bases within each state;
- online sales and use tax registration system;
- guidelines for rate or base changes;
- uniform sourcing rules; and
- uniform product definitions.

Under the key provisions of the agreement, participating remote vendors make voluntary payments of state and local sales tax on interstate sales on behalf of Streamlined Sales and Use Tax Agreement (SSUTA) member states. These payments

will be voluntary unless and until Congress enacts legislation ratifying the SSUTA.

More than 40 states have participated in the SSTP at one time or another, but as of November 2010, the SSUTA had only 20 full-member states as shown in **Figure 3.** More than 1,200 vendors have agreed to voluntarily collect sales tax on remote sales for SSUTA members.

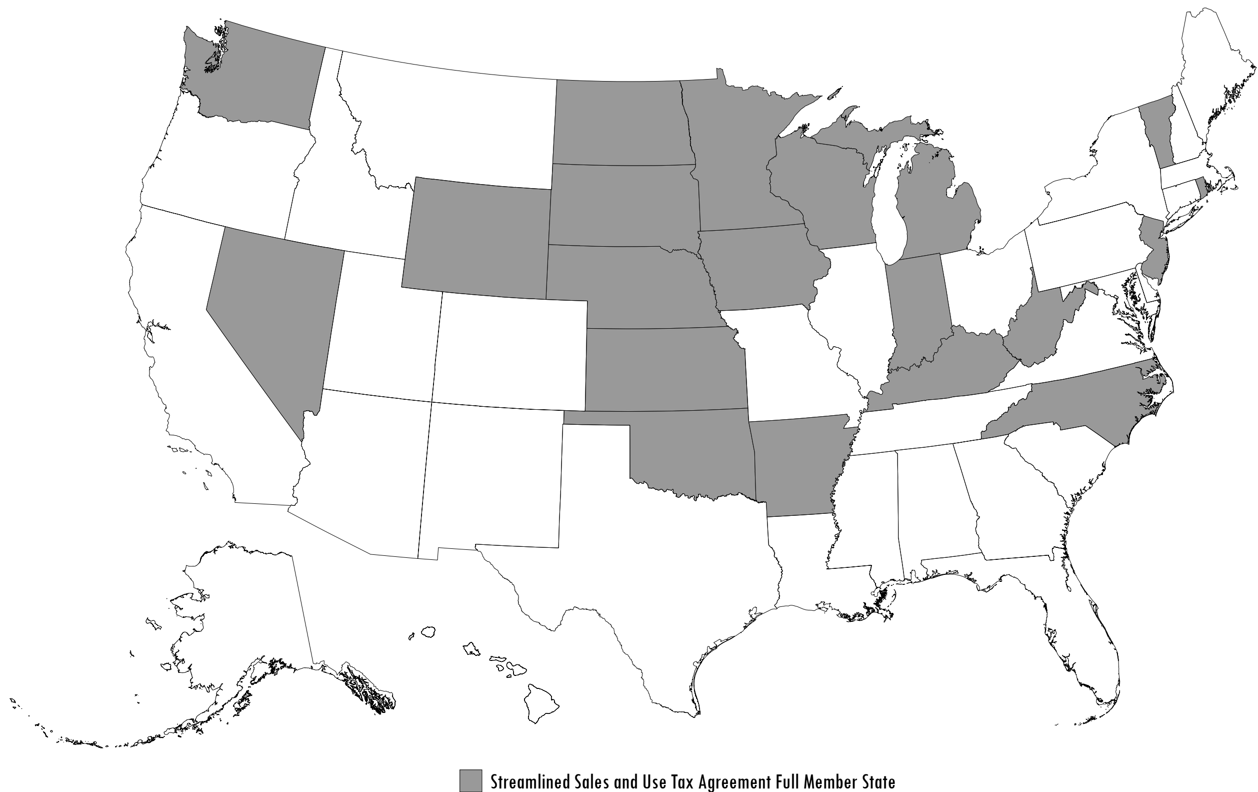
TEXAS' PARTICIPATION IN THE STREAMLINED SALES AND USE TAX AGREEMENT

In 2001, the Texas Legislature enacted legislation authorizing the state to participate in the Streamlined Sales Tax Project (SSTP) and designating the CPA as the state's representative to the SSTP. The Seventy-eighth Legislature, Regular Session, 2003, passed legislation that authorized the CPA to enter the state into the Streamlined Sales and Use Tax Agreement (SSUTA) if the Governor, Lt. Governor, and Speaker of the Texas House agreed. This legislation made some substantive changes to the Texas Tax Code and authorized the CPA to adopt rules to comply with the SSUTA requirements. The changes necessary for the state to comply with the SSUTA have not been fully implemented, and Texas is not currently a member on the SSUTA.

SOURCING RULES FOR LOCAL SALES TAXES

The primary reason why Texas did not join the SSUTA was that the state did not comply with the agreement's sourcing rules for local taxes. Initially, the SSUTA required destination-based sourcing. Under destination-based sourcing, a customer purchasing a computer from Dell Computers in Round Rock and having it shipped to Amarillo would pay the Amarillo tax, and Amarillo would receive the tax revenue. Texas uses origin-based sourcing: city sales taxes, county sales taxes, and special district sales taxes are generally sourced to the location of the seller. Under Texas law, a buyer purchasing a computer over the Internet from a Round Rock firm and having it shipped to Amarillo pays the Round Rock sales tax, and Round Rock receives the city sales tax paid on that purchase.

FIGURE 3
STREAMLINED SALES AND USE TAX FULL MEMBER STATES, NOVEMBER 2010



SOURCE: Streamlined Sales Tax Project.

The change to destination-based sourcing would have resulted in an overall loss of revenue to local taxing units as taxes would be redistributed from urban areas that have higher tax rates to suburban and rural areas with lower tax rates. The CPA estimated that $160 million in local tax revenue would have been shifted among taxing jurisdictions under a destination-based sourcing scheme. The SSUTA initial sourcing rules would have adversely affected certain cities in Texas that currently receive a disproportionate amount of their local sales tax on intrastate sales. Round Rock was the city with the greatest potential loss with an estimated loss of $30 million annually.

In December of 2007, the SSUTA governing board adopted an amendment to its sourcing rules, giving states the option to use origin-based sourcing for intra state sales of tangible personal property and digital goods. This change eliminated the most important obstacle to Texas' membership in the SSUTA. However, the sourcing of sales tax on rented and leased items remains an issue, and the SSUTA language on when states can require origin sourcing could be clarified.

IMPACT OF CONFORMING TO SSUTA

In order for Texas to become a member of the SSUTA, the state would have to adopt several statutory changes to conform to SSUTA requirements. While each state may decide to tax or exempt a particular category of items, SSUTA imposes uniform definitions of the categories. The changes in definitions would affect intrastate sales as well as remote sales. The power to include or exclude a particular item in or from a category is, in some cases, tantamount to the ability to require that an item be exempt or taxed. For example, the SSUTA definition of candy is narrower than the Texas definition, in that, the SSUTA definition of candy excludes any preparation containing flour. A Hershey bar would be taxable under the SSUTA definition, a Twix bar would not. If Texas wanted to continue to tax Twix bars, the state would have to tax food. Similarly, ice is taxable under Texas statute, but would be exempt under SSUTA definitions.

The CPA estimates that amending Texas statutes to conform to SSUTA requirements in the absence of federal legislation ratifying the SSUTA would result in a loss of revenue to the state. Assuming a January 1, 2012 effective date, the CPA estimates that the state would lose a net of $31.9 million in fiscal year 2012 and $56.4 million in fiscal year 2013, while local governments would lose $8.9 million in fiscal year 2012 and $15.8 in fiscal year 2013, as shown in **Figure 4**.

Most of the loss is from an increase in the vendor compensation required by SSUTA. Texas currently allows vendors to retain 0.5 percent of collections to offset the cost of collecting taxes on behalf of the state and local taxing units. The estimates in **Figure 4** are based on the assumption that vendor compensation under the SSUTA would be increased to 0.71 percent, and that the higher rate would apply to both intrastate and remote sales. The issue of vendor compensation is still under debate both in congress and with the SSUTA governing board, and the required vendor compensation rate could be increased to higher than 0.71 percent. According to CPA, most of the major remote sellers voluntarily participating in SSUTA have nexus in the state and are already collecting and remitting Texas state and local sales taxes; as a result, the state would see little revenue gain from voluntary payments. Significant revenue gains would depend on congressional action.

FIGURE 4
FISCAL IMPACT OF CONFORMING TO SSUTA, ABSENT FEDERAL LEGISLATION
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN/(LOSS) TO THE GENERAL REVENUE FUND (IN MILLIONS)	PROBABLE REVENUE GAIN/(LOSS) TO LOCAL GOVERNMENTS (IN MILLIONS)
2012	($31.9)	($8.9)
2013	($56.4)	($15.8)
2014	($58.5)	($16.4)
2015	($60.7)	($17.0)
2016	($63.0)	($17.6)

Source: Comptroller of Public Accounts.

STATUS OF FEDERAL LEGISLATION

Legislation to ratify the SSUTA has been introduced in each of the last four U.S. Congressional terms, but the legislation has made little progress in the legislative process. Most recently, in 2010, Representative Delahunt of Massachusetts introduced House Resolution 5660 in the One Hundred-eleventh Congress. The resolution would authorize SSUTA member states to require remote sellers not qualifying for a small seller exception to collect and remit sales and use taxes to member states. The resolution also establishes requirements for simplifying the administration of multistate sales and use taxes. The resolution was referred to the House Committee on the Judiciary on July 1, 2010, and no further action has been taken.

STATE AND LOCAL SALES TAXES ON REMOTE SALES

Since 2001, the University of Tennessee has produced several estimates of the state and local revenue losses from electronic commerce. It defines electronic commerce, or e-commerce, as sales made using the Internet, extranet, EDI networks, electronic mail or other online systems. Telephone and mail sales are not included in the definition of e-commerce used by in the Tennessee estimates. Its most recent estimates were released in 2009. In its baseline scenario, Tennessee estimates that e-commerce sales at almost $2.4 trillion in 2009, consisting of $2.2 trillion in business-to-business sales and $161 billion in business-to-consumer sales. It estimates that U.S. state and local governments lost $6.9 billion in uncollected sales tax on e-commerce in 2009. The Tennessee study estimates that Texas state and local governments lost $531.1 million in uncollected sales tax on e-commerce in 2009, collecting $1.6 billion of the $2.1 billion of tax due on e-commerce. The study did not estimate the revenue loss to Texas state and local government from catalog and telephone sales.

The CPA has estimated that Texas state and local governments lose $600 million in state and local sales tax from online purchases. The CPA estimates that the state could gain $500 million per year if Congress were to enact legislation authorizing states to collect sales taxes from remote vendors.

STATE ACTIONS OUTSIDE THE SCOPE OF THE STREAMLINED SALES TAX

States have taken actions outside the scope of the streamline process to collect sales and use tax on remote sales. New York, Rhode Island, and North Carolina have enacted so called "Amazon Laws." These laws require remote sellers with affiliates located in the state to collect the state's sales tax. Affiliates are firms who post a link to the out-of-state business on their websites and receive a share of revenues from the out-of-state business. New York has collected revenue from over 30 Internet companies with affiliates operating in New York. Amazon.com and Overstock.com are the largest remote sellers affected by the statutes, but many remote sellers use affiliates. Amazon has sued New York over its law, asserting that having affiliates does not constitute the physical presence required by Quill. A court ruled against the company, but the decision has been appealed. Amazon ended its affiliate programs in Rhode Island and North Carolina, while Overstock ended its affiliate programs in all three states.

Colorado has taken a different approach to taxation of remote sales by enacting a law requiring remote sellers to mail yearly notices to their Colorado customers informing them of the purchases on which they still owe tax. The law also requires remote sellers to file an annual statement for each customer with the Colorado Department of Revenue.

The State of Texas is currently attempting to collect sales tax from Amazon.com. The situation in Texas is different: Amazon maintains a distribution center in Irving. The state contends that Amazon is required to collect sales tax on behalf of the state and local government because the distribution center constitutes a physical presence in the state. Amazon contends that the facility is owned by a subsidiary and therefore does not constitute a physical presence in Texas. The CPA has billed Amazon $269 million related to uncollected sales taxes for the period December 2005 to December 2009. According to the CPA, the company has requested a re-determination, which means that the audit is ongoing and could be decided through the administrative hearings process.

REDUCE GENERAL REVENUE LOSS FROM SALES TAX DISCOUNTS

Texas allows businesses to retain a portion of state sales tax collections to compensate them for their effort in collecting and reporting sales tax. Additionally, retailers can retain an additional amount of sales tax collections for remitting estimated collections prior to their due date. These discounts cost the state more than $200 million each year. Many states either cap the amounts businesses can retain, offer different levels of compensation to retailers based on the amount of taxable sales, or do not offer such discounts. Increasing the timely filer discount rate and capping the amount of revenue businesses can retain for timely filing of their sales tax returns, and decreasing the rate of return they earn on taxes that they prepay would increase state sales tax revenues by $152 million in the 2012–13 biennium while still offsetting certain compliance costs associated with sales tax collections.

FACTS AND FINDINGS

- Texas is one of 24 states that offer a sales tax timely filer discount. The discount is essentially a service fee meant to compensate retailers (i.e., anyone with a taxpayer permit) for the administrative costs of recording sales tax collections and remitting them to the state.
- Thirteen states cap the amount of discount a retailer can retain.
- In addition to the timely filer discount, Texas provides a prepayment discount of 1.25 percent to retailers who pay their estimated taxes in advance.

CONCERNS

- Texas foregoes tax revenue as a result of the timely filer and prepayment discounts. The timely filer discount is estimated to cost $108.1 million in fiscal year 2012, and the prepayment discount is estimated to cost $99.7 million in fiscal year 2012.
- Texas does not cap the amount a retailer can retain in the form of a timely filer or prepayment discount. As a result, there is no way to limit the amount of sales tax timely filer or prepayment discounts a retailer receives.
- Texas retailers who prepay their sales taxes earn the equivalent of approximately 13.27 percent annual rate of return on their prepayments. This is significantly higher than the 1.57 percent interest rate the state earned on its treasury funds and higher than any existing interest rates available to retailers via other savings vehicles in 2009.
- Studies have found that tax compliance costs for small retailers are disproportionately higher as a share of sales tax collected than for larger retailers. Texas' current discount structure compensates all businesses the same for collecting and remitting sales taxes, regardless of their size or sales volume.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Tax Code, Chapter 151.423, to increase the timely filer discount to 0.75 percent and limit the amount a vendor can retain in the form of the timely filer discount to $3,750 per tax year.
- **Recommendation 2:** Amend the Texas Tax Code, Chapter 151.424, by adjusting the prepayment discount rate to the lesser of 1.25 percent or the rate that yields an annualized rate of return of 4 percent over the prime rate.

DISCUSSION

Consumers and businesses pay a state sales and use tax of 6.25 percent on the sales price for certain products and services purchased or used in Texas. Revenue generated from the sales and use tax is deposited into the General Revenue Fund and is the largest source of state revenue. According to the Comptroller the sales and use tax generated $19.6 billion in fiscal year 2010. However, every year the state foregoes sales tax revenue in the form of vendor discounts; the discount is essentially a service fee meant to compensate retailers (anyone with a taxpayer permit) for the administrative costs of recording sales tax collections and remitting them to the state. The collection process for the sales tax allows retailers who pay all or a portion of their taxes on time to retain 0.5 percent of the taxes due. In addition to the timely filer discount, retailers can retain an additional 1.25 percent discount if they prepay their taxes. Retailers are expected to retain $207.8 million in timely and prepayment discounts in fiscal year 2012. **Figure 1** shows the actual cost of the fiscal

FIGURE 1
PROJECTED SALES TAX DISCOUNTS
FISCAL YEARS 2009 TO 2014 (IN MILLIONS)

DISCOUNT	2009*	2010	2011	2012	2013	2014
Timely Filer	$94.0	$99.1	$103.3	$108.1	$ 112.4	$ 116.9
Prepayment	$91.4	$91.4	$95.2	$99.7	$103.7	$107.8

*Actual discount amount.
Source: Comptroller of Public Accounts.

year 2009 timely filer and prepayment discounts and estimated costs of the discounts from fiscal years 2010 to 2014.

In Texas, sales tax discounts have been available to retailers since the sales tax was first enacted in 1961; a time when retailers kept paper records and manually remitted collections to the state. The vendor discount was last adjusted in 1987 at which point the rate was reduced from 1.0 percent to the current 0.5 percent rate and the prepayment discount was reduced to 1.25 percent in 1983 from 2.0 percent.

There are opportunities to mitigate this loss to the state and generate additional revenue by implementing different options that reduce the amount of sales tax a vendor retains while addressing the disproportionate administrative cost for small business. Increasing the timely filer discount to 0.75 percent of sales tax collections and instituting an annual cap of $3,750 per retailer would generate $81.2 million in General Revenue Funds for the 2012–13 biennium. Additionally, adjusting the prepayment by linking it to prevailing interest rates would generate $70.8 million in General Revenue Funds for the 2012–13 biennium bringing the total General Revenue Funds gain for these changes to $152 million for the 2012–13 biennium.

TIMELY FILER DISCOUNT

Section 151.423 of the Texas Tax Code authorizes sales taxpayers to retain 0.5 percent of sales tax collections to offset the cost of collecting and remitting the tax to the state on a timely basis. As shown in **Figure 2**, retailers follow a monthly, quarterly, or annual payment cycle depending on the amount of the sales tax they collect per reporting period.

Retailers must remit all or a portion of the sales tax to the Comptroller of Public Accounts (CPA) by the twentieth day of the month following their tax collection period to be eligible for this discount. In fiscal year 2009, there were about 672,000 sales tax filers, 28.7 percent of which did not have any tax liability. Of those retailers with sales taxes due, 79.6 percent paid their taxes by or before their due date at least once during the fiscal year.

FIGURE 2
REPORTING PERIODS FOR SALES TAX FILERS BY SALES TAX COLLECTIONS AMOUNTS
FISCAL YEAR 2010

	ANNUAL SALES TAX CLASS OF RETAILERS		
	LESS THAN $1,000/ YEAR	LESS THAN $1,500/ QUARTER	$100,000 OR GREATER
Taxes Due	Yearly	Quarterly	Monthly

Source: Legislative Budget Board.

The sales tax data from the CPA shows that 380,270 taxpayers with a total of $310.9 billion in taxable amounts received the timely filer discount in fiscal year 2009. CPA reports that the timely filer discount cost the state $94 million in fiscal year 2009.

A retailer can remit a portion of sales taxes due for their reporting period and still earn the timely filer discount on that payment. This allows retailers to delay full payment without losing the benefit of the timely filer discount on the portion remitted. Any portion of the payment remitted 1 to 30 days after the due date incurs a 5 percent penalty fee; if payment is 31 to 60 days late, the penalty fee is 10 percent. Any payment made more than 60 days past the due date will incur a 10 percent penalty fee plus interest.

VENDOR DISCOUNTS IN OTHER STATES

Twenty-six states and the District of Columbia do not offer a vendor discount, the equivalent of Texas' timely filer discount. Twenty-four states offer vendor discounts, ranging from 5.0 percent in Alabama to less than 1.0 percent in six states, including Texas. Thirteen states limit the amount of discount that any one taxpayer may retain. The median state cap on a discount is between $4,000 and $5,000 per taxpayer per year. Some states also offer additional discounts to encourage retailers to file electronically or to file early.

Figure 3 shows the vendor discounts, the discount maximums, and sales tax rates for the ten most populous states. California, the most populous state, offers no vendor discounts. Other than Texas, only Michigan has a prepayment sales tax discount (0.25 percent).

The current economic climate has led some states to suspend or consider amendments to their sales tax vendor discounts. Most recently, New York and Colorado retailers are no longer allowed to apply a vendor discount to their sales tax remittances. Legislation authorizing this temporary suspension in Colorado became effective in 2009, after the Colorado Legislature had already reduced the vendor discount rate from 3.33 percent to 1.35 percent. The vendor discount is expected to be reinstated in January 2011. Nevada temporarily reduced its vendor discount from 0.5 percent to 0.25 percent for 2009, but decided to make the reduction permanent in the 2009 Legislative Session. Virginia, whose fiscal year ends on June 30, enacted legislation that mandates prepayment in June from vendors with taxable sales or purchases of $1 million or more in the previous fiscal year. In addition to this mandate, the vendor discount was reduced to between 1.2 percent and 0.6 percent depending on the vendor's monthly taxable sales. A few other states have also proposed legislation that would reduce or eliminate the vendor discounts. In Texas, for example, a bill that would have placed a limit of $10,000 on the amount of timely filer or prepayment discount a retailer could retain per year was introduced during the Eighty-first Legislature, Regular Session, 2009. The bill did not pass.

PLACING A CAP ON THE AMOUNT OF THE TIMELY FILER DISCOUNT

Capping the amount any one retailer can retain is a strategy that some states use to limit the loss of sales tax revenue to the state. Of the 24 states that offer vendor discounts, 14 cap the amount a retailer is allowed to retain. Few states apply the cap to each individual retail location, making it more beneficial for retailers in these states, but not as lucrative as in those states with no caps at all. Of the top five states with the highest revenue loss due to vendor discounts, only Florida has a ceiling on the amount of sales tax collections a retailer can retain per outlet.

Figure 4 shows that in fiscal year 2009 Texas retailers with more than $32 million in taxable amounts combined retained a total of $55.2 million in sales taxes as a result of the timely filer discount and comprise less than 1 percent of all timely sales tax filers. This represents 58.8 percent of the total amount retained by all vendors for compensation. In contrast, 76.1 percent of timely sales taxpayers had taxable amounts that equaled $200,000 or less.

Recommendation 1 would increase the timely filer discount from 0.5 percent to 0.75 percent and establish $3,750 as the maximum dollar amount that any one retailer could retain for the timely filing of sales tax based on the state portion of

FIGURE 3
SALES TAX DISCOUNTS FOR TEN MOST POPULOUS STATES
FISCAL YEAR 2010

STATE	VENDOR DISCOUNT	DISCOUNT MAXIMUM	STATE SALES TAX RATE
California	None	N/A	8.25%
Texas	0.5% (additional 1.25% for prepayment)	None	6.25%
New York	None	N/A	4.0%
Florida	2.5%	$360 per year*	6.0%
Illinois	1.75%	None	6.25%
Pennsylvania	1.0%	None	6.0%
Ohio	0.75%	None	5.5%
Michigan	0.5% (applies to first 4.0% of tax; 0.75% for prepayment)	$180,000 per year; $240,000 per year for prepayers	6.0%
Georgia	3% to 5.0% (tiered rate based on tax collection amount)	None	4.0%
North Carolina	None	N/A	5.75%

*Amount is per retailer location.
Source: Federation of Tax Administrators.

FIGURE 4
TEXAS SALES TAX DATA BY ANNUAL TAXABLE SALES BRACKETS
FISCAL YEAR 2009

			DOLLAR VALUE OF DISCOUNTS		NUMBER OF TAXPAYERS THAT RECEIVED A DISCOUNT		
DOLLAR RANGE*	TOTAL AMOUNT SUBJECT TO SALES TAX	STATE TAX OWED	TIMELY FILING DISCOUNT	PREPAYMENT DISCOUNT	TIMELY FILING DISCOUNT	PREPAYMENT DISCOUNT	TOTAL NUMBER OF TAXPAYERS
Less Than or Equals 0	($1,225)	($77)	$0	$0	$0	$0	192,905
$.01 to $200,000	11,218,824,279	701,176,517	2,816,997	5,762	289,387	124	387,343
$200,001 to $400,000	9,493,983,255	593,373,953	2,606,769	5,842	32,679	47	33,220
$400,001 to $600,000	7,943,409,410	496,463,088	2,240,132	7,705	16,003	32	16,230
$600,001 to $800,000	6,557,219,057	409,826,191	1,875,088	10,153	9,395	30	9,485
$800,001 to $1,000,000	5,538,030,540	346,126,909	1,590,740	9,901	6,156	22	6,196
$1,000,001 to $1,200,000	4,747,932,816	296,745,801	1,370,010	16,304	4,293	24	4,328
$1,200,001 to $1,400,000	4,005,662,917	250,353,932	1,160,022	10,339	3,075	14	3,090
$1,400,001 to $1,600,000	3,457,037,866	216,064,867	1,008,893	12,631	2,297	15	2,312
$1,600,001 to $1,800,000	3,242,405,082	202,650,318	945,191	12,771	1,899	14	1,911
$1,800,001 to $2,000,000	2,878,324,188	179,895,262	842,408	13,823	1,508	11	1,519
$2,000,001 to $3,000,000	11,093,044,015	693,315,251	3,263,538	87,938	4,527	55	4,558
$3,000,001 to $4,000,000	7,846,024,341	490,376,521	2,344,222	138,151	2,266	66	2,273
$4,000,001 to $8,000,000	18,403,477,125	1,150,217,320	5,521,503	344,848	3,333	102	3,337
$8,000,001 to $12,000,000	10,311,756,264	644,484,767	3,125,899	275,065	1,063	46	1,063
$12,000,001 to $16,000,000	7,464,378,008	466,523,626	2,273,389	248,767	538	32	538
$16,000,001 to $32,000,000	18,866,788,615	1,179,174,288	5,764,229	1,791,404	847	116	848
$32,000,001 or Greater	177,871,634,006	11,116,977,125	55,224,331	88,443,732	1,004	338	1,004
TOTALS	**$310,939,930,562**	**$19,433,745,660**	**$93,973,360**	**91,435,137**	**$380,270**	**$1,088**	**672,160**

*Amount subject to sales tax.
Source: Comptroller of Public Accounts.

the remittance. The cap would be $312 per month for monthly filers and $937 per quarter for quarterly filers. This strategy assumes that because of economies of scale, larger retailers are able to absorb compliance costs that smaller retailers cannot. Additionally, since a significant portion of compliance costs are fixed costs, a maximum compensation level seems justified. Based on data shown in **Figure 4**, approximately 476,000 taxpayers would see an increase in their timely filer discount and 3,450 would be affected by the cap.

PREPAYMENT DISCOUNT

In addition to the 0.5 percent timely filer discount that retailers retain for collecting and remitting sales tax receipts to the CPA in a timely manner, they are also eligible for a 1.25 percent prepayment discount if they pay their estimated taxes in advance. As shown in **Figure 5**, taxpayers on a quarterly payment cycle must make prepayments no later than the fifteenth day of the second month of the current calendar quarter. For monthly payers, prepayments are due the fifteenth day of the month of tax collections if on a monthly payment cycle. Since prepayments are made before all taxable amounts have been accounted for, prepayments must be made based on a defined "reasonable estimate" of tax collections for the reporting period.

The prepayment discount incentivizes retailers to remit sales tax collections in advance of their due date. Prepayments are particularly advantageous to the state at the end of each fiscal year, because they allow the state to certify revenue for one fiscal year even though it is not yet due. For example, a retailer can prepay estimated sales taxes in August even though they are not due until September or October (the start of a new fiscal year).

The pre-payer discount totaled $91.4 million in fiscal year 2009. Approximately 1,100 taxpayers prepaid their taxes and earned the combined 1.75 percent timely filer and prepayment discount. Another reason taxpayers may decide to take advantage of the prepayment discount is because the 1.25 percent rate they can earn with the state may be higher than the prevailing market annual interest rate available through other savings vehicles. In other cases, the high rate of return allows retailers to borrow money to make prepayments and still earn enough to cover interest charges incurred from borrowing. There was an increase in prepayments from fiscal years 2008 to 2009 despite a decline in total sales tax collections in 2009. The increase in prepayments from 2008 indicates that the low average market interest rates of 2009 could not compete with the prepayment discount rate, prompting retailers to lend their money to the state in the form of sales tax prepayments. According to CPA, the state treasury was earning interest at a treasury pool rate of 2.51 percent in 2009, and 1.57 percent in 2010. The prime rate for fiscal years 2009 and 2010 was 3.25 percent. These rates are significantly lower than the average 13.27 percent annual rate of return that retailers earned when prepaying. In economic situations where market interest rates are very low, the state incurs a loss and will continue to incur such losses unless safeguards are put in place.

FIGURE 5
SALES TAX PREPAYMENT SCHEDULE FOR MONTHLY AND QUARTERLY PREPAYERS

MONTH TAXES ARE DUE FOR MONTHLY PREPAYERS	MONTHLY DUE DATE	MONTH TAXES ARE DUE FOR QUARTERLY PREPAYERS	QUARTERLY DUE DATE
January			
February		Jan, Feb, and Mar	First Quarter: Feb 15
March			
April			
May		April, May, June	Second Quarter: May 15
June	Fifteenth of the month		
July			
August		July, August, Sept	Third Quarter: August 15
September			
October			
November		Oct, Nov, Dec	Fourth Quarter: Nov 15
December			

SOURCE: Legislative Budget Board.

Adjusting the prepayment discount to account for such interest rate fluctuations can help mitigate the loss to the state from prepayments, yet still be advantageous to the retailer. Recommendation 2 would amend Section 151.424 of the Texas Tax Code by adjusting the prepayment discount to the lesser of 1.25 percent or the rate that produces an annualized rate of return equal to 4 percent over the prime rate. The prepayment discount rate would vary annually based on the prime rate published in the Wall Street Journal on the first business day of each calendar year. Limiting retailers to a prepayment discount rate, which yields returns significantly higher than the prime interest rate, would still allow them to earn an above market return. Capping the prepayment discount rate at 1.25 percent protects the state from incurring increased costs in the case that the rate for traditional interest bearing accounts were to exceed the current prepayment rate.

TAX COLLECTION COST STUDIES

In 1998, the Washington Department of Revenue studied the cost to business of collecting and remitting sales taxes. This study compared the operational costs of retailers in Washington, where a sales tax is imposed, to those costs in Oregon, a state with no sales tax. The study concluded that overall collection costs, excluding credit card fees, averaged 0.47 percent of sales tax collections for all retailers. Costs were 0.21 percent for large retailers (gross retail sales of more than $1.5 million). The lower cost for large retailers was attributed to the fact that larger firms will have accounting systems and other operational costs whether required to collect a state sales tax or not. This evidence demonstrates that retailers in Texas would incur the same administrative costs regardless of the imposition of a states sales tax since there are still local taxes or remote sales taxes to pay. Therefore, the state sales tax does not necessarily result in additional costs to Texas retailers.

A more recent study on the cost of sales tax collection for retail commissioned by the Streamlined Sales Tax Project (SSTP) was published in 2006. This national study shows the total impact of collecting sales taxes in 45 states and 7,500 units of local government. Self-reported costs include, for example, hardware needed for accounting purposes, number of remotes sales, training for employees, credit card fees, and filing frequency. The consideration of certain cost drivers and the inclusion of multiple states with varying tax regulations overstates the costs of collecting taxes on behalf of any one state.

This study found that tax compliance costs for small retailers are disproportionately higher as a share of sales tax collected than costs for larger retailers. Retail businesses with annual sales of $150,000 to $1 million had sale tax compliance costs that equaled 13.47 percent of total sales taxes collected and those with annual retail sales above $10 million had compliance costs of 2.17 percent. Their compliance costs went down as a percentage of their total annual sales.

As such, a current flat discount rate is more beneficial for larger retailers than for smaller ones. Compliance costs for retailers in the smallest size category are six times higher as a share of sales tax collected than for retailers in the largest size category.

Unlike the Washington study which has a control group to compare stores with compliance costs and those with none, the SSTP study accounts for varying multi-state tax rates and regulations which leads to overstated compliance costs. The Washington study's narrow focus is a more relevant comparison to the compliance costs of Texas taxpayers.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 1 would increase the timely filer discount to 0.75 percent and limit the amount a vendor can retain in the form of the timely filer discount to $3,750 per tax year. Since retailers remit local and state sales taxes at the same time, it is important to note that the cap would apply to only the state portion of the sales tax remittance. While increasing the timely filer discount for small taxpayers would slightly offset the revenue gains that could be realized from capping large taxpayers, the net benefit to the state is positive. The CPA is not expected to experience a significant administrative burden as a result of this recommendation since retailers would continue to calculate and retain the portion of sales tax collections due to them based on the new ceiling amount. Implementation of this recommendation is estimated to generate an additional net $81.2 million in General Revenue Funds for the 2012–13 biennium as shown in **Figure 6**.

Adjusting the prepayment discount rate could generate revenue for the state while still providing an incentive to retailers to pay their sales taxes in advance, allowing the state to realize the most benefit from prepayments. Based on fiscal year 2009 prepayment amounts, implementing Recommendation 2 could generate $70.8 million in General Revenue Funds for the 2012–13 biennium. Recommendation 2 assumes that retailers currently prepaying sales tax collections would continue to do so. If implemented simultaneously, the

recommendations would yield $152 million in General Revenue Funds for the 2012–13 biennium.

FIGURE 6
FIVE-YEAR FISCAL IMPACT OF RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2012	$74,239,722
2013	$77,736,413
2014	$81,397,798
2015	$85,231,634
2016	$89,246,044

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

PHASE OUT ECONOMIC DEVELOPMENT TAX REFUNDS

Since 1997, the State of Texas has refunded $114.9 million in lieu of school property tax abatements through the Tax Refund for Economic Development program to firms receiving local property tax abatements for economic development purposes. Partial refunds of sales and use and franchise tax payments reimburse participants in city and/or county property tax abatement agreements for some of the school property taxes they pay due to the state prohibition on school property tax abatements. Refund amounts to individual school property taxpayers may not exceed net sales and/or franchise tax payments made in the same tax year as school property tax payments. Aggregate refunds for all recipients are limited statutorily to $10 million per fiscal year.

These refunds originated as a means of compensating city and county property tax abatement agreement participants for unabated school property taxes. The refunds are intended to promote economic development, but their structure and operation hinder their efficiency and effectiveness. These factors, plus the development of other economic development programs and state efforts to reduce school property taxes, have made the program less than a meaningful incentive. Phasing out the program would allow current participants to continue receiving some refunds and result in savings of $4 million in General Revenue Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- The $10 million annual cap on sales and franchise tax refunds has come into play each year since 1998. As a result, a business receives only a proportion of its school property taxes paid on property abated by the city or county. In fiscal year 2008, participants received state tax refunds equal to 25 percent of the amount they paid to school districts on property value abated by cities and counties.
- Due to the nature of property tax collection and the refund application process, participants do not receive refunds until several months after paying school property taxes and well after capital investments are made.

CONCERN

- The Tax Refund for Economic Development program's effectiveness as an economic development incentive is limited by the timing of refund application and payments, the uncertainty in the amount of benefit provided, and the size of the benefit.

RECOMMENDATION

- **Recommendation 1.** Amend Texas Tax Code, Chapter 111, Subchapter F, to phase out the Tax Refund for Economic Development program beginning in fiscal year 2012 through fiscal year 2016, at which point the phase out would be complete.

DISCUSSION

Since 1997, Texas' Tax Refund for Economic Development program (refund program) provides for the refund of certain taxes in lieu of school property tax abatement to firms receiving local property tax abatement for economic development purposes. Partial refunds of sales and use and franchise tax payments are designed to reimburse participants in city and/or county property tax abatement agreements for some of the school property taxes they would not have had to pay but for the state prohibition on school property tax abatements. Businesses may apply to the Comptroller of Public Accounts (CPA) for the refunds, the amounts of which may not exceed net sales and/or franchise tax payments made in the same tax year. Refunds for all recipients are limited statutorily to $10 million per fiscal year in the aggregate.

PROGRAM OPERATION

The refund program applies to property owners having property tax abatement agreements after Jan. 1, 1996 with cities and/or counties. Properties owned by taxpayers who have entered them into school property tax valuation limitation agreements through the Texas Economic Development Act or into property tax abatement agreements with school districts are excluded from participation. New school property tax abatement agreements have been prohibited since fiscal year 2001.

The property must be located in a designated reinvestment zone, as defined in statute. The property must comprise

either a new business or an existing business that has expanded or modernized. The business either must have increased its payroll statewide by $3 million, or its appraised value must have increased by at least $4 million. Owners may not receive refunds if they have agreed to make payments in lieu of taxes (gifts, grants, donations, services in kind) greater than $5,000 to the cities or counties granting the abatements.

Property owners submit applications for refunds annually to the Property Tax Assistance Division of the CPA. Applications are due before August 1 of the year immediately after the tax year (same as calendar year) in which school property taxes were paid on the property subject to city or county tax abatement agreements.

There are two limitations on the size of refunds. Refunds to individual school property taxpayers may not exceed the net amount of sales and franchise taxes paid by refund applicants in the same tax year for which refunds are being claimed. By statute, aggregate refunds may not exceed $10 million in any fiscal year. In any year in which total approved claims for refunds exceed $10 million, the law requires allocation of that amount proportionally among all recipients. Refunds may be received for up to five years or the duration of the underlying tax abatement agreements, whichever is shorter.

The receipt of refunds is slowed by the lag times inherent in property tax collection and overlaps tax year and state fiscal years. Businesses incur school property tax liability during the calendar year based on appraised values as of January 1. Typically, they do not pay their property taxes until after January 1 of the following year, after a new fiscal year has begun. Refund program participants have until July 31 of the year immediately following the relevant tax year to apply for refunds, which usually occurs during the ensuing fiscal year after they incur property tax liability. Because CPA has 90 days after the filing deadline to process applications, refunds usually are not issued until two fiscal years after the property tax liability is incurred. For example, if a company located or expanded a facility subject to city/county property tax abatement in March of 2010, the property or added value would not appear on the county tax roll until Jan. 1, 2011. The company pays its school property taxes by the end of January 2012 and has until July 31 to apply for an economic development tax refund. CPA has 90 days thereafter to process applications, so it typically does not begin issuing refunds until November. Thus, the company would not receive a refund until more than two and half years after making its investment.

PROGRAM PERFORMANCE AND ANALYSIS

The refund program was enacted in the mid-1990s during a transitional period when the Legislature was deliberating tax abatement policy in general and school property tax abatement in particular. The refunds were a means of compensating abatement agreement participants for school property taxes they were having to pay when school district abatement agreements still were legal but waning due to changes in school finance law. Whatever initial incentive for economic development the program may have provided was diminished by inherent weaknesses in the program structure and operation. As other types of state economic development programs have arisen, along with state efforts to reduce school property taxes, the refunds have ceased providing meaningful incentives.

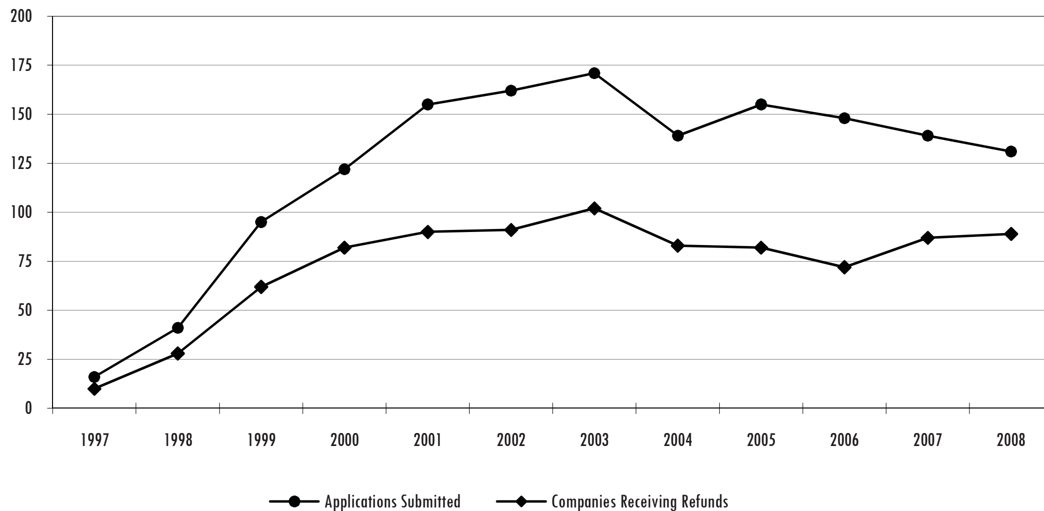
Overall, the level of activity in the refund program has plateaued since fiscal year 2003. Historically, 90 percent of firms that apply for refunds obtain one. The annual number of applications has averaged 123 since inception and 142 from fiscal years 2004 to 2008. The peak year was fiscal year 2003 with 171. Most application denials, according to CPA staff, are due to firms filing late; not paying any sales or franchise taxes; participating in the school property tax appraised valuation limitation program; or attempting to transfer refund eligibility to subsidiaries, which is prohibited by law.

Annual totals of recipients have decreased from 102 in the peak year of fiscal year 2003; since then, the number of recipients has averaged 83 per year. It is not uncommon for firms to repeat as recipients, and many submit applications and receive refunds for more than one property in the same year. Since inception, approximately 275 different (unduplicated) firms have participated in the program. **Figure 1** shows the number of applications submitted and the number of recipients annually since inception.

While some recipients are small or midsize local or regional businesses, most are large corporations, some of which are Fortune 500 companies. Prominent among them are oil and petrochemical companies operating refineries and plants located along the upper Gulf Coast, but many others are located in the Houston area and the Dallas-Fort Worth Metroplex. Other industries include semiconductors, telecommunications, transportation, healthcare, retailing, insurance, and financial services.

The timing of refund applications and payments limits the efficiency and effectiveness of the refund program. After

FIGURE 1
ECONOMIC DEVELOPMENT TAX REFUND APPLICATIONS AND RECIPIENTS
FISCAL YEARS 1997 TO 2008



SOURCE: Comptroller of Public Accounts.

submitting their applications, firms may have to wait 18 months or more to receive their refunds. This delay limits the program's capacity to provide timely incentive for businesses to initiate projects in Texas.

The aggregate annual limit also limits the refund program's effectiveness. The program restricts combined total refunds to $10 million per fiscal year, making the amount of refund uncertain. Participating firms cannot determine their tax savings on projects in advance because it is predicated on prospective numbers of refund recipients and future amounts of tax payments. In its 1996 interim report on economic development incentives, the Senate Economic Development Committee wrote, "In effect, a company is participating in a lottery when applying for the … state tax refunds. This means that the tax refunds may not function as true incentives."

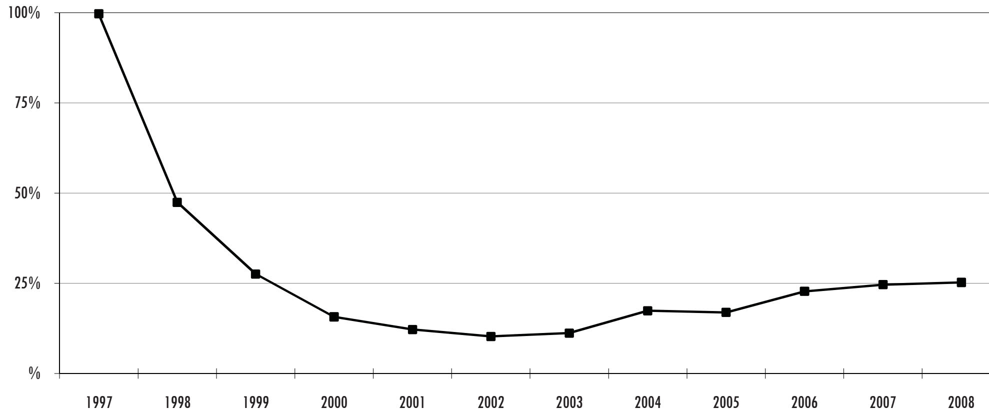
Because the aggregate refund limit has been reached every year since fiscal year 1997, refund payments have been prorated, lessening recipients' financial benefit. Since inception, $634.4 million in school property tax payments on otherwise locally abated values have been reported by recipients. Over the life of the program, the state has refunded $114.9 million in sales and franchise taxes, or 18 percent of the school taxes reported. **Figure 2** shows aggregate refund as a percentage of school property taxes paid by refund recipients on locally abated values by school tax year.

In fiscal year 2008, participants were reimbursed in sales and/or franchise tax refunds the equivalent of 25 percent, on average, of the $39.5 million they paid that year in school property taxes that they would have saved under school district abatements identical to their city/county abatements. Since 1999, however, the annual reimbursement rate has averaged 18 percent. Since inception, refund recipients have paid $634.4 million in school property taxes on property values abated by cities and/or counties, but not school districts. The refunds are equivalent to 18 percent of total school property tax payments made on locally abated property. This relatively small amount of supplemental tax relief appears insufficient to affect major capital investment decisions.

PHASE OUT THE PROGRAM

Recommendation 1 would phase out this program over five years; no new applications would be accepted as of Jan. 1, 2012. Doing so would save the state $4 million in fiscal year 2013 and an additional $2 million each fiscal year through fiscal year 2016; the savings would be $10 million each year thereafter. Other economic incentives still would be available such as city/county abatement agreements (under Texas Tax Code Chapter 312) and property value limitation agreements (under Texas Tax Code Chapter 313). The state also has other economic incentive programs, including the Texas Enterprise Zone Program, Texas Enterprise Fund, and the Texas Emerging Technology Fund.

FIGURE 2
AGGREGATE REFUND AS A PERCENT OF SCHOOL PROPERTY TAX
CALENDAR YEARS 1997 TO 2008



SOURCES: Legislative Budget Board; Comptroller of Public Accounts.

To ensure continuity and be fair to participants who were anticipating refunds for up to the maximum five years allowed, the program should be phased out over five years by gradually reducing the amount of refunds available each year. Due to these considerations, the aggregate annual $10 million limit should be reduced by 40 percent starting in fiscal year 2013 and by 20 percent in each subsequent year until it reaches zero in fiscal year 2016.

FISCAL IMPACT OF THE RECOMMENDATION

Recommendation 1 would save $4 million in General Revenue Funds during the 2012–13 biennium. Total state savings would be $10 million in General Revenue Funds per fiscal year beginning in fiscal year 2016. Newly available sales tax revenue would remain in the General Revenue Fund. Franchise tax revenue would revert to the Property Tax Relief Fund, thereby reducing the appropriation of General Revenue Funds to the Foundation School Program by an equivalent amount, ultimately resulting in a savings to the General Revenue Fund.

Figure 3 shows the estimated fiscal impact of the following repeal and implementation scenario:

- Beginning January 1, 2012, no new applicants may participate, nor may any new properties be included after that date.
- Refund applications from current participants for properties now in abatement continue to be accepted and processed for tax (calendar) years 2011, 2012, 2013, 2014, and 2015, subject to the five-year eligibility restriction.
- Beginning in fiscal year 2013, the aggregate annual refund limit of $10 million is phased out over four years, by 40 percent in the first year and by 20 percent in each subsesequent year.
- The state would save the entire $10 million in sales and franchise tax revenues initially in fiscal year 2016 and in each fiscal year thereafter.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

FIGURE 3
ESTIMATED FIVE-YEAR FISCAL IMPACT OF PROPOSED PHASE OUT
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/(COST) TO/ PROPERTY TAX RELIEF FUND	COMBINED TOTAL SAVINGS/(COST)
2012	$0	$0	$0
2013	$2,685,600	$1,314,400	$4,000,000
2014	$4,028,400	$1,971,600	$6,000,000
2015	$5,371,200	$2,628,800	$8,000,000
2016	$6,714,000	$3,286,000	$10,000,000

Source: Legislative Budget Board.

TIE THE AUGUST STATE SALES TAX HOLIDAY TO BUDGET CONDITIONS

Nineteen states, including Texas, held sales tax holidays in 2010. These holidays exempted certain products, typically clothing and school supplies, from the state sales tax for a defined period. Texas statute provides for an annual sales tax holiday each August regardless of the state's fiscal health. Some states canceled their planned holidays in 2009 and 2010 because of budgetary and economic conditions.

Analysis indicates Texas will face budgetary shortfalls in fiscal year 2011 and the 2012–13 biennium. Amending statute to establish a permanent review process that uses budget criteria as a basis for determining whether to hold the holiday would give the state flexibility to hold the holiday in years in which the state can afford it. Furthermore, this change would enable the Texas Legislature to make appropriations decisions based on the availability of sales tax revenue in years the state suspends the holiday. In addition, suspending the holiday in fiscal years 2011 and 2012 would provide the state with a revenue gain of $14.5 million in fiscal year 2011, and $97.3 million during the 2012–13 biennium.

FACTS AND FINDINGS

- ♦ In 1999, Texas became the first state to enact legislation to hold a permanent sales tax holiday on clothing. The Legislature established the holiday during a period of fiscal health.
- ♦ The Texas sales tax holidays include an August holiday on clothing, footwear, backpacks, and school supplies, all with sales prices below $100, and a May holiday on energy efficient appliances.
- ♦ In 2009 and 2010, sixteen and nineteen states, including Texas, held sales tax holidays each year, respectively, with a range in the types and values of goods exempted and lengths of the holidays.
- ♦ Three states and the District of Columbia canceled sales tax holidays in 2009 based on economic considerations. One state canceled its holiday in 2010.

CONCERNS

- ♦ Texas statute provides for an annual sales tax holiday each August regardless of the state's fiscal health.
- ♦ Budget shortfalls are anticipated in the 2010–11 and 2012–13 biennia.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Tax Code, Chapter 151, to establish a permanent review process for the August sales tax holiday.
- ♦ **Recommendation 2:** Amend the Texas Tax Code, Chapter 151, to suspend the August holiday in fiscal years 2011 and 2012.

DISCUSSION

State tax policies to provide sales tax relief for a designated period on certain goods are commonly known as sales tax holidays. In the late 1990s New York, Florida, and Texas were the first states to enact sales tax holidays on clothing. Over time, the number of states offering sales tax holidays increased, coinciding with periods of fiscal strength. Sixteen states held sales tax holidays in calendar year 2009, and nineteen states held them in 2010. The types of exempted products expanded from clothing to include school supplies, computers, energy efficient appliances, hurricane supplies, and firearms. **Figure 1** summarizes different features of sales tax holidays in the states that held them in 2009 and 2010.

STATES CANCELING SALES TAX HOLIDAYS IN 2009 AND 2010

As states experienced budgetary shortfalls, some chose to cancel sales tax holidays for select years. For example, Maryland introduced its tax holiday in 2001 but did not hold another holiday until 2006, and Florida canceled its holiday four times during the past decade.

More recently, the recession of 2009 prompted several states to cancel their sales tax holidays due to a reduction in available revenue and increased demand for state services. In calendar year 2009, Florida, Maryland, Massachusetts, and Washington D.C. did not hold or canceled sales tax holidays. Florida, Maryland, and Massachusetts do not have annual holidays; their Legislatures must pass legislation to authorize the holiday to occur, and such authorization did not occur in 2009. The Florida Legislature also considered but did not pass a bill to make the holiday permanent. Some members argued for a continued annual evaluation of whether to hold

FIGURE 1
FEATURES OF STATE SALES TAX HOLIDAYS, CALENDAR YEARS 2009 AND 2010

STATE	2009 DATES	2010 DATES	CLOTHING (CAP)	SCHOOL SUPPLIES (CAP)	COMPUTERS (CAP)	MISCELLANEOUS (CAP)
Alabama	August 7 to 9	August 6 to 8	$100	$80	$750	
Connecticut	August 16 to 22	August 15 to 21	$300			
Florida	Not Held	August 13 to 15	$50 (and books)	$10		
Georgia	July 30 to August 2	Not held	$100	$20	$1,500	
Georgia	October 1 to 4	Not held				$1,500 Energy Star products
Illinois	N/A	August 6 to 15	$100	Not subject to $100 threshold		
Iowa	August 7 to 8	August 6 to 7	$100			
Louisiana	August 7 to 8	August 6 to 7				$2,500 tangible personal property
Louisiana	September 4 to 6	August 6 to 7				Firearms
Maryland	Not Held	August 8 to 14	$100 (and footwear)			
Massachusetts	Not Held	August 14 to 15				$2,500 tangible personal property
Mississippi	July 31 to August 1	July 30 to 31	$100			
Missouri	August 7 to 9	April 19 to 25	$100	$50	$3,500	$1,500 Energy Star products
New Mexico	August 7 to 9	August 6 to 8	$100	$15	$1,000	
North Carolina	August 7 to 9	August 6 to 8	$100	$100	$250	$50 sports equipment; $300 instructional material
Oklahoma	August 7 to 9	August 6 to 8	$100			
South Carolina	August 7 to 9	August 6 to 8	No cap	No cap	No cap	
Tennessee	August 7 to 9	August 6 to 8	$100	$100	$1,500	
Texas	August 21 to 23	August 20 to 22	$100	$100 for school supplies and backpacks		
Texas	May 23 to 25	May 29 to 31				Up to $6,000, Energy Star products
Vermont	March 6	March 6				$2,000 tangible personal property
Vermont	August 22					$2,000 tangible personal property
Virginia	May 25 to 31	May 25 to 31				Hurricane preparedness items - $60, generators $1,000
Virginia	August 7 to 9	August 6 to 8	$100	$20		
Virginia	October 9 to 12	October 8 to 11				$2,500 Energy Star products
West Virginia	September 1 to November 30	September 1 to November 30				$5,000 Energy Star products

SOURCES: Federation of Tax Administrators; Tax Foundation.

the holiday based on the economic climate. The Council of the District of Columbia repealed the district's annual sales tax holiday in calendar year 2009 due to budgetary concerns. The district's Office of Tax and Revenue estimated the lost sales tax revenue from the 2009 holiday to be $640,000.

In 2010, in addition to Washington D.C. which eliminated its holiday beginning in 2009, Georgia canceled its sales tax holiday, estimating the back to school holiday would cost the state $12 million and the energy efficiency holiday would cost $500,000 in lost revenue. Other states including Florida, Massachusetts, and Maryland reinstated their holidays, and Illinois implemented its first holiday.

SALES TAX HOLIDAYS IN TEXAS

Texas held its first sales tax holiday in 1999, making it the first state to permanently implement a tax holiday for clothing. Since then, the Texas Legislature has expanded the scope of the August holiday and established a second holiday weekend for energy efficient products. Chapter 151 of the Texas Tax Code provides an exemption from state and local sales taxes on purchases of clothing, footwear, school supplies, and backpacks if the sales price is less than $100 and the sale takes place between a period beginning at 12:01 AM on the third Friday in August and ending at 12 midnight on the following Sunday. In addition, the Legislature established a second holiday for certain energy efficient products occurring between 12:01 AM on the Saturday preceding the last Monday in May (Memorial Day) and 11:59 PM on the last Monday in May. When Texas implemented its holiday, the Legislature established a provision for local entities to opt-out of the holiday, but the Legislature repealed the local option in 2003.

Figure 2 shows the estimated total values of the August holiday exemptions (exemptions include those for clothing and footwear, backpacks, and school supplies) to the state, cities, municipal transportation authorities, and counties for fiscal years 2011 to 2014.

In 2009, the average Texas family saved approximately $8 for every $100 spent over the holiday, for a total of $44. This estimate was derived from state (6.25 percent) and local sales tax rates (city, county, transit, and special purpose district tax

FIGURE 2
TOTAL REVENUE LOSS OF TEXAS' AUGUST SALES TAX HOLIDAY EXEMPTIONS, BY CATEGORY, FISCAL YEARS 2011 TO 2014

GOVERNMENT ENTITY	FISCAL YEAR	CLOTHING	BACKPACKS	SCHOOL SUPPLIES	TOTAL
State	2011	$47,200,000	$400,000	$7,428,000	$55,028,000
	2012	$48,700,000	$500,000	$7,665,000	$56,865,000
	2013	$50,200,000	$500,000	$7,906,000	$58,606,000
	2014	$51,900,000	$500,000	$8,160,000	$60,560,000
Cities	2011	$8,777,755	$74,388	$1,381,381	$10,233,523
	2012	$9,056,709	$92,985	$1,425,455	$10,575,149
	2013	$9,335,663	$92,985	$1,470,274	$10,898,922
	2014	$9,651,811	$92,985	$1,517,510	$11,262,306
Municipal Transportation Authorities	2011	$2,992,143	$25,357	$470,882	$3,488,382
	2012	$3,087,232	$31,696	$485,906	$3,604,835
	2013	$3,182,321	$31,696	$501,184	$3,715,202
	2014	$3,290,089	$31,696	$517,286	$3,839,071
Counties	2011	$1,240,204	$10,510	$195,174	$1,445,889
	2012	$1,279,617	$13,138	$201,402	$1,494,157
	2013	$1,319,031	$13,138	$207,734	$1,539,903
	2014	$1,363,699	$13,138	$214,408	$1,591,245
Total Value of Exemption	2011	$60,204,082	$510,204	$9,474,490	$70,188,776
	2012	$62,117,347	$637,755	$9,776,786	$72,531,888
	2013	$64,030,612	$637,755	$10,084,184	$74,752,551
	2014	$66,198,980	$637,755	$10,408,163	$77,244,898

SOURCES: Legislative Budget Board; Comptroller of Public Accounts.

rates vary) and the Comptroller of Public Account's (CPA) estimate that the average U.S. family with school-aged children will spend $549 on back-to-school merchandise.

CURRENT REVENUE FORECAST IN TEXAS

At the time of the sales tax holiday's implementation in Texas, the state's economy was robust. Since 1999, Texas has held annual sales tax holidays regardless of available revenue. Statute does not include a mechanism to evaluate whether the state can afford to hold the holiday and forgo the sales tax revenue.

The anticipated budget shortfalls in the 2010–11 and 2012–13 biennia contrast with the fiscal strength of the late 1990s.

TIE THE SALES TAX HOLIDAY TO BUDGET CONDITIONS

The Legislature should establish a permanent review process to determine whether to hold the August holiday based on set criteria, and suspend the holiday in fiscal years 2011 and 2012. The recommendations do not affect the May holiday on energy efficient products because the revenue loss from the exemption is not as large, and the Legislature established the holiday to achieve a different policy objective, to encourage the purchase of energy efficient products.

Recommendation 1 would amend Chapter 151 of the Texas Tax Code to establish a permanent review process to determine whether to hold the sales tax holiday in select years. This recommendation would create objective, statutory criteria for the CPA to use in determining whether to hold the August holiday. The CPA would be required to communicate the decision to the public and business community, not unlike current practice in which the CPA posts information about the holiday on its website.

Under this recommendation, the holiday would be contingent on data contained in Table 2 of the CPA's Biennial Revenue Estimate, a report the Texas Constitution requires the agency to produce prior to the convening of the biennial regular session of the Texas Legislature. The CPA would use similar criteria in making its decision about the sales tax holiday to those identified in the Texas Constitution governing circumstances in which the Legislature may make appropriations from the Economic Stabilization Fund:

- ***Criterion 1:*** If appropriations of General Revenue Funds made by the preceding Legislature for the current biennium exceed the estimate of available General Revenue Funds and cash balances for the biennium, the holiday would not be held in the current fiscal year (second fiscal year of the biennium); and/or,
- ***Criterion 2:*** If anticipated balances of General Revenue Funds and General Revenue–Dedicated Funds for a succeeding biennium are less than the revenues estimated at the same time by the CPA to be available for the current biennium, the sales tax holiday would not occur in the next fiscal year (first fiscal year of the new biennium).

If budget conditions result in both criteria being met, the holiday would be suspended in the last year of the current biennium and the first year of the next biennium. This analysis assumes fiscal year 2013 would be the first year this process could be used to suspend the holiday.

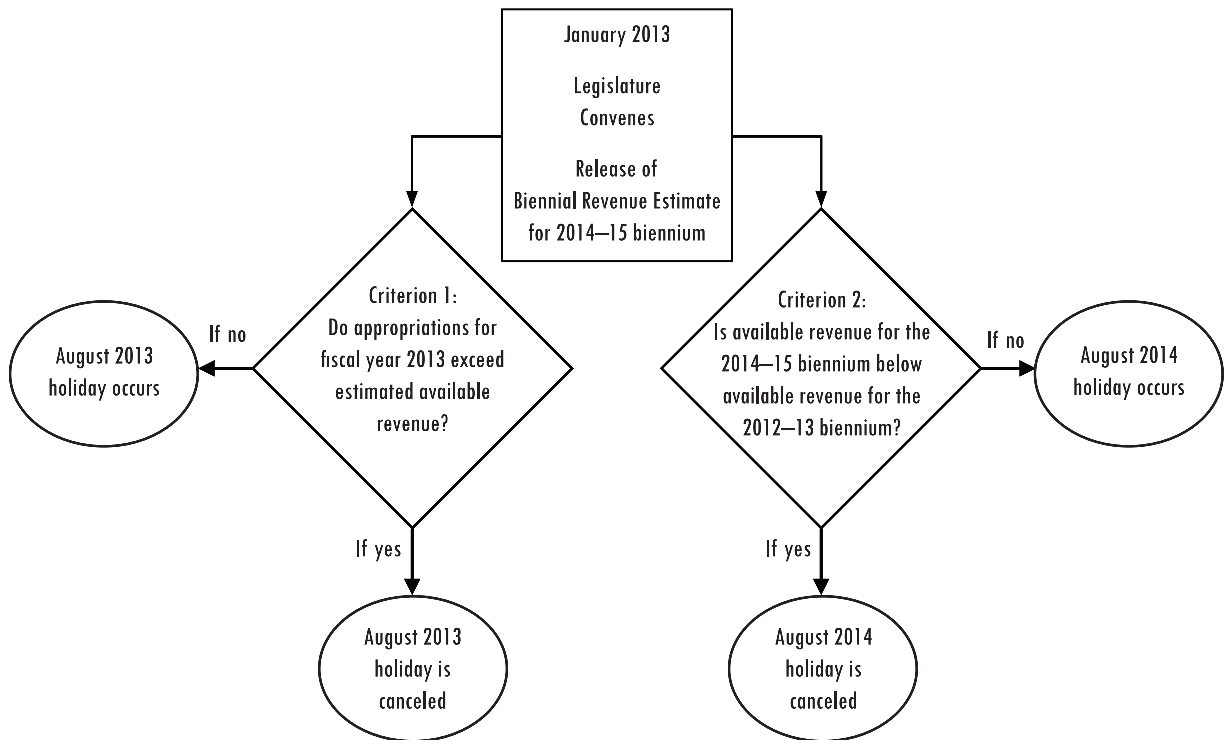
Criterion 1 would prevent the holiday from occurring in a year in which appropriations exceed estimated available revenue. Should appropriations exceed available revenue, the General Revenue Fund would have a negative balance at the start of a biennium based on the shortfall from the previous biennium, requiring the Legislature to adopt revenue measures to generate additional revenue or reduce spending. Although the Texas Constitution requires the Texas Legislature to adopt a balanced budget, the Legislature uses an estimate of available revenue when it adopts its budget and that estimate could be higher than actual tax collections, resulting in appropriations exceeding revenue.

Criterion 2 would prevent the holiday from occurring in a year in which the General Revenue and General Revenue–Dedicated Funds available for certification for a given biennium are less than the previous biennium.

Figure 3 shows a flow chart illustrating how the criteria function. For illustrative purposes, the chart reflects the decision making process that would occur in January 2013 for the holidays in August 2013 and 2014.

Because this analysis assumes implementing a process to review the sales tax holiday would not occur before fiscal year 2013, Recommendation 2 would amend Chapter 151 of the Texas Tax Code to suspend the holiday on a one-time basis for fiscal years 2011 and 2012. Suspending the holiday in fiscal year 2011 would require a two-thirds majority vote for immediate implementation. This recommendation could be implemented independently of Recommendation 1 but does not provide a permanent process to assess the state's ability to afford the August sales tax holiday.

FIGURE 3
USE OF CRITERIA IN THE DECISION-MAKING PROCESS
JANUARY 2013



Source: Legislative Budget Board.

EFFECTS OF RECOMMENDATIONS ON THE STATE BUDGET

Establishing a process to review whether or not to hold the tax holiday would allow the state to suspend the holiday depending on budget conditions and to redirect the revenue based on budget priorities. **Figure 4** shows an analysis of when the holiday would have been canceled if the proposed criteria had been in place. The holiday would only have been canceled in August 2003 and August 2004.

The process would provide the Legislature with information at the beginning of a legislative session as to whether or not the holiday will occur, assuming no major revenue measures are enacted that would change the amount of available revenue. This would enable the Legislature to make appropriations decisions based on potential availability of additional sales tax revenue.

The criteria outlined in this recommendation are advantageous in comparison to other measures that focus exclusively on sales tax collections because the criteria consider all revenue available to the Legislature. In a given year, sales tax collections could be low but other revenue sources could compensate for the decline, permitting the holiday to occur. Conversely, sales tax collections could be high but other revenues could be insufficient such that the state would experience a shortfall, and the holiday should not occur.

EFFECTS OF RECOMMENDATIONS ON CONSUMERS AND RETAILERS

The recommendations provide a mechanism for the state to conduct the holiday when possible, and to refrain from doing so when it would be necessary for the state to retain the funds. The criteria provide a transparent and objective methodology to use to determine whether or not to hold the holiday and allow the public and business community to plan accordingly.

Some proponents of sales tax holidays would argue against a policy that could result in a holiday's suspension, especially during economic downturns, because of the benefits to low- and middle-income families and retailers. According to the Federation of Tax Administrators, sales tax holidays are very

FIGURE 4
EVALUATION OF PAST AUGUST SALES TAX HOLIDAYS USING THE PROPOSED CRITERIA
FISCAL YEARS 1999 TO 2010

		CRITERION 1		CRITERION 2	
DATE OF DECISION	FISCAL YEAR	BEGINNING GENERAL REVENUE FUND BALANCE	HOLD HOLIDAY?	PERCENTAGE CHANGE IN AVAILABLE GENERAL REVENUE AND GENERAL REVENUE–DEDICATED FUNDS	HOLD HOLIDAY?
January 1999	1999	$4,436.5	Yes		
	2000			5.0%	Yes
January 2001	2001	$2,932	Yes		
	2002			4.3%	Yes
January 2003	2003	($1,799)	No		
	2004			-9.8%	No
January 2005	2005	$2,341	Yes		
	2006			5.6%	Yes
January 2007	2007	$6,986	Yes		
	2008			10.0%	Yes
January 2009	2009	$2,133	Yes		
	2010			10.5%	Yes

NOTES: The fiscal years are grouped by when the decision to hold the holiday is made, not by biennia. Revenue in millions. Percentage change in available General Revenue Funds and General Revenue–Dedicated Funds for certification reflects the percentage change from the previous biennium.
SOURCE: Comptroller of Public Accounts.

visible, popular forms of tax relief. Other proponents of the holidays contend that sales taxes are regressive in nature and that any tax relief, especially during downturns, is helpful to families. In addition, because some retailers offer additional sales to correspond with the holidays, proponents of the holiday contend that families experience greater savings during a holiday weekend.

Proponents of tax holidays also contend that they help retailers by inducing consumer demand, especially during times in which demand is low. The National Retail Federation reports that store revenue can increase by as much as 10 percent during tax holidays because shoppers buy more exempted and non-exempted goods (impulse shopping) than they would have had the holiday not occurred.

Despite these arguments in favor of retaining a permanent sales tax holiday, other research suggests consumers and retailers do not always benefit from holidays to the extent intended by policy makers.

The Institute on Taxation and Economic Policy's position is that the sales holidays are too insignificant and temporary to offer real relief. Studies have found minimal consumer benefit. A 2003 study on Florida's holiday found retailers retained approximately 20 percent of the tax relief intended for consumers by offering less generous markdowns during the holiday window than they otherwise would have. The study suggests the possibility that retailers could capture some savings intended for the public. A study conducted by researchers from Texas State University and Central Michigan University in 2004 found that shoppers are less concerned about product price during the sales tax holiday and are more vulnerable to unscrupulous retailers that might raise prices.

Some research also disputes the benefits to retailers. The New York Department of Taxation and Finance conducted a study in 1997 and found that some of the clothing sales during the tax exemption week were diverted from other weeks and would have occurred before or after the holiday weekend. A University of Michigan study in 2008 found timing shifts accounted for 37 percent to 90 percent of the increase in purchases during a sales tax holiday. Experience in places where sales tax holidays have occurred also suggests that new business generated by sales tax holidays does not offset lost state revenue. The District of Columbia's Office of Taxation and Revenue found that economic growth spurred by the holiday was not enough to offset the costs after eight years of holding the holiday. The Tax Foundation disputes the link between holidays and job creation in a 2009 report, concluding that holidays change the timing of purchases and

do not generate additional business, making it is unlikely they provide other extended economic benefits such as creating jobs.

FISCAL IMPACT OF THE RECOMMENDATIONS

The six-year fiscal impact to the state's General Revenue Fund for both recommendations is shown in **Figure 5**. The estimate assumes the Legislature suspends the August holiday (clothing, footwear, backpacks, and school supplies) in fiscal years 2011 and 2012, which requires a two-thirds majority vote to take immediate effect. Suspension in fiscal years 2011 and 2012 would result in revenue gains in fiscal years 2011, 2012, and 2013. The gains are realized partially in the year in which the holiday is suspended, but mostly in the next year because of how CPA collects sales taxes. Some firms make pre-payments on their sales taxes, meaning the revenue would be realized in the same fiscal year as the suspended holiday. Others make their payments in the month following sales tax collection, which would result in a revenue gain in the following fiscal year.

FIGURE 5
SIX-YEAR FISCAL IMPACT
FISCAL YEARS 2011 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2011	$14,549,128
2012	$55,513,694
2013	$41,830,179
2014	$0
2015	$0
2016	$0

SOURCES: Legislative Budget Board; Comptroller of Public Accounts.

A revenue gain from the recommendation is not assumed beyond fiscal year 2013 because it is projected that the state's economic outlook would improve in future years and that the holiday would occur. The estimate assumes all revenue gained would be deposited in the General Revenue Fund. This analysis assumes there would be no additional cost for CPA to administer these recommendations because the agency currently administers the sales tax holiday and is required by the Texas Constitution to produce the Biennial Revenue Estimate.

The fiscal impact to units of local government is shown in **Figure 6**. The amount of revenue gained by cities, municipal transportation authorities, and counties was determined based on standard sales tax allocations used by the CPA in the preparation of responses to fiscal notes. This estimate assumes there would be no impact to local governments in state fiscal year 2011 because the CPA would not allocate August sales tax collections until the following fiscal year. The analysis also assumes there would be no impact in state fiscal years 2014 to 2016 because the criteria would not be met to suspend the holiday.

FIGURE 6
SIX-YEAR FISCAL IMPACT TO LOCAL GOVERNMENTS
FISCAL YEARS 2011 TO 2016

GOVERNMENT ENTITY	FISCAL YEAR	PROBABLE REVENUE GAIN TO LOCAL GOVERNMENTS
Cities	2011	$0
	2012	$10,233,523
	2013	$10,575,149
	2014	$0
	2015	$0
	2016	$0
Municipal Transportation Authorities	2011	$0
	2012	$3,488,382
	2013	$3,604,835
	2014	$0
	2015	$0
	2016	$0
Counties	2011	$0
	2012	$1,445,889
	2013	$1,494,157
	2014	$0
	2015	$0
	2016	$0

SOURCES: Legislative Budget Board; Texas Comptroller of Public Accounts.

The introduced 2012–13 General Appropriations Bill does not include any changes as a result of these recommendations.

STRENGTHEN SALES TAX ENFORCEMENT RELATED TO CUSTOMS BROKERS AND INCREASE THE CHARGE FOR EXPORT STAMPS

The U.S. Constitution prohibits states from taxing exports to foreign countries. Texas provides five methods for purchasers to receive an exemption from or refund of sales taxes paid on exported property. One of those methods, documentation by a customs broker, allows a purchaser to receive a refund while taking possession of the property in this country.

In a 2003 report, the Comptroller of Public Accounts documented widespread abuse of the customs broker system and recommended repealing the customs broker provision. Rather than repeal the provision, the Texas Legislature enacted legislation in 2003, which restructured the customs broker system to address some of the weaknesses in the old system. Key to the restructuring was the development of an online system for issuing export certificates. At the same time, the 2003 legislation established a method for customs brokers to certify exports without having to witness the property cross the border, thereby legalizing the most common abusive transaction under the old system.

While the new online system dealt with some of the abusive practices, the customs broker statute and related rules should be clarified to further safeguard against abuse. The revenue generated by export stamp charges and broker fees imposed in the current system has been less than initially estimated, and an increase in those charges could bring those revenues in line with the original estimates. These changes could improve administrative efficiency and generate $9 million in General Revenue Funds through fines, export stamp sales, and the reduction of sales tax refunds for the 2012–13 biennium.

CONCERNS

- The Comptroller of Public Accounts' administrative rules allow a broker to issue one export certificate covering multiple receipts as long as the receipts are from the same store and the property is exported at the same place and time. This practice increases the likelihood refunds are paid on goods that are not actually exported, resulting in a loss of state and local sales tax revenue.
- Statute requires the Comptroller of Public Accounts to provide a method to prepare certificates of export when the online broker certificate system is not available. The agency's administrative rules allow brokers to issue hardcopy certificates of export when the online computer system is down. This accommodation reintroduces opportunities for abuse and the potential for the loss of sales tax revenue.
- Under Texas Tax Code, prior to issuing a certificate of export, a customs broker must require the purchaser to produce the property that is to be exported and the receipt for that property. While the broker must affirm a general statement on the export certificate, there is no specific or explicit verification that the broker has seen or inspected the property to be exported or the receipt for that property.
- Refunds claimed under the current customs broker system have exceeded the Comptroller of Public Accounts' estimate, while revenue from stamp sales has averaged less than half the amount estimated by the agency when the current customs brokers system and stamp charges were enacted.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Tax Code to prohibit the issuance of one certificate of export for multiple receipts.
- **Recommendation 2:** Amend the Texas Tax Code to prohibit the issuance of certificates of export other than those produced on the online system.
- **Recommendation 3:** Amend the Texas Tax Code to require an entry on the certificate of export where the customs broker explicitly confirms that they have seen the property that is to be exported and a receipt for that property.
- **Recommendation 4:** Amend the Texas Tax Code to increase the price of export stamps from $1.60 to $3.20.

DISCUSSION

Article I, Section 9, of the U.S. Constitution prohibits states from imposing taxes on goods exported to a foreign country. As a result, Texas is required to grant refunds of state and

local sales taxes collected on property exported from the country.

Texas accepts the following five documents as proof of export:

1. a bill of lading issued by a licensed and certificated carrier of persons or property showing the seller as consignor, the buyer as consignee, and a delivery point outside the territorial limits of the United States;
2. documentation from a customs broker;
3. import documents from the country of destination;
4. an original airway, ocean, or railroad bill of lading and a forwarder's receipt if an air, ocean, or rail freight forwarder takes possession of the property; or
5. a maquiladora export certificate.

Under Texas' customs broker option, a buyer can receive a sales tax refund while taking possession of the property prior to export. The Texas provision is more extensive than the U.S. Constitutional requirement, and Texas is the only state bordering Mexico that allows a purchaser to receive an export refund when taking possession of the property in this country.

Customs brokers are licensed and regulated by both the State of Texas and the United States government. **Figure 1** shows an outline the requirements for becoming a customs broker.

COMPTROLLER OF PUBLIC ACCOUNTS' REPORT, 2003

In 2003, the Comptroller of Public Accounts (CPA) published a report that documented widespread fraud and abuse in the customs broker system. The CPA reported the following types of abuse:

- brokers certifying the export of goods without witnessing the goods leaving the country as required by CPA rule;
- brokers providing blank export certificates with stamps;
- brokers not verifying that goods existed;
- brokers selling stamps;
- brokers colluding with store employees to create fraudulent refunds;
- businesses in Mexico purchasing sales receipts from people who travel in Texas;
- receipts from store dumpsters or parking lots used to obtain refunds; and
- brokers accepting obviously fake identification cards.

The CPA recommended repealing the customs broker provision. The agency estimated that refunds of state taxes and local taxes related to the export exemption totaled $69 million annually and that repealing the customs broker provision would result in gains of $24 million to the state and $6 million to units of local government in fiscal year 2004.

FIGURE 1
CUSTOMS BROKER REQUIREMENTS, 2010

TEXAS REQUIREMENTS

TO OBTAIN A TEXAS CUSTOMS BROKER'S LICENSE, A PERSON MUST:

be a U.S. customs broker licensed and regulated by U.S. Customs and Border Protection ;

apply to the Comptroller of Public Accounts for a license;

pay a license fee; and

post a bond or security.

U.S. REQUIREMENTS

TO BECOME A U.S. CUSTOMS BROKER, AN PERSON MUST:

be a U.S. citizen at least age 21;

not be a federal government employee;

pass the customs broker license examination; and

undergo a background investigation (fingerprints, references, credit check, arrest record).

Source: Legislative Budget Board.

The Seventy-eighth Legislature, Regular Session, 2003, did not repeal the customs broker provision. Instead, it enacted legislation that restructured the customs broker system. Key elements of this legislation include:

- establishing a procedure for customs brokers to certify export without having to witness the export of the property for which the certificate was issued;
- establishing of an online system for issuance of certificates of export;
- imposing a $300 broker fee for each broker location;
- imposing a $1.60 fee for each export stamp issued;
- setting new bond requirements for brokers, and
- establishing new reporting requirements for brokers.

Under Section 151.1575, Texas Tax Code, a customs broker or authorized employee can issue a certificate of export if the broker or authorized employee sees the property cross the border or sees the property being placed on a common carrier for delivery outside the country. In addition, the new law allows brokers to certify that the purchaser is transporting the property to a destination outside the country by examining the purchaser's: foreign identification; the property to be exported; and the receipt for the property. The law also requires the purchaser: to state the foreign country destination of the property which must be the foreign country in which the purchaser resides; to state the date and time the property is expected to arrive in the foreign country destination; to state the date and time the property was purchased, the name and address of the place at which the property was purchased, the sales price and quantity of the property, and a description of the property; to produce the purchaser's: Form I-94, Arrival/Departure record, or its successor as issued by the U.S. Immigration and Naturalization Service, for those purchasers in a county not bordering Mexico; or air, land, or water travel documentation if the customs broker is located in a county not bordering Mexico.

The new option puts the purchaser on the honor system. If the purchaser has the proper identification and documentation, the broker can accept as verification of export the purchaser's statement that they expect to export the property. Under statutes and rules that were in place before 2004, brokers could issue export certificates only if the broker or the broker's representative witnessed export of the goods or loading of the goods on a common carrier for export. Allowing brokers to issue a certificate of export without witnessing export of an item, in effect, legalized the most common abusive transaction under the old system. However, customs brokers were largely ignoring the requirement to witness export under the previous law, in part, because U.S. Customs and Border Protection would not allow them to work on the international bridges.

The implementation of fees for stamps, additional bonding requirements, the new license fee, and the establishment of the online system established under the 2003 legislation may have reduced opportunities for fraud and abuse. Brokers and their employees now use an Internet-based, online system to create and issue certificates. The CPA issues each broker and authorized employee a password, and the broker or employee creates a personal identification number (pin). Only a broker or authorized employee with a pin can legally issue an export certificate, and the broker or authorized employee can legally issue the certification only from one of the licensed broker's locations. In practice, anyone who knows an active pin could issue a certificate from any location with Internet access, as the pin is not linked or restricted to any particular computer or Internet address.

The broker or employee enters the following items:

- the broker identification number;
- personal identification number (pin);
- outlet number;
- stamp number and expiration date;
- purchaser name and address;
- seller name and address;
- date and time of sale;
- description and price of merchandise;
- export destination;
- date and time of export; and
- total tax.

The broker prints the certificate and affixes an export stamp. After waiting 24 hours in counties near the border or seven days in other counties, the purchaser presents the stamped certificate to the seller to receive a refund. Alternatively, the purchaser may assign the refund to the broker. The broker pays the purchaser, and the purchaser avoids the waiting period. After observing the waiting period, the broker takes the stamped certificate to the seller and receives the refund.

EFFECTS OF THE ONLINE SYSTEM ON TEXAS

In fiscal year 2003, there were 230 active customs brokers operating in 800 locations. Brokers issued 2.8 million stamps in fiscal year 2001. While the refund value associated with the export stamps was not reported prior to January 1, 2004, in the report on customs brokers, CPA estimated that the state and local revenue loss from the export exemption, including the cost of all five export methods, totaled $69 million.

Under the new online system, as of fiscal year 2010, the number of brokers had declined to 39, and the number of broker locations decreased to 167. The 39 customs brokers had 888 employees authorized to issue certificates of export. As shown in **Figure 2**, since the online system took effect, the number of stamps issued declined from pre-2003 levels to 961,435 in fiscal year 2010; however, the dollar amount of customs broker refunds exceeded earlier CPA estimates of the cost of the entire export exemption. In fiscal year 2006, the statewide value of refunds reported by customs brokers totaled $92.3 million. The amount of customs broker refunds increased to $98.9 million in fiscal year 2008 before decreasing to approximately $69 million in both fiscal years 2009 and 2010.

Refunds in fiscal year 2010 averaged $72 per certificate, with an average taxable value of $876 per certificate. At $72 per certificate, 2.8 million certificates (the number of stamps issued in 2001) would have cost state and local governments more than $200 million. The $1.60 per stamp fee and the ability to report multiple receipts on a single certificate have probably caused the consolidation of a larger dollar amount of refunds on fewer certificates.

FIGURE 2
CUSTOMS BROKERS NUMBER STAMPS ISSUED AND REFUNDS REPORTED
FISCAL YEARS 2004 TO 2010

FISCAL YEAR	STAMPS ISSUED	REFUNDS (IN MILLIONS)
2004*	672,630	$44.2
2005	1,126,005	$79.1
2006	1,212,572	$92.3
2007	1,281,080	$97.2
2008	1,242,893	$98.9
2009	920,892	$69.5
2010	961,435	$69.6

*Partial.
Source: Comptroller of Public Accounts.

MULTIPLE RECEIPTS ON ONE CERTIFICATE

The Texas Administrative Code allows multiple invoices from a single seller to be listed on the same export certificate if the listed items are exported at the same place and at the same time. Prior to the enactment of the new system, the CPA had found that brokers were not verifying the existence of goods for which they were issuing export certificates and were issuing certificates based on receipts gathered from parking lots and dumpsters. Allowing the listing of multiple receipts on a single export certificate would seem to facilitate this abuse. Recommendation 1 would amend the Texas Tax Code, Section 151.1575(b), to prohibit issuance of a single export certificate for multiple receipts, reducing the potential for abuse.

ISSUANCE OF CERTIFICATES OTHER THAN THROUGH THE ONLINE SYSTEM

Statute requires the CPA to provide a method to prepare certificates of export when the online broker certificate system is not available. When the state's online customs broker website is unavailable due to technical or communications problems, the CPA allows brokers to issue hardcopy certificates of export. When the system is functioning again, the brokers must enter the export certification information on the website within 48 hours. This accommodation reintroduces hardcopy certificates into the system. Prior to 2004, the CPA reported brokers selling blank signed certificates and stamps. Recommendation 2 would amend the Texas Tax Code, Section 151.1575, to prohibit the issuance of certificates of export when the online system is not available.

VERIFICATION OF THE PROPERTY FOR EXPORT

Under Texas Tax Code, Section 151.1575, Section 151.1575(b), prior to issuing a certificate of export, a customs broker must require the purchaser to produce the property that is to be exported and the receipt for that property. There is no specific or explicit verification that the brokers have seen or inspected the property to be exported or the receipt for that property. Failure of brokers to verify the existence of the export property was one of the significant problems occurring prior to the restructuring of the system. CPA enforcement officers indicate that failure of the brokers to verify the existence of property to be exported remains a problem in the current system. Recommendation 3 would amend Texas Tax Code, Section 151.1575 (b), to require that brokers affirm on the export certificate that they have seen the export property and the receipt for that property.

CUSTOMS BROKER STAMP CHARGE

Under Texas Tax Code, Section 151.158(g), the CPA charges $1.60 for each stamp sold to a customs broker, and under Texas Tax code 151.157(c), the CPA collects a $300 annual fee for each customs broker location. In the fiscal note for the bill that established the current customs broker system, the CPA estimated that license and stamp fees would offset the sales tax revenue loss from expanding the export exemption. The CPA estimate was based on the assumption that 2.5 million stamps would be issued annually from 800 broker locations. These assumptions would have yielded $4.2 million in revenue. Both the number of stamps sold and the number of broker locations are below those estimates. In fiscal year 2010, the number of stamps sold was 961,435, and there were 167 broker locations, yielding about $1.6 million in stamp charges and broker fees.

While the amount of revenue from fees imposed under the customs brokers system has fallen short of estimate, the level of refunds has exceeded estimate. The CPA estimated that the revenue loss from sales tax refunds related to the export exemption to be $69 million in fiscal year 2001. This estimate included not only customs broker refunds, but the other four methods of receiving a sales tax exemption for exported goods. The amount of refunds from customs brokers alone has averaged $84 million per fiscal year. Even during the recent recession, broker refunds alone exceeded $69 million per year. Recommendation 1 would increase the number of stamps sold, but not in sufficient numbers to bring revenue from the stamps to the level anticipated when the current system was enacted. Recommendation 4 would amend Texas Tax Code, Section 151.158(g), to increase the price of export stamps from $1.60 to $3.20, to offset some of the effects of higher than expected value of refunds, lower than anticipated volume of stamp sales, and fewer than projected broker locations.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 1 would increase the amount of revenue from export stamp sales by $3 million for the 2012–13 biennium. Recommendations 2 and 3 would reduce the opportunities for abuses of the system and could result in revenue gains by reducing the amount of sales tax refunds. The revenue gains from Recommendations 2 and 3 cannot be determined. Recommendation 4 would increase the charge for export stamps to $3.20 from $1.60. In isolation this would increase collections by $3 million each biennium, but when applied to the increased number of stamps generated by Recommendation 1, would result in a gain of a combined gain of $9 million in General Revenue Funds for the 2012–13 biennium. **Figure 3** shows the fiscal impact of the recommendations.

FIGURE 3
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2012	$4,586,000
2013	$4,586,000
2014	$4,586,000
2015	$4,586,000
2016	$4,586,000

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

REPEAL SUNDAY LIQUOR SALES RESTRICTIONS TO GENERATE ADDITIONAL REVENUE

"Blue laws," laws limiting the operation of businesses or the sale of certain items on Sundays, date back to colonial times. Economic considerations and changes in public opinion have led to the repeal of several of these restrictions in many states. However, Texas continues to prohibit the sale of liquor for off-site consumption on Sundays, while allowing consumers to purchase liquor in restaurants and bars. Establishments can sell beer and wine for both on and off-premise consumption on Sunday.

Laws restricting the sale of some alcoholic beverages prevent the state from maximizing liquor and sales tax revenues. Several states have repealed their Sunday liquor sales restrictions in the last 10 years and have realized revenue gains. Repealing the Sunday liquor ban in Texas would result in a net revenue gain of $7.4 million in General Revenue Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- ♦ In Texas, liquor can be purchased on Sunday only for on-premise consumption (in bars or restaurants), while beer and wine can be purchased for both on and off-premise consumption during certain timeframes.
- ♦ Fourteen states have repealed their Sunday liquor bans in the last nine years, making a total of 36 states that allow the sale of liquor on Sundays.
- ♦ Several states have realized net revenue gains and an increase in the number of gallons of liquor sold from their sale on Sundays.

CONCERNS

- ♦ Texas is not maximizing tax revenue because of the Sunday liquor sales restrictions.
- ♦ Some liquor store owners along the border of Mexico and other states report loss of business to cross-border purchasing.
- ♦ The law restricting Sunday liquor sales is inconsistent with beer and wine alcoholic beverage sales laws and laws governing the sale of other consumer goods.

RECOMMENDATION

- ♦ **Recommendation 1:** Amend Chapter 105 of the Texas Alcoholic Beverage Code to allow for Sunday sales of liquor for off-site consumption.

DISCUSSION

With the repeal of the federal prohibition of alcoholic beverages in 1933, states were authorized to regulate alcohol products and consumption. However, even after alcohol laws were relaxed, states have retained "blue laws" which, for the most part, restricted non-religious activity on Sunday. These laws, dating back to colonial times, banned the sale of most products on Sunday. Most of those prohibitions have been abolished over the years, but liquor sales restrictions remain in effect in some states.

As shown in **Figure 1**, Chapter 105 of the Texas Alcoholic Beverage Code prohibits package stores from selling liquor before 10 AM or after 9 PM; on Sunday; on New Year's Day and Christmas Day; or on the following Monday when Christmas Day or New Year's Day falls on a Sunday. However, mixed drinks, which contain liquor, can be sold at restaurants and bars for on-site consumption within certain hours, while beer and wine can be sold throughout the week for both on-site and off-site consumption, including Sunday before 2 AM and after noon.

Making the hours of operation for the sale of liquor on Sunday consistent with those for beer and wine will give businesses selling liquor the same market access as that of retailers now selling other alcoholic beverages. Additionally, these expanded hours could generate additional revenue for the state at a time when modest economic growth is expected.

ALCOHOL TAXES IN TEXAS

The state taxes alcohol in three ways: collecting a volume-based excise tax, usually on what wholesalers sell to retailers; collecting the mixed beverage tax on mixed drinks sold to the public; and collecting sales tax on sales to the public when the mixed beverage tax does not apply. In the 2008–09 biennium, Texas collected more than $1.58 billion from excise and mixed beverage taxes and an estimated $1 billion from sales taxes on alcoholic beverage sales. Alcohol licensing and permit fees accounted for an additional $121 million.

FIGURE 1
STATUTORY LIMITATIONS FOR ALCOHOL SALES IN TEXAS, FISCAL YEAR 2011

TYPE OF ALCOHOL	DAYS AND HOURS OF OPERATION	SALES RESTRICTIONS ON HOLIDAYS
Liquor (off-site consumption)	Mon-Sat, 10 AM to 9 PM (except the Monday following Christmas or New Year's Day if on Sunday)	New Year's Day; Christmas Day
Liquor by the drink (on-site consumption)	Mon-Sat, 7 AM to 2 AM (if located in a city or county of 800,000 people or more, or if approved by local ordinance, otherwise until midnight); Sunday before 2 AM and after 10 AM (if located in a city or county of 800,000 people or more, or if approved by local ordinance, otherwise before 1 AM)	None
Wine/Beer (off-site consumption)	Mon-Sat, 7 AM to midnight; Sunday before 2 AM and after noon	None
Beer (on-site consumption)	Mon-Sat, 7 AM to 2 AM (if located in a city or county of 800,000 people or more approved by local ordinance, otherwise before midnight); Sunday before 2 AM and after 10 AM (if located in a city or county of 800,000 people or more, or if approved by local ordinance, otherwise before 1 AM)	None

SOURCE: Legislative Budget Board.

The Comptroller of Public Accounts (CPA) estimates that revenue from all alcoholic beverages taxes in the 2010–11 biennium will increase by 7.7 percent bringing total collections to $1.7 billion.

Typically, excise taxes are levied on businesses as opposed to individuals. In the case of alcohol in Texas, the excise tax refers to any one of four volume-based taxes. These taxes include the taxes levied on the volume of liquor, beer, wine or malt liquor sold by wholesalers to retailers. **Figure 2** shows the excise tax rates that wholesalers paid in fiscal year 2009.

These tax rates generated over $66 million in revenue for the state from liquor, approximately $11 million from wine, almost $9 million from malt liquor, and approximately $104 million from beer in fiscal year 2010.

Another alcohol tax is the airline/passenger train beverage tax. When an aircraft is in Texas airspace or a train is within Texas borders, there is a $0.05 per drink tax on alcoholic beverages served to passengers. That tax resulted in $313,885 in state revenue in 2009.

Aside from the volume-based taxes, Texas levies a mixed beverage tax that is a value-based tax. This tax is assessed as a percentage of a mixed drink's sales price, so the higher the price of a drink, the more taxes the state collects on the drink. Retailers that hold a mixed drinks permit report gross sales from mixed drinks to the state, and the state assesses their mixed drinks taxes based on that figure. The mixed drinks tax rate is 14 percent of gross receipts. Mixed drinks gross receipts for retailers in fiscal year 2009 were more than $4.3 billion, netting more than $603.4 million in revenue for the state. The revenue from all alcoholic beverage taxes goes into the state's General Revenue Fund. However, per Section 183.051 of the Texas Tax Code, the Legislature may

FIGURE 2
ALCOHOL EXCISE TAX RATES AND RECEIPTS
FISCAL YEAR 2010

ALCOHOL	TAX RATE PER GALLON	TAX RECEIPTS (IN MILLIONS)
Liquor	$2.40	$66.7
Wine (no greater than 14% alcohol)	$0.204	$10.9
Wine (greater than 14% alcohol)	$0.408	
Sparkling Wine	$0.0516	
Beer	$0.194	$104.0
Ale/Malt Liquor	$0.198	$8.9

SOURCE: Texas Alcoholic Beverage Commission.

appropriate up to 10.7143 percent of mixed beverage tax receipts to cities and an additional maximum of 10.7143 percent to counties in which the mixed drinks taxpayers are located. As a result, at least 78.6 percent of mixed drinks receipts remain in the General Revenue Fund and approximately 21 percent are allocated to local governments.

In addition to alcoholic beverage taxes, any retailer that does not hold a mixed beverage permit and sells alcohol to a customer must charge sales tax. The state sales tax rate is 6.25 percent, and local governments may impose additional sales taxes not to exceed a combined local rate of 2 percent. In fiscal year 2009, the state collected an estimated $527.8 million in sales tax on alcoholic beverages. Since the sales tax on alcoholic beverages is not reported separately from the general sales tax, the revenue amount cited above is derived from the economic model used by CPA to compile the Tax Exemptions and Tax Incidence Report.

Texas is losing liquor and sales tax revenue to Mexico and to bordering states because of the ban on Sunday liquor sales for off-premise consumption. Mexico and states bordering Texas, with the exception of Oklahoma, all allow the sale of liquor on Sunday for off-premise consumption. Several states have repealed Sunday liquor bans to increase revenues.

OTHER STATES' ALCOHOL TAXATION REGULATION

States employ both "control" and "non-control" models of alcohol regulation. Control states have a monopoly on the sale of some, or all, alcoholic beverages. The extent of the monopoly differs from state to state. Non-control states license private sellers of alcohol. Under a non-control system, private sellers are responsible for the wholesale and retail sales of liquor and wine. As of fiscal year 2010, there were 18 control states and 32 non-control states as shown in **Figure 3**.

Half of control states operate liquor stores, while the other half states contract with private firms to manage and operate state liquor stores or permit a limited number of private liquor stores to sell alcohol on the state's behalf. Control states maintain that this type of system allows for an equal emphasis on public safety and the controlled distribution of alcoholic beverages.

In addition to these two types of systems, the taxation and regulation of the sale of alcohol and the manner in which taxes are assessed on alcoholic beverages also vary by state. There are volume-based taxes and value-based taxes, in addition to sales taxes that can be levied. These taxes generate a significant amount of revenue for states. There has been, and continues to be, increasing momentum to repeal Sunday liquor bans nationwide as states try to compensate for the loss of state revenues due to the recent economic downturn.

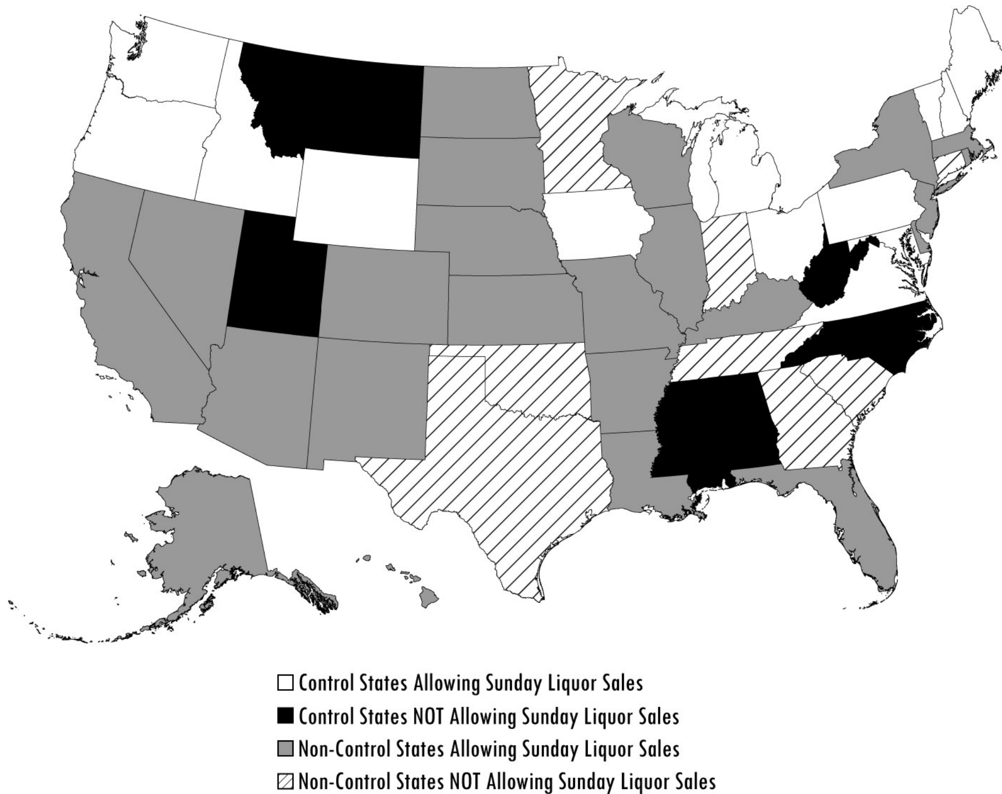
Of the eight most populous states, only Texas prohibits the sale of liquor on Sunday for off-site consumption. According to the Distilled Spirits Council of the United States (DISCUS), as of the beginning of fiscal year 2010, 36 states allow the sale of liquor on Sunday for off-site consumption. Fourteen of these states have changed their policies within the last eight years. Three of the most recent states to repeal their Sunday liquor ban, Pennsylvania, Virginia, and Washington, were surveyed by Legislative Budget Board (LBB) staff to identify challenges that may have been encountered and determine the effects of this change in law. These states were also chosen because of their status as "control states." Their stake in repealing the Sunday liquor ban is much higher than that of non-control states because this change has a direct effect on the operations and budget of the state; it is a business decision where the benefit of opening an extra day must outweigh the costs. As such, control states tend to give more attention to collecting data on liquor taxes. Kansas, a non-control state like Texas, and one of the few states with a mixed drink tax, was also surveyed because of its similarities to Texas.

RESULTS FROM REPEALING THE SUNDAY LIQUOR BAN

Kansas, like Texas, licenses private sellers of alcoholic beverages instead of operating state alcoholic beverage stores. In 2004, the Kansas' restriction on Sunday liquor sales for off-premise consumption was abolished. The law became effective in November 2005. Per capita liquor consumption increased by 7 percent a year after the repeal of the ban, while in 2004 and 2005 the average growth for per capita liquor consumption was 0.9 percent. Kansas is also like Texas in that it is one of few states that imposes a tax on liquor for on-premise consumption called the liquor excise gross receipts tax. Revenue from this 10 percent tax increased by 7.5 percent in 2006, and has continued to increase through 2009. This data casts doubts on claims that the sale of liquor for off-premise consumption would decrease demand for mixed drinks at bars or restaurants.

Pennsylvania has also realized revenue gains by allowing the sale of liquor on Sunday for off-premise consumption, although it limits the number of stores allowed to sell liquor on Sunday to 25 percent. A study shows that the first wave of

FIGURE 3
CONTROL STATES AND STATES THAT ALLOW SUNDAY LIQUOR SALES FOR OFF-SITE CONSUMPTION
FISCAL YEAR 2010



Source: Distilled Spirits Council of the United States; National Alcohol Beverage Control Association.

Sunday stores experienced growth in both revenue and units sold compared to prior years. While revenue from surrounding stores not open on Sunday also increased, the stores experienced a shift in sales to stores open on Sunday. Similar to the first wave of stores opened for Sunday sales, the additional stores experienced growth in revenue and units sold, and saw an in-store sales shift from Monday through Friday to Saturday and Sunday. The second wave of stores opened on Sunday showed a 12.6 percent increase in revenue and a 7.8 percent increase in total unit sales with no discernible decrease in sales in surrounding stores.

Virginia reports that Sunday liquor sales have been favorable, and in 2008 expanded the number of stores that are allowed to sell liquor on Sunday based on the population of locations. In 2004, the first year of Sunday liquor sales, revenues increased by 22 percent and per capita liquor consumption increased by 1.9 percent and continues to increase in subsequent years. The Virginia Alcoholic Beverage Commission analyzed movement from other days of the week to evaluate whether sales gains were incremental and found that the gains were largely due to new business. They also found that customers prefer shopping on Sundays based on the continued increase in sales.

In Washington, revenue from stores allowed to sell liquor on Sunday continues to increase since a 2005 pilot program that allowed the sale of liquor for off-premise consumption. Most recent data shows that revenue from Sunday sales totaled $5.9 million for fiscal year 2009, a 2.9 percent revenue increase from the previous year. The Washington State Liquor Control Board (WSLCB) attributes growth in its sales to, among other reasons, the operation of its 75 liquor stores on Sunday. According to WSLCB, the state did not see a reduction in tax revenue from other alcoholic products because of lifting the Sunday sale liquor ban. The agency found that beer and wine markets fluctuated between each other with no direct correlation to liquor sales. Proponents of Sunday liquor sales would consider this observation key because opponents argue that an increase in liquor sales and revenue would be offset by a decrease in beer or wine purchases.

Pennsylvania, Virginia, Washington, and Kansas are not the only states that have seen revenue increase because of repealing Sunday liquor bans. In a 2007 study, DISCUS found that Sunday sales generated a combined $213 million for retailers in the 12 states that have acted since 2002. This revenue gain occurred even though many states limit the number of stores that can open Sunday.

SUNDAY LIQUOR SALES AND PUBLIC SAFETY

While the repeal of Sunday liquor restrictions has resulted in additional revenue for states, afforded customers convenience, and given businesses a choice to open on Sundays, it is important to consider the effect of this change on public safety. There are two opposing opinions on the effect Sunday liquor sales may have on public safety. Supporters of Sunday liquor sales for off-premise consumption argue that allowing consumers to purchase liquor for off-premise consumption encourages them to drink at home as opposed to a bar or restaurant where liquor can only be purchased on Sundays. The opposing argument is that allowing Sunday liquor sales for off-premise consumption increases access to alcoholic beverages and may lead to increased traffic fatalities. A few related studies tried to measure the effect of Sunday liquor sales on public safety; none of which are conclusive or comprehensive. Studies have conflicting findings that neither support nor negate the benefits of Sunday liquor sales for off-premise consumption. The National Mothers Against Drunk Driving organization states that they neither support or oppose the sale of alcohol on Sunday. Instead, the organization is less concerned when alcohol is sold and is more concerned to whom it is sold.

PRIOR LEGISLATION ALLOWING SUNDAY LIQUOR SALES

Attempts to allow the sale of liquor on Sunday for off-site consumption have been made in the Texas Legislature. Most recently, three bills were introduced to the Eighty-first Legislature, 2009: House Bill 863 would have allowed Sunday sales for off-site consumption statewide from noon to 6 PM, and House Bill 815 and Senate Bill 557 would have allowed Sunday sales of liquor for off-site consumption in the 15 counties that border Mexico. Proponents of this legislation, including liquor store owners along the border, argued that lifting the ban would allow for the capture of lost revenue to neighboring states and Mexico that sell liquor on Sundays. A study on the effect of Sunday sales bans and excise taxes on drinking and cross-state shopping for alcoholic beverages published in the National Tax Journal in 2007 found that consumers circumvent the law by traveling to jurisdictions where laws are more lenient, and therefore, repealing a Sunday sales ban leads to an increase in the sale of liquor.

However, opponents of the proposed legislation, including the Texas Package Store Association that represents liquor stores in Texas, dispute the economic benefit of repealing the Sunday liquor ban. They argue that a repeal of the Sunday liquor sales restriction would spread six-day sales over seven-days, in effect, forcing local liquor stores to operate seven days week with no increased revenue. This argument assumes no increase in consumption, but rather a redistribution of sales from other days of the week to Sunday. Analysis and data from states that have repealed Sunday liquor bans do not support this claim and instead show revenue gains and increased consumption.

FISCAL IMPACT OF THE RECOMMENDATION

Amending the Texas Alcoholic Beverage Code to allow the sale of liquor on Sunday for off-site consumption would have a positive fiscal impact on the General Revenue Fund. Repealing the Sunday liquor restriction would increase revenues by an estimated $7.4 million in General Revenue Funds for the 2012–13 biennium as shown in **Figure 4**. The revenue estimate is based on a regression analysis published in the National Tax Journal in 2007 that shows that states similar to Texas (Sunday liquor ban including no grocery store sales of liquor) realized revenue gains and increased liquor consumption. Using the same model, updated analysis shows a 2.9 percent increase in volume after the repeal of Sunday sales restrictions. The fiscal impact assumes an increase of 2.9 percent, or 782,000 gallons, from liquor consumption in 2009. The retail sale of these additional gallons would yield $1.9 million in liquor excise taxes per year. An additional $3.3 million in state sales tax would be generated the first year of Sunday liquor sales assuming an average price of $67 per gallon of liquor.

Although consumers of beer, wine, and liquor tend to have distinct alcoholic preferences, the revenue estimate accounts for an offset of mixed drink sales. According to LBB staff analysis, almost 85 percent of liquor sales on Sunday would have to come from displaced mixed drink sales to negate all the liquor tax and sales tax gains.

The estimate in **Figure 4**, assumes that 25 percent of the annual revenue gain to package stores from additional liquor sales is shifted from mixed drink sales, resulting in a $1.9 million loss in mixed drinks tax collections in fiscal year 2012. Assuming the statutory maximum allocation to locals,

$406,333 of the mixed drinks tax revenue loss would be to local governments and $1.5 million would be a loss to the state in fiscal year 2012.

Figure 4 includes an estimated net revenue gain of $641,575 to local governments assuming a 2 percent local option sales tax and loss of mixed drinks tax in fiscal year 2012. The five-year fiscal impact estimate assumes a 3.6 percent annual growth in liquor excise taxes based on average liquor excise receipts from fiscal years 2006 to 2009.

FIGURE 4
FIVE-YEAR FISCAL IMPACT OF REPEALING SUNDAY LIQUOR BAN FOR OFF-SITE CONSUMPTION
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE NET GAIN/ (LOSS) IN GENERAL REVENUE FUNDS	PROBABLE NET GAIN/ (LOSS) IN LOCAL FUNDS
2012	$3,622,979	$641,575
2013	$3,753,406	$677,290
2014	$3,888,529	$714,896
2015	$4,028,516	$754,491
2016	$4,173,542	$796,177

SOURCE: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any changes as a result of this recommendation.

ELIMINATE THE HOTEL PERMANENT RESIDENT EXCEPTION

Texas levies a hotel occupancy tax on hotel guests, but persons who occupy a hotel room for 30 or more consecutive days are considered permanent residents and are exempt from the hotel tax. A "person" as defined in the context of the law includes individuals and businesses. Therefore, the statute authorizing the permanent resident exception extends to private businesses such as airlines, consulting firms, railroad and trucking companies, and others. Repealing the permanent resident exception would result in a $16.1 million gain in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- In fiscal year 2010, the state collected $330.8 million in hotel tax revenue. Based on the Comptroller of Public Accounts' quarterly data, all hotel occupancy tax exemptions, including the permanent resident exception, cost the state $53.7 million in General Revenue Funds.
- Most permanent resident tax exemptions are claimed by businesses that rent blocks of hotel rooms for 30 or more consecutive days. In 2004, more than 83 percent of the claimed exemptions were by businesses, not individuals.
- Other exemptions to the hotel occupancy tax are granted to non-profit businesses, institutions of higher education, or government entities. This is more consistent with other tax exemptions allowed in the state. For example, these same entities, unlike private corporations, are exempt from paying sales and motor vehicle sales taxes.

CONCERN

- The permanent resident exception to the hotel tax benefits for-profit businesses. As a result of this exception, the state forfeited approximately $8.0 million in General Revenue Funds and General Revenue–Dedicated Funds in fiscal year 2010.

RECOMMENDATION

- Amend Chapter 156 of the Texas Tax Code to repeal the permanent resident exception to the hotel occupancy tax.

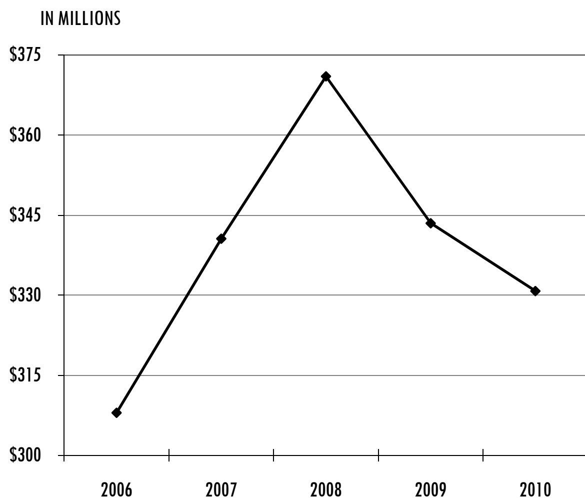
DISCUSSION

The hotel occupancy tax is imposed at a 6 percent rate. The state hotel tax applies to room rental charges for periods of less than 30 continuous days by the same person. Cities and counties are also allowed to levy their own hotel taxes. According to state statute, a city's hotel tax rate may not exceed 7 percent, and a county's hotel tax rate must be between 2 percent and 7 percent. However, if local governments choose to levy a hotel tax, the combined state, county and city hotel occupancy tax may not exceed 15 percent.

The hotel occupancy tax is collected by the hotel providing the service and sent to the Comptroller of Public Accounts (CPA) on a monthly basis. Section 156.251 of the Texas Tax Code provides that, "The revenue from the tax imposed by this chapter shall be deposited in the state treasury to the credit of the general revenue fund." By statute, one-twelfth of the revenue generated by the tax is used for the purpose of promoting tourism in the state. One-third of the revenue generated by the tax from hotels in eligible coastal municipalities is allocated to those municipalities for the maintenance of their public beaches. One percent of the revenue generated can be deducted and withheld by the hotel as reimbursement for the cost of collecting the tax.

While hotel tax revenues have decreased since fiscal year 2008, as shown in **Figure 1**, the hotel industry, overall, has fared better than most other sectors. The 3.7 percent decrease in hotel tax revenues from fiscal year 2009 to fiscal year 2010 is less than the 6.6 percent decrease in the sales tax over the same period. With the recent decrease in hotel occupancy tax revenues and the expected decrease in subsequent years, it is important to identify factors that can further erode its value. One such factor is the permanent resident exception that allows private businesses and individuals to claim an exemption to the state (and local, if applicable) hotel occupancy tax. Meaning, if a room is occupied for 30 or more days without interruption in payment these occupants are exempt from the tax imposed on the rental price of a unit.

FIGURE 1
HOTEL OCCUPANCY TAX REVENUE
FISCAL YEARS 2006 TO 2010



SOURCE: Comptroller of Public Accounts.

In fiscal year 2010, hotels claimed $894.4 million in non-taxable hotel receipts due to various exemptions, including the permanent resident exception.

Section 156.101 of the Texas Tax Code provides that a "person" with the right to use or possess a hotel room for at least 30 consecutive days without interruption of payment is not required to pay the state hotel occupancy tax. In the context of the law, the term "person" also includes businesses. The permanent resident exception is beneficial to private businesses that engage in travel as part of their operations. Approximately 83 percent of hotel tax exemptions claimed are by businesses such as consulting firms, airlines, trucking companies, and railroad companies. As long as there is no interruption in payment, businesses qualify for the exemption even if a different person from the same company occupies the room. For example, an airline company can reserve and occupy a block of hotel rooms for several months while different pilots and flight attendants occupy the rental during that period without being liable for any hotel tax.

The inclusion of businesses and individuals as parties that are exempt from the hotel occupancy tax is inconsistent with other tax exemptions typically granted in Texas. Other tax exemptions to the hotel tax are allowed for non-profit organizations, government entities, and higher education institutions. All exemptions taken against the hotel occupancy tax are at the expense of General Revenue Fund and to a lesser extent the General Revenue–Dedicated Hotel Occupancy Tax Fund that benefits economic development and tourism efforts in the state.

HOTEL TAXES IN OTHER STATES

All states levy or authorize locals to levy hotel occupancy taxes. However, most states without designated hotel occupancy taxes levy the sales tax on the price of the room. State hotel tax rates range from 4 percent in Montana to 12 percent in Connecticut. The period of time after which guests become exempt from paying state hotel occupancy taxes varies from a typical period of 30 days to as much as six months, which is the case in Florida.

Most states allow their local governments to impose and collect hotel taxes, in addition to the state hotel tax. States with no state hotel occupancy taxes, such as California, allow locals to levy hotel taxes as a means to promote tourism and aid in economic development efforts. Hotel tax rates vary widely throughout the country since states and local jurisdictions have different taxing capacities.

REPEAL THE PERMANENT RESIDENT EXCEPTION

Recommendation 1 would amend Chapter 156 of the Texas Tax Code to repeal the permanent resident exception to the hotel occupancy tax. In 2010, an estimated $133.9 million in hotel receipts were not taxed due to the long-term stay exemption. This translates into a $8.0 million loss in tax revenue for the state. Most of the lost revenue defrayed costs to businesses. Implementing this recommendation would require corporations and individuals to pay the hotel occupancy tax regardless of their length of stay unless they qualify for one of the other hotel tax exemptions.

This recommendation would have little impact on private individuals because they typically represent a small portion of the guests who stay for continuous periods of more than 30 days. Furthermore, this recommendation would not eliminate other hotel tax exemptions allowed for federal and state employees on official business, non-profit organizations, religious institutions, and public or private institutions of higher education.

FISCAL IMPACT OF THE RECOMMENDATION

As shown in **Figure 2**, eliminating the hotel permanent resident exception would save the state $16.1 million in All Funds in the 2012–13 biennium. Of the total savings amount, $14.7 million would go to the General Revenue Fund, while $1.4 million would be deposited in the General Revenue–Dedicated Hotel Occupancy Tax Fund as required

FIGURE 2
FIVE-YEAR FISCAL IMPACT
ELIMINATING THE PERMANENT RESIDENT EXCEPTION
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN/(LOSS) IN GENERAL REVENUE FUNDS	PROBABLE REVENUE GAIN/(LOSS) IN GENERAL REVENUE–DEDICATED FUNDS
2012	$7,356,473	$677,242
2013	$7,356,473	$677,242
2014	$7,356,473	$677,242
2015	$7,356,473	$677,242
2016	$7,356,473	$677,242

SOURCE: Legislative Budget Board.

by statute. **Figure 2** does not account for the deduction from the revenue generated from the hotel tax that would be allocated to coastal municipalities because there are so few cities that receive dedicated hotel tax revenue. As such, the impact on the state revenue gain is insignificant. Due to the modest growth in hotel tax occupancy revenues expected in the 2012–13 biennium, the estimate holds flat the revenue gain for several years.

No adjustments to the introduced 2012–13 General Appropriations Bill have been made as a result of this recomendation.

REFORM HEALTHCARE PAYMENT AND DELIVERY SYSTEMS TO REDUCE STATE EXPENDITURES

National health spending totaled $2.5 trillion in 2009, and grew 5.7 percent during 2009, the greatest single year increase since data collection began in 1960. Cost containment and quality improvement are two of the greatest challenges confronting the U.S. healthcare system. Many promising payment and delivery reform models seek to address these challenges, and many demonstrations and pilot programs are occurring nationwide to test their effectiveness. The federal government and some states have provided leadership to encourage this experimentation. Statewide leadership in Texas is needed to provide a vision and set priorities for improved health outcomes, eliminate barriers to private sector experimentation, and invest in tools to facilitate reform. Creation of a committee would facilitate identification of desired outcomes for reform and improve communication among health purchasing agencies.

FACTS AND FINDINGS

- Increased health spending is not linked to improved health outcomes. Research has documented that high-cost areas do not have the best healthcare outcomes and states with relatively low spending have some of the nation's highest quality healthcare. Despite Texas' high relative Medicare spending, the state ranks forty-second in potentially avoidable use of hospitals and thirty-seventh in 30-day hospital readmissions.

- Research documents regional variations in healthcare spending in both the federal Medicare and Texas Medicaid programs. Texas had the fourth highest spending per Medicare enrollee in 2005 ($9,361 compared to the national average of $7,726) and fiscal year 2009 Medicaid data show variation in the cost per capita across health and human services regions in Texas from $4,722 to $7,887.

- Some estimates indicate as much as 30 percent of medical spending is waste and could be eliminated with no adverse consequence to patients.

- Nationwide, public and private payers and providers are testing a variety of reforms that seek to transform the way healthcare is purchased and delivered. Many models are complimentary strategies.

- The fee-for-service payment methodology is the predominant payment methodology used by state programs including Medicaid and state health plans. This methodology encourages over-utilization, discourages coordination among healthcare providers, and limits use of practices that could improve quality outcomes.

CONCERNS

- There is no overarching vision to direct experimentation with different payment and delivery reform models in Texas, nor consensus on how to measure their effectiveness in terms of cost containment or improvement in health outcomes.

- Healthcare reform initiatives by single payers have limited effectiveness because they do not provide a strong enough incentive for providers to improve efficiency.

- Legal barriers prohibit certain hospital-physician relationships. As a result, Texas does not have a robust number of integrated and group health systems, capable of testing different payment and delivery reform options.

- Start-up expenses for new payment and delivery reform models can be a barrier to experimentation.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Insurance Code to require the Commissioner of Insurance to appoint a committee to develop a plan that prioritizes healthcare cost and quality outcomes and related measurement methodologies for use in public and private payment and delivery reform demonstrations and pilots.

- **Recommendation 2:** Amend the Texas Occupations Code to authorize certain hospital-physician relationships to permit entities to test payment or delivery reform initiatives.

- **Recommendation 3:** Include a contingency rider in the 2012–13 General Appropriations Bill to provide the Texas Department of Insurance with $900,000

in General Revenue Funds – Insurance Companies Maintenance Tax and Insurance Department Fees to fund pilot programs to test payment and delivery system reforms and to provide the agency with one full-time equivalent (FTE) position.

DISCUSSION

Cost containment and quality improvement are two of the greatest challenges confronting the U.S. healthcare system. In 2009, healthcare expenditures in the U.S. totaled $2.5 trillion. Healthcare's share of the gross domestic product was 17.3 percent in 2009, and its rate of growth during 2009 was the largest individual increase since data collection began in 1960.

Despite the level of healthcare spending, the U.S. has not achieved uniform quality improvements across the healthcare system. According to a 2003 *New England Journal of Medicine* article, a study of adult medical records over a two-year period reported adults received only 54.9 percent of recommended care. Practitioner adherence to standard processes of care ranged from 52.2 percent to 58.5 percent, depending on the medical function (i.e., screenings, follow-up care). Practitioner adherence to quality indicators varied by condition from 10.5 percent (alcohol dependence) to 78.7 percent (senile cataract). The U.S. performed last of seven countries in healthcare access, patient safety, coordination, efficiency, and equity of its healthcare system, according to a 2010 Commonwealth Fund survey.

Researchers have disproven the link between more healthcare spending and better outcomes, finding that increased spending is associated with less efficiency and lower adherence to standard practices of care. Researchers have identified significant waste in healthcare spending (i.e., expenditures due to non-emergent use of the emergency room, preventable hospital readmissions, unnecessary procedures and tests) and some estimates indicate as much as 30 percent of this spending is unnecessary and could be eliminated without affecting patient care. Medical errors alone could cost as much as $30 billion annually, according to some estimates.

Contributing to the growing cost and poor quality of healthcare are fragmentation, a lack of coordination among providers, and poor communication between physicians and patients or their families. The healthcare industry is fragmented, as patients can receive care from multiple practitioners and in different settings such as primary care offices, emergency departments, and urgent care clinics. Because no single provider is typically responsible for all of the care a patient receives, and a patient may see several practitioners in the treatment of multiple conditions, lack of coordination can cause redundancy and lead to adverse patient outcomes. In addition, no single provider is accountable for patient outcomes or the management of a patient's level of utilization of care. Poor communication in addition to the fragmentation can make it difficult for patients to self-advocate and navigate through the healthcare system.

FEE-FOR-SERVICE PAYMENT METHODOLOGY

The fee-for-service (FFS) payment methodology is one of the predominant payment methodologies used by insurance companies to pay providers, and is used by the federal Medicare program and state Medicaid programs for a significant portion of beneficiaries. In addition, many private payers and health plans base their physician fee schedules on Medicare rates and contract with providers assuming an underlying FFS payment structure.

Many researchers have identified the FFS payment methodology as the central factor contributing to challenges confronting the U.S. healthcare system: high costs, poor quality, fragmentation, and a lack of coordination, and a barrier to the resolution of these challenges. Under FFS, individual providers submit claims for services rendered and a payer provides reimbursement based on an established rate structure. The payment is not linked to any quality outcome and there is no link between discrete services (e.g., a hospital readmission is not connected to the original hospitalization). This system contributes to growing healthcare costs and poor coordination of care in a variety of ways.

FFS rewards a greater volume of services delivered, because more claims result in more reimbursement. By extension, the system incentivizes treatment over prevention and provision of higher cost care, given higher reimbursement rates. Also, by prioritizing volume, the system disincentivizes quality improvement efforts that could address many of the costly problems confronting the U.S. healthcare system such as hospital readmissions, medical errors and poor management of patients with chronic diseases, because time spent performing these non-reimbursable activities is time diverted from providing other billable services.

The FFS system reinforces fragmentation and lack of coordination of the healthcare system. It reinforces the role of the individual practitioner because individual practitioners submit claims for reimbursement, and the payment system does not provide compensation for time spent engaged in

collaboration with other practitioners. It does not incentivize activities that improve the coordination of care or management of conditions such as follow-up telephone calls to patients.

An example that illustrates the issues with FFS is preventable hospital readmissions. Hospital readmissions cost the Medicare program an estimated $5 billion for patients readmitted within seven days of discharge, $8 billion for patients readmitted in 15 days, and $12 billion for patients readmitted within 30 days, according to the Medicare Payment Advisory Commission (MedPAC). According to a 2007 MedPAC report, the average readmission costs $7,200. Not all of these instances are preventable, but researchers indicate many readmissions could be prevented by increased communication between caregivers and patients at discharge, coordination with patients' primary care physicians, and more follow-up with patients. However, these activities are not rewarded often through the FFS system because they are not billable services.

LIMITS OF PAST HEALTHCARE REFORM ATTEMPTS

From a payer perspective, FFS offers limited means of cost control. Under FFS, a payer can set rates for individual services, but cannot control the amount of services provided within an episode of care (i.e., a hospitalization and related follow-up care) or the amount of episodes of care for a particular patient (i.e., multiple hospitalizations over a specific period).

Healthcare payers have been aware of the problems inherent in FFS reimbursement for some time. Alternate approaches have sought to transfer some risk to providers such that if they are unable to improve performance, they would experience reduced payment. Two types of risk could be shifted to providers: insurance risk (the likelihood a beneficiary requires medical care) and performance risk (services used). In attempting past reform approaches, payers have shifted too much insurance risk, or not enough performance risk to providers. These approaches have minimized the effectiveness of the reforms.

In the late 1980s and early 1990s, payers gravitated toward capitated models of payment, however by the late 1990s, use of health maintenance organizations declined. Concerns with capitation came from providers who argued the new level of risk was too great (both performance and insurance risk) and patients who worried about rationing of care. Managed care remains a presence in today's healthcare market and offers opportunities to contain costs, but, has not resulted in a significant change in delivery models, which has limited cost control savings. More recent reforms have sought to link payment with quality outcomes, but have not changed the underlying payment structure and have therefore not been able to overcome incentives of FFS to increase the volume of care. For example, it is unlikely that a pay-for-performance program can overcome the incentives present in FFS. In a pay-for-performance initiative that provides bonus payments for hospitals that reduce readmissions, it is unlikely that the effort would be successful, given the likelihood that the lost revenue associated with reducing readmissions would likely outweigh the bonus payment.

The predominant use of FFS has also made it difficult for single payers to initiate quality improvement efforts or payment reforms. Because multiple payers exist in a local market (e.g., federal Medicare program, state Medicaid program, private insurers), it is difficult for a single payer to provide a large enough incentive to motivate providers to change care delivery. The likelihood of success further decreases when multiple payers initiate independent and potentially conflicting initiatives, given the competing incentives and the costs and complexity of compliance for providers.

NEW PAYMENT AND DELIVERY SYSTEM REFORMS

A variety of new reform models have emerged that seek more fundamental change in the way healthcare is purchased and delivered. Payment reform options seek to transfer some of the risk from payer to provider as a method of motivating providers to improve their efficiency. Delivery system reforms seek to change how healthcare is provided, including changing the relationships among healthcare providers and the amount of risk they assume. **Figure 1** shows some examples of payment and delivery system reforms and provides an analysis of their strengths and weaknesses. It also shows examples where these approaches have been applied.

Figure 1 provides only a few examples of the payment and delivery reforms being tested by payers and providers in the U.S. Researchers argue that it is unlikely that a single model is applicable in all situations or represents the only solution to healthcare reform and that development of many different models is advantageous.

Each reform option has strengths and weaknesses. Many have the potential to succeed, but further testing is required to determine effectiveness of the approach and of individual design features, given multiple variations that exist of each model. For example, within bundling, there are many

FIGURE 1
SELECT EXAMPLES OF PAYMENT AND DELIVERY REFORM OPTIONS, 2010

	PAYMENT REFORMS			DELIVERY REFORMS	
	BUNDLED PAYMENT	**GLOBAL PAYMENT**	**ALL-PAYER HOSPITAL RATE SETTING**	**ACCOUNTABLE CARE ORGANIZATIONS (ACOS)**	**MEDICAL OR HEALTH HOME**
Summary	A bundled payment is a single payment for a service or episode of care that is shared by the providers caring for a patient. Bundles have been developed for hospitalization episodes (i.e., coronary heart bypass graft) and for management of chronic conditions. A variation of bundling is virtual bundling, which involves separate payments to individual providers that are adjusted based on their share of services provided across an episode.	A global payment is a package of payments for a single patient, instead of a condition provided to a provider over a certain time period (a month, a year). The payments may be adjusted for a patient's age, sex, or medical condition.	All-payer hospital rate setting is an approach in which a state entity regulates hospital rates and hospitals charge all payers the same amount.	An ACO is a local entity and a related set of providers that can be held accountable for the cost and quality of care delivered to a defined group of patients. Financial rewards are provided if the organization meets performance targets for cost and quality. Characteristics of an ACO include: 1) the ability to provide all of the care a patient requires across care settings, 2) the capability to plan budgets and resource needs, and 3) sufficient size to support performance measurement. No singular organizational model exists for ACOs. Several provider types can form ACOs (e.g., an interdependent physician organization, a multispecialty group, a hospital medical staff organization, and a physician-hospital organization, an organized or integrated delivery system). A variation of an ACO is a virtual organization. According to a 2006 Health Affairs article, virtually all physicians are directly or indirectly affiliated with a local acute care hospital, which can form the basis for virtual ACOs.	A medial home is a clinical setting that serves as a coordinator for a patient's medical care. Originally used as a means of managing the medical care of special needs children, medical homes have now been used more widely for other patient groups. Four features of successful demonstrations include: 1) use of dedicated care managers, 2) expanded access to health practitioners, 3) data-driven analytic tools, and 4) the use of incentives to motivate provider change.

FIGURE 1 (CONTINUED)
SELECT EXAMPLES OF PAYMENT AND DELIVERY REFORM OPTIONS, 2010

	PAYMENT REFORMS			DELIVERY REFORMS	
	BUNDLED PAYMENT	GLOBAL PAYMENT	ALL-PAYER HOSPITAL RATE SETTING	ACCOUNTABLE CARE ORGANIZATIONS (ACOS)	MEDICAL OR HEALTH HOME
Strengths	Bundling provides an incentive for more judicious use of resources during a hospital stay. Bundling involves a hospital in patient outcomes by involving them in coordinating care post-discharge and encouraging hospitals to partner with more efficient providers. This approach promotes joint accountability across the healthcare system for managing a patient's care within the cost of the bundle.	Global payment provides a means of controlling costs across multiple conditions and episodes of care for a given period. A provider would have an incentive to provide efficient care so as not to exceed the payment amount. Under global payment, primary care and medical homes are important to ensure quality and coordinate care.	The system provides a greater incentive for providers to manage costs instead of shifting them across insurers. The system provides greater access to care. All payers share costs of uncompensated care, which does not discourage treatment of the uninsured.	An ACO combines payment and delivery reform approaches, increasing the likelihood that provider organizations can respond to the new payment models. The ACO model makes financial rewards contingent on meeting cost and quality standards.	Under a medical home model, a singular entity is responsible for a patient's medical care and is compensated for performing coordination activities which can improve patient outcomes and reduce utilization such as preventable hospital readmissions or preventable emergency department use.
Weaknesses	Implementation questions exist about program design features, the definition of what is included in the bundles, determination of payment structure, how to achieve shared accountability, risk adjustment, and how providers will be impacted (e.g., creation of new billing systems). Bundling provides a means of controlling costs within an episode of care, but cannot contain the number of episodes. Bundling could result in rationing of care or in "cherry picking" of patients.	Providers could "cherry pick" less expensive patients or ration care. Most physicians and patients are unfamiliar with global payment, and could require technical assistance. The level of risk providers must assume under global payments may be too great for small practices or solo practitioners.	The rate structure is not designed to contain growth in the number of admissions and overall hospital volume.	Many logistical issues remain with ACO implementation, including establishing processes to measure performance and how payment will occur. Providers and payers lack experience in establishing the organizational and leadership structures to implement ACOs. Given the presence of many small and solo practices, there may be too many barriers to integration. ACOs could result in greater provider consolidation, which could increase costs. Consumers may resist lock-in to a single ACO.	The return on investment for primary care is more long-term so the medical home model might not result in less cost savings in the short-term. If hospitals and other providers in the local market of a medical home resist integration of care and use of the model, the model's success could be limited. Implementation may be difficult given that the majority of primary care practices are independent and small.

FIGURE 1 (CONTINUED)
SELECT EXAMPLES OF PAYMENT AND DELIVERY REFORM OPTIONS, 2010

	PAYMENT REFORMS			DELIVERY REFORMS	
	BUNDLED PAYMENT	GLOBAL PAYMENT	ALL-PAYER HOSPITAL RATE SETTING	ACCOUNTABLE CARE ORGANIZATIONS (ACOS)	MEDICAL OR HEALTH HOME
Notable Examples of Application or Development	Geisinger Health System: In February 2006, Geisinger, an integrated health system, adopted an episode-based care model for elective coronary artery bypass graft (CABG). The system identified 40 best practice elements for CABG care and implemented a program to ensure completion and documentation of each element in each procedure. The hospital bills for all of the care associated with the procedure and follow-up care within 90 days. After 320+ procedures, the complication rate has decreased and the per-patient cost is $2,000 lower. The program reduced complications by 21% and hospital readmissions by 44%. Programs have since been implemented for hip replacement, cataract surgery, obesity surgery, prenatal care, and heart catheterization.	During the increased use of managed care in the 1980s and early 1990s, some managed care organizations experimented with global fees. Today, global payments are used by several integrated group and staff-model health plans (i.e., Kaiser Permanente).	Maryland: The Maryland Legislature created the Health Services Cost Review Commission in 1971 to set rates for hospitals. The Commission negotiated a federal waiver with the Medicare and Medicaid programs to enable it to set rates for all payers and all hospitals in the state. The rates are per service-specific unit rates, which differ from the Medicare program's use of payment per case. Maryland has also implemented other reform efforts including a bundled payment system for ambulatory surgery, clinic, and emergency room services, and initiatives to reduce potentially preventable conditions and hospital readmissions. From 1976 to 2007, the average hospital cost went from 26 percent above the national average to 2 percent below. Maryland's increase of cost per admission was the second lowest of any state.	Brookings-Dartmouth Learning Network Pilots: There are five private-sector ACO pilots in development in Virginia, Kentucky, Arizona, and California, and they vary in terms of the level of integration and organizational structures. Vermont: The Vermont Legislature directed the Health Care Reform Commission to explore the ACO model in 2008. Additional legislation passed to support implementation of a pilot ACO. Three provider organizations are in the process of becoming ACOs, with the first site expected to begin serving patients in 2011.	Medical homes have been tested in over 100 demonstrations for over 40 years. Community Care of North Carolina: Medicaid and CHIP program uses a primary medical home model that was first piloted in 1998. Key features include use of community care networks with staff that perform care coordination. Primary care practices receive a monthly payment per client to coordinate care. As of 2009, the model had served over 1 million patients in 1,360 practices. The program has resulted in annual outcomes of a 40% hospitalization reduction, a 16% reduction in ER use, and savings of $516 per patient.

SOURCE: Legislative Budget Board.

variations to test including real or virtual bundle approaches, bundling payment for chronic disease care compared to hospitalizations, and how to best adjust for risk. Bundling can also be layered with other reform options; a medical home or an ACO could receive a bundled payment for certain patient groups.

Payment and delivery reforms are complimentary and reinforcing approaches. Researchers argue both will need to change to reduce costs and improve quality. There are two points of view in the literature as to whether payment reform spurs changes in delivery models or whether new delivery models are a prerequisite for new methods of payment, but both positions illustrate the ways in which these reforms are complimentary. A 2009 *Journal of Ambulatory Care Management* article suggests payment reform can be implemented more quickly because it does not require initial changes to provider infrastructure. Over time, payment reform can result in the formation of new provider organizations. A 2009 Urban Institute report provides the opposite view, that new organizations capable of handling different forms of payment should form first, (i.e., receiving one bundled payment) and then models of payment should change to reflect how care is provided.

THE ROLE OF FEDERAL AND STATE GOVERNMENTS IN EXPERIMENTATION

The federal government, followed by some states, has sought to transform itself from a passive payer of bills to an active purchaser of healthcare services. As some of the largest payers in the U.S. healthcare system, the federal government and states are in positions to innovate and lead other purchasers by example.

The federal government has provided leadership in the deployment of new models of cost containment and quality improvement in healthcare over the past several decades. Examples of this innovation include:

- **Payment Reform:** The Medicare program transformed payment for inpatient services through adoption of the Medicare Diagnosis Related Group (DRG)-based impatient prospective payment system in 1982. The system established a single price for services provided based on a patient's diagnosis, procedures, age, and gender. According to a *Journal of Ambulatory Care Management* article in 2010, the DRG led to a significant reduction in inpatient expenditures by rewarding provider efficiency and provided a valuable communicative tool to discuss services provided in hospitalization episodes.
- **Bundling demonstrations:**
  - **Coronary Artery Bypass Graft Demonstration:** The Health Care Financing Administration tested use of a bundled payment for coronary artery bypass graft at four hospitals from 1991 to 1995.
  - **Acute Care Episode demonstration project:** The ACE demonstration is a three-year demonstration that began in 2009 and is testing bundling for nine orthopedic and 28 cardiac procedures in the Medicare program at five hospital systems, including Baptist Health System in San Antonio, Texas. In addition to the bundled payment, the demonstration is also testing use of competitive bidding, gain-sharing between CMS, hospitals, and physicians, and shared savings with Medicare beneficiaries that chose to receive care from demonstration providers.
- **Physician Group Practice Demonstration (ACO-like entities or virtual ACOs):** This demonstration is a five-year demonstration that began in 2005, and involves ten demonstration sites. It seeks to improve coordination of Medicare Part A and B services, encourage cost efficiency, and reward physicians for the health outcomes of their patients. A total of 32 quality metrics were phased-in during the program and physician groups that improve patient quality and reduce costs earn back up to 80 percent of the savings generated.
- **Advanced Primary Care Demonstration (Medical Homes):** In the Advanced Primary Care Demonstration, announced in 2009, Medicare is allowed to join state-led multi-payer tests of patient-centered medical homes. States had approached CMS after encountering limited success with multi-payer initiatives that excluded the Medicare program.

With the Patient Protection and Affordable Care Act of 2010, the federal government's role as innovator and tester of healthcare reform models was reinforced. The legislation created the Center for Medicare and Medicaid Innovation, which was entrusted with evaluation of twenty reform initiatives. The Center was provided with flexibility to conduct pilots instead of demonstration programs, meaning

that further congressional action is not required to move forward with implementation of initiatives proven effective.

The legislation calls for the testing of reform models, including, but not limited to:

- Medicaid bundled payment and global payment demonstrations;
- Medicaid pediatric ACO demonstration;
- Medicaid state plan option to establish health homes for persons with chronic conditions;
- ACOs recognized by Medicare;
- voluntary bundled payment pilot in Medicare program;
- medical home models to be tested by Medicare Advisory Board; and
- Medicare program to provide bonus payments for select primary care services and to surgeons in health professional shortage areas.

States are also critical in healthcare reform, given their roles as purchasers, regulators, and advocates, and have the ability to convene key stakeholders to forge collaboration on health policy issues. Some examples of innovative state activity are highlighted in **Figure 1**. In addition, according to HHSC, based on a survey of state Medicaid directors and using information from the National Association for State Health Policy, at least eight states are in the planning stages of payment reform initiatives, with three examining global payment. In addition to the states highlighted in **Figure 1**, Minnesota is notable in that it is the only state that has approved legislation for bundled payment. At least eight states have implemented medical home models. Two states, Washington and Vermont, have developed state-led pilots to test ACOs.

HEALTHCARE COST AND QUALITY IN TEXAS

The state of Texas is a large purchaser of healthcare services. For example, the fiscal year 2009 Medicaid client services acute care and STAR+PLUS medical spending cost was $9.9 billion. The amount paid in fiscal year 2010 for inpatient, outpatient, and professional claims across employee health plans at the Employees Retirement System (ERS), Teacher Retirement System (TRS), the University of Texas, and Texas A&M University, was $2.7 billion.

Across these programs, FFS remains one of the primary payment methodologies. In fiscal year 2009, approximately 51 percent of total client service costs in the Texas Medicaid program were due to the FFS and Primary Care Case Management (PCCM) delivery systems, which both pay claims on a FFS basis. Although much of Medicaid's population is now served in managed care, it is possible that the contractual relationships between the organizations and providers rely on a FFS fee scale. In addition, 92.2 percent of the amount paid in inpatient, outpatient, and professional claims in fiscal year 2010 across the state health plans (ERS, TRS, UT, and A&M), was based on a FFS methodology.

Even though there has been a shift to managed care in many state programs in Texas and in other states, health plans often contract with providers based on the traditional FFS methodology.

Many of the healthcare trends observed at the national level are also present in Texas. According to a 2009 Commonwealth Fund scorecard, using Medicare data, Texas ranks forty-second in potentially avoidable hospital use and thirty-seventh in 30-day hospital readmissions. Comparable Medicaid program data on readmissions are not yet available and no state mandate requires data collection on readmissions in the state health plans. According to the Commonwealth report, the total annual spending per Medicare enrollee in Texas was forty-sixth ($9,361 per person, compared to national average of $7,726). Costs of healthcare also vary statewide, suggesting some regions are less-efficient than others. A 2009 New Yorker article identified McAllen, Texas, as one of the most expensive healthcare markets in the U.S., a trend driven by "across-the-board overuse of medicine." Analysis conducted by the Health and Human Services Commission (HHSC) using fiscal year 2009 Medicaid program data found regional variability in per capita costs across health and human services regions, ranging from $4,722 to $7,887, at an average cost of $6,294.

EXPERIMENTATION WITH PAYMENT AND DELIVERY REFORM IN TEXAS

Texas has experimented with quality improvement and some payment and delivery reforms in its health programs. The Eighty-first Legislature, 2009, enacted House Bill 4586 which included a provision authorizing ERS to establish a pilot program to test quality of care and evidence-based reforms. Eight pilots were implemented with Blue Cross and Blue Shield of Texas which included pay-for-performance, medical home, clinical integration initiatives.

The Texas Medicaid program has enacted or is developing several quality initiatives including:

- disease management and Enhanced Primary Care Case Management Programs for clients with specified conditions and those that are high-cost clients or at risk of a chronic disease;
- identification and changes in reimbursement for cases when certain adverse events occur;
- identification and reporting of potentially preventable hospital readmissions beginning in January 1, 2011; and
- shift to All Patient Refined Diagnosis Related Groups refined classification by 2013.

In addition to these programs, providers in Texas are also experimenting with different reform models. For example, MD Anderson Cancer Center has implemented bundled payments for certain head and neck cancers. The Lone Star Circle of Care, a federally qualified health center, has developed an innovative medical home model. Baylor Health Care System has discussed formation of ACO pilots.

However, unlike other states and despite these exceptions, Texas' healthcare market does not reflect the integration that is occurring in health systems nationwide. Because integration is linked to the ability to experiment with payment and delivery reforms, limited integration has resulted in fewer examples of innovative payment and delivery reforms in Texas, compared to other states. One of the factors preventing emergence of more integrated health systems is Texas' Corporate Practice of Medicine Act, which makes certain hospital-physician relationships illegal.

The corporate practice of medicine is a practice intended to prohibit a corporation or non-physician individuals from practicing medicine or employing a physician to provide medical services in order to protect the practice of medicine from outside influence. Although many other states also prohibit the corporate practice of medicine, most other states provide exceptions to enable hospitals to employ physicians or to allow non-profit hospitals to employ physicians. According to a report written by a researcher from the University of Texas Medical Branch, the doctrine is only enforced in five states, including Texas. The Texas Medical Practice Act includes some exceptions to the corporate practice of medicine including permitting hospitals to enter into independent contractor positions with physicians, permits formation of non-profit health corporations, allowing licensed physicians to organize as a professional association, and enabling physicians to form limited liability partnerships.

Nationally, much of the experimentation with payment and delivery system reforms including bundling, global payments, development of ACOs, and medical homes have been occurring in integrated health systems like Geisinger Health System and Kaiser Permanente. These systems have organizational structures that are more conducive to experimentation for several reasons. Their larger size enables them to take additional financial risk. The ability to employ physicians enables hospitals to align incentives, which fosters cost control. Research has shown that physicians often treat hospitals as their "workshops" and are unaware of the costs of nursing time, equipment, testing. Such integration can facilitate greater coordination of care. Many of these systems also have the resources to invest in tools like electronic health records that facilitate reform.

PLAN FOR REDUCING COSTS IN TEXAS STATE HEALTH PROGRAMS

The approach to healthcare reform taken by the federal government has been to provide the leadership, oversight, and evaluation that directs public and private healthcare reform efforts. Given the potential of many reform initiatives but their relatively untested status, the federal government opted to allow for much experimentation. This model provides Texas with a template to use in developing a statewide strategy to reduce health costs. To maximize the benefits from reform, the state should:

- Provide the vision and set statewide priorities for improved outcomes.
- Eliminate barriers to private sector experimentation with different payment and delivery models. This would include the modification to the Corporate Practice of Medicine Act on a limited basis to enable formation of new hospital-physician relationships that are better able to test reform approaches.
- Experiment with reform models in state programs and provide for their evaluation. This experimentation should be consistent across Medicaid, CHIP, and the state health plans, given research indicating the success of multi-payer reforms.
- Invest in the tools to facilitate reform including but not limited to health information technology.

Recommendation 1 would amend the Texas Insurance Code to require the Commissioner of Insurance to appoint a committee. Membership of the committee would include representatives from major health purchasing agencies including Health and Human Services Commission, ERS, TRS, the University of Texas, and Texas A&M University, the Texas Department of Insurance, and designees from the Office of the Lt. Governor, the Office of the Speaker of the House of Representatives, the Senate Health and Human Services Committee, and the House Public Health Committee.

The committee would be required to develop a plan identifying priority outcomes to be addressed through healthcare experimentation (i.e., reduced hospital readmissions) and measurement methodologies to be used to determine effectiveness of reform initiatives. The committee would be required to submit the plan to the Governor and the Legislative Budget Board by February 1, 2012, and make it available on TDI's website. After production of the plan, the body would continue to meet to coordinate initiatives among state health payers and to direct private sector experimentation, given evidence that multi-payer initiatives are most effective in providing incentives for improved provider efficiency.

Recommendations 2 and 3 seek to eliminate barriers to experimentation with different reform models in the private sector including the Corporate Practice of Medicine Act and start-up and other technology costs for experimentation. Recommendation 2 would amend the Texas Occupations Code to authorize an exemption to the Corporate Practice of Medicine Act enabling hospitals, physicians, and health plans that participate in a demonstration or pilot program to test payment and delivery system reforms. To receive an exemption, the requesting entity would be required to apply to the advisory committee established by Recommendation 1.

As illustrated in **Figure 1**, there are many implementation challenges with new payment and delivery reform models. Recommendation 3 would seek to address these challenges by providing eligible entities with some start-up funding to launch reform initiatives. The recommendation would include a contingency rider in the 2012–13 General Appropriations Bill to establish a grant program to provide start-up funding for entities interested in testing a payment or delivery reform initiative. Interested entities would apply to the committee and would have to demonstrate that their initiative could address one or more of the priority areas identified by the advisory committee.

To support the advisory committee in implementation of Recommendations 1 to 3, TDI would be provided with one full-time equivalent (FTE) position to support the advisory committee.

In addition to these recommendations, Texas should continue to experiment with payment reform in its health programs. Recommendations on how these experiments could be implemented are provided in the 2011 *Government Effectiveness and Efficiency Report* entitled "Reduce Medicaid Costs through Bundled Payments." Texas should also invest in tools to facilitate payment and delivery reform. Texas is moving forward with electronic medical records and healthcare information exchanges. These tools will support communication between providers and coordination of care. An additional tool that could help identify opportunities for cost containment and quality improvement is an all-payer claims database. The 2011 *Government Effectiveness and Efficiency Report* "Implementation of an All-Payer Claims Database in Texas" provides additional information on this topic.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations would provide for a contingency appropriation of $900,000 in General Revenue Funds from Insurance Companies Maintenance Tax and Insurance Department Fees in the 2012–13 biennium. It is expected that TDI would use available balances in TDI's Operating Fund, or increase its maintenance taxes to generate sufficient revenue to cover this appropriation.

Appropriating $900,000 would provide funding for 1 FTE position at TDI and funding for several grants (estimated to be from 3 to 5) to entities to develop initiatives to test payment and delivery system reforms. **Figure 2** shows the five-year fiscal impact of these recommendations.

The introduced 2012–13 General Appropriations Bill includes a contingency rider which appropriates $350,000 in fiscal year 2012 and $550,000 in fiscal year 2013 in General Revenue Funds – Insurance Companies Maintenance Tax and Insurance Department Fees to hire the additional staff person and provide grant awards.

FIGURE 2
FIVE-YEAR FISCAL IMPACT, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE REVENUE GAIN IN GENERAL REVENUE FUND – INSURANCE COMPANIES MAINTENANCE TAX AND INSURANCE DEPARTMENT FEES	SAVINGS/(COST) IN GENERAL REVENUE FUND – INSURANCE COMPANIES MAINTENANCE TAX AND INSURANCE DEPARTMENT FEES	CHANGE IN FULL-TIME-EQUIVALENTS COMPARED TO 2010–11 BIENNIUM
2012	$350,000	($350,000)	1
2013	$550,000	($550,000)	1
2014	$0	$0	0
2015	$0	$0	0
2016	$0	$0	0

SOURCE: Legislative Budget Board.

IMPLEMENTATION OF AN ALL-PAYER CLAIMS DATABASE IN TEXAS

Robust data on healthcare costs, utilization, and outcomes provides the foundation necessary to implement payment and delivery system reforms that seek to contain healthcare costs and improve quality of care. One tool that states have developed to support reforms is an all-payer claims database. This database is typically established by legislative mandate, and includes health insurance claims data from medical, eligibility, provider, pharmacy, and dental files from public and private insurers. Texas does not have an all-payer claims database. Implementation of a database could help Texas identify opportunities for cost containment and quality improvement across state health programs and support other payment and delivery system reforms in a variety of ways. In addition, access to the comprehensive data collected by an all-payer claims database would be beneficial to other healthcare payers in Texas, providers, researchers, and the public. However, prior to implementation, several logistical issues would need to be addressed including securing funding and determining how to access data on populations and from sources that have not traditionally been included in all-payer claims databases in other states but potentially represent large segments of the Texas population.

FACTS AND FINDINGS

- Existing healthcare data available to most states are limited to specific populations or to services provided in certain settings.
- All-payer claims databases are tools for states to use in understanding healthcare quality and cost issues across the state's population and in designing and monitoring healthcare reform initiatives.
- As of September 2010, eight states have state-administered all-payer claims databases in operation, four are developing them, and three have non-state administered systems. Texas does not have an all-payer claims database.
- The Texas Department of State Health Services collects all-payer hospital inpatient discharge data that could provide a foundation for an all-payer claims database.

DISCUSSION

To slow the increasing rate of healthcare costs and improve health outcomes, payers and providers of healthcare are considering changes to the way healthcare is purchased (e.g., bundled payments, global payments) and delivered (e.g., medical homes, accountable care organizations). Data on cost, utilization, and outcomes enables payers of healthcare to identify waste in the current system (e.g., over-utilization of services, hospital readmissions, non-emergent visits to emergency departments, preventable adverse events), target payment and delivery reform initiatives, and evaluate the effectiveness of reform options.

Much is known about healthcare utilization, quality, and cost in the federal Medicare program due to the research of the Dartmouth Atlas Project. Its research over time using data from the Medicare program has shown that: (1) more spending does not necessarily lead to better outcomes; (2) high spending is associated with increased use of discretionary services; and (3) low-spending regions are more efficient than their high-spending counterparts. This analysis and research like it have helped to build consensus that there is wasteful spending in healthcare and that payment and delivery reforms are needed. The completeness of the Medicare claims data has supported the research undertaken by the Dartmouth Atlas Project. However, data available at the state-level are often fragmented and incomplete, preventing replication of this research.

Many researchers have identified limitations of existing data sets accessible by states. States have access to data from their Medicaid program and state employee benefit plan(s). Although the data are comprehensive for these populations, and include services provided across settings (e.g., hospital inpatient and outpatient visits, physician office visits, and prescription drugs), program eligibility is limited to certain groups and these state programs comprise only a portion of their state's insurance market, limiting extrapolation of this data.

Another source of data to states is inpatient and outpatient claims data from hospitals and ambulatory surgery centers. According to a 2010 Commonwealth Fund brief, 48 states collect inpatient claims data, including Texas. States have also begun collecting some outpatient claims data. These

data collection efforts typically include all payers in a state, but typically exclude payment information and data on care provided in other settings such as physician office visits, which comprise a significant portion of healthcare visits and expenses.

Other nationally-collected sources of data available to states add insight to particular aspects of healthcare costs and quality issues, but also have limitations. The Healthcare Cost and Utilization Project, a federal-state-industry partnership, provides a national all-payer database of hospital and ambulatory surgical center data dating back to 1988. However, it excludes office visits and pharmacy information, includes information on hospital charges instead of costs, and does not link events making it difficult to track an entire episode of care (e.g., a hospitalization and a hospital readmission) or to link multiple episodes of care (e.g., multiple unrelated hospitalizations). The Medical Expenditure Panel Survey collects data from families/individuals and medical providers across the U.S. on healthcare utilization and cost on an annual basis, however, its data represent only a sample of U.S. households.

ALL-PAYER CLAIMS DATABASES

One tool that states have developed to collect the comprehensive healthcare data needed to drive cost containment and quality improvement efforts is an all-payer claims database (APCD). An APCD is a database typically established by state mandate that includes data from medical, eligibility, provider, pharmacy, and dental files from public and private payers and is used to answer research and policy questions. **Figure 1** shows data typically included in and excluded from an APCD.

An APCD can link claims and eligibility data, and also episodes of care over time. The data collected by an APCD enable in-depth research to be conducted on previously unanswerable questions. According to researchers from the Maine Health Information Center, some of these questions include:

- use and cost of services outside the hospital setting;
- trends in cost, by both provider type and patient type;
- use of specific procedures and therapies by both provider type and patient type;
- geographical variations in utilization and costs; and
- provider market shares and provider profiles (e.g., provider prescription patterns).

FIGURE 1
DATA TYPICALLY INCLUDED AND EXCLUDED FROM APCDS, 2010

DATA INCLUDED	DATA EXCLUDED
• Encrypted Social Security number	• Services to uninsured
• Type of product (e.g., HMO)	• Denied claims
• Type of contract (e.g., family)	• Worker's compensation claims
• Patient demographics	• Premium information
• Diagnosis codes	• Capitation/administration fees
• Procedure codes	• Back-end settlement agreements
• National Drug Codes	• Referrals
• Information on service provider	• Test results (e.g., lab work, imaging)
• Prescribing physician	• Provider affiliation with group practice
• Plan payments	• Provider networks
• Member payment responsibility	
• Date paid	
• Type of bill	
• Facility type	
• Revenue codes	
• Service dates	

SOURCES: National Association of Health Data Organizations; Regional All-Payer Healthcare Information Council.

The value of this data is not only for academic purposes; the data benefits payers, policymakers, providers, and the public in a variety of the following ways:

- State programs that purchase healthcare—the data can be used to identify opportunities for payment reform and evaluate the effectiveness of reforms, compare costs and utilization to commercial payers, and implement more precise pay-for-performance initiatives.
- Other healthcare payers (e.g. insurance industry)—the data can provide a means of identifying high and low performing providers which can facilitate quality improvement efforts, targeted pay-for-performance initiatives, and other targeted interventions.
- Providers—the data enables providers to compare performance relative to their competitors and can lead to creation of programs to improve performance in specific areas such as through use of evidence-based guidelines or checklists to reduce the frequency of adverse events.

- Public—access to price and quality data enables the public to make more informed decisions on where to seek care.
- Researchers—with access to APCD files, researchers can study a broader array of topics using more robust public use and research-grade files than are currently available.

APCDs also provide a data foundation for multi-payer reform initiatives. Because it can be difficult for even the largest payers in a state to affect change alone due to competing incentives from other payers, initiatives that cross payers are likely to be more effective. APCDs can highlight trends across payers that existing disparate data systems cannot. Colorado and Louisiana have started developing multi-payer initiatives.

APCDs are complimentary to health information exchanges. While APCDs capture claims data, health information exchanges enable provides to exchange clinical data. The claims data adds value to the clinical data by enabling analysis of utilization, lost, and outcomes to occur. Texas is already developing various information technology initiatives and has received $28.8 million in Federal funding for health information exchange planning and implementation.

APCDS IN OTHER STATES

Maine established its APCD in 2003 and released the first data in 2005. Today, an additional seven states have state-administered APCDs including Kansas, Maryland, Massachusetts, Minnesota, New Hampshire, Utah, and Vermont. Other states, Louisiana, Wisconsin, and Washington, have non-state operated systems. Four states are developing APCDs: Colorado, Oregon, Rhode Island, and Tennessee.

As more states implement APCDs, the knowledge they gain serves as a resource for new states, thereby reducing the time, effort, and cost required for implementation. The All-Payer Claims Database Council, formerly known as the Regional All-Payer Healthcare Information Council, operated by the Institute of Health Policy and Practice and the National Association of Health Data Organizations, has assembled resources for states to assist in the development of an APCD and disseminates information on state implementation efforts.

State approaches to the development and implementation of APCDs differ with respect to several areas as highlighted by the APCD Council in a 2010 Commonwealth Fund brief and a 2010 Statewide Coverage Initiatives report. **Figure 2** shows decision points in the establishment and implementation of an APCD and provides examples of state approaches.

In response to emerging variation in state APCDs, the APCD Council is working to standardize a list of core data elements for capture. According to the council, standardization would facilitate research across states and save resources among data submitters, collectors, and users during implementation.

In states with APCDs, a variety of users have analyzed the data for various purposes. Though there is great potential for state agencies to benefit from the information, the experiences of states with already established APCDs suggests that the greater the number of users of the data, including researchers, providers, and other payers, the greater the impact of the APCD in that state. **Figure 3** shows some initiatives from other states and how they have used this information. Experts believe these purposes are only the beginning applications of APCDs and that potential exists for APCDs to support the evaluation of healthcare reform initiatives. This is especially valuable, given that so many payment and delivery reform proposals are in the conceptual stage at present and empirical data to test various design features are not yet available.

BENEFITS OF AN APCD FOR TEXAS

Several state agencies in Texas have implemented healthcare cost containment and quality improvement initiatives in recent years, as directed by the Legislature. **Figure 4** shows examples of some of these initiatives and their related cost and full-time-equivalent position impacts.

The lack of available data in each of these instances resulted in establishment of new, stand-alone initiatives. However, this approach to data collection and quality improvement is fragmented. An APCD would have provided the data needed or could have supported creation of each initiative and could have reduced the resources required to develop new systems and provider effort to report such data.

As Texas prepares for the effects of federal health reform and considers other payment and delivery reforms to contain costs across state government including Medicaid, Employees Retirement System (ERS), Teacher Retirement System (TRS), and the employee health plans at the University of Texas and Texas A&M University, an APCD could provide data necessary to identify cost containment and other reforms, and support their evaluation.

FIGURE 2
STATE OPTIONS FOR IMPLEMENTATION OF AN APCD, 2010

DECISION POINT	STATE EXAMPLES
Administration and Governance Structure	States can chose between mandatory or voluntary systems, but a state mandate provides legal authority to compel data reporting and for data privacy protections. Some states also implement fines for non-compliant entities. States can choose where to house their APCD. Options include creation of a health data authority, housing the program at the insurance department, and sharing responsibility across multiple agencies. Examples: Kansas (Authority); Vermont (Insurance Department); New Hampshire (Shared Responsibility)
Sources of Data	Examples of entities that could provide data to APCDs include state programs (Medicaid, the Children's Health Insurance Program, and state employee benefits programs), federal programs (Medicare, Medicare Part D, TRICARE, and Federal Employees Health Benefits), insurance carriers, third party administrators, pharmacy benefit managers, and dental benefit administrators. The majority of states include enrollment and eligibility files, medical claims data, and pharmacy claims data. Data on dental services have been incorporated more recently. Examples: Maine, Vermont In practice, all states include claims data from commercial providers, and most include third-party administrators and pharmacy benefit managers. Rules for data submission among private providers vary. States have adopted requirements based on the number of covered lives, premium revenue, or market share. Examples: Utah requires reporting from carriers with at least 200 covered lives. Massachusetts uses an annual premium revenue threshold of $250,000 to determine reporting. Kansas requires insurers with at least 1 percent of market share to report, but exempts Employee Retirement Income Security Act (ERISA) plans. No states have incorporated TRICARE and Federal Employees Health Benefits data. Maine has developed a process to obtain data on the uninsured. State access to Medicare data for its population varies. Examples: Maryland, Maine, and Massachusetts include Medicare data and some other states are in the processing of requesting the data from the Center for Medicare and Medicaid Services (CMS).
Submission Frequency	Requirements about the frequency of data submission vary, though most states use monthly reporting. Examples: Minnesota—semi-annually but monthly is encouraged; New Hampshire and Vermont—submission varies by carrier size. Some submissions are monthly and others are quarterly.
Data Release and Privacy Protections	Release rules vary by state and by type of data. • Some states sell de-identified data sets. Example: Maine • Other states publish some aggregated information online. Examples: Maine and New Hampshire • Some states do not release data. Example: Minnesota
Financing	Costs to implement an APCD include upfront technology costs and ongoing staffing costs. State Funding Options Include: • General Appropriations: Some states do not have a dedicated source of funding for APCDs and rely on general appropriations. Example: New Hampshire • Medicaid Funds: Federal matching funds through the Medicaid program can offset some APCD costs. Examples: New Hampshire, Utah • Fees: Some states assess industry fees to fund their APCDs. Example: Maine assesses an annual fee on health care providers, health insurance entities, carriers that provide only administrative services for a plan sponsor, and third-party administrators based on market share. • Data sales: All programs can expect some revenue from the sale of data if they plan to release it. However, given the nature of start-up expenses, such funding is typically used to offset ongoing operational expenses. Example: Maine

SOURCES: All-Payer Claims Database Council; Commonwealth Fund; Statewide Coverage Initiatives; OnPoint Health Data.

FIGURE 3
APPLICATIONS OF APCDS, 2005 TO 2010

APPLICATION	STATE EXAMPLES
Healthcare Reform including Payment and Delivery Reforms	Maryland and Maine: Payer reporting systems supported health care reform in 1993 and 2003, respectively. Maryland has used APCD to monitor the outcome of health reform in terms of cost, quality, and access to care. Vermont and New Hampshire: APCD data informed the design and evaluation plan of medical homes and accountable care organizations. New Hampshire: APCD was used to inform development of the state's health information exchange. Oregon, Utah, Kansas: Once their APCDs are fully operational, these states have indicated they plan to use the data to support payment reform and cost containment initiatives.
Consumer Tools	Massachusetts, Maine, and New Hampshire: Internet-based tools enable comparison of prices by health care provider.
Public Health	New Hampshire: The New Hampshire Institute for Health Policy and Practice issued a joint study with OnPoint Health Data (Maine) on adverse drug events. The New Hampshire Assessment Initiative developed chronic disease indicators using APCD data. Use of the data is supporting other research including a project to analyze emergency department use by persons with mental illness.
Other Payers	Maine: The Maine Health Management Coalition Employer Reporting system examines utilization, use of preventive health services, quality, and cost information to coalition members (not publicly available). New Hampshire: A Benefit Index Tool enables employers to compare health plan premiums and benefits. Hospital scorecards are released by the New Hampshire Purchasers Group.

Sources: All-Payer Claims Database Council; Commonwealth Fund; Statewide Coverage Initiatives; National Conference of State Legislatures.

FIGURE 4
EXAMPLES OF SELECT TEXAS HEALTHCARE COST REDUCTION AND QUALITY IMPROVEMENT INITIATIVES, 2007 TO 2009

LEGISLATION	SUMMARY	ESTIMATED BIENNIAL COST	ESTIMATED FULL-TIME-EQUIVALENT POSITIONS IMPACT
Senate Bill 1731 Eightieth Legislature, Regular Session, 2007	Required the Department of State Health Services (DSHS) and Texas Department of Insurance (TDI) to collect data on health benefit plan reimbursement rates and other facility-level information and make the information publicly available.	Cost neutral to the state Funded through increase in insurance maintenance tax fees ($2 million)	3.5
Senate Bill 288 Eightieth Legislature, Regular Session, 2007	Required DSHS to collect and report on the incidence of healthcare-associated infections.	$2.3 million in General Revenue Funds	13
Senate Bill 203 Eighty-first Legislature, Regular Session, 2009	Required DSHS to collect and report on the incidence of additional healthcare-associated infections and expand the data collection to include preventable adverse events. Required the Health and Human Services Commission (HHSC) to reduce payment under Medicaid for preventable adverse events in a hospital setting.	$2.5 million in General Revenue Funds	None
House Bill 1218 Eighty-first Legislature, Regular Session, 2009	Required HHSC to establish a health information exchange pilot. Required HHSC to collect data from hospitals on potentially preventable readmissions.	$2.9 million in General Revenue Funds	None

Note: Estimates of cost and full-time equivalent impacts taken from the final available version of fiscal notes and do not reflect appropriated amounts.
Source: Legislative Budget Board.

IMPLEMENTING AN APCD IN TEXAS

Other states' experiences implementing APCDs show that Texas would need buy-in from relevant internal and external stakeholders to develop an APCD. Formation of a workgroup comprised of representatives from Texas Department of Insurance, Department of State Health Services, Health and Human Services Commission, ERS, TRS, and industry partners could provide the structure for stakeholders to conduct planning for statewide implementation. Such planning should include identification of resources for an APCD in terms of data already collected (i.e., inpatient and outpatient claims, Medicaid and the Children's Health Insurance Program), establishment of a process for populating the APCD (i.e., which data files to include and the order for inclusion), and identification potential funding sources.

In planning for an APCD's construction, stakeholders should also take into account how to overcome implementation challenges because construction of an APCD would be a complex undertaking in Texas. Other states moving forward with APCDs do not have the number of carriers or population that Texas does. In addition to scale issues Texas might encounter, other implementation issues that would need to be addressed include funding and accessing data on groups typically not included in other states' APCDs but that represent a large share of Texas' population.

There are several groups whose claims data have not been incorporated by most states or whose data has been difficult to access, but that comprise a significant portion of the Texas population. These groups include persons insured by self-funded health plans, the uninsured, active and retired members of the military and their families, and Medicare recipients. An inability to include these covered lives limits the comprehensiveness of the APCD, but the difficulty in accessing this data and the costs of access must be balanced against the value of inclusion of the data. The state may choose to make compromises as other states have done in exempting certain entities from data submission.

Self-funded ERISA plans are exempt from regulation by TDI, and it is unlikely that they would be required to provide claims data to an APCD in Texas even if a state mandate existed. However, according TDI, of firms that offer insurance, 41.3 percent offered at least one plan that was self-funded and there were approximately 7.9 million people enrolled in self-funded plans in Texas in 2008. Failure to include claims data for these persons would be problematic. Other states have approached this issue in different ways. Some states, such as Kansas and Massachusetts, have not included data from these plans in their APCDs. Others have attempted to include any plan meeting a threshold of covered lives, premium value, or market share. Others collect data from third–party administrators.

Approximately 25.6 percent of the Texas population was uninsured in 2008 and 2009, according to the U.S. Census Current Population Survey. Because no claims data exist for this population, data on such persons would be excluded from an APCD. Although the federal Patient Protection and Affordable Care Act requires that all individuals purchase insurance by 2014, in the interim, this segment of the Texas population would be excluded from an APCD. In addition, because it is estimated that much of Texas' uninsured population is undocumented, at least a portion of Texas' current uninsured population could remain unincorporated in an APCD even after 2014. According to a 2010 Commonwealth Fund brief, one health system in Maine has attempted to address this issue by submitting "pseudo-claims" for uninsured patients to a third-party administrator, enabling capture of the data, though no payment is made.

Texas also has a large active and retired military population, a population insured through the federal TRICARE program. At present, because no states have incorporated TRICARE data into their APCDs, a process for incorporation of this data is unknown.

Another challenge is accessing CMS Medicare data for the Texas population. Several federal laws including the Social Security Act, the Health Insurance Portability and Accountability Act, the Privacy Act of 1974, and the Federal Information Security Management Act govern release of Medicare data. The current process for securing access to this data is time-consuming for states, though three states have already obtained data. National Association of Health Data Organizations continues to work with CMS to assist states in accessing this information.

Dedicating resources to an APCD is another implementation challenge. Costs of implementation vary by state and depend on current infrastructure and data already collected by a state. According to a 2010 National Conference of State Legislatures brief, start-up costs were estimated to be $500,000 in Vermont, $700,000 in Oregon, and $625,000 in Utah. Costs of implementation could be reduced if Texas were to use models developed by other states, but the state would still incur some implementation costs and ongoing technology and staffing costs, depending on the extent of data analysis the state would like to perform in-house. As a

point of reference, Maine has nine full-time-equivalent positions in the group that manages the APCD. A stable ongoing funding source will be required, regardless of the method of finance selected (e.g., industry fee, Medicaid matching funds, or general revenue appropriations).

REDUCE MEDICAID COSTS THROUGH BUNDLED PAYMENTS

The fee-for-service payment methodology, a predominant healthcare payment methodology, is an obstacle in addressing many of the cost drivers in healthcare including medical errors, preventable hospital readmissions, and chronic disease management. The methodology incentivizes increased volume of services and does not incentivize quality outcomes or care coordination. Previous experiments with cost containment and quality reforms in the Texas Medicaid program did not overcome the underlying incentives of the fee-for-service system and have not had a significant impact on cost and quality as intended.

Bundled payments are episode-based payments that help align the interests of hospitals and physicians, and encourage the provision of services not currently compensated by the fee-for-service system. Payment reform options including bundled payments offer an opportunity to alter provider incentives and encourage efficient delivery of care. As part of a strategy to further payment and delivery system reforms in Texas, the Texas Medicaid program should experiment with bundled payments for select conditions.

CONCERNS

- The fee-for-service payment methodology in use in the Texas Medicaid program encourages over-utilization, discourages coordination among health care providers, and discourages provision of services that have been demonstrated to improve quality outcomes.
- Existing quality improvement initiatives in the Texas Medicaid program do not change the underlying payment structure and do not provide sufficient incentive for providers to improve efficiency.

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill requiring the Health and Human Services Commission to implement a bundled payment initiative including use of shared savings with providers in the Texas Medicaid program.
- **Recommendation 2:** The Health and Human Services Commission should apply for any federal funding that becomes available during the 2012–13 biennium to test bundled payments or other payment reforms.

DISCUSSION

Nationwide, the annual cost of medical errors could be as much as $30 billion. Treatment of chronic diseases comprises a disproportionate share of health spending. Approximately half of federal Medicare beneficiaries have five or more chronic medical conditions and contribute to 75 percent of total spending. In the Medicaid program, a small segment of beneficiaries are responsible for a disproportionate share of costs. In 2005, one-seventh of the population that is dually eligible for full Medicare benefits was responsible for 46 percent ($131.9 billion) of Medicaid program spending. Preventable hospital readmissions can cost an average of $7,200 per hospital stay. They cost the Medicare program $5 billion for patients readmitted within 7 days, $8 billion for patients readmitted within 15 days, and $12 billion for patients readmitted within 30 days. These problems are not exhaustive of the challenges confronting healthcare payers, but they represent significant sources of national health spending and significant opportunities for savings from changes in the delivery of healthcare.

ROLE OF FEE-FOR-SERVICE IN CONTRIBUTING TO HEALTH COSTS AND POOR QUALITY

The fee-for-service (FFS) payment methodology is one of the predominant payment methodologies in healthcare, and is used by the federal Medicare program and state Medicaid programs for a significant portion of beneficiaries. In fiscal year 2009, 51 percent of the total client service cost in the Texas Medicaid program was attributed to the FFS or Primary Care Case Management (PCCM) service delivery types, according to HHSC. PCCM is a non-capitated form of managed care in which claims are paid on a FFS basis but certain providers receive a per member/per month case management fee. In addition, many private insurers base their physician fee schedules on Medicare rates or an underlying FFS structure. Under FFS, individual providers submit claims for services rendered and a payer provides reimbursement based on an established rate structure. The payment is not linked to any quality outcome, and there is no link between discrete services (e.g., a hospital readmission is not connected to the original hospitalization).

FFS contributes to growing healthcare costs by rewarding the volume of services delivered, treatment over prevention, and provision of higher cost care. By prioritizing volume (e.g., seeing more patients and conducting more procedures results in greater reimbursement), the system does not provide incentives for healthcare providers to spend more time collaborating with other practitioners and coordinating care. These activities, such as telephone follow-up calls to patients and chart review of care provided in other settings are typically not billable, but improve health outcomes and reduce utilization of services.

More detail on how FFS incentivizes over-utilization and poor quality outcomes can be found in the 2011 *Government Effectiveness and Efficiency* report "Reform Healthcare Payment and Delivery Systems to Reduce State Expenditures."

PAYMENT REFORM MODELS

Under FFS, payers have minimal ability to control healthcare costs beyond rate setting. Payers bear the risk for cost increases and have minimal leverage to encourage desired outcomes. Payment reform seeks to change how healthcare is purchased in order to shift risk from payer to provider, thereby inducing the delivery of more efficient and higher quality care. Payment reform provides a mechanism for cost savings that can be implemented quickly and without changes in the delivery of care, according to a 2009 *Journal of Ambulatory Care Management* article. However, many researchers argue that payment reform can accelerate changes in the delivery system, which could provide even greater long-term savings than payment reform.

One payment reform option with significant potential is bundled, or episode-based, payments. The federal government, states, and private insurers and providers are considering use of bundling. Bundling provides an opportunity for cost savings and improvements in quality by aligning the interests of hospitals and physicians, and encourages provision of services not currently compensated by the FFS system.

BUNDLED PAYMENTS

Bundled payments are single, fixed payments for a set of healthcare services based on a given diagnosis. Under bundling, a payer provides the payment to a single provider entity that is responsible for coordinating all of the services a patient needs within the episode and distributing the payment to other providers as needed. The payment amount is intended to cover all of the costs associated with the bundle, based on an assessment of standard practices of care, including inpatient and outpatient costs. Bundling can be paired with a shared savings approach that would enable a provider to keep a portion of savings. Bundling can also be combined with delivery reforms such as medical homes or accountable care organizations. These reforms are discussed in greater detail in the 2011 *Government Effectiveness and Efficiency Report* entitled, "Reform Healthcare Payment and Delivery Systems to Reduce State Expenditures."

Bundling has the greatest potential for savings in areas with large post-acute care expenditures and where care coordination is currently lacking. Bundling can be used for hospitalization episodes and related outpatient care. Defining the episode of care can be easier for episodes that are anchored by a hospitalization such as a coronary artery bypass graft or pregnancy and delivery care. These procedures are also logistically easier to bundle because they involve standard care prior to and following the procedure, and the episode has clear start and end dates.

Bundling can also be used for the management of chronic conditions. Although most of the bundling pilots to date have tested the concept with episodes triggered by a hospitalization, according to a 2009 *New England Journal of Medicine* article, there are greater opportunities for cost savings when applying bundling to treatment of chronic diseases. One reason is that chronic conditions can generate multiple hospitalizations or episodes of care.

VARIATIONS OF BUNDLING

There are several variations of bundled payments. Virtual bundling provides an incremental variation of the bundling model. Under virtual bundling, a purchaser pays for an episode of care by adjusting payments to the various providers that treat a given patient based on the volume of services they provide. Providers receive separate payments but can be rewarded or penalized based on the volume of services and quality of care provided. Although virtual bundling provides weaker incentives for providers to work together and coordinate care, it captures many of the advantages of bundling, while enabling providers to operate more independently and without incurring some of the costs of integration (e.g., changes to claims and billing processes). It can also result in providers becoming more aware of the effect of their decision-making in caring for a patient.

Another variation of bundling is global payments. A global payment is a package of payments for a single patient, instead of a condition paid to a provider over a certain time period

(e.g., a month, a year, etc.). The payments may be adjusted for a patient's age, sex, or medical condition. Global payments transfer more risk to providers than bundled payments and provide for a means of cost control across episodes in addition to within an episode. Proponents of global payments have acknowledged there needs to be an incremental transition to use of global payment given providers lack of familiarity with the approach and the need to develop governance and infrastructure to implement global payments. Some proponents of bundling argue that bundling is an interim step toward more accountable payment structures such as global payments.

BENEFITS OF BUNDLING

According to a 2009 *New England Journal of Medicine* article, bundled payments apply an incentive to reduce the volume of services delivered and the price of services, making them an attractive cost-containment strategy. Bundling also increases incentives for providers to collaborate on a patient's care, improving health outcomes.

Estimates of bundling's savings potential vary. A 2009 *New England Journal of Medicine* article reports bundling of six chronic conditions and four acute conditions could reduce healthcare spending by 5.4 percent from 2010 to 2019, assuming providers could reduce costs of avoidable complications by 25 percent to 50 percent. In a 2009 report, RAND found Massachusetts could save between $685 million and $1.8 billion for the period 2010 to 2020 if it implemented bundling for 10 select conditions. The Congressional Budget Office found savings from bundling in the federal Medicare program from 2010 to 2019 could be $18.6 billion.

Bundling should reduce costs because it changes the relationship between hospitals and physicians by aligning their interests and making them aware of resource use across an episode of care. This should result in cost savings during and after hospitalization episodes in several ways.

Generally, bundling should change how hospitals and physicians deliver care. Examples of efficiencies that could be realized include changes to staffing practices, standardization of care/use of best practices, shorter hospital stays, fewer laboratory/radiological services, or use of generic prescription drugs.

Bundling should reduce costs during hospitalization episodes by aligning the interests of hospitals and physicians. In the status quo, some researchers have argued that physicians treat operating rooms as their "workshops" because the costs of surgery such as nurse time, drugs, equipment, and testing are external to their practices. Under bundling, surgeons may be more aware of their resource use.

Using a bundling model, hospitals could contract with lower-cost and more efficient providers which could reduce the volume or intensity of post-acute care delivered. Hospitals and physicians would also have a greater incentive to improve the coordination of care and provide follow-up care, which are not encouraged by the FFS system. These activities are proven to improve patient care and avoid hospital readmissions. Bundling could also minimize waste from duplication of services provided by hospitals upon discharge and by physicians as post-acute care.

Bundling makes a single entity responsible for coordinating a patient's care and containing costs, filing the accountability void that exists currently and incentivizing time spent on otherwise un-billable services. As provider interests align, the likelihood that providers will collaborate or communicate better about a patient's care increases.

LIMITATIONS OF BUNDLING

Proponents and critics of bundling have questions about how bundling will work and have identified logistical issues that must be addressed in implementation. These include how to define and price the bundle, how to risk adjust the bundle for patient acuity, and how to track quality outcomes to prevent adverse effects on patients. Hospitals and physicians must determine how they will work together to manage patient care, who will receive payment and how it will be shared with partners, whether they will need to modify or establish new coding and billing procedures and systems and other technology such as electronic medical records. Legal impediments would also have to be addressed including Stark laws. Stark laws are a collection of federal laws prohibiting referrals from a physician to an entity in which the physician has a financial relationship.

Bundling could result in unintended consequences. Providers could try to shift care outside an episode, "upcode" a patient's acuity to receive a greater payment, or increase the number of episodes of care to receive greater payment. Bundling could also have negative patient effects. Previous evaluations of bundling have focused on the cost impact and not patient impact, so it is unknown if providers will reduce costs by rationing services instead of innovating, or if providers will limit access to specialty care. Failure to risk adjust payments

could also result in "creaming," in which hospitals opt to treat lower-risk or easier to manage patients.

Another concern is that physicians and hospitals may not be able to form the relationships necessary for bundled payments to work. It might be difficult for the interests of physicians and hospitals to align. Physicians have expressed concerns about the responsibility for distribution of payments resting with hospitals.

These risks can be minimized through program design and evaluation. Risk adjustment and deployment of quality assurance programs along with a bundling initiative can avoid the unintended consequences and hold providers accountable for improved patient outcomes. Use of strategies such as shared savings could increase the incentive for hospitals and physicians to work together. Evaluation using a pre-determined methodology would enable a payer to monitor and correct problems as they occur.

EMPIRICAL APPLICATIONS OF BUNDLED PAYMENTS

Some empirical results show bundling's potential to reduce costs and improve care. Bundled payments are rooted in the same methodology as the federal Medicare program's Medicare Diagnosis Related Group (DRG)-based impatient prospective payment system. In 1982, the federal Medicare program began using the DRG, which bundles all of the care related to a specific diagnosis. Each DRG is based on a patient's diagnosis, procedures, age, and gender. The Medicare program pays hospitals a single rate for each DRG. By paying a flat rate, the DRG encourages efficiency. According to a *Journal of Ambulatory Care Management* article in 2009, the DRG led to a significant reduction in inpatient expenditures and reduced hospital stays by rewarding provider efficiency and provided a valuable communicative tool to discuss services provided in hospitalization episodes.

In 1991, the Health Care Financing Administration selected four hospitals to participate in a Heart Bypass Center Demonstration, which tested the cost effectiveness of using a single bundled payment for cardiac artery bypass grafts. The demonstration was later expanded to include four additional sites. Several evaluations demonstrated cost savings. A 2001 study found the total savings of $52.3 million over the five years, with $42.3 million in savings for the federal Medicare program and $7.9 million in savings to Medicare beneficiaries from reduced coinsurance payments. Savings occurred because the hospitals changed how they provided care, including introducing new protocols, changing staffing practices, and reducing the average length of hospital stay. A 1997 study found the demonstration did not reduce the quality of care, as patient mortality rates were approximately one-half of one percentage point below the national average.

The Geisinger Health System, an integrated health system in Pennsylvania, has developed a "warranty" program along with six episode-based models of care. The system's goal is to ensure the delivery of evidence-based care for all patients, and its policy is not to charge for additional care required if evidence-based care was not delivered. Geisinger implemented its first program in February 2006 for elective coronary artery bypass graft. The system identified 40 best practice elements for CABG care and implemented a program to ensure completion and documentation of each element in each procedure. Geisinger also developed a "warranty" program for its care, meaning that any additional care required within 90 days is included in the price of the episode. After over 320 procedures, the cost per patient has decreased by $2,000. The program reduced complications by 21 percent and hospital readmissions by 44 percent. Programs have since been implemented for hip replacement, cataract surgery, obesity surgery, prenatal care, and heart catheterization.

States also have some experience with bundled and global payments. Maryland uses an all-payer hospital rate setting model in which a state entity regulates hospital rates and hospitals charge all payers the same amount. The Health Services Cost Review Commission has also implemented other reform efforts including a bundled payment system for ambulatory surgery, clinic, and emergency room services, and initiatives to reduce potentially preventable conditions and hospital readmissions. According to an October 2010 National Conference of State Legislature brief, at least 30 states have Programs for All-Inclusive Care for the Elderly programs. These programs receive monthly global payments to provide Medicare and Medicaid benefits and any additional services needed by participants.

CURRENT INITIATIVES TO TEST BUNDLING

The federal government, state governments, and private payers are experimenting with bundled payments. In a June 2008 report to Congress, the Medicare Payment Advisory Commission (MedPAC) recommended a series of measures that would result in cost savings to the federal Medicare program. These measures include the reporting of hospital readmission rates, the adjustments in rates for hospitals with high rates of readmission, and the use of bundled payments for select episodes of care.

In 2009, the Centers for Medicare and Medicaid Services (CMS) initiated the Acute Care Episode (ACE) demonstration at five hospital systems. ACE is a three-year demonstration that is testing bundling for nine orthopedic and 28 cardiac procedures in the Medicare program; use of competitive bidding; gain-sharing between CMS, hospitals and physicians; and shared savings with Medicare beneficiaries that chose to receive care from demonstration providers. Early results from Baptist Health System, a demonstration site in San Antonio, indicate the system reduced costs and improved quality, though there have been some logistical issues with payment reconciliation. The system implemented a monthly gain-sharing process, and began distributing payments earlier than expected. To receive the gain-share, a provider must also meet quality metrics. Quality outcomes have improved. One example is an improvement in the orthopedics overall score from 91 percent to 99 percent from spring 2009 to November 2009.

In addition to the ACE demonstration that is already in process, the federal Patient Protection and Affordable Care Act of 2010 establishes several new payment and delivery reform demonstrations and pilots in the Medicare and Medicaid programs. Demonstrations related to bundled and global payment include:

- Medicaid bundled payment demonstration—up to eight states will be selected to test bundled payments for hospital and physician services. The program will run from January 1, 2012 to December 31, 2016.
- Medicaid Global Payment demonstration—up to five states will be selected to test global payments for safety-net hospitals.
- Medicare bundled payment pilot—HHS is required to develop a national, voluntary pilot program to test bundled payments, effective 2013 with an option for expansion after January 1, 2016.
- Medicare preventable readmissions—Medicare will reduce payment for certain high-volume or high-cost preventable hospital readmissions beginning in 2012.

Minnesota was the first state to experiment with bundled payment. The Minnesota Legislature enacted a comprehensive healthcare reform law in 2008 that was estimated to result in cost savings of up to 12 percent by 2015 ($6.9 billion). Included in the reforms is a "baskets of care" initiative. The baskets are a collection of healthcare services that are paid for separately under FFS but are combined by a provider when delivering a full diagnostic or treatment procedure to a patient. The goal of the initiative was to identify and define baskets of care that could be used voluntarily by payers to bundle payment. The seven baskets of care identified include: asthma (children), diabetes, low back pain, obstetric care, preventive care (adults, children), and total knee replacement. The role of the state in this process was to act as facilitator in bringing together relevant stakeholders including payers and providers to define the baskets. The baskets have not been used by other payers, but as a result of the project, private payers have begun to develop their own bundles.

In 2008, legislation enacted in Massachusetts established a special commission on the health care payment system to consider reform of the payment system in order to incentivize efficient and effective care and reduce variations in cost and quality. The commission concluded that global payments would be the most advantageous payment reform model and recommended a transition to global payments across all provider types and payers within five years.

The Robert Wood Johnson Foundation is funding development of a payment methodology called the PROMETHEUS payment model (Provider Payment Reform for Outcomes Margins Evidence Transparency Hassle-reduction Excellence Understandability and Sustainability) that would apply bundled payment to acute episodes and chronic conditions. The model establishes an evidence-informed case rate for each episode of care. The rate is patient-specific and risk adjusted. The rate provides a budget for the episode of care inclusive of all services. Under the model, payments would be made to various providers involved in a case using the current FFS process, with a settle-up at the end based on performance. The Robert Wood Johnson Foundation funded four pilot sites to test the model beginning in 2008, and the New York State Health Foundation and Colorado Health Foundation have also implemented the model.

PAYMENT REFORM IN TEXAS

Some examples of payment reform exist in Texas hospitals and state programs. For example, MD Anderson Cancer Center has implemented bundled payments for certain head and neck cancers. In addition, the Employees Retirement System (ERS) of Texas was authorized by legislation enacted by the Eighty-first Legislature, 2009, to establish a pilot program to test alternatives to traditional fee-for-service payments. Eight pilots were implemented with Blue Cross and Blue Shield of Texas which included pay-for-

performance, medical home, and clinical integration initiatives.

There are many examples of cost containment and quality reform initiatives developed in the Texas Medicaid program for the FFS and PCCM service delivery models such as disease management programs. While these initiatives may be effective in achieving some of their intended outcomes, they have not lead to significant changes in the payment for or delivery of healthcare. Researchers suggest that incremental reforms that seek to link payment to outcomes such as pay-for-performance strategies or case management payments are less likely to be effective. These reforms do not change the underlying payment structure and therefore cannot overcome the incentive of FFS to increase the volume of services provided.

In the capitated Medicaid State of Texas Access Reform (STAR) program, individual managed care organizations have pursued strategies to reduce costs and improve quality. While the specific contracting practices of these organizations are unknown, researchers nationally have found that an underlying FFS system typically remains, with many organizations and health plans contracting with providers using a fee schedule based on Medicare rates (FFS). The predominance of FFS likely overwhelms the effect of individual initiatives undertaken by these organizations.

In addition, while Texas has begun to experiment with payment reform in ERS, the Texas Legislature has not directed the state Medicaid program to engage in similar activity. Given the difficulty for a single payer to provide a large enough incentive to motivate providers to change care delivery, payment reform initiatives would be more effective if done in concert across state programs.

IMPLEMENTING BUNDLED PAYMENTS

Recommendation 1 would include a rider in the 2012–13 General Appropriations Bill requiring HHSC to implement a bundled payment initiative including use of shared savings in the Texas Medicaid program by August 1, 2012. HHSC would be required to provide a report to the Governor and the Legislative Budget Board outlining a plan for implementation including a plan for quality monitoring to avoid unintended consequences by January 1, 2012. HHSC would be required to report on outcomes of implementation including cost and quality outcomes by March 1, 2013.

HHSC's Executive Commissioner would be given discretion to select high-cost and/or high-volume services to bundle and could elect to implement a virtual bundling initiative if the barriers to implementation are too great. In selecting these conditions, HHSC should consider payment reform approaches developed by ERS and other state programs in an attempt to be consistent with the approach.

The experiences of other payers suggest there are several types of candidates for selection. One area of services that could be bundled is prenatal care and delivery services. These services are well-suited for bundling in the Texas Medicaid program for several reasons. First, these services are high-cost and high-volume. Childbirth is a leading cause of hospitalization and is the top diagnosis in Texas Medicaid by cost for fiscal year 2009. The Texas Medicaid program spent $2.2 billion on birth and delivery-related services in fiscal year 2010. Second, broad consensus exists in terms of the desired outcomes in this area (i.e., reduction in pre-term birth, low birth weight, and Caesarean sections). Data from the Texas Medicaid program suggest the state can make improvements in these areas. According to HHSC, over 50 percent of costs were due to extremely premature infants (2 percent of births). Neonatal Intensive Care Unit utilization and infant costs are also growing at a faster than anticipated rate. Third, other payers have experience with bundling in this area and could provide models for Texas. Private insurers have used global fees for childbirth since the 1980s. The Geisinger Health System and Minnesota have defined standard care for this episode, which could facilitate creation of a bundled rate.

Another set of conditions to bundle could be care for chronic conditions. The Texas Medicaid program spent $412.7 million and $460.2 million in fiscal years 2008 and 2009 on chronic conditions across FFS, PCCM, and managed care delivery models, as shown in **Figure 1**. These are conditions for which better coordination of care has been shown to result in improved health outcomes and reduced utilization of healthcare services such as emergency room visits. The Geisinger Health System and the state of Minnesota have examined these bundles and so a model exists for the standard care to be provided for this episode which could facilitate HHSC's effort to set the rate for the bundle.

Use of shared savings could provide an additional incentive for provider participation. Savings could offset any administrative or other expenses related to upfront costs of implementing a bundled payment initiative such as changes to billing processes.

The approach outlined in Recommendation 1 is the next step in implementing the recommendations MedPAC outlined

FIGURE 1
TEXAS MEDICAID PROGRAM SPENDING ON SELECT CHRONIC CONDITIONS
FISCAL YEARS 2008 AND 2009

	FEE-FOR-SERVICE/PRIMARY CARE CASE MANAGEMENT		STATE OF TEXAS ACCESS REFORM/STAR+PLUS	
CONDITION	FISCAL YEAR 2008	FISCAL YEAR 2009	FISCAL YEAR 2008	FISCAL YEAR 2009
Asthma	$51.0	$57.2	$36.4	$43.7
Diabetes	85.8	91.7	71.5	90.9
Congestive Heart Failure	49.3	50.7	13.8	16.6
Chronic Obstructive Pulmonary Disease*	98.9	105.0	46.3	55.6
Coronary Artery Disease	40.3	40.9	6.9	8.6
TOTAL	**$274.3**	**$288.4**	**$138.5**	**$171.7**

*Includes asthma.
NOTE: Spending reported in millions.
SOURCE: Health and Human Services Commission.

for Congress in 2008: data collection and reporting on preventable readmissions, alterations in hospital payment based on readmission rates, and use of bundled payments. The Texas Legislature has already taken some actions to reduce preventable hospital readmissions. The Eighty-first Legislature, 2009, enacted House Bill 1218, which directed the state Medicaid program to establish a potentially preventable readmissions reporting system. The recommendation is also consistent with MedPAC's conclusion that the rationale for bundling is compelling but that an incremental approach to implementation would be advantageous. Testing bundling in this way would also enable providers to gain experience with the payment methodology.

The recommendation would also provide a platform for future use of bundled and potentially global payments. Based on the experience of HHSC in implementing the recommendation and monitoring outcomes, future Legislatures could direct the agency to implement bundling more widely or pursue global payments.

Recommendation 2 would encourage HHSC to apply for any related federal funds as they become available during the 2012–13 biennium. One opportunity could be for Texas to apply to participate in the federal demonstration program to test bundling in state Medicaid programs, created under the Patient Protection and Affordable Care Act of 2010, and scheduled to begin in January 2012.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations would have no net fiscal impact to the state. This analysis assumes any costs to HHSC to implement the recommendation would be offset by savings that result from improved provider efficiency. A net gain is not anticipated; Recommendation 1 would share any savings with providers to further encourage efficiency.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendation 1.

REPEAL THE PROHIBITION OF HEALTH MAINTENANCE ORGANIZATIONS IN MEDICAID IN SOUTH TEXAS

Medicaid managed care was first implemented in Texas in the early 1990s. Since then, the use of managed care and capitated service delivery has increased in Texas' Medicaid program. In fiscal year 2009, 71 percent of Texas Medicaid clients were served through some form of managed care representing 68 percent of total client service cost.

For the 2012–13 biennium, the Health and Human Services Commission has proposed further expansion of managed care. However, the use of health maintenance organizations within the Medicaid program is statutorily prohibited in Cameron, Hidalgo, and Maverick counties. Repealing the prohibition would expand the service delivery options available in these counties, and make them consistent with the rest of the state. This would allow the Health and Human Services Commission to determine and implement the most cost-effective service delivery model to serve Medicaid clients in all areas of the state.

FACT AND FINDING

- Cameron and Hidalgo counties each meet five of six feasibility criteria that can be used to assess which counties to consider for managed-care expansion. Maverick County meets four of the six criteria.

CONCERN

- The statutory prohibition of the use of health maintenance organizations for the delivery of Medicaid services in Cameron, Hidalgo, and Maverick counties limits the Health and Human Services Commission's options in delivering services to Medicaid clients in the most cost-effective manner.

RECOMMENDATION

- **Recommendation 1:** Amend the Texas Government Code to repeal the prohibition of the use of health maintenance organizations in Medicaid in Cameron, Hidalgo, and Maverick counties.

DISCUSSION

Among healthcare delivery models, managed care refers to the clinical, financial and organizational activities designed to ensure better access to healthcare services, improve quality, promote more appropriate utilization of services, and contain healthcare costs.

In Texas, Medicaid managed care can be characterized by the following features:

- medical home—clients must choose a primary care provider (PCP) who serves the client by providing comprehensive preventive and primary care with access in person or via telephone to a medical professional on a 24-hour/7-day a week basis;
- defined network of providers—clients' choice of provider is limited (with some exception) to those under contract with the health maintenance organization (HMO) network;
- utilization review and management—comprehensive monitoring and evaluation of appropriateness, necessity, and efficacy of healthcare services delivered to clients is required; and
- quality assessment and performance improvement—HMOs must develop, maintain, and operate a quality assessment and performance improvement program to evaluate performance.

Texas Medicaid managed care is delivered through health maintenance organizations (HMOs) and through primary care case management (PCCM). HMOs deliver and manage health services under a risk-based arrangement, contracting with providers and hospitals to form a network that serves the HMO members. The HMO receives a monthly capitation payment from the state for each person enrolled based on an average projection of medical expenses for a typical patient. As designed, HMOs accept risk for all pre-approved services provided to their enrollees.

PCCM is a non-capitated model, wherein each PCCM participant has a PCP who provides medical home services. PCPs participating in the PCCM model receive fee-for-services reimbursement and a monthly case management fee of $5 for each client in their care. In a PCCM model, an administrator establishes the provider network, but providers contract directly with the state.

In 2007, 28.5 million Medicaid clients nationwide, or 64 percent of all Medicaid clients, were enrolled in managed-care

plans. The national expansion of managed care in state Medicaid programs can be attributed to rising Medicaid expenditures, as well as attempts by states to address problems with provider enrollment and access to, quality, and continuity of care.

CURRENT MEDICAID MANAGED-CARE SYSTEM IN TEXAS

Medicaid managed care was first piloted in Texas in the early 1990s. Since then, the use of managed-care and capitated service delivery has increased in the Texas Medicaid program. In fiscal year 2009, 71 percent of Texas Medicaid clients were in some form of managed care representing 68 percent of total client service cost. Clients in Texas Medicaid managed care are served primarily through three programs: State of Texas Access Reform (STAR) HMO, PCCM, and STAR+PLUS. **Figure 1** shows the percent of clients and client service costs in Texas Medicaid by service delivery type in fiscal years 2004 and 2009.

STAR HMOs operate in nine primarily urban areas of the state encompassing 53 counties. The STAR HMO service delivery areas include: Bexar, Dallas, El Paso, Harris, Harris Expansion, Lubbock, Nueces, Travis, and Tarrant. Each STAR HMO service delivery area is served by at least two different HMOs.

The STAR HMO program primarily serves non-disabled children, low-income families, and pregnant women. Supplemental Security Income (SSI) or SSI-related adults and children (aged, blind, and/or disabled) who do not receive Medicare, may choose to participate in the program in service areas without STAR+PLUS. Clients in the STAR HMO program have access to a PCP who coordinates their care through a medical home. PCP's in STAR HMO provide preventive checkups, treat the majority of conditions, and refer enrollees to specialty care when necessary. Unlike fee-for-service (FFS) and PCCM, STAR HMO participants can receive unlimited medically necessary prescriptions. Other benefits not available in FFS or PCCM are available in the STAR HMO program.

PCCM is a non-capitated network of PCPs and hospitals under contract with HHSC that currently operates in every county outside of the STAR HMO service delivery areas. PCPs provide PCCM clients a medical home and coordinate preventive and primary care services and referrals to needed specialty care. PCPs receive a $5-monthly case management fee for each client and FFS reimbursement for healthcare services. Non-disabled children, low-income families, pregnant women, and SSI and SSI related adults without Medicare are required to participate in PCCM, while SSI and SSI-related children may choose to participate. HHSC administers the PCCM program under contract with the Texas Medicaid and Healthcare Partnership (TMHP), which is required to maintain a full provider network of PCPs and hospitals and to process provider claims.

STAR+PLUS is intended to integrate the delivery of acute and long-term services and supports for SSI and SSI-related clients. SSI and SSI-related adults are required to participate in the program, while SSI and SSI-related children may choose to participate. STAR+PLUS operates in seven primarily urban service delivery areas of the state encompassing 42 counties. STAR+PLUS is designed for

FIGURE 1
MEDICAID CLIENTS BY SERVICE DELIVERY TYPE
FISCAL YEARS 2004 AND 2009

	FISCAL YEAR 2004			FISCAL YEAR 2009		
SERVICE DELIVERY TYPE	CLIENTS	PERCENTAGE OF TOTAL	PERCENTAGE OF TOTAL CLIENT SERVICE COST	CLIENTS	PERCENTAGE OF TOTAL	PERCENTAGE OF TOTAL CLIENT SERVICE COST
Fee-for-Service	1,571,225	59%	62%	876,998	29%	32%
All Managed Care	1,112,002	41%	38%	2,127,382	71%	68%
STAR HMO	712,498	27%	20%	1,170,905	39%	31%
PCCM	337,228	13%	12%	711,043	24%	19%
STAR+PLUS	62,276	2%	7%	159,969	5%	13%
Other	-	0%	0%	85,465	3%	4%
TOTAL MEDICAID CLIENTS	**2,683,227**			**3,004,380**		

SOURCE: Health and Human Services Commission.

clients with chronic and complex conditions who require more than acute care services. Enrollees with complex medical conditions are assigned a service coordinator who can authorize services, and who is responsible for coordinating acute and long-term services and supports and development of an individual plan of care with the enrollee, family members, and providers. STAR+PLUS enrollees who are eligible for both Medicaid and Medicare receive long-term services and supports through STAR+PLUS and acute care services through Medicare. Enrollees who are medically eligible may choose to receive home and community based waiver services. STAR+PLUS is a partially-capitated managed-care program because most inpatient hospital services are carved out of the capitation payments and are paid through the traditional FFS system.

CURRENT PROPOSAL FOR MANAGED-CARE EXPANSION

For the 2012–13 biennium, HHSC proposes to expand its Medicaid managed-care model to 38 additional counties. The proposals include:

- expanding existing STAR HMO and STAR+PLUS service delivery areas to include some adjacent counties;
- expanding STAR+PLUS to the Lubbock and El Paso service areas;
- converting counties currently being served by PCCM to the STAR HMO model;
- administering Medicaid prescription drugs through managed-care organizations;
- including inpatient hospital services in STAR+PLUS;
- developing a dental managed-care model for Medicaid dental services; and
- expanding both STAR HMO and STAR+PLUS to South Texas counties.

However, current state law prohibits HHSC from providing Medicaid services using an HMO in three counties in south Texas—Cameron, Hidalgo, and Maverick counties. Legislation enacted by the Seventy-eighth Legislature, Regular Session, 2003, authorized the most recent large scale expansion of managed care in Texas Medicaid. The legislation requires HHSC to provide Medicaid through the most cost-effective model of managed care as determined by the agency. The legislation also requires HHSC to provide medical assistance through the traditional FFS arrangement, if it determines that it is not more cost-effective to use a managed-care model to provide certain types of medical assistance in a certain area of the state or to certain recipients. The provision prohibiting the use of HMOs in Cameron, Hidalgo, and Maverick counties was also enacted in 2003 legislation. PCCM, which does not use an HMO, is currently in place in these counties.

FEASIBILITY OF EXPANSION

Following the directive for the expansion of managed care in 2003 legislation, HHSC contracted with the Lewin Group in 2003 to perform an actuarial assessment of the cost-effectiveness and feasibility of managed-care expansion in Texas Medicaid. As part of its study, the Lewin Group developed a method of analysis to establish a reasonable basis for formulating cost estimates in different regions of the state. The Lewin Group evaluated six criteria in their initial assessment of which counties could be considered for managed-care expansion. The six criteria, which measure managed-care suitability for a given area, are generally indicative of population size, healthcare availability, and receptivity to managed care, include:

- Total population greater than 30,000.
- Rural-urban continuum code no greater than six. The rural-urban continuum code is used by the U.S. Department of Agriculture to classify metropolitan counties by size of the Metropolitan Statistical Area and nonmetropolitan counties by degree of urbanization and proximity to metro areas. The higher the number, the more rural the county.
- Population to land area ratio of at least 10 persons per square kilometer.
- Minimum of 0.4 physicians per thousand individuals. The physician ratio criterion includes data on direct patient care physicians collected by the Texas Medical Board. This criterion does not measure the number of physicians enrolled as Medicaid providers.
- Minimum of 0.2 hospitals per thousand individuals.
- No fewer than five commercial HMOs in the county.

As shown in **Figure 2**, Cameron and Hidalgo counties each meet five of the six criteria used by Lewin in their initial assessment of which counties to consider for managed-care expansion. Maverick County meets four of the six criteria.

FIGURE 2
EXPANSION CRITERIA FOR SELECT COUNTIES, 2009

		PROHIBITED COUNTIES			SELECT STAR COUNTIES	
GENERAL INDICATOR	CRITERIA	CAMERON	HIDALGO	MAVERICK	LUBBOCK	NUECES
Population Size	Total County Population (greater than 30,000)	394,346	727,382	52,854	265,550	321,985
	Rural-Urban Continuum Code no greater than six (6 or less)	2	2	5	3	2
	Population to Land Area Ratio (10 or greater)	272.6	287.9	25.7	183.5	239.3
Healthcare Availability	Physicians per 1,000 (0.4 or greater)	1.2	1.1	0.6	2.4	2.3
	Hospitals per 1,000* (0.2 or greater)	0.02	0.01	0.02	0.03	0.02
Receptivity to Managed Care	Number of Commercial HMOs** (5 or greater)	10	10	2	5	15
	Criteria Met	5 of 6	5 of 6	4 of 6	5 of 6	5 of 6

*Hospital data is for 2008.
**The number of commercial HMOs includes HMOs licensed to provide basic healthcare services in Cameron, Hidalgo, or Maverick counties and two entities licensed to serve the CHIP population as an exclusive provider organization in these counties.
Source: Legislative Budget Board.

Another indicator of potential managed care suitability for a given area is Medicaid client enrollment. **Figure 3** shows the number of clients enrolled in Medicaid during March 2010 in Cameron, Hidalgo, and Maverick counties and in the most populous counties within the existing STAR service delivery areas with the smallest enrollment numbers—Lubbock and Nueces counties. Medicaid enrollment in Cameron and Hidalgo counties exceed the number of clients enrolled in Medicaid in both the Lubbock and Nueces STAR service delivery areas.

Analysis of the criteria above suggests that the statutory prohibition of the use of HMOs in these counties limits HHSC's ability to fully evaluate and implement the most cost-effective and appropriate service delivery options for the delivery of Medicaid services throughout the state.

Recommendation 1 would amend the Texas Government Code to repeal the prohibition of the use of HMOs in Cameron, Hidalgo, and Maverick counties. Doing so would make the service delivery options available in these counties consistent with that of the rest of the state and allow HHSC to determine and implement the most cost-effective service delivery model to serve Medicaid clients throughout the state.

HEALTH AND HUMAN SERVICES COMMISSION'S ESTIMATE OF COST SAVINGS

In HHSC's proposal relating to expansion of managed care to South Texas, the agency proposes creating the Hidalgo service delivery area for both STAR HMO and STAR+PLUS, which would include Cameron, Duval, Hidalgo, Jim Hogg, Maverick, McMullen, Starr, Webb, Willacy, and Zapata counties. The expansion would replace PCCM that is currently in place with STAR HMO in those counties, as well as implementation of STAR+PLUS for relevant client populations.

HHSC estimates that this would result in a savings of $428 million in General Revenue Funds for the 2012–13 biennium at the Department of Aging and Disability Services (DADS) and a cost of $179 million in General Revenue Funds at HHSC. The cost at HHSC reflects client populations formerly being covered by programs at DADS now being covered by programs at HHSC. HHSC estimates additional administrative savings of $29 million in General Revenue Funds for the 2012–13 biennium, including a net reduction of 288 full-time-equivalent positions. In total, HHSC estimates that the expansion of managed care to south Texas, as proposed, would result in a net savings of $279 million in General Revenue Funds or $693 million in All Funds for the 2012–13 biennium.

FIGURE 3
MEDICAID ENROLLMENT IN SELECT COUNTIES, MARCH 2010

	PROHIBITED COUNTIES			SELECT STAR COUNTIES	
CLIENT GROUP	CAMERON	HIDALGO	MAVERICK	LUBBOCK	NUECES
Aged and Disabled	23,494	43,003	4,501	7,593	14,706
Low-Income Families and Children	80,144	169,375	11,216	27,977	40,128
TOTAL ENROLLMENT	**103,638**	**212,378**	**15,717**	**35,570**	**54,834**

Source: Health and Human Services Commission.

In addition to the net savings above, HHSC estimates that the proposal would also result in collection of an additional $41 million in insurance premium tax. An insurance premium tax is imposed in Texas on all licensed insurers and HMOs. Premium tax collections are allocated 25 percent to the Foundation School Account and 75 percent to General Revenue Funds.

These estimates are based on caseload and cost forecasts developed by HHSC and assume an implementation date of March 2012.

FISCAL IMPACT OF THE RECOMMENDATION

Recommendation 1 repealing the prohibition of the use of health maintenance organizations in Cameron, Hidalgo, and Maverick counties would have no direct fiscal impact to the state.

If the prohibition is repealed and HHSC implements its proposal relating to the expansion of managed care to these counties, the fiscal impact to the state would depend on variables such as date of implementation, service delivery models implemented, region covered, and populations served, as well as caseload and costs funded in the General Appropriations Act.

The 2012–13 introduced General Appropriations Bill includes adjustments that are contingent upon the repeal of the prohibition of the use of HMOs in South Texas.

ENSURE TRANSPARENCY AND ACCOUNTABILITY FOR PROPOSED MEDICAID DENTAL MANAGED-CARE SERVICES

The Texas Medicaid program provides dental services for all Medicaid clients under the age of 21 and for adults who reside in an intermediate care facility for persons with intellectual or developmental disabilities. In fiscal year 2009, 2.4 million Medicaid clients in Texas were eligible to receive dental services, which were provided on a fee- for-service basis at an average cost of $35 per client per month. From fiscal years 2005 to 2009, total spending on Medicaid dental services increased by 165 percent, from $362 million to $958 million in General Revenue Funds.

Since the 1990s, managed-care enrollment in Medicaid programs nationwide has increased in response to pressure to contain the increase of Medicaid spending. In fiscal year 2009, more than 70 percent of Texas Medicaid clients were enrolled in some form of managed care, representing more than two-thirds of payments.

The STAR Health Program for Texas children in foster care provides healthcare services including dental care through a managed-care model, and is comparable to the Medicaid dental fee-for-service model in terms of services provided and population covered. Based on the STAR Health experience, moving Medicaid dental services to a capitated managed-care model has the potential for cost savings. The Texas Health and Human Services Commission estimates that the state could save $101.6 million in General Revenue Funds for the 2012–13 biennium if dental services were provided through a capitated managed-care model. While there are potential savings associated with managed care, the impact of providing Medicaid dental services through a capitated managed-care model should be evaluated to ensure that quality care is provided and expected cost savings are achieved.

FACTS AND FINDINGS

- From fiscal years 2003 to 2009, the amount spent per client per month on Medicaid dental services increased from $12.95 to $35.91. An increase in dental provider reimbursement rates in September 2007 resulted in a 90 percent increase in Texas Medicaid dental spending per client per month from fiscal years 2007 to 2008.
- The Texas Health and Human Services Commission estimates that providing Medicaid dental services through a capitated managed-care model instead of on a fee-for-service basis would result in cost savings during the 2012–13 biennium. Savings would be realized through decreases in utilization, cost of services, and additional revenue from the premium tax applied to health maintenance organizations.

CONCERN

- Current spending on dental services in Medicaid fee-for-service is greater than in the STAR Health program but access indicators such as provider to patient ratios and utilization rates are mixed with favorable outcomes in both the Medicaid fee-for-service model and the STAR Health managed-care model. Changing models without adequate monitoring of outcomes could result in decreased quality of care.

RECOMMENDATION

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill requiring the Health and Human Services Commission to submit findings to the Governor and the Legislative Budget Board on the impact of providing dental services through a capitated managed-care model on access, quality, and cost outcomes by March 1, 2013. This requirement would be contingent on the Health and Human Services Commission changing the service delivery model for Medicaid dental services from a fee for service model to a capitated managed-care model.

DISCUSSION

The Texas Medicaid program provides dental services for all Medicaid clients under the age 21 and for adults who reside in an intermediate care facility for persons with intellectual or developmental disabilities. The Texas Medicaid program is administered by the Texas Health and Human Services Commission (HHSC). Texas Health Steps (THSteps), also known as the Early and Periodic Screening, Diagnosis and Treatment program (EPSDT), is a preventive-focused program that provides medical and dental prevention and treatment for Medicaid eligible children and young adults

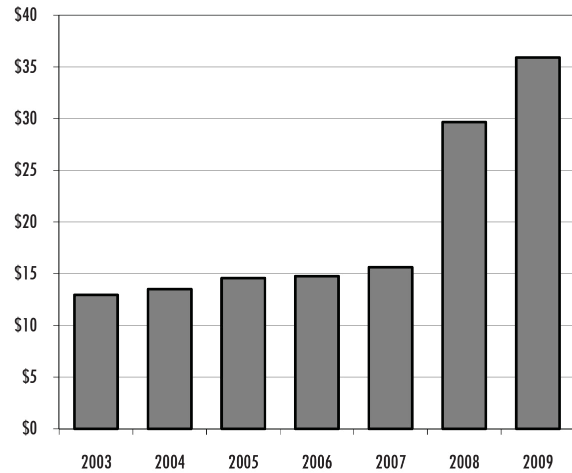
under the age of 21. THSteps was defined by federal law as part of the Omnibus Budget Reconciliation Act of 1989 and includes periodic screening, vision, dental, and hearing preventive services and requires that medically necessary and appropriate healthcare services be provided to this population regardless of state limitations on the Medicaid program.

Children enrolled in Medicaid can visit any dentist enrolled with the state as a Medicaid provider. Medical and dental providers enroll as a THSteps provider and commit to providing accessible, continuous, comprehensive, and coordinated care to each child. Intervals of dental care provided depends on the child's age and risk for dental disease, but occurs most often on biannual basis. The objective of providing care is to identify, prevent, treat and educate children and their families about good oral health habits. Services provided fall into four categories: preventive, treatment, emergency, and orthodontic. In fiscal year 2009, there were 1.9 million eligible children who received dental services through the THStep program.

In 1993, a class action lawsuit known as *Frew v. Hawkins* was filed against the state alleging that Texas did not adequately provide Medicaid EPSDT services. After years of legal action, the state enacted legislation that provided HHSC with a corrective action plan and funding to improve the EPSDT program. Much of the funds appropriated were allocated to increase provider payments for certain services and to finance other initiatives related to the lawsuit. The Eightieth Texas Legislature, Regular Session, authorized an additional $150 million in General Revenue Funds for strategic medical and dental initiatives for children in the Texas Medicaid program aimed at increasing access to care for children in the Medicaid program.

Dental services in the Texas Medicaid program are provided on a fee-for-service (FFS) basis whereby providers receive a fee for actual services performed. An increase in dental provider reimbursement rates in September 2007 primarily drove the increase in Texas Medicaid dental spending from fiscal years 2007 to 2008. The total cost of dental services in the Texas Medicaid program was $961 million in fiscal year 2009 and $1.2 billion in fiscal year 2010. As shown in **Figure 1**, the amount spent per client per month on THSteps dental care services increased from $12.95 in fiscal year 2003 to $35.91 in fiscal year 2009.

FIGURE 1
THSTEPS DENTAL SPENDING PER CLIENT PER MONTH
FISCAL YEARS 2003 TO 2009



SOURCE: Health and Human Services Commission, Financial Services.

THE MANAGED CARE MODEL

A managed-care service delivery model generally includes the following features:

- formal enrollment of patients;
- formal contractual agreements between providers and payers; and
- utilization control performed either by a primary care physician or a separate administering arm of the payer, or both.

Public or private insurance plans can contract with entities known as pre-paid health plans or contract with corporate entities for a fixed monthly fee per eligible enrollee for the delivery of a specified set of services. The contractor assumes the financial risk of providing all necessary services for enrollees and typically subcontracts with healthcare providers, hospitals or clinics for the delivery of care. Health maintenance organizations (HMOs) are full-risk plans in which the contracting entity and providers are integrated into one plan. HMOs that provide only dental services are referred to as dental maintenance organizations (DMOs). In managed care, the public or private insurance provider pays a fixed monthly capitated amount per eligible enrollee. In a managed care system there is an incentive to limit services used, particularly inpatient and specialty care, therefore, payers should provide monitoring and oversight of utilization trends to ensure quality of care and access to health care.

Since the 1990s, managed-care enrollment in Medicaid programs nationwide has increased in response to pressure to contain the increase of state and federal Medicaid spending. Managed care is thought to limit fragmentation of care, as well as promote cost containment. In fiscal year 2009, more than 70 percent of Texas Medicaid clients were enrolled in some form of managed care, representing more than two-thirds of payments. Managed care in the Texas Medicaid program was implemented in 1993 in eight primarily urban service delivery areas. HMOs participating in the Texas Medicaid program receive a monthly capitation payment to provide all medically necessary services. Capitation payments are based on the number of enrollees and the average projected cost of medical expenses for a typical patient. In exchange, HMOs assume the risk of providing services that are medically necessary. HHSC provides outpatient prescriptions drug coverage to Medicaid clients separately, through the Vendor Drug Program.

HHSC proposes capitating Medicaid dental services statewide by March 2012 and estimates a savings of $101.6 million in General Revenue Funds for the 2012–13 biennium. Clients in approximately 20 Department of Aging and Disability Services waiver programs will be excluded from Medicaid dental managed-care expansion. HHSC expects savings from decreases in utilization, cost of services, and additional revenue from the premium tax. An insurance premium tax is imposed on various insurers, including health insurance companies. Health insurers are charged an insurance premium tax of 1.75 percent that is filed annually.

COMPARING DENTAL SERVICES IN STAR HEALTH AND MEDICAID

The STAR Health program is HHSC's Medicaid Managed Care Program. STAR Health provides comprehensive managed healthcare including medical, dental, and behavioral health services to children under age 22 in foster care, kinship care, and other forms of state care. In fiscal year 2009, 44,799 clients were enrolled in the STAR Health program. All children covered in the STAR Health program have a medical home and receive medical, dental, vision, prescription drug, and behavioral health services. HHSC implemented STAR Health in 2008 and contracts with a HMO on a capitated basis to provide all healthcare services, including dental services. The HMO subcontracts with a DMO to administer dental services. STAR Health dental benefits are managed by the HMO and must include all dental services covered under the Medicaid FFS program.

FIGURE 2
FEATURES OF DENTAL SERVICES IN MEDICAID FEE- FOR-SERVICE AND STAR HEALTH, FISCAL YEAR 2010

FEATURE	MEDICAID FEE-FOR-SERVICE	STAR HEALTH
Service delivery model	Fee-for-service	Capitated managed care
Eligibility requirements	All children in Medicaid younger than 21 years and adults who reside in an intermediate care facility for persons with intellectual or developmental disabilities.	Dental coverage starts at birth to age 22.
Number of clients eligible to receive dental services	1,969,385	44,799
Covered services	Preventative, diagnostic, orthodontic, therapeutic dental services. (emergency dental extractions for adult enrollees)	Preventative, diagnostic, restorative, periodontal, orthodontic and therapeutic dental services

Sources: Legislative Budget Board; Health and Human Services Commission.

Figure 2 shows some key features of dental services provided in the STAR Health and Medicaid FFS dental programs.

Dental services in the STAR Health program include preventative, diagnostic, restorative, periodontal treatment as well as oral surgery and emergency dental services. HHSC requires the STAR Health Program to submit performance data on a quarterly basis to ensure that the MCO's dental contractor is complying with required standards and benchmarks. Performance measures include the percentage of members receiving at THSteps dental exam within 60 days of enrollment and the percentage of members receiving a THSteps dental exam within seven months of the previous exam.

In fiscal year 2009, the average amount spent on dental services per member per month was greater in Medicaid FFS than in the STAR Health program—$34.87 in Medicaid FFS compared to $32.33 in the STAR Health program. From fiscal years 2005 to 2009, the average annual amount spent on dental services per Medicaid FFS client increased 98 percent, from $301 to $595. For the same period, the average annual amount spent on dental services per STAR Health client increased 52 percent from $289 to $439. **Figure 3**

FIGURE 3
STAR HEALTH AND MEDICAID FFS AVERAGE ANNUAL DENTAL COST PER CLIENT
FISCAL YEARS 2005 TO 2009

	STAR HEALTH DENTAL SERVICES		MEDICAID FFS DENTAL SERVICES	
FISCAL YEAR	AVERAGE ANNUAL COST PER CLIENT SERVED	PERCENTAGE CHANGE FROM PREVIOUS YEAR	AVERAGE ANNUAL COST PER CLIENT SERVED	PERCENTAGE CHANGE FROM PREVIOUS YEAR
2005	$288.55	Not available	$301.30	Not available
2006	$293.80	1.8%	$302.65	0.4%
2007	$290.58	-1.1%	$300.08	-0.8%
2008	$371.05	27.7%	$542.22	80.7%
2009	$438.66	18.2%	$595.17	9.8%

SOURCE: Legislative Budget Board.

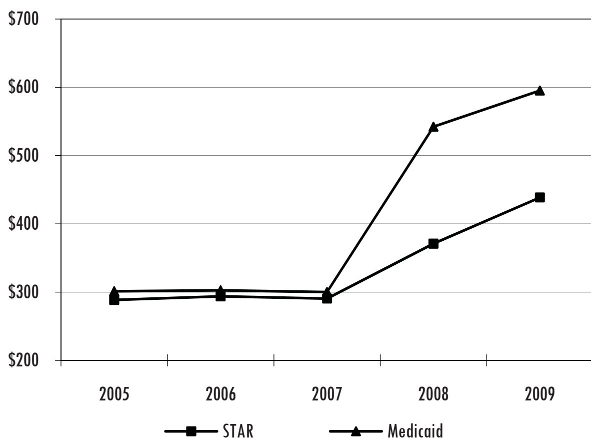
shows the percentage increase in the average annual dental cost per client served in the Medicaid FFS program and the STAR Health managed-care program.

Spending on dental services was similar for both programs from fiscal years 2005 to 2007 and spending increased in both programs in fiscal year 2008, but more so in Medicaid FFS. The average annual dental cost per client served in the STAR Health program was consistently lower than the Medicaid FFS program from fiscal years 2005 to 2009; however in fiscal year 2009, the rate of increase in cost was greater in the STAR Health program than in the Medicaid FFS program. **Figure 4** shows the trend in the average annual amount spent per client on dental services in the Medicaid program and the STAR Health program.

While current spending on dental services in Medicaid FFS is greater than in the STAR Health program, access indicators are mixed. Of the 2.4 million Medicaid FFS clients who were eligible to receive dental services in fiscal year 2009, 68 percent of clients received at least one dental service. Of the 44,799 clients enrolled in STAR Health in fiscal year 2009, 63 percent received at least one dental service. This measure is also known as the penetration rate and measures access to care.

The number of claims per client slightly increased after the implementation of managed care in STAR Health from 2.3 in fiscal year 2007 to 2.9 in fiscal year 2009. For every 674 Medicaid clients there was one general dentist, whereas in the STAR Health program, for every 10 clients there was one general dentist provider. Compared to STAR Health, Medicaid FFS had fewer dental providers per client. In both plans, most dental-related claims were for general dentist visits. **Figure 5** shows quality and cost measures for dental services in the Medicaid FFS program and in STAR Health.

FIGURE 4
AVERAGE ANNUAL AMOUNT SPENT PER CLIENT
FISCAL YEARS 2005 TO 2009



SOURCES: Legislative Budget Board; Health and Human Services Commission.

MONITORING QUALITY AND COST IN DENTAL MANAGED CARE

HHSC proposes capitating Medicaid dental services statewide by March 2012 and estimates a savings of $101.6 million in General Revenue Funds for the 2012–13 biennium. This proposal was included as an exceptional item request in the agency's Legislative Appropriations Request. While current spending on dental services in Medicaid FFS is greater than in the STAR Health program, access indicators such as utilization rates are mixed. As such, the quality of dental care should be closely monitored. If dental services are capitated in Medicaid, Recommendation 1 would include a contingency rider in the 2012–13 General Appropriation Bill requiring HHSC to evaluate access, quality and cost outcomes associated with a capitated managed-care dental service delivery model and submit

FIGURE 5
QUALITY AND COST MEASURES OF DENTAL SERVICES IN MEDICAID FFS AND STAR HEALTH
FISCAL YEAR 2009

MEASURE	MEDICAID FFS	STAR HEALTH
Specialty Dentist to Patient Ratio	1: 11,135	1:161
Penetration Rate	68%	63%
Percentage of Visits that Were for General Dentistry	99.5%	99.3%
Average Cost per Member per Month	$34.87	$32.33 (MCO payments to dental provider network)
Total State Expenditures for Dental Services	**$957,639,287**	**$11.7 million** **(MCO payments to dental provider network)**

Source: Health and Human Services Commission.

findings to the Governor and the Legislative Budget Board by March 1, 2013. HHSC should provide oversight and monitor quality metrics including but not limited to:

- utilization trends under a capitated managed-care model;
- penetration rates;
- provider to client ratios;
- retention of dental providers;
- types of services provided;
- cost-effectiveness outcomes including the amount of revenue produced by the insurance premium tax levied by the Texas Department of Insurance on HMOs; and
- HMO premium cost increases and consistency with cost trends in other service delivery models for comparable risk groups.

FISCAL IMPACT OF RECOMMENDATION

There is no fiscal impact associated with Recommendation 1 and it is assumed that the agency can implement the recommendation by using existing resources. The introduced 2012–13 General Appropriations Bill includes a rider implementing Recommendation 1 and adjustments to appropriations reflecting savings from implementing dental managed care.

REDUCE THE NEED FOR EMERGENCY ROOM UTILIZATION IN THE MEDICAID PROGRAM

Medicaid clients use the emergency room for conditions that could be treated in a primary care setting, such as a doctor's office or clinic. Treatment for these non-emergent conditions in the emergency room costs more than if this care had been delivered in a primary care setting. Redirecting clients with non-emergent conditions from the emergency room to the primary care setting could result in potential cost savings of $184.2 million in All Funds per year. In an effort to reduce Medicaid spending, the Texas Health and Human Services Commission should take steps to reduce non-emergent use of the emergency room, including implementing a cost-effective physician incentive program throughout the Texas Medicaid program, determining the feasibility of enrolling urgent care centers as Medicaid clinic providers and encouraging health maintenance organizations in Medicaid managed care to reduce non-emergent use of the emergency room among their clients.

FACTS AND FINDINGS

- In fiscal year 2009, there were almost 1.4 million emergency room visits in which Medicaid clients in Texas received treatment for non-emergent conditions. These visits represent 56 percent of all emergency room visits in the Texas Medicaid program.
- The amount spent treating Medicaid clients with non-emergent conditions in the emergency room was $288.9 million in All Funds, or 49 percent, of total Medicaid spending on emergency room visits. If Medicaid clients who received non-emergent care in the emergency room had instead been seen by their primary care provider, the estimated cost for treating these clients would have been $104.7 million.
- Of total spending on non-emergent emergency room visits, 53 percent was for services provided to clients enrolled in fee-for-service or Primary Care Case Management and 47 percent was for clients enrolled in the capitated STAR or STAR+PLUS programs.
- At least five health maintenance organizations participating in the Texas Medicaid program have implemented programs to incentivize primary care providers to reduce emergency room use among their patients, including incentives for offering routine after hour appointments, at no additional cost to the state. These health maintenance organizations report that the cost of these physician incentive programs is offset by reduced emergency room visits.

CONCERNS

- Despite existing methods implemented in the Texas Medicaid program, including efforts to educate Medicaid clients on appropriate use of the emergency room, Medicaid clients continue to use the emergency room for non-emergent conditions resulting in additional Medicaid spending. Studies have identified limited access to services in the primary care setting during regular and extended hours as a major driver of non-emergent emergency room use among Medicaid clients.
- Urgent care centers in Texas, which provide care during extended hours, have the potential to reduce use of the emergency room in the Texas Medicaid program. However, the Texas Medicaid State Plan does not permit freestanding urgent care centers to enroll as clinic providers. As a result, Texas Medicaid clients have limited access to these centers.

RECOMMENDATIONS:

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill that would require the Health and Human Services Commission to evaluate whether the cost of the physician incentive programs implemented by the health maintenance organizations participating in the Texas Medicaid program has been offset by reduced use of the emergency room and submit a report on the evaluation findings to the Governor and the Legislative Budget Board by August 31, 2012.
- **Recommendation 2:** Amend the Texas Government Code to require the Health and Human Services Commission to implement a cost-effective physician incentive program throughout the Texas Medicaid program to encourage primary care providers to reduce emergency room use among their patients.

- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill that would require the Health and Human Services Commission to determine the feasibility of amending the Texas Medicaid State Plan to permit freestanding urgent care centers to enroll as clinic providers and submit a report on the findings to the Governor and the Legislative Budget Board by August 31, 2012.
- **Recommendation 4:** Include a rider in the 2012–13 General Appropriations Bill that would require the Health and Human Services Commission to use financial incentives and disincentives to encourage the health maintenance organizations participating in the Medicaid STAR and STAR+PLUS managed care programs to reduce non-emergent use of the emergency room among their clients.

DISCUSSION

Medicaid, financed with both federal and state funds, is a healthcare program for low-income families, the elderly, and persons with disabilities. Individuals eligible for Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI) are automatically eligible for Medicaid. Other persons who do not receive cash assistance may be eligible for Medicaid depending on age, family income, pregnancy, or disability (i.e., TANF-related or SSI-related groups). Texas Medicaid is administered by the Texas Health and Human Services Commission (HHSC).

Medicaid acute services are delivered primarily through two managed-care models: the fully capitated Health Maintenance Organization (HMO) model, also known as the State of Texas Access Reform (STAR) program, and the non-capitated Primary Care Case Management (PCCM) model. HMOs receive a monthly capitation payment for each person enrolled based on an average projection of medical expenses for the typical patient in exchange for assuming the risk of providing services that are medically necessary. Under the PCCM model, primary care providers receive a case management fee of $5 per member per month, and claims are paid on a fee-for-service basis whereby providers receive a fee for services performed. STAR HMOs operate primarily in urban areas whereas PCCM exists primarily in rural areas. The partially capitated STAR+PLUS program, which operates in select urban service areas, is a Texas Medicaid managed care program that integrates the delivery of acute and long-term care for certain client groups.

TANF and TANF-related adults and children and certain SSI and SSI-related adults participate in Medicaid managed care on a mandatory basis. SSI and SSI-related clients under age 21 may participate voluntarily. Certain clients, including SSI and SSI-related clients under age 21, may receive Medicaid services on a fee-for-service basis.

USE OF THE EMERGENCY ROOM FOR NON-EMERGENT CONDITIONS

Studies show that Medicaid enrollees have a higher rate of emergency room (ER) use than Americans with private insurance, the uninsured, and Medicare enrollees. Even when health status and other individual characteristics are considered, Medicaid recipients have higher rates of ER use. In some cases, Medicaid clients use the ER for non-emergent conditions that could be treated in a primary care setting, such as a doctor's office or clinic.

The Texas Medicaid program maintains a list of diagnoses that are considered emergency medical conditions. This report defines non-emergent conditions as including all diagnoses that are not included on the Texas Medicaid program's list of emergency medical conditions. As shown in **Figure 1**, of the nearly 2.5 million ER visits in the Texas Medicaid program, approximately 1.4 million, or 56 percent, were for treatment of non-emergent conditions.

FIGURE 1
MEDICAID EMERGENCY ROOM USE BY DELIVERY MODEL, FISCAL YEAR 2009

DELIVERY MODEL AND CLIENT TYPE	NUMBER OF NON-EMERGENT ER VISITS	TOTAL NUMBER OF ER VISITS	NON-EMERGENT AS PERCENTAGE OF TOTAL ER VISITS
Fee-for-Service	478,209	894,112	53%
Primary Care Case Management	378,785	672,766	56%
STAR	468,694	802,048	58%
STAR+PLUS	53,732	100,235	54%
TOTAL	**1,379,420**	**2,469,161**	**56%**

Source: Legislative Budget Board.

A typical ER visit may result in physician fee(s), a facility fee, and billings for ancillary diagnostic services (e.g., x-rays and laboratory tests). As shown in **Figure 2**, of the $588.8 million spent by the Texas Medicaid program on ER visits in fiscal year 2009, $288.9 million, or 49 percent, was for non-emergent conditions. Of total spending on non-emergent ER visits, 53 percent was for services provided to clients enrolled in fee-for-service or Primary Care Case Management and 47 percent was for clients enrolled in the STAR or STAR+PLUS programs. ER spending includes physician fees, facility fees, and ancillary diagnostic services. The amounts do not include prescriptions and return outpatient visits that may be associated with the ER visit. The amount spent on services provided to clients enrolled in the STAR or STAR+PLUS programs may be underreported due to agency data limitations.

POTENTIAL SAVINGS FROM REDIRECTING CLIENTS WITH NON-EMERGENT CONDITIONS TO THE PRIMARY CARE SETTING

Redirecting clients with non-emergent conditions from the ER to the primary care setting could result in significant savings to the state. As shown in **Figure 3**, if Medicaid clients who received non-emergent care in the ER were diverted to their PCP, the estimated cost for treating these clients in this setting would have totaled $104.7 million during fiscal year 2009. This cost estimate includes a physician reimbursement fee and an average amount for ancillary diagnostic tests. Office-based physician reimbursement fees listed in the Texas Medicaid 2010 Physician Fee Schedule range from $13.49 to $111.98 depending on whether the client is new or established and the level of the visit. The physician reimbursement fee used for this estimate was $37.64, which is the median cost for an outpatient visit provided to

FIGURE 2
MEDICAID EMERGENCY ROOM SPENDING BY CLIENT TYPE AND DELIVERY MODEL, FISCAL YEAR 2009

	SPENDING ON NON-EMERGENT ER VISITS					
DELIVERY MODEL & CLIENT TYPE	PHYSICIAN FEES	FACILITY FEES	ANCILLARY DIAGNOSTIC SERVICES	TOTAL	TOTAL ER SPENDING	NON-EMERGENT AS PERCENT OF TOTAL ER
Fee-For-Service (FFS)						
TANF/TANF-Related	$6,488,547	$28,457,671	$16,188,807	$51,135,024	$111,058,784	46%
SSI/SSI-Related	$6,953,713	$11,856,745	$10,436,990	$29,247,448	$61,772,008	47%
Refugee	$159,769	$1,861,341	$1,493,274	$3,514,384	$7,699,897	46%
SUBTOTAL	**$13,602,029**	**$42,175,757**	**$28,119,071**	**$83,896,856**	**$180,530,690**	**46%**
Primary Care Case Management (PCCM)						
TANF/TANF-Related	$9,181,253	$23,061,138	$11,481,018	$43,723,409	$86,406,785	51%
SSI/SSI-Related	$4,594,405	$10,226,140	$9,704,773	$24,525,317	$55,551,342	44%
SUBTOTAL	**$13,775,658**	**$33,287,278**	**$21,185,791**	**$68,248,726**	**$141,958,127**	**48%**
STAR*						
TANF/TANF-Related	$23,219,892	$94,712,356	$2,663,319	$120,595,567	$231,883,774	52%
SSI/SSI-Related	$2,604	$15,264	$245	$18,114	$27,915	65%
Missing	$29,446	$132,801	$2,533	$164,780	$294,204	56%
SUBTOTAL	**$23,251,942**	**$94,860,422**	**$2,666,098**	**$120,778,461**	**$232,205,893**	**52%**
STAR+PLUS*						
TANF/TANF-Related	$653	$1,542	$335	$2,531	$7,164	35%
SSI/SSI-Related	$3,141,275	$12,057,342	$765,902	$15,964,519	$34,116,808	47%
Missing	$1,134	$7,131	$151	$8,416	$13,771	61%
SUBTOTAL	**$3,143,062**	**$12,066,015**	**$766,388**	**$15,975,465**	**$34,137,742**	**47%**
TOTAL	**$53,772,691**	**$182,389,472**	**$52,737,347**	**$288,899,509**	**$588,832,451**	**49%**

*Spending on services in the STAR and STAR+PLUS programs may be underreported.
Source: Legislative Budget Board.

established patients and the most frequently paid procedure code for outpatient established office visits for PCCM and fee-for-service clients.

As shown in **Figure 3**, the estimated potential cost savings from redirecting Medicaid clients with non-emergent conditions from the ER to their PCP is $184.2 million per year. The savings estimate was determined by subtracting the cost of providing care to clients through PCP appointments from the total direct cost of non-emergent ER use. If the cost of treating clients with primary-care treatable urgent conditions (i.e., treatment is required within 24 hours) in the ER were included, the potential cost savings could be greater.

METHODS TO DECREASE NON-EMERGENT USE OF THE EMERGENCY ROOM

As shown in **Figure 4**, the Texas Medicaid program has implemented various strategies to reduce use of the ER for non-emergent conditions.

In addition to the strategies listed in **Figure 4**, several of the HMOs participating in the STAR or STAR+PLUS programs have voluntarily implemented additional strategies to reduce non-emergent use of the ER, such as:

- patient education efforts (e.g., new member welcome calls);
- Targeting information and case management services to clients identified as obtaining ER services more than a set number of times. Some HMOs review claims data to identify clients while others have agreements with hospitals to provide a daily list of clients who have used the ER.
- Programs to incentivize primary care providers to reduce ER use among their patients including, but not limited to, paying an enhanced rate to providers who provide extended hours.
- Primary care providers are given a monthly report that lists their clients who have visited the ER.
- Analysis of claims data to identify primary care providers with the highest and lowest number of patients who frequently use the ER. Data is used to obtain best practice information from the providers with low ER rates and to make recommendations to providers with high ER rates.
- Use of information technology to create a "Provider Find" tool to allow HMO representatives and clients the ability to obtain a map of urgent care center locations.
- Contracts with urgent care clinics.
- Changes to hospital reimbursement methodologies related to ER services provided to clients with non-emergent conditions.

Legislation enacted by the Eightieth Legislature, 2007, required HHSC to adopt cost-sharing provisions for ER utilization within certain parameters, if determined to be feasible and cost-effective. HHSC contracted with Health Management Associates to evaluate the cost effectiveness and feasibility of implementing a co-pay policy for Medicaid patients who use the ER for non-emergent care. The goal of the study was to determine if ER co-payments could be feasible and cost-effective given the constraints imposed by federal and state law as well as the structure and demographics of Texas Medicaid. The study concluded that the "implementation of a Medicaid co-payment policy for non-emergency use of the ER would not be cost-effective or

FIGURE 3
POTENTIAL ANNUAL COST SAVINGS FROM REDUCING NON-EMERGENT EMERGENCY ROOM USE IN THE TEXAS MEDICAID PROGRAM
FISCAL YEAR 2009

	MEDICAID DELIVERY MODEL				
	FEE-FOR-SERVICE	PCCM	STAR	STAR+PLUS	TOTAL
Amount spent on non-emergent ER use	$83,896,856	$68,248,726	$120,778,461	$15,975,465	$288,899,509
Estimated direct cost of treating clients with non-emergent conditions diverted from the ER to their PCP	$46,118,857	$35,443,258	$20,307,740	$2,788,860	$104,658,715
Potential cost savings	**$37,777,999**	**$32,805,468**	**$100,470,722**	**$13,186,605**	**$184,240,794**

SOURCE: Legislative Budget Board.

FIGURE 4
STRATEGIES IMPLEMENTED IN THE TEXAS MEDICAID PROGRAM TO REDUCE NON-EMERGENT USE OF THE EMERGENCY ROOM, FISCAL YEAR 2010

	MEDICAID DELIVERY MODEL		
STRATEGY	FEE-FOR-SERVICE	PRIMARY CARE CASE MANAGEMENT	HEALTH MAINTENANCE ORGANIZATION
Enrollees are required to have a PCP ("medical home").		X	X
PCP is required to provide urgent care within 24 hours after the request.		X	X
PCP is required to provide 24/7 telephone access.		X	X
Nurse triage lines are available 24/7.		X	Varies
Enrollees receive member handbooks that provide information on appropriate use of the ER and definitions of an emergency.		X	X
Clients have access to care coordination services.		X	Varies
Reimbursement for non-emergency physician services performed at an outpatient hospital setting (e.g., ER) is limited to 60 percent of the Texas Medicaid rate for the service provided in the physician's office.	X	X	X
Certain clients are placed in a Client Limited Program whereby they are "locked-in" to receiving services from a certain PCP or pharmacy. If these clients visit the ER with a non-emergent condition, the facility or physician will not receive payment for services unless the client was referred by their assigned PCP.	X	X	Varies

Source: Legislative Budget Board.

feasible in Texas." The conclusion was based on four key factors:

- complex federal law requirements that make implementation very challenging, especially for hospital staff;
- the very high percentage of Texas Medicaid clients with incomes below poverty who could not be required to pay co-pays;
- the lack of available alternative and accessible Medicaid providers that reduces the number of times co-pays can be applied; and
- administrative costs resulting from the federal requirements that raise the amount of savings needed to achieve cost effectiveness.

REDUCE NON-EMERGENT USE OF THE ER IN THE MEDICAID PROGRAM

Although Medicaid clients use the ER for non-emergent care for various reasons, studies have identified limited access to services in the primary care setting during regular and extended hours as a major driver of non-emergent ER use among Medicaid clients. A 2002 study sponsored by the Robert Wood Johnson Foundation found that a top reason why parents use the ER is the inability to promptly access care in the primary care setting. A study sponsored in part by the Centers for Disease Control and Prevention found that a significant barrier to receiving care in the primary care setting is untimely access to care caused by office-based physicians who are too busy to accommodate same-day scheduling and treat patients after hours.

Some Texas Medicaid clients may have difficulty accessing care during regular hours due to capacity limitations that result in long waiting periods to get appointments. A report, issued by HHSC in May 2008, discussed widespread

consensus among healthcare providers who work with Texas Medicaid clients that there are long waiting periods to get appointments with Medicaid providers during regular operating hours. However, the extent of this difficulty is unknown because HHSC does not collect data on how long Texas Medicaid clients have to wait to be seen by their PCP during regular office hours.

Furthermore, certain Medicaid clients have limited access to routine after-hour appointments in the primary care setting. Office-based PCPs can bill an additional charge for providing services after routine office hours in their office or ER, but this charge is denied if the physician's routine hours include after hours care. The report issued by HHSC in May 2008 also discussed few after hour alternatives in the Texas Medicaid program. As shown in **Figure 5**, most PCPs participating in Texas Medicaid's managed-care programs (i.e., PCCM, STAR and STAR+PLUS) do not offer routine after-hour appointments. Specifically, the percentage of PCPs in STAR and STAR+PLUS HMOs that offer routine after-hour appointments ranges from 2.5 percent to 44.5 percent for extended weekday hours, and 0.2 percent to 34.1 percent for weekend hours. The percentage of PCPs participating in PCCM that offer extended weekday hours is 22.3 percent and the percent that offer weekend hours is 17.6 percent. Similar data for fee-for-service is not available.

At least five HMOs participating in the Texas Medicaid program have implemented programs to incentivize PCPs to reduce ER use among their patients, including incentives for offering routine after hour appointments, at no additional cost to the state. These HMOs report that the cost of the

FIGURE 5
PERCENTAGE OF PRIMARY CARE PROVIDERS ENROLLED IN THE TEXAS MEDICAID PROGRAM THAT OFFER ROUTINE AFTER-HOUR APPOINTMENTS
FISCAL YEAR 2009

MEDICAID DELIVERY MODEL	PERCENT OF PCPS THAT OFFER EXTENDED WEEKDAY HOURS	PERCENT OF PCPS THAT OFFER WEEKEND HOURS
Fee-for-Service	Data Not Available	Data Not Available
Primary Care Case Management	22.3%	17.6%
STAR and STAR+PLUS		
Aetna	25.8%	16.2%
Amerigroup	27.8	Data Not Available
Community First	26.8	21.4
Community Health Choice	44.0	27.4
Cook Children's	12.6	11.9
Driscoll Children's	44.5	34.1
El Paso First	25.0	11.2
Evercare	3.9	6.6
FirstCare	18.3	12.7
Molina	14.0	13.1
Parkland	44.2	27.9
Superior	16.6	11.7
Superior-STAR Health	12.6	10.1
Texas Children's	22.9	30.0
Unicare	20.8	29.8
UnitedHealthcare - Texas	2.5	0.2

SOURCE: Health and Human Services Commission.

physician incentive programs is offset by reduced ER visits. Following is a list of the components included in the physician incentive programs implemented by some of the HMOs participating in the Texas Medicaid program:

- physicians receive an enhanced rate for routine after hour appointments;
- physicians who offer extended weekday and weekend hours are eligible to receive a $5,000 quarterly incentive payment;
- physicians who perform in the top quartile of lowest ER visits are eligible to receive a $10,000 quarterly incentive payment;
- physicians who achieve at least a 5 percent reduction in ER visits as compared to their prior year's quarterly performance are eligible to receive an incentive payment equal to 50 percent of the resulting savings (the maximum payment for this incentive is $25,000 per quarter);
- physicians who reach established targets for ER utilization receive an incentive payment equal to an additional 5 to 10 percent; and
- physicians who make changes to their practices needed to offer after hour appointments receive grants to help cover start up costs.

Some of the HMOs also track ER data by PCP to identify physicians whose patients have high ER rates in order to recommend improvements to the PCP. Some HMOs also give PCPs reports that list their clients who have visited the ER.

Recommendation 1 would include a rider in the 2012–13 General Appropriations Bill that would require HHSC to evaluate whether the cost of the physician incentive programs implemented by the HMOs participating in the Texas Medicaid program has been offset by reduced use of the ER and submit a report on the evaluation findings to the Governor and the Legislative Budget Board (LBB) by August 31, 2012. The evaluation should consider the cost-effectiveness of the different components included in the HMOs' physician incentive programs. The report should include a discussion of any components that would require statutory change.

Recommendation 2 would amend the Texas Government Code to require HHSC to implement a cost-effective physician incentive program throughout the Texas Medicaid program to encourage primary care providers to reduce ER use among their patients. HHSC should use the evaluation of the HMOs' physician incentive programs to design the program to include only cost-effective components. Also, if the physician incentive program includes paying an enhanced reimbursement rate for routine after-hours appointments, HHSC should implement controls to ensure that services billed as being provided after-hours are actually provided outside of regular weekday hours. For example, medical record documentation should clearly state the time the client was in the provider's office and the Medicaid claims administrator should implement a method to verify office hours to ensure that the provider is maintaining the extended office hours for which they are billing.

Urgent care centers, also known as minor emergency clinics, provide primary care at extended hours, but also some care comparable to that provided in ERs for patients with lower acuity. Key features of the urgent care center as defined by the Urgent Care Association of America include delivery of ambulatory medical care outside of a hospital ER (outpatient care), no requirement for a patient appointment (walk in), operation Monday through Friday evenings with at least one day over the weekend, the ability to perform suturing of minor lacerations, and provision of on-site x-ray services. The number of urgent care centers in Texas is unknown, but the Texas Department of State Health Services estimates there are approximately 300.

Urgent care centers in Texas have the potential to reduce use of the ER in the Texas Medicaid program. Medicaid clients may receive minor emergency care in an urgent care center instead of a hospital-based ER, thus reducing the volume of clients obtaining services at the ER and associated spending. Furthermore, urgent care centers are an alternative to clients with non-emergent conditions who have difficulty accessing primary care during regular or extended hours and who would otherwise seek care in the ER.

Federal regulation allows states to enroll freestanding urgent care centers as clinic providers in the Medicaid program. Specifically, Title 42 of the Code of Federal Regulations, Section 440.90, permits states to reimburse clinic services furnished by facilities that are not part of a hospital, but are organized and operated to provide medical care on an outpatient basis, as long as the services are under the direction of a physician or dentist. However, the Texas Medicaid State Plan does not permit freestanding urgent care centers to enroll as clinic providers. Currently, the types of facilities that

are allowed to enroll as clinic providers in the Texas Medicaid State Plan include:

- maternity clinics ;
- tuberculosis clinics ;
- renal dialysis clinics ; and
- ambulatory surgical centers .

Individual providers employed by urgent care centers can individually enroll to serve Medicaid clients. Providers in a group practice who operate an urgent care center can also enroll as a group provider to serve Medicaid clients. However, the additional steps required to enroll individual or group providers creates an administrative barrier that results in some urgent care centers and their providers choosing to not participate in the Texas Medicaid program. Also, some urgent care centers argue that their costs are greater than office-based physicians and should therefore, receive higher reimbursement rates. As a result, Texas Medicaid clients have limited access to these centers. Some of the Medicaid STAR and STAR+PLUS HMOs do contract with urgent care centers on a limited basis.

Recommendation 3 would include a rider in the 2012–13 General Appropriations Bill that would require HHSC to determine the feasibility of amending the Texas Medicaid State Plan to permit freestanding urgent care centers to enroll as clinic providers and submit a report on the findings to the Governor and the LBB by August 31, 2012. HHSC's feasibility analysis should consider, at a minimum, the following:

- system technology changes;
- operational considerations, including processing provider enrollment applications; and
- rate setting.

The feasibility analysis should also evaluate whether urgent care center services would divert Medicaid clients from the ER, thus resulting in savings to the Texas Medicaid program.

Financial incentives and disincentives are used by states to shape HMO behavior in desired directions. In fiscal year 2006, HHSC implemented a value-based purchasing approach for HMOs participating in the Medicaid STAR and STAR+PLUS managed care programs. Under this new model, each HMO is at risk for 1 percent of their capitation rate dependent on the outcome of pre-identified performance measures. At the end of each rate period, HHSC evaluates if the HMO has demonstrated whether it has met specified performance expectations for which the HMO is at risk. HMOs earn variable percentages up to 100 percent of the 1 percent at-risk amount. HHSC uses a set of performance measures, known as 1 percent at risk performance measures, to determine the percentage of the 1 percent at-risk capitation rate that HMOs are able to earn. If one or more HMOs are unable to earn the full amount of the performance-based at-risk portion of the capitation rate, HHSC reallocates the funds through the Quality Challenge Award. HMOs that demonstrate superior performance on select performance indicators receive the Quality Challenge Award payment.

Recommendation 4 would include a rider in the 2012–13 General Appropriations Bill that would require HHSC to use financial incentives and disincentives to encourage the HMOs participating in the Medicaid STAR and STAR+PLUS managed care programs to reduce non-emergent use of the emergency room among their clients. HHSC should consider adding a performance indicator that measures non-emergent use of the emergency room to the performance measures for the 1 percent at-risk premium and the performance measures used to evaluate HMO performance for purposes of distributing funds under the Quality Challenge Award program.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations in this report direct HHSC to take steps to reduce non-emergent use of the ER in the Texas Medicaid program. It is estimated that the recommendations would have no significant fiscal impact.

Recommendations 1 and 2 direct HHSC to evaluate the cost-effectiveness of the physician incentive programs implemented by the HMOs participating in the Texas Medicaid program, submit a report on the evaluation findings to the Governor and the LBB, and to implement a cost-effective physician incentive program throughout the Texas Medicaid program. The recommendations are intended to reduce non-emergent use of the ER in the Texas Medicaid program by encouraging PCPs to reduce ER use among their patients. Some of the HMOs participating in the Texas Medicaid program have implemented physician incentive programs at no additional cost to the state. The evaluation of these existing programs could be implemented using existing agency resources. HHSC is directed to implement a cost-effective physician incentive program throughout the Texas Medicaid program. The physician incentive program should include only cost-effective components and thus, the cost of

the program should be offset by reductions in non-emergent use of the ER. To the extent that implementing a physician incentive program throughout the Texas Medicaid program reduces non-emergent use of the ER, the recommendation could result in savings in the Texas Medicaid program.

Recommendation 3 directs HHSC to determine the feasibility of enrolling urgent care centers as Medicaid clinic providers. Recommendation 4 directs HHSC to use financial incentives and disincentives to reduce non-emergent use of the ER among clients in the Medicaid STAR and STAR+PLUS programs. These recommendations could be implemented using existing agency resources.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendations 1, 3, and 4.

IMPLEMENT AN OBJECTIVE CLIENT ASSESSMENT PROCESS FOR ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM

The Texas Health and Human Services Commission lacks an objective, independent process for assessing the acute nursing needs of Texas Medicaid clients enrolled in fee-for-service or the non-capitated managed care model known as Primary Care Case Management. Specifically, the providers contracted by the Health and Human Services Commission to assess a client's acute nursing needs also deliver those services, resulting in a potential conflict of interest. Also, the agency requires that the client assessment conducted by providers include certain elements, such as an evaluation of the client's health, but does not require that the providers use a standard form to assess client needs. As a result, there is potential for providers to recommend an inappropriate amount of nursing services. Furthermore, the Medicaid claims administrator may not detect inappropriate service requests because the information they use to authorize the amount of nursing services is primarily supplied by the providers contracted to deliver those services. Some of the health maintenance organizations participating in Medicaid managed care have also not implemented an objective, independent process for assessing acute nursing needs.

Requiring that the Health and Human Services Commission implement an objective client assessment process for acute nursing services provided to Texas Medicaid clients could help ensure that clients with acute nursing needs are allocated an appropriate amount of nursing services by removing any conflict of interest that may result from having the same entity both complete client assessments and deliver services. To the extent that implementing an objective client assessment process reduces inappropriate allocation of nursing services, there could be cost savings to the Texas Medicaid program.

FACTS AND FINDINGS

- There are three types of acute nursing services available to clients in the Texas Medicaid program: (1) home health skilled nursing, (2) home health aide services, and (3) private duty nursing. These services, which are intended to promote independence and support the client living at home, are authorized for up to six months per episode of care.
- Spending and utilization vary by type of acute nursing service and by region.

CONCERNS

- The Texas Health and Human Services Commission lacks an objective, independent process for assessing the acute nursing needs of Texas Medicaid clients enrolled in fee-for-service or Primary Care Case Management. As a result, there is potential for providers to recommend an inappropriate amount of nursing services.
- The Medicaid claims administrator may not detect inappropriate service requests because the information they use to authorize the amount of nursing services is primarily supplied by the providers contracted to deliver those services.
- The client assessment and authorization process for acute nursing services varies among the health maintenance organizations participating in Medicaid managed care. Some of the health maintenance organizations have not implemented an objective, independent process for assessing the acute nursing needs of clients.

RECOMMENDATION

- **Recommendation 1**: Amend the Texas Government Code to require the Health and Human Services Commission to implement an objective client assessment process for acute nursing services provided to Texas Medicaid clients.

DISCUSSION

Medicaid, financed with both federal and state funds, is a healthcare program for low-income families, the elderly, and persons with disabilities. Texas Medicaid is administered by the Texas Health and Human Services Commission (HHSC). Medicaid acute services are delivered primarily through two managed-care models: the fully capitated Health Maintenance Organization (HMO) model also known as the State of Texas Access Reform (STAR) program; and the non-capitated Primary Care Case Management (PCCM) model. STAR HMOs operate primarily in urban areas whereas PCCM exists primarily in rural areas. Certain clients may receive acute Medicaid services on a fee-for-service basis.

There are three types of acute nursing services available to clients in Medicaid—home health skilled nursing (HHSN), home health aide services (HHA), and private duty nursing (PDN). These services are intended to promote independence and support the client living at home.

HOME HEALTH SKILLED NURSING

HHSN services are available to Medicaid clients of any age who meet medical necessity criteria and require nursing services for an acute condition or an acute exacerbation of a chronic condition. An acute condition is a condition or exacerbation that is anticipated to improve and reach resolution within 60 days. HHSN services are provided on an intermittent or part-time basis by licensed and certified home health agencies enrolled in the Texas Medicaid program. These services are limited to procedures performed by a registered nurse or licensed vocational nurse, including direct skilled nursing care, caregiver training and education, and observation and assessment.

Medicaid clients from birth through age 20 who meet medical necessity criteria may receive additional services through the Comprehensive Care Program. HHSN services are considered medically necessary for clients who require the following:

- Skillful observations and judgment to improve health status, skilled assessment, or skilled treatments and procedures;
- Individualized, intermittent, acute skilled care; and
- Skilled interventions to improve health status, and if skilled intervention is delayed, it is expected to result in the deterioration of a chronic condition, or loss of function, or imminent risk to health status due to medical fragility, or risk of death.

HOME HEALTH AIDE SERVICES

HHA services are available to Medicaid clients of any age who meet medical necessity criteria and require nursing, occupational therapy, or physical therapy services for an acute condition or an acute exacerbation of a chronic condition. HHA services are provided on an intermittent or part-time basis by home health aides under the supervision of a registered nurse, occupational therapist, or physical therapist employed by a home health agency enrolled in the Texas Medicaid program. These services include personal care, performance of simple procedures as an extension of therapy or nursing services (e.g., obtaining vital signs), assistance in ambulation or exercises, and assistance with medication that is ordinarily self-administered.

PRIVATE DUTY NURSING

PDN services are available to Medicaid clients from birth through age 20 who meet medical necessity criteria and require individualized, continuous, skilled care beyond the level of skilled nursing visits provided through HHSN. PDN services are provided by licensed and certified home health agencies and by registered nurses and licensed vocational nurses independently-enrolled in the Texas Medicaid program. Initial requests for PDN services are authorized for up to 90 days. Revised requests for PDN services and recertifications are authorized for up to six months. PDN services are medically necessary under the following conditions:

- The requested services are nursing services as defined by the Texas Nursing Practice Act and its implementing regulations.
- The requested services correct or ameliorate the client's disability, physical, mental illness, or chronic condition. Nursing services correct or ameliorate the client's disability, physical or mental illness, or condition when the services improve, maintain, or slow the deterioration of the client's health status.
- There is no third-party resource financially responsible for the services.

Figure 1 shows the types of acute nursing services available to clients in the Texas Medicaid program.

SPENDING AND UTILIZATION OF ACUTE NURSING SERVICES

Analysis of Texas Medicaid data shows spending on acute nursing services varies by type of service and by region. **Figure 2** shows total reported and per capita spending on PDN and HHSN services by region. Spending data does not include data on services provided by Medicaid HMOs due to agency data reporting limitations. Spending for clients dually eligible for Medicare and Medicaid is excluded because Medicare pays for the majority of these service costs.

As shown in **Figure 3**, for each listed diagnosis, the average amount spent per client on PDN and HHSN services and the average number of units varies by region. For example, the average amount spent per client on private duty nursing services for clients diagnosed with infantile cerebral palsy varied from $38,211 in one region to $87,548 in another

FIGURE 1
ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM, FISCAL YEAR 2010

SERVICE TYPE	CLIENT ELIGIBILITY	PROVIDER	SERVICES
Home Health Skilled Nursing	Medicaid clients of any age who meet medical necessity criteria and require nursing services for an acute condition or an acute exacerbation of a chronic condition. Additional services for eligible Medicaid clients from birth through age 20 are available through the Comprehensive Care Program.	Licensed and certified home health agencies enrolled in the Texas Medicaid program.	Procedures performed by a registered nurse or licensed vocational nurse, including direct skilled nursing care, caregiver training and education, and observation and assessment.
Home Health Aide Services	Medicaid clients of any age who meet medical necessity criteria and require nursing, occupational therapy, or physical therapy services for an acute condition or an acute exacerbation of a chronic condition.	Licensed and certified home health agencies enrolled in the Texas Medicaid program.	Personal care Performance of simple procedures as an extension of therapy or nursing services (e.g., obtaining vital signs). Assistance in ambulation or exercises. Assistance with medication that is ordinarily self-administered.
Private Duty Nursing	Medicaid clients from birth through age 20 who meet medical necessity criteria and require individualized, continuous, skilled care beyond the level of skilled nursing visits provided through Home Health Skilled Nursing.	Licensed and certified home health agencies enrolled in the Texas Medicaid program. Registered nurses and licensed vocational nurses independently-enrolled in the Texas Medicaid program.	Procedures performed by a registered nurse or licensed vocational nurse, including direct skilled nursing care, caregiver training and education, and observation and assessment.

SOURCE: Legislative Budget Board.

region. Similarly, the average number of units of service per client varied from 4,369 to 10,168. In some cases, the region with the highest average amount spent per client is also the region with the highest average number of units per client; however, this is not always the case. The diagnoses listed in **Figure 3**, which differ by service type, are the top 10 diagnoses based on the amount of total paid claims in fiscal year 2008 for clients enrolled in fee-for-service or Primary Care Case Management. This analysis did not control for all variables that might account for differences between regions, such as client acuity.

ACUTE NURSING SERVICES ASSESSMENT AND PRIOR AUTHORIZATION PROCESS

In general, the client assessment and prior authorization process for HHSN, HHA and PDN services provided to clients enrolled in fee-for-service or Primary Care Case Management is similar. Clients may be referred to a nursing services provider (i.e., home health agency or independently-enrolled nurse) by themselves, their family, their physician, or case manager. When a nursing services provider receives a referral and physician orders for services, the agency-employed or independently-enrolled registered nurse evaluates the client in their home. The evaluation includes, but is not limited to, an assessment of the client's health and their medical needs, safety of providing care in the proposed setting, appropriateness of care in the home setting, and caregiver availability. After completing the client assessment in the home setting, the nurse contacts the Medicaid claims administrator, currently the Texas Medicaid and Healthcare Partnership (TMHP), for prior authorization. As shown in **Figure 4**, the documents required for prior authorization differ between HHSN/HHA services and PDN services.

If inadequate or incomplete information is provided by the nursing services provider or the client's physician, or information to explain and support the medical necessity for the requested service is lacking, TMHP will request that the nursing services provider submit additional documentation. The additional information may also be obtained from the client's physician. TMHP then reviews the documentation submitted by the nursing services provider and the client's

FIGURE 2
SPENDING ON ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM FOR PRIVATE DUTY AND HOME HEALTH SKILLED NURSING, BY REGION, FISCAL YEARS 2008 AND 2009

	PRIVATE DUTY NURSING		HOME HEALTH SKILLED NURSING	
HHS REGION	REPORTED SPENDING	PER CAPITA SPENDING	REPORTED SPENDING	PER CAPITA SPENDING
1: High Plains	$15,417,555	$19	$1,261,786	$1.55
2: Northwest Texas	$11,213,479	21	670,180	1.25
3: Metroplex	$105,284,713	14	3,749,385	0.51
4: Upper East Texas	$45,568,201	35	1,915,633	1.46
5: Southeast Texas	$18,230,999	24	1,571,787	2.10
6: Gulf Coast	$108,680,282	18	1,032,592	0.17
7: Central Texas	$46,800,831	17	1,135,332	0.42
8: Upper South Texas	$73,761,128	30	1,185,718	0.48
9: West Texas	$11,352,944	20	544,304	0.98
10: Upper Rio Grande	$6,392,475	36	1,019,640	5.78
11: Lower South Texas	$56,374,279	27	4,737,803	2.26
Unknown	$1,426,417		26,749	
TOTAL	**$500,503,302**	**$20**	**$18,850,907**	**$0.76**

NOTE: Per capita spending is based on the July 1, 2009 population estimates from the U.S. Census Bureau.
SOURCE: Legislative Budget Board.

physician to evaluate the medical necessity information and determine if the documentation supports the amount and duration of the requested nursing services.

The client assessment and authorization process for acute nursing services varies among HMOs participating in the Medicaid STAR and STAR+PLUS managed care programs.

IMPLEMENT AN OBJECTIVE CLIENT ASSESSMENT PROCESS FOR ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM

HHSC lacks an objective, independent process for assessing the acute nursing needs of Texas Medicaid clients enrolled in fee-for-service or PCCM. Specifically, the providers contracted by HHSC to assess a client's acute nursing needs also deliver those services, resulting in a potential conflict of interest. Also, HHSC requires that the client assessment conducted by providers include certain elements, such as an evaluation of the client's health, but does not require that the providers use a standard form to assess client needs. As a result, there is potential for providers to recommend an inappropriate amount of nursing services. Furthermore, the Medicaid claims administrator may not detect inappropriate service requests because the information they use to authorize the amount of nursing services is primarily supplied by the providers contracted to deliver those services.

The client assessment and authorization process for acute nursing services varies among health maintenance organizations (HMOs) participating in the Medicaid STAR and STAR+PLUS managed-care programs. Some Medicaid STAR and STAR+PLUS HMOs use internal staff to assess clients, some contract with a nursing services provider who does not also deliver services, and some allow the nursing services provider who delivers services to also complete client assessments.

Recommendation 1 would amend the Texas Government Code to require HHSC to implement an objective client assessment process for acute nursing services provided to Texas Medicaid clients. HHSC should have an independent entity that is not also responsible for delivering the services use a standardized form to assess clients in fee-for-service and PCCM and complete related documents required for prior authorization. For example, HHSC could contract with a third-party or a nurse not employed by the agency providing the services, or use state employees. For example, Medicaid clients who access Personal Care Services (PCS) are assessed by case managers employed by the Department of State Health Services. The case managers use the standard Personal

FIGURE 3
ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM: AVERAGE SPENDING AND AVERAGE NUMBER OF UNITS PER CLIENT ACROSS REGIONS BY DIAGNOSIS
FISCAL YEAR 2008

PRIVATE DUTY NURSING (FISCAL YEAR 2008)

	AVERAGE SPENDING PER CLIENT		AVERAGE UNITS PER CLIENT	
Diagnosis (Code)	LOW VALUE	HIGH VALUE	LOW VALUE	HIGH VALUE
Infantile cerebral palsy (343)	$38,211	$87,548	4,369	10,168
Other diseases of lung (518)	$4,371	$179,049	483	16,852
General symptoms (780)	$26,207	$70,566	2,773	8,438
Symptoms involving respiratory system and other chest symptoms (786)	$39,916	$83,328	4,352	9,294
Other conditions of brain (348)	$43,127	$138,416	5,197	13,718
Other congenital anomalies of nervous system (742)	$17,858	$61,040	2,165	7,663
Chromosomal anomalies (758)	$31,169	$100,190	3,778	11,610
Congenital anomalies of respiratory system (748)	$17,160	$115,720	2,080	13,458
Other congenital musculoskeletal anomalies (756)	$31,456	$82,209	3,559	9,080
Symptoms concerning nutrition, metabolism, and development (783)	$4,884	$60,452	592	6,976

HOME HEALTH SKILLED NURSING (FISCAL YEAR 2008)

	AVERAGE SPENDING PER CLIENT		AVERAGE UNITS PER CLIENT	
Diagnosis (Code)	LOW VALUE	HIGH VALUE	LOW VALUE	HIGH VALUE
Diabetes mellitus (250)	$556	$1,292	35	93
Essential hypertension (401)	$365	$791	40	99
Heart failure (428)	$343	$1,457	8	101
Other cellulitis and abscess (682)	$578	$1,382	16	106
Chronic ulcer of skin (707)	$664	$3,361	8	100
Osteomyelitis, periostitis, and other infections involving bone (730)	$341	$2,074	16	101
Symptoms concerning nutrition, metabolism, and development (783)	$311	$904	33	101
Open wound of other and unspecified sites, except limbs (879)	$626	$2,254	49	101
Other complications of procedures, not elsewhere classified (998)	$986	$2,611	24	98
Other and unspecified aftercare (V58)	$400	$1,763	14	101

NOTE: Data only includes services provided to clients enrolled in fee-for-service or Primary Care Management because data on services provided by Medicaid HMOs is incomplete.
SOURCE: Legislative Budget Board.

Care Assessment Form to determine the number of PCS hours the client is eligible to receive. HHSC should also take steps to ensure that Medicaid STAR and STAR+PLUS HMOs implement an objective, independent client assessment process for acute nursing services.

The client assessment and authorization process for certain therapy services is similar to the process for HHSN, HHA, and PDN services. Specifically, clients receiving the following types of therapy services are assessed by providers also responsible for delivering services:

- Occupational therapy and physical therapy services provided to Medicaid clients of any age through a home health agency for an acute condition or an exacerbation of a chronic condition.

FIGURE 4
DOCUMENTATION REQUIRED FOR PRIOR AUTHORIZATION OF INITIAL REQUESTS FOR ACUTE NURSING SERVICES IN THE TEXAS MEDICAID PROGRAM, FISCAL YEAR 2010

HHSN AND HHA SERVICES	PDN SERVICES
Written orders from the client's physician.	Written orders from the client's physician.
Documentation to support medical necessity maintained by the client's physician and supplied by the nursing services provider.	Documentation to support medical necessity maintained by the client's physician and supplied by the nursing services provider.
Client assessment completed by the nursing services provider.	Prior Authorization Request Form completed and signed by the client's physician.
Home Health Services Plan of Care completed and signed by the nursing services provider, and approved and signed by the client's physician. The Plan of Care includes, but is not limited to, the amount, duration, and frequency of services.	Plan of Care completed and signed by the nursing services provider, and approved and signed by the client's physician. The Plan of Care includes, but is not limited to, the amount, duration, and frequency of services.
	Nursing Addendum to Plan of Care completed and signed by the nursing services provider, and approved and signed by the client and the client's physician. The Nursing Addendum to Plan of Care includes, but is not limited to, a nursing care plan summary, 24-hour schedule, and the rationale for the requested nursing hours.

SOURCE: Legislative Budget Board.

- Occupational therapy, physical therapy, and speech therapy provided to Medicaid clients from birth through age 20 who meet medical necessity criteria.

HHSC should also consider extending the objective client assessment process to certain therapy services provided to Medicaid clients enrolled in fee-for-service, PCCM, and STAR and STAR+PLUS HMOs.

FISCAL IMPACT OF THE RECOMMENDATION

The recommendation directs HHSC to implement an objective client assessment process for acute nursing services provided to Texas Medicaid clients. The recommendation would help ensure that Texas Medicaid clients with acute nursing needs are allocated an appropriate amount of nursing services by eliminating any possible conflict of interest from having the same entity complete client assessments and deliver services. To the extent that implementing an objective client assessment process reduces inappropriate allocation of nursing services, the recommendation could result in cost savings for the Texas Medicaid program.

It is estimated that the recommendation would have no net fiscal impact. The cost to have an independent entity use a standardized form to assess clients and complete related documents required for prior authorization should be offset by reductions in the administrative component of the rate currently paid by HHSC and HMOs to nursing services providers.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

INCREASE THE USE OF TELEMONITORING IN THE TEXAS MEDICAID PROGRAM TO IMPROVE PATIENT OUTCOMES

"Telemonitoring" refers to the remote monitoring of patients, most often at their homes, by healthcare providers. Used effectively, telemonitoring can improve patient care and reduce the rate of costly complications from chronic illnesses or other conditions. The Texas Medicaid program does not reimburse providers for telemonitoring, and it is being used in only one Medicaid managed care organization. The lack of direct reimbursement in the fee-for-service and primary care case management delivery models inhibits investment by providers and slows the implementation of this service.

While patient health benefits from telemonitoring have been somewhat consistent, the cost-effectiveness of this service depends heavily on program design. To determine the best approach for the state Medicaid program, the Texas Health and Human Services Commission should further pilot the use of telemonitoring as part of its Texas Health Management Program and should ensure that information on cost-effective telemonitoring services employed by Medicaid health maintenance organizations is shared among all such providers. If well designed, increased use of telemonitoring could improve client outcomes and reduce Medicaid spending on more costly care.

FACTS AND FINDINGS

- The Health and Human Services Commission has piloted the use of telemonitoring for diabetes in its disease management program, Medicaid Enhanced Care. Pilot results are due in early 2011.
- At least four states and the Veterans Health Administration use telemonitoring for patients receiving care via publicly funded health programs. These programs have been expanded although rigorous cost-effectiveness studies have not always been conducted.

CONCERNS

- Telemonitoring is not used to help manage certain high-risk Medicaid clients who could have improved clinical outcomes and fewer health complications with its use.
- There is limited data on the cost-effectiveness of telemonitoring in state Medicaid programs. Telemonitoring pilot programs would provide an opportunity to assess outcomes for patients in Texas Medicaid.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Government Code to require the Texas Health and Human Services Commission to include telemonitoring in the Texas Health Management Program for select diabetes patients if the Medicaid Enhanced Care's Diabetes Self-Management telemonitoring pilot program is cost-neutral. If the pilot program is not cost-neutral or cost-saving due to program design, Health and Human Services Commission should determine the feasibility of implementing a new diabetes telemonitoring pilot within the Texas Health Management Program using evidence-based best practices.
- **Recommendation 2**: Amend the Texas Government Code to require the Texas Health and Human Services Commission to determine the feasibility of adding a new pilot to the Texas Health Management Program to test the cost-effectiveness of telemonitoring for conditions other than diabetes.
- **Recommendation 3:** Amend the Texas Government Code to require the Texas Health and Human Services Commission to identify telemonitoring strategies implemented within Medicaid Enhanced Care and STAR and STAR+PLUS Medicaid health maintenance organizations that have demonstrated cost-effectiveness and/or improved performance on key health measures and annually disseminate the information to encourage adoption of effective telemonitoring strategies.
- **Recommendation 4:** Include a contingency rider in the 2012–13 General Appropriations Bill to require the Texas Health and Human Services Commission to report by September 1, 2012, on the use of telemonitoring in the Texas Medicaid Program, including an analysis of the feasibility of adding telemonitoring pilot programs for conditions other than diabetes.

DISCUSSION

Telemonitoring, also known as remote patient monitoring, is part of a larger field known as telemedicine or telehealth. Telemonitoring specifically refers to monitoring patient conditions from a distance, but the means of this monitoring vary and are constantly changing as technology improves. Following are examples of telemonitoring:

- Telephone calls or videoconferencing with patients to ask about symptoms or collect vital statistics and adjust treatment;
- electronic devices that measure vital statistics (e.g., blood glucose monitors, spirometers, blood pressure cuffs, weight scales, heart monitors, pulse oximeters) and transmit the data automatically to healthcare providers, who then make adjustments to care as needed; and
- automated dialogues, over the telephone, through a handheld device, or online, that respond to patient inputs about symptoms or vital signs.

The costs and capabilities of telemonitoring technology change quickly. The cost per patient fluctuates depending on the number of patients participating in the program and the type of program used. Current systems can range from very low-tech systems to very high-tech, sophisticated systems. For example, one simple system uses regular scales or monitors to take readings, then patients use a telephone to submit their readings automatically and answer customized questions about symptoms. This system costs about $1,500 to set up a provider's office, then $0.85 per patient contact; if the patient is contacted once a day, the approximate cost is $26 per patient per month. Other systems use equipment designed to automatically submit data, remind patients to take medications, or provide pre-programmed recommendations to patients based on their readings. Depending on the technology chosen, an individual system with more features can cost $100 to $200 or more per month.

POTENTIAL BENEFITS OF TELEMONITORING

Several studies on the effectiveness of telemonitoring have been conducted in recent years. While some studies used control or comparison groups to evaluate telemonitoring, many did not. If the study only compared the participant's healthcare used before and after the intervention and did not use a randomized control group for comparison, then it is not possible to conclude that differences on key outcome measures can be attributed to telemonitoring. In studies with control groups, results depended on the patient group targeted and the program's implementation. Evaluation studies support the conclusion that telemonitoring can be associated with the benefits shown in **Figure 1** depending on how telemonitoring is implemented and which clients are targeted.

FIGURE 1
BENEFITS OF TELEMONITORING, 2010

BENEFITS	DESCRIPTION
Improved understanding of patient condition over time and better targeting of care	By monitoring patients daily in their homes, providers can detect changes in patients' conditions earlier than scheduled monthly or quarterly visits. This can lead to earlier interventions and medication adjustments that can help patients stay out of the hospital or get in quickly if care is needed.
Reduced healthcare spending	By alerting patients and providers to problems earlier, telemonitoring can reduce the need for costly services, such as the emergency room, in-patient hospitalization, or nursing facility care. By avoiding unnecessary visits to the hospital, patients also lower their risk of getting hospital-acquired infections.
Reduced travel time for patients and providers	Telemonitoring can reduce or eliminate the need for patients to come into a doctor's office or hospital to have their vital signs checked, thus saving the patients travel time and expense, especially when they live far away from healthcare services. This can help patients and their families maintain work, school, and child care schedules. It also could allow home health nurses to manage more patients in a given day than if they had to travel to each of the patients' homes.
Increased patient independence and compliance	Having the security of daily monitoring by health professionals can allow patients to live more independently, and can delay or eliminate the need to use assisted living or nursing facilities. For some patients, this increases quality of life, feelings of empowerment, and self-management of their condition. Knowing they will have to report their symptoms and vital signs may increase patients' compliance with medication or exercise and diet regimens

Source: Legislative Budget Board.

USE OF TELEMONITORING IN PUBLIC PLANS

While several other states have begun to implement telemonitoring in their Medicaid fee-for-service or long-term care waiver programs, most have not done formal evaluations of their programs or have not used control or comparison groups to isolate the effects of the telemonitoring on outcomes or costs. Some programs are too new to evaluate, and others are too small for the results to be statistically significant. Others are in the process of evaluating their programs, but have not yet published the results. **Figure 2** shows some telemonitoring initiatives implemented in the public sector.

MEDICAID CLIENT ACCESS TO TELEMONITORING

The Centers for Medicare and Medicaid Services (CMS) defines telehealth or telemonitoring as "the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision and information across distance. Telehealth includes such technologies as telephones, facsimile

FIGURE 2
TELEMONITORING INITIATIVES IN THE PUBLIC SECTOR, 2010

Veteran's Health Administration (VHA)	Over the last decade, the VHA has rapidly expanded the use of telemonitoring within a program of overall care coordination. The VHA claims that telemonitoring is a cost effective solution to managing care for over 33,000 patients with more than 32 conditions. Researchers from the VHA have published studies on the effectiveness of telemonitoring for managing their patients, but they have not published detailed cost information from those trials.
Center for Medicare and Medicaid Services (CMS)	Since 2006, CMS has conducted a Care Management for High Cost Beneficiaries Demonstration that includes six programs. Three of the six programs used telemonitoring, and two of these programs were approved for a three year extension. Evaluation results have not yet been published.
Iowa Medicaid	The Iowa Medicaid Congestive Heart Failure (CHF) Population Disease Management Demonstration used daily self-monitoring to provide an early warning of deteriorating heart health. Patients used an internet-linked telephone at home to report symptoms and weight daily to a system that collected the data and provided it in real time to Iowa Medicaid nurse care coordinators. The success of the demonstration led Iowa Medicaid to adopt the program as a regular statewide service for select CHF patients. The demonstration had been run by the Iowa Chronic Care Consortium. Data from the program since the state took over has not yet been published.
New York	MetroPlus, the health plan of the New York City Health and Hospital Corporation, operates a diabetes telemonitoring program called House Calls that has served over 600 severely diabetic patients. According to the Program Director, over 70 percent of patients in the program have improved their blood sugar control. Pre-post data on hospitalizations of patients in the House Calls program indicates reduced hospitalizations and emergency room use for program patients before and after entering the program. However, no control group was used for comparison. In January 2010, MetroPlus began another telemonitoring program for patients with heart failure. New York State also reimburses for home telehealth services through home health agencies and long-term care agencies. Demonstration programs were run prior to the statewide implementation of reimbursement. There were two main rounds of grant funding. Reports have been issued evaluating both rounds. The first round reported positive effects overall on patients, and 57 percent of home care agencies reported reduced hospitalization rates for their telehealth patients compared to "traditional home care patients." Reductions in the number of ER visits were reported by 29 percent of home care agencies. More than half the agencies also reported an increase in patient knowledge about their diseases and increased compliance with treatment. Cost savings varied by home health agency. The second round of the demonstration had similar results to the first.
Pennsylvania	Pennsylvania includes remote patient monitoring, activity monitoring, and medication dispensing and monitoring under the TeleCare program within the Pennsylvania Department of Aging "60+" Medicaid waiver. An evaluation to determine whether telemonitoring resulted in cost savings has not been conducted.
South Carolina	South Carolina has recently added telemonitoring for certain patients as a service within their long-term care Community Choices Waiver program. An evaluation to determine whether telemonitoring resulted in cost savings has not been conducted.
Wyoming	Wyoming Medicaid uses telemonitoring for both fee-for-service and long-term care patients. Administrators are working to integrate it more fully with electronic health records and health information exchanges and are hoping to expand the size of the program. An evaluation to determine whether telemonitoring resulted in cost savings has not been conducted.

Source: Legislative Budget Board.

machines, electronic mail systems, and remote patient monitoring devices which are used to collect and transmit patient data for monitoring and interpretation." Telemonitoring services within this definition are reimbursable, but only if they are part of an approved Medicaid state plan and "provided within a provider's scope of practice."

Telemonitoring is not a reimbursable service in Texas Medicaid for clients enrolled in primary care case management (PCCM) or fee-for-service, but it is used as a value added service in one Medicaid STAR health maintenance organization (HMO) for diabetes and high-risk pregnancy monitoring. Value added services are provided by the HMO at no additional cost to the Texas Health and Human Services Commission (HHSC). Telemonitoring will not become a value added service for other HMOs unless they request it and amend their contract with HHSC. Some home health agencies use telemonitoring at their own expense for Medicare patients, and it is used in the private sector by some health insurance companies and integrated health systems.

INCREASE THE USE OF TELEMONITORING IN THE TEXAS MEDICAID PROGRAM

Certain high-risk Medicaid clients could have improved clinical outcomes and fewer health complications with the use of telemonitoring. As a result, the increased use of telemonitoring has the potential to reduce spending on hospitalizations and nursing facility care. However, telemonitoring is currently not a reimbursable service in the Medicaid State Plan, and it is only used in one HMO in Medicaid managed care.

Medicaid Enhanced Care, a disease management program within the Texas Medicaid Program, recently piloted telemonitoring for select diabetes patients. The pilot included 107 patients in the treatment group and 50 in the comparison group. Patients in the treatment group used wireless blood glucose monitors that automatically submitted readings to a central system monitored by nurses. Based on blood glucose levels, patients received educational messages via email or text message twice per week. Patients and their providers also received weekly charts showing trends in the patients' blood glucose levels. If their levels were too high or low for an extended period, care management nurses called them to provide targeted education and counseling. The cost of the pilot has been estimated at $110,000. Results from this pilot are due to be published in early 2011.

Recommendation 1 would amend the Texas Government Code to require the Texas Health and Human Services Commission to include telemonitoring in the Texas Health Management Program for select diabetes patients if the Medicaid Enhanced Care's Diabetes Self-Management telemonitoring pilot program is cost-neutral. If the pilot program is not cost-neutral or cost-saving due to program design, HHSC should determine the feasibility of implementing a new diabetes telemonitoring pilot within the Texas Health Management Program using evidence-based best practices.

Recommendation 2 would amend the Texas Government Code to require HHSC to determine the feasibility of adding a pilot to the Texas Health Management Program to test the cost-effectiveness of telemonitoring for conditions other than diabetes. Telemonitoring has been used elsewhere for patients with high-risk pregnancies, congestive heart failure, or chronic obstructive pulmonary disease (COPD).

HHSC should consider the following issues when designing telemonitoring programs in the Texas Medicaid Program:

- Data generated by telemonitoring must be frequently reviewed by nurses or doctors for interventions to prevent patient deterioration. Therefore, in addition to the cost of the device or technology, the cost of the healthcare providers needed to review the data and intervene as necessary should be considered.
- The cost effectiveness of telemonitoring depends on targeting its use to the correct patients. Patients must be willing to participate in telemonitoring and make necessary lifestyle changes to manage their conditions. The ideal patient or condition to treat with telemonitoring will change over time as medical costs and treatments change, or could even vary geographically.
- The monitoring technique's risk for false positives or negatives or user error will impact cost considerations. If false results lead to either unnecessary interventions or a lack of preventative care, then clinical benefits and cost savings will be reduced. While this has not been a major issue for current technologies, it must be taken into consideration as new devices or methods are considered.

Recommendation 3 would amend the Texas Government Code to direct HHSC to identify telemonitoring strategies implemented within Medicaid Enhanced Care and STAR and STAR+PLUS Medicaid health maintenance

organizations that have demonstrated cost-effectiveness and/or improved performance on key health measures and should annually disseminate the information to encourage adoption of effective telemonitoring strategies. HHSC should facilitate the sharing of best practices among the Medicaid HMOs and report on the results of Community Health Choice's use of telemonitoring for diabetes and high-risk perinatal conditions.

Recommendation 4 would include a contingency rider in the General Appropriations Bill requiring the Health and Human Services Commission to provide a report to the Governor and Legislative Budget Board by September 1, 2012 that includes the following:

1. Either:
    a. a summary of the implementation of telemonitoring services for select diabetes patients within the Texas Health Management Program, if the results from the Medicaid Enhanced Care diabetes telemonitoring pilot program show that it was cost-neutral or cost-saving, or
    b. an analysis of the estimated cost-effectiveness and feasibility of adding a telemonitoring pilot program to the Texas Health Management Program for select diabetes patients, if the results from the Medicaid Enhanced Care diabetes telemonitoring pilot program show that it was not cost-neutral or cost-saving;
2. An analysis of the estimated cost-effectiveness and feasibility of adding telemonitoring pilot programs to the Texas Health Management Program for other conditions (e.g. high-risk pregnancy, congestive heart failure, or chronic obstructive pulmonary disease); and
3. A summary of the telemonitoring activities and their cost-effectiveness used by health maintenance organizations in STAR and STAR+PLUS; and a summary of the steps taken by the Health and Human Services Commission to disseminate that information.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations in this report have no direct impact on General Revenue Fund appropriations during the 2012–13 biennium.

Recommendations 1 and 2 would amend the Texas Government Code to direct HHSC to take steps to expand the use of telemonitoring in the Texas Medicaid Program only if cost-neutral or cost-effective. As a result, any cost to expand the use of telemonitoring would be offset by reductions in other Medicaid spending. The recommendations are intended to reduce Medicaid spending on hospitalizations and nursing facility care among high-risk clients by using telemonitoring to improve client outcomes and reduce health complications.

Recommendation 3 would amend the Texas Government Code to direct HHSC to promote the use of telemonitoring among Medicaid STAR and STAR+PLUS HMOs. It is estimated that this recommendation would have no significant fiscal impact because it could be implemented using existing resources.

It is assumed Recommendation 4 could be implemented using existing resources.

The introduced 2012–13 General Appropriations Bill includes a contingency rider to implement Recommendation 4.

2011 UPDATE ON A NEW SUBSTANCE ABUSE TREATMENT BENEFIT FOR ADULT MEDICAID CLIENTS

Senate Bill 1, Article IX, Section 17.15, Eighty-first Legislature, Regular Session, 2009, directed the Texas Health and Human Services Commission to use existing Medicaid funds to implement a comprehensive Medicaid substance abuse treatment benefit for adults beginning January 1, 2010, but allowed the agency to delay implementation pending federal approval. The legislation assumed that the cost to provide comprehensive substance abuse treatment to Medicaid adults would be offset by reductions in other Medicaid spending in the same year that treatment services are provided. These reductions are expected due to declines in the use of acute care medical services for clients receiving substance abuse treatment. This report provides an update on implementation of the new Medicaid substance abuse treatment benefit.

FACTS AND FINDINGS

- ♦ The Health and Human Services Commission began implementing a new Medicaid substance abuse treatment benefit on September 1, 2010, with full implementation scheduled for January 2011.
- ♦ Covered substance abuse treatment services include: assessment, outpatient detoxification, outpatient counseling, medication assisted therapy, and residential treatment services.
- ♦ For fiscal year 2011, the Health and Human Services Commission estimates the total cost to provide Medicaid-funded substance abuse treatment services to adult clients enrolled in fee-for-service, Primary Care Case Management, STAR, and STAR+PLUS is $7.6 million in All Funds ($3 million in General Revenue Funds and $4.6 million in Federal Funds).
- ♦ The Legislative Budget Board is evaluating the new Medicaid substance abuse treatment benefit to determine its cost-effectiveness and will issue a report for the Eighty-third Legislature in 2013. This date allows Legislative Budget Board staff to analyze at least one complete calendar year of data.

DISCUSSION

According to the National Institutes of Health (NIH), substance abuse disorders, which include substance abuse and substance dependence, are brain diseases. These disorders increase the risk of illness, and research has found they result in greater use of medical care, including services paid by the state Medicaid program. According to NIH, these disorders can be managed successfully, similar to diabetes, asthma, or heart disease. Prior to the creation of the new substance abuse benefit in the Texas Medicaid program, fewer than one quarter of adult Medicaid clients with an identified substance abuse disorder received some level of treatment. Senate Bill 1, Article IX, Section 17.15, Eighty-first Legislature, Regular Session, 2009, directed the Texas Health and Human Services Commission (HHSC) to use existing Medicaid funds to implement a comprehensive Medicaid substance abuse treatment benefit for adults beginning January 1, 2010.

HHSC began implementing the new Medicaid substance abuse treatment benefit on September 1, 2010, with full implementation scheduled for January 2011. The benefit is available to adults enrolled in fee-for-service (FFS) as well as the non-capitated Primary Care Case Management (PCCM) program, and the capitated STAR and partially capitated STAR+PLUS programs. The Medicaid claims administrator (i.e., Texas Medicaid and Healthcare Partnership) will administer the benefit for clients enrolled in FFS and PCCM. HHSC amended existing managed-care contracts to require that the health maintenance organizations (HMOs) participating in the Medicaid STAR and STAR+PLUS programs offer comprehensive substance abuse services to clients enrolled in their programs.

SUBSTANCE ABUSE TREATMENT SERVICE ARRAY

HHSC, in coordination with the Department of State Health Services (DSHS), established a substance abuse treatment service array for program clients. Following are the services included in the new benefit:

- assessment;
- outpatient detoxification;
- outpatient group, individual, and family counseling;
- medication assisted therapy; and
- residential treatment services.

Figure 1 describes the limitations of the services included in the new benefit as well as the scheduled implementation dates for each service.

ESTIMATED COST AND METHOD OF FINANCE

For fiscal year 2011, HHSC estimates the total cost to provide Medicaid substance abuse treatment services to adult clients enrolled in FFS, PCCM, STAR, and STAR+PLUS is $7.6 million in All Funds, including $3 million in General Revenue Funds and $4.6 million in Federal Funds.

HHSC did not increase the amount of the premiums paid to the Medicaid STAR HMOs as a result of the new benefit because it was assumed that the cost of treatment services would be offset by reduced acute care medical spending. It was assumed that STAR+PLUS HMOs would not realize all of the reductions in acute care medical spending associated with substance abuse treatment services because certain medical services are not included in their capitation rates and are paid on a fee-for-service basis. As a result, the premiums paid to Medicaid STAR+PLUS HMOs were increased to cover the cost of the new treatment benefit.

In July 2010, HHSC obtained federal approval to use Medicaid funds to pay for clinical services provided in a residential setting. Federal law prohibits Medicaid reimbursement for the room and board portion of residential substance abuse treatment services provided to adult clients. The LBB gave approval to HHSC to use up to $1 million in General Revenue Funds to pay for the room and board portion of the residential substance abuse treatment services provided to adult clients enrolled in FFS and PCCM. In December 2010, HHSC obtained federal approval to amend Medicaid managed-care waivers to allow Medicaid STAR and STAR+PLUS HMOs to provide and pay for all costs associated with residential substance abuse treatment services provided to their clients.

IMPLEMENTATION OF BENEFITS

The addition of substance abuse treatment as a covered Medicaid service resulted in a series of implementation activities as performed by HHSC. These implementation activities are shown in **Figure 2**.

LEGISLATIVE BUDGET BOARD COST EFFECTIVENESS ANALYSIS

LBB staff is analyzing the new Medicaid substance abuse treatment benefit to determine its cost-effectiveness and will issue a report for the Eighty-third Legislature in 2013. This

FIGURE 1
MEDICAID SUBSTANCE ABUSE TREATMENT BENEFIT: COVERED SERVICES, LIMITATIONS AND IMPLEMENTATION FISCAL YEAR 2011

		IMPLEMENTATION DATE	
COVERED SERVICE	LIMITATIONS	FFS AND PCCM	STAR AND STAR+PLUS
Assessment	One assessment per episode of care unless medically indicated.	September 2010	September 2010
Outpatient Detoxification	Limited to a medically appropriate duration of treatment for a maximum of 21 days.	January 2011	September 2010
Outpatient group, individual, and family counseling	Group counseling is limited to a maximum of 135 hours per client per calendar year unless additional services are medically indicated. Individual counseling is limited to a maximum of 26 hours per client per calendar year unless additional services are medically indicated. Children may exceed these limitations.	September 2010	September 2010
Medication assisted therapy	Limited to a medically appropriate duration of treatment.	September 2010	September 2010
Residential treatment services	Residential detoxification is limited to a medically appropriate duration of service for a maximum of 21 days per episode of care. Residential treatment is limited to a medically appropriate duration of service for a maximum of 35 days per episode of care and no more than two episodes of care in a six-month period.	January 2011	January 2011

Source: Legislative Budget Board.

FIGURE 2
IMPLEMENTATION ACTIVITIES RELATED TO THE NEW MEDICAID SUBSTANCE ABUSE TREATMENT BENEFIT
FISCAL YEARS 2010 TO 2011

NEW BENEFIT	DESCRIPTION
Managed-care Contract Amendments	HHSC amended existing managed-care contracts to require that the HMOs participating in the STAR and STAR+PLUS programs offer comprehensive substance abuse services to clients enrolled in their programs. Contract amendments were finalized in March 2010.
State Plan Amendment	Every state that participates in the Medicaid program must have a Medicaid State Plan approved by the federal Center for Medicare and Medicaid Services (CMS). Benefit changes require a Medicaid State Plan Amendment. HHSC received federal approval to amend its state plan to include coverage of adult substance abuse treatment services in July 2010.
Federal Medicaid Waiver Amendments	Waivers are granted by CMS and exempt the state from certain federal Medicaid requirements. HHSC was required to amend existing 1915(b) Medicaid managed-care waivers in order to implement certain provisions of the new benefit for services provided to clients in STAR and STAR+PLUS. HHSC received partial approval to amend the waivers in August 2010. Final approval was received in Decenmber 2010.
Agency Rule Development and Adoption	HHSC modified agency rules in the Texas Administrative Code that outline general coverage and limitations related to the new benefit. The rules are scheduled for adoption in January 2011.
Policy development and Implementation	HHSC adopted medical policy for phase one of the new benefit, which includes information on medical necessity determination for assessment, outpatient chemical dependency counseling, and medication assisted therapy, in September 2010. HHSC will adopt medical policy for phase two of the new benefit, which will include information on medical necessity determination for outpatient detoxification and residential treatment services, in January 2011.
Rate Setting	The new benefit required HHSC to adopt rates for covered services. In addition, as part of the State Plan Amendment process, CMS directed HHSC to modify the rates for certain substance abuse treatment services.
Provider Enrollment	Substance abuse treatment providers are required to enroll in the Texas Medicaid program in order to delivery services to Medicaid clients and receive reimbursement. HHSC will allow any chemical dependency treatment provider licensed through DSHS to enroll as a Medicaid provider. Providers seeking reimbursement from a Medicaid STAR or STAR+PLUS HMO must also be credentialed by the HMO. HHSC required that the STAR and STAR+PLUS HMOs assist providers designated as significantly traditional providers with the enrollment process.
System Modifications	HHSC made system programming changes necessary to implement the new benefit.
Communication and Outreach	HHSC conducted several presentations to various stakeholders and developed client and provider fact sheets. HHSC also added information on the new benefit to its website.

Source: Legislative Budget Board.

date allows LBB staff to analyze at least one complete calendar year of data. HHSC is required to provide data related to the provision of the new benefit to the LBB in a format and at times requested by the LBB. Senate Bill 1, Article IX, Section 17.15, Eighty-first Legislature, Regular Session, 2009, requires that HHSC stop providing substance abuse treatment services to Medicaid adults if LBB staff determines that the treatment services increase overall Medicaid spending.

The cost effectiveness analysis will determine the amount spent on Medicaid-funded substance abuse treatment services and will compare utilization and spending on other non-treatment Medicaid services across the following groups:

- treated group—adult clients who received Medicaid-funded substance abuse treatment;
- untreated group—adult Medicaid clients with evidence of a substance abuse disorder who did not receive any publicly-funded substance abuse treatment during the analysis period; and
- no-need group—adult Medicaid clients without evidence of a substance abuse disorder during the analysis period.

The evaluation will answer the following primary questions:

- How many adult clients received Medicaid-funded substance abuse treatment?
- How much was spent providing Medicaid-funded substance abuse treatment to adult clients?
- Did non-treatment Medicaid spending among adult clients who received Medicaid-funded substance

abuse treatment decrease or increase at a slower rate after receiving treatment as compared to the untreated and no-need groups?

- Did utilization of non-treatment Medicaid services among adult clients who received Medicaid-funded substance abuse treatment decrease or increase at a slower rate after receiving treatment as compared to the untreated and no-need groups?
- If non-treatment Medicaid spending decreased or increased at a slower rate among adults who received Medicaid-funded substance abuse treatment, was the amount saved enough to offset the cost of treatment?

CONTINUE AND EXPAND THE TEXAS MEDICAID WOMEN'S HEALTH PROGRAM TO MAXIMIZE FEDERAL FUNDS AND STATE SAVINGS

The Texas Medicaid Women's Health Program is a Medicaid waiver, meaning it waives some Medicaid eligibility requirements so that women meeting certain criteria can have basic, preventative health screenings and family planning services covered by the Texas Medicaid program. The waiver applies to uninsured, U.S. citizens living in Texas whose income and family size put them below 185 percent of the federal poverty level, the level at which they would be covered by Medicaid if they were pregnant. Preventative services through the Women's Health Program cost much less than pregnancy services, and the state pays a smaller portion of them.

The Medicaid Women's Health Program yields state savings. Without a waiver extension the program is set to end in December 2011, which would result in increased pregnancy-related Medicaid costs. Program eligibility guidelines exclude some populations whose pregnancies would still be covered by Medicaid. Expanding eligibility would save $3.8 million in General Revenue Funds for the 2012–13 biennium as a result of reduced utilization of pregnancy-related Medicaid services.

FACTS AND FINDINGS

- The Texas Medicaid program paid for 162,916 births in fiscal year 2009, at an average cost of $7,348 per birth. The average cost to the program of covering infants for their first year was $9,012 per infant. The federal government paid approximately 68 percent of these costs. As a result of The American Recovery and Reinvestment Act of 2009, the state's share was approximately 32 percent, although most years it is higher.
- The Medicaid Women's Health Program attempts to contain pregnancy-related Medicaid costs by providing family planning services to some women in Texas whose income and family size put them below the level at which they would be eligible for Medicaid if they were pregnant.
- The Medicaid Women's Health Program is less expensive for the state than pregnancy-related Medicaid services. The overall per client costs are lower and the state pays a smaller proportion of the program costs, compared to pregnancy services. The federal government pays 90 percent of the cost of Medicaid family planning services and supplies; the state pays 10 percent.
- As of June 2009, 26 other states also have Medicaid waivers for family planning services. In spite of the differences between state family planning waiver programs, studies of these programs have consistently found that they are cost effective policies for states.
- Compared to similar programs in other states, the Medicaid Women's Health Program incorporates some of the most effective practices and policy innovations.

CONCERNS

- Without action by the Texas Legislature to renew the waiver, the Medicaid Women's Health Program will end in December 2011, which would result in increased pregnancy-related Medicaid costs to the state.
- The current income eligibility threshold excludes some potential clients whose income is under 185 percent of the federal poverty level. This prevents the state from averting or delaying births it would be obligated to pay for through the Texas Medicaid program.
- The state is not maximizing the potential savings to the Texas Medicaid program or the amount of federal funding available to the state for the waiver program because Texas excludes populations other states include in their programs, such as income-eligible male clients and income-eligible teenage females who have already had a birth funded by Medicaid.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Human Resources Code to direct the Health and Human Services Commission to seek a waiver extension for the Women's Health Program from the Centers for Medicaid and Medicare Services.

- **Recommendation 2:** Amend the Texas Human Resources Code to expand program eligibility to include: women whose income would fall below 185 percent of the federal poverty level if they were pregnant; male clients under 185 percent of the federal poverty level seeking vasectomies; and income-eligible teenage females who have given birth while receiving Medicaid benefits.
- **Recommendation 3:** Amend the Texas Human Resources Code to direct the Health and Human Services Commission to establish a targeted outreach campaign about the Women's Health Program directed at women who have given birth on Medicaid before their post-partum coverage expires.
- **Recommendation 4:** Include a contingency rider in the 2012–13 General Appropriations Bill that would reduce funding for strategy B.1.3, Pregnant Women, reduce funding for strategy B.1.4, Children and Medically Needy, and increase funding for strategy B.2.4, Medicaid Family Planning.

DISCUSSION

The Medicaid Women's Health Program (WHP) was established by legislation enacted by the Seventy-ninth Legislature, Regular Session, 2005, and approved by the U.S. Department of Health and Human Services and the federal Centers for Medicare and Medicaid Services (CMS) in December 2006. The demonstration program began January 1, 2007 and is scheduled to end on December 31, 2011. The Texas HHSC Medicaid/CHIP Division manages the program. State and federal action is required for the WHP to continue. Federally, CMS would have to approve a waiver extension. At the state level, the Legislature would need to amend statute to extend the program beyond fiscal year 2011.

The WHP provides basic health screenings and family planning services to uninsured women who would be covered by Medicaid if they were pregnant. The state and federal governments split the costs for the program, but because it prevents pregnancies the state pays a smaller percentage of the costs than it does for other Medicaid services.

Federal regulations require that states provide Medicaid coverage to pregnant women who have incomes up to 133 percent of the federal poverty level (FPL), though Texas has opted to cover women up to 185 percent of FPL. The state and federal governments share the costs of Medicaid. The state's portion is determined by a formula, the Federal Medical Assistance Percentage (FMAP), based on the ratio of the state's per capita personal income over the previous three years relative to the national per capita personal income over the same period.

Under the FMAP rate, the state's share of Medicaid costs, was approximately 31.74 percent during fiscal year 2009, though the American Recovery and Reinvestment Act of 2009 (ARRA) resulted in a greater federal share of these costs. In other years, the state portion is higher. The state's 2009 match rate, without ARRA funding, would have been approximately 40.5 percent.

The Texas Medicaid program paid for 162,916 births in Texas in fiscal year 2009. The total cost, in All Funds, of providing Medicaid coverage to pregnant women was approximately $1.2 billion. The state is also obligated to provide Medicaid coverage for at least one year for infants whose births were paid by Medicaid. In fiscal year 2009, the state spent approximately $1.5 billion on these services. **Figure 1** shows some of the total and average costs of providing both pregnancy and first-year infant costs.

WHP services are less expensive and the state pays a smaller share of the cost than for other Medicaid services. The federal government pays 90 percent of the cost of Medicaid family planning services and supplies; the state pays 10 percent. In calendar year 2009, the program cost was approximately $22.2 million in All Funds, including approximately $2.3

FIGURE 1
TOTAL AND AVERAGE COSTS FOR PREGNANCY-RELATED MEDICAID SERVICES
FISCAL YEAR 2009

COSTS	TOTAL, ALL FUNDS	AVERAGE COST, ALL FUNDS	AVERAGE COST, STATE FUNDS WITH ARRA FUNDING	AVERAGE COST, STATE FUNDS WITHOUT ARRA FUNDING
Pregnancy	$1.2 billion	$7,348	$2,332	$2,974
Infant	$1.5 billion	$9,012	$2,860	$3,647
TOTAL	**$2.7 billion**	**$16,360**	**$5,192**	**$6,621**

SOURCE: Legislative Budget Board.

million in General Revenue Funds. The Health and Human Services Commission (HHSC) reports that the per client cost for the WHP in fiscal year 2009 was approximately $241 in All Funds, approximately $24 in General Revenue Funds.

BACKGROUND ON MEDICAID FAMILY PLANNING WAIVERS

Section 1115 of the federal Social Security Act authorizes states to experiment with projects or initiatives that might promote the objectives of the Medicaid statute. In some cases, states use Section 1115 to expand Medicaid eligibility, provide coverage for previously uncovered services, or experiment with innovations in program design. These demonstration projects are generally approved for five years and must be subsequently renewed. One of the criteria for approval of a waiver is budget neutrality.

More than half of the states have received 1115 demonstration waivers for expanding family planning services to persons not otherwise eligible for Medicaid coverage. States benefit from these waivers because they can avoid the Medicaid costs of a broad range of expensive services (including prenatal care, delivery costs, postpartum care costs, and the costs of covering infants for their first year) by expanding the eligibility criteria for a narrow range of less expensive, preventative services. These programs are also beneficial for states because the federal government pays for 90 percent of Medicaid family planning costs.

FEATURES OF THE TEXAS MEDICAID WOMEN'S HEALTH PROGRAM

Women between the ages of 18 and 44 with incomes up to 185 percent of FPL (women whose pregnancies would be covered by Medicaid) are eligible for WHP services. Program clients are also required to be U.S. citizens or documented immigrants; live in Texas; not have private health insurance that covers family planning services; and not be pregnant, but able to have children.

Clients of the program are allowed one physical exam with a healthcare provider per year. These visits include a cervical cancer screening, a breast exam, as well as screenings for diabetes, hypertension, high cholesterol and sexually transmitted diseases. At their annual visits, clients are also offered counseling for a method of contraception. The client may choose to learn about contraceptive methods including abstinence; natural family planning; barrier methods, such as condoms and diaphragms; short-term prescriptions, such as contraceptive pills or injections; longer-term methods, such as intrauterine devices and sub-dermal implants; and different options for permanent contraception. Clients are also allowed follow-up visits for problems relating to their contraceptive methods.

The program covers only limited screenings and prescriptions. If any of the health screenings show abnormal results or require follow-up care, or the client needs treatment or suppressive therapy for an infection, her WHP healthcare provider will refer her to another program or clinic. For instance, a client whose cervical cancer screening has an abnormal result will be referred to the Texas Department of State Health Services (DSHS) Breast and Cervical Cancer Services Program for diagnostic testing, and potentially the Medicaid Breast and Cervical Cancer Program for treatment.

ENROLLING IN THE WOMEN'S HEALTH PROGRAM

The Texas WHP covers women whose income and family size is less than 185 percent of FPL, the level at which they would be eligible for Medicaid coverage if they were pregnant. However, the current income eligibility threshold excludes potential clients who would be under 185 percent of FPL were they to become pregnant. For instance, a woman with a family size of two who earns $33,000 per year makes approximately 230 percent of FPL. With a pregnancy, her family of two becomes a family of three, and her annual income of $33,000 puts them under 185 percent of FPL. Under the current program requirements, the woman would not be eligible for preventative services via WHP though she would be eligible for pregnant women's services in Medicaid.

Figure 2 shows the current income eligibility by family size, as well as the income level up to which a family would be

FIGURE 2
INCOME ELIGIBILITY FOR WHP AND FOR MEDICAID FOR PREGNANT WOMEN BY FAMILY SIZE
FISCAL YEAR 2010

FAMILY SIZE	INCOME AT 185% OF FPL	185% INCOME LEVEL WITH PREGNANCY
1	$20,036	$26,955
2	$26,955	$33,874
3	$33,874	$40,793
4	$40,793	$47,712
5	$47,712	$54,631
6	$54,631	$61,550
7	$61,550	$68,469

SOURCE: Legislative Budget Board.

Medicaid-eligible with a pregnancy. Families whose income is between the middle and right columns in **Figure 2** earn too much to be eligible for WHP, but they would still be covered by Medicaid were they to become pregnant.

There are a number of ways for women to enroll in the WHP. They may be screened by a clinic or provider's office; by a DSHS contractor; an HHSC benefits office; a Special Supplemental Nutrition Program for Women, Infant, and Children Program (WIC) office; or may access an online application. If a woman is determined to be eligible for WHP, her enrollment will be effective from the first day of the month in which the state received her application. Meaning, if a woman with an application faxed on June 15 is enrolled, her enrollment will be retroactive to June 1. This allows eligible clients to receive services the same day they apply.

FAMILY PLANNING WAIVERS IN TEXAS AND OTHER STATES

As of June 2009, 26 other states had CMS-approved Medicaid waivers for family planning services. Though state programs are all held to the same budget neutrality standard, program design and features vary. A number of journal articles and advocacy organizations have compared various state family planning waivers and found that the Texas program incorporates a number of design variables considered best practices.

ELIGIBILITY

One difference between state programs is the basis for eligibility. Four states limit their program to women whose 60-day post-partum Medicaid coverage is ending. Two other states reserve their waiver program for women losing Medicaid coverage for any reason. Three states, Iowa, New York and Virginia, have income eligibility in addition to covering women losing Medicaid following childbirth.

The remaining 20 states, including Texas, make eligibility for the program contingent on income and family size. Of those, nine states set eligibility at 200 percent of FPL; nine, including Texas, at 185 percent; and two at 133 percent. The Guttmacher Institute and other public health researchers have concluded that the states with income-based waivers have the greatest impact, in terms of both serving the greatest number of persons in need and reducing pregnancy-related Medicaid costs.

APPLICATION AND ENROLLMENT

The processes for applying for Medicaid programs have been streamlined and simplified in the last several decades, and Texas is one of the states to have adopted some of those innovations for its family planning waiver.

Texas' WHP application is a single page, much shorter than the regular Medicaid application (nine pages, excluding instructions). Texas allows point-of-service applications, meaning that an eligible client can apply for the program the same day she is seen by a WHP provider.

Texas also has an adjunctive eligibility system. This means that a potential WHP client who has already verified her income as part of a program with equal or greater income eligibility standards (such as WIC) does not need to supply that documentation again in her WHP application.

OUTREACH

Reaching clients potentially eligible for family planning waiver programs has been a challenge for states operating waiver programs. The most common strategy among states is to automatically enroll women following the expiration of their postpartum Medicaid coverage.

Texas has considered such a continuous coverage approach. During the Eighty-first Legislature, Regular Session, 2009, a bill was proposed that would have required HHSC to enroll women in the WHP starting the first day of the month following the expiration of their Medicaid coverage, though the bill did not pass.

States have had mixed results providing continuous coverage. For instance, Alabama automatically enrolls eligible women when they lose their postpartum Medicaid coverage. By the end of that program's fifth year, over 70 percent of eligible women were enrolled. Actual service-use, however, was substantially lower. Several other states with continuous coverage also found that in spite of their high enrollment rates, most women who had been auto-enrolled either did not know they were in the program or did not understand the program's benefits.

Rather than automatically enrolling postpartum Medicaid clients, some states have started targeting them in outreach campaigns, though the client has the responsibility of either applying for or opting-in to the program. North Carolina and Virginia each contact pregnant women in their state's Medicaid program, telling them that the family planning waiver is available to them after they give birth. Pregnant women covered by Medicaid in Arkansas are asked prior to

giving birth if they want to be automatically moved into the state's family planning waiver program. Oklahoma sends a letter to women during their postpartum Medicaid coverage inviting them to call in to hear about programs they may be eligible to receive. If the client is eligible for and interested in the state's family planning waiver program, called SoonerPlan, she can be enrolled over the phone.

Texas has also begun targeting potentially eligible clients and making it easier for them to enroll. In April 2009, HHSC directed its Medicaid managed care enrollment broker to begin an outreach effort directed at pregnant women. In August 2009, HHSC began granting WHP coverage to women who applied for the program during the last month of their pregnancy coverage. This change was designed to eliminate a gap in coverage that might occur if the women had to wait for her postpartum coverage to end before applying for WHP. In July 2010, HHSC mailed notices that described the WHP to approximately 1 million women with children enrolled in Medicaid. The mailing directed the women to contact a call center if they were interested in more detailed information.

TEENAGE AND MALE CLIENTS

States also have different age and gender limitations. Texas is one of nine states that require program applicants to be at least 18 years old. The remaining 17 states include adolescent women in their waiver programs.

Approximately 2,386 Texas women under age 18 had a second or subsequent Medicaid-funded birth in fiscal year 2009. The average cost of a Medicaid-funded birth in fiscal year 2009, inclusive of infant costs, was $16,360 in All Funds. The state's portion of these costs, reduced as a result of ARRA funding, was approximately $5,193 per birth (31.7 percent).

Eight states, not including Texas, also cover men in their family planning waivers. All states that cover men offer vasectomies.

EFFECTS OF FAMILY PLANNING WAIVERS

Despite the differences in program design from state to state, studies of family planning waiver programs by individual states evaluating their own programs and public health and policy researches alike have consistently found them to avert or delay births, and thus contain Medicaid costs.

The method CMS has prescribed for evaluating family planning waiver demonstrations is to subtract the fertility rate of the women enrolled in the demonstration from a baseline fertility rate. That number multiplied by the number of women enrolled in the waiver is an estimate of the number of pregnancies averted or delayed as a result of the program. **Figure 3** shows the formula for calculating averted or delayed pregnancies.

FIGURE 3
CMS FORMULA FOR ESTIMATING BIRTHS AVERTED AS A RESULT OF FAMILY PLANNING WAIVERS

Births Averted (BA) = [(base year fertility rate) - (demonstration year fertility rate)] x (number of women enrolled during the demonstration year)

Source: Legislative Budget Board.

In October 2010, HHSC estimated that the WHP was budget-neutral in its second year. HHSC reported that there were 78,939 program participants in 2008 and that that population had a birth rate of approximately 43 births per 1,000 women. The baseline fertility rate for the population covered by the program was approximately 115 per 1,000. Using the CMS formula, HHSC estimated that the WHP resulted in 5,725 births being either delayed or avoided in the waiver program's second year. These averted births saved the state approximately $15.8 million in General Revenue Funds, and approximately $42.4 million in All Funds.

In its first three years Minnesota estimates that its waiver averted almost 5,000 births, a total savings of over $21.5 million in state funds. An independent evaluator hired to evaluate Alabama's waiver program used the same methodology to conclude that in its first four years that program averted approximately 30,000 births, for a total savings of approximately $214 million.

There are also positive health outcomes that result from family planning programs. Women who have unplanned pregnancies tend to begin prenatal care later in the pregnancy and may continue some adverse behaviors (such as drinking, smoking and drug use) later into a pregnancy than they would otherwise.

Women who are able to space their pregnancies at least 18 months apart have lower rates of pregnancy complications such as low birth weight. In three states, a family planning waiver has helped reduce the disparity in birth intervals between insured and uninsured women.

EXPANDING AND OPTIMIZING THE TEXAS MEDICAID WOMEN'S HEALTH PROGRAM

Given the financial and other benefits resulting from the WHP, the waiver should be continued and eligibility expanded in order to maximize participation and longer-term savings.

Recommendation 1 would amend the Texas Human Resources Code to extend the WHP and direct HHSC to seek a waiver extension from CMS.

Recommendation 2 would amend the Texas Human Resources Code to expand eligibility for the WHP to include women whose income and family size is above 185 percent of FPL but below the threshold for pregnancy coverage, income-eligible teenage females who have previously given birth on Medicaid, and income-eligible male clients.

To estimate the fiscal impact of this recommendation, Legislative Budget Board (LBB) staff used the U.S. Census Bureau's Current Population Survey (CPS) data to estimate the number of Texas women aged 18 to 44, who were also U.S. citizens and uninsured, each year since the WHP began. Data for calendar year 2009 was not available, so LBB staff used the rate of population growth from 2007 to 2008 to estimate the 2009 population. Average monthly WHP caseloads were used to calculate and project client participation rates.

Figure 4 shows the average monthly caseload for the WHP as reported in the program's 2009 annual report. The estimate of the eligible population (women, aged 18 to 44, uninsured, U.S. citizens, up to 185 percent of FPL) was derived from CPS data. The participation rate was estimated by dividing the average monthly caseload by the eligible population estimate.

FIGURE 4
WHP CASELOADS, ELIGIBLE POPULATION ESTIMATES AND ESTIMATED PARTICIPATION RATES BY PROGRAM DEMONSTRATION YEAR
FISCAL YEARS 2007 TO 2009

MEASURE	2007	2008	2009
Women's Health Program Average Monthly Caseload	52,451	82,540	92,097
Current Population Survey Estimate of Eligible Population	552,897	560,195	567,478
Uptake rate	.09	.15	.16

Source: Legislative Budget Board.

LBB staff also used CPS data to estimate the number of clients who would be newly eligible for the program as a result of this recommendation. **Figure 5** estimates the new eligibility among family sizes up to seven members. Under this model, income eligibility changes according to family size. Approximately 108,000 clients (in family sizes up to seven) would become eligible for WHP coverage under this eligibility model.

The number of potential new clients is approximately 110,600, assuming that the 2,386 females under age 18 who had a second or subsequent Medicaid funded pregnancy in fiscal year 2009 are included.

FIGURE 5
POTENTIAL NEW CLIENTS FOR THE WHP, ESTIMATED FROM 2009 CURRENT POPULATION SURVEY DATA

FAMILY SIZE	EXPANDED FPL LIMIT	ESTIMATED NUMBER OF NEWLY ELIGIBLE CLIENTS
1	185% to 249%	40,461
2	185% to 232%	16,716
3	185% to 223%	21,968
4	185% to 216%	10,650
5	185% to 212%	6,902
6	185% to 208%	6,194
7	185% to 206%	5,421
TOTAL		**108,213**

Source: Legislative Budget Board.

Recommendation 3 would amend the Texas Human Resources Code to establish an outreach campaign for the program directed at pregnant women in the Medicaid program before their postpartum coverage expires. Since eligibility letters are mailed every month to Medicaid recipients, this outreach would be achieved by including an extra full or half sheet of paper describing the program's benefits and application instructions.

Recommendation 4 would include a contingency rider in the 2012–13 General Appropriations Bill that would reduce funding for strategy B.1.3, Pregnant Women by $895,000 in fiscal year 2012 and $3.7 million in fiscal year 2013; reduce funding for strategy B.1.4, Children and Medically Needy, by $183,000 in fiscal year 2012 and $3.4 million in fiscal year 2013; and increase funding for strategy B.2.4, Medicaid Family Planning by $216,000 in fiscal year 2012 and $433,000 in fiscal year 2013.

FISCAL IMPACT OF THE RECOMMENDATIONS

Expanding the Medicaid Women's Health Program as recommended would result in a net savings of $3.8 million in General Revenue Funds for the 2012–13 biennium.

Recommendation 1 would amend the Texas Human Resources Code to extend the WHP and direct HHSC to seek a waiver extension from CMS. Allowing the program to expire would result in increased pregnancy-related Medicaid costs to the state. Savings from continuing the program are not estimated or included in **Figure 6**. Recommendation 1 could be accomplished with existing resources.

Recommendation 2 would amend statute to expand eligibility for the program to include adult women currently ineligible for the program, teenage females who have given birth on Medicaid at least once, and income-eligible male clients.

Assuming these newly eligible persons enroll in the program at the same rate as the program's third-year participants, this recommendation would add approximately 17,949 clients. HHSC reports that the per client cost for the WHP in fiscal year 2009 was approximately $241 in All Funds, about $24 in General Revenue Funds. This estimate may not include some administrative costs associated with processing enrollments, though these costs would be difficult to isolate. Using this estimate, the biennial cost of adding these potentially eligible clients would be approximately $649,853 in General Revenue Funds and approximately $5.8 million in Federal Funds.

Using the CMS evaluation model (shown in **Figure 3**) and HHSC's estimates of the baseline and second-year birth rates, 1,297 fewer births would be paid for by Medicaid as a result of making this new population eligible for WHP. However, not all of the births would necessarily have occurred within the 2012–13 biennium. Assuming approximately one-third of the averted pregnancies would have been born after the 2012–13 biennium, this recommendation would result in approximately 811 fewer Medicaid-funded births in fiscal years 2012–13.

Recommendation 2 would yield biennial costs of approximately $649,853 in General Revenue Funds and $5.8 million in Federal Funds, and savings of approximately $4.5 million in General Revenue Funds and $6.1 million in Federal Funds. The net fiscal impact for the 2012–13 biennium is a savings of $3.8 million in General Revenue Funds.

This analysis assumes that the savings from the remaining averted births resulting from the additional women served by the WHP as a result of this recommendation would be evenly distributed over the subsequent three years, and that the population eligible for the WHP as a result of this recommendation, along with the resulting costs and savings, would grow at an annual rate of 1.3 percent, based on the rate of growth in the program's eligible population from fiscal years 2007 and 2008.

Recommendation 3 would amend the Texas Human Resources Code to establish a targeted outreach campaign for the program directed at pregnant women in Medicaid before their post-partum coverage expires. Recommendation 3 could be accomplished with existing resources. Because HHSC already sends monthly eligibility letters to enrolled pregnant women, it is not anticipated that including information about WHP would increase postage costs. To the extent that Recommendation 3 increases the caseload of the WHP, there could be additional enrollment and service costs and savings from averted births, but the extent of the change in enrollment from expanded outreach is not possible to quantify.

This fiscal impact does not include an estimate of the costs or savings associated with male clients. However, given the low state share of vasectomy costs and the likelihood that a single procedure could result in the aversion of multiple births, it is likely that the recommendation would result in a net savings to the state. **Figure 6** shows the fiscal impact of these recommendations.

FIGURE 6
FIVE-YEAR FISCAL IMPACT, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE (LOSS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS IN GENERAL REVENUE FUNDS	PROBABLE (LOSS) IN FEDERAL FUNDS	PROBABLE SAVINGS IN FEDERAL FUNDS
2012	($216,618)	$597,236	($1,949,558)	$839,118
2013	($433,235)	$3,896,842	($3,899,115)	$5,261,423
2014	($438,867)	$5,424,975	($3,949,803)	$7,324,671
2015	($444,572)	$4,620,024	($4,001,151)	$6,237,847
2016	($450,352)	$4,682,075	($4,053,166)	$6,321,626

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

IMPLEMENT A MEDICATION THERAPY MANAGEMENT PILOT PROGRAM IN MEDICAID

The Texas Health and Human Services Commission estimates that the Texas Medicaid program spent $17.9 million on medication-related adverse events for all Medicaid clients in fiscal year 2009. Medication-related complications can increase the risk of hospitalizations, outpatient facility use, and nursing facility admissions. Medication therapy management is a patient-centered service typically provided by pharmacists in collaboration with physicians and other healthcare providers, that seeks to improve the quality of medication use and results among patients who are at high risk of having adverse reactions from medications. The services are available in both the public and private sectors such as in Medicare Part D plans, in other states' Medicaid programs, and in some private insurance plans. Implementing a medication therapy management program in the Texas Medicaid program could reduce adverse drug events, overall healthcare spending, and save state funds.

A medication therapy management program in the Minnesota Medicaid program realized savings that exceeded the cost of providing services by more than 2 to 1. Costs were offset by savings realizing from reduced overall healthcare spending per patient. Applying a similar model in Texas as a pilot program in the Medicaid program could save almost $450,000 in General Revenue Funds for the 2012–13 biennium. The results of the pilot program could be analyzed to determine its cost-effectiveness and the feasibility of extending the services to all high-risk Medicaid clients in Texas.

FACTS AND FINDINGS

- ♦ Medication therapy management could reduce overall healthcare spending by reducing adverse drug events and related medical costs. In the first year of a MTM program in the Minnesota Medicaid program, 3.1 medication-related complications were resolved per patient and MTM program-related savings exceeded the cost of MTM services by more than 2 to 1.
- ♦ Medication therapy management programs vary widely in their design and program eligibility. Offering a medication therapy management service in the Texas' Medicaid program would require analysis to determine the most effective program elements for Texas' population.

CONCERN

- ♦ Adverse drug events increase the risk of hospitalizations, nursing facility admissions, and result in greater use of medical care, including services paid for by the Texas Medicaid Program. However, high-risk Medicaid clients that are only eligible for Medicaid and not Medicare do not have access to medication therapy management services, which could reduce adverse drug events and overall healthcare spending.

RECOMMENDATIONS

- ♦ **Recommendation 1**: Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Health and Human Services Commission to spend up to $170,000 in General Revenue Funds and $170,000 in Federal Funds from appropriations to Goal B, Medicaid, to establish a medication therapy management pilot program designed to reduce adverse drug events and related medical costs for high-risk Medicaid clients.
- ♦ **Recommendation 2**: Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Health and Human Services Commission to conduct a study to determine the effectiveness of the medication therapy management pilot program established to reduce adverse drug events and related medical costs for high-risk Medicaid clients and submit a report to the Governor and the Legislative Budget Board by December 1, 2012.

DISCUSSION

Medications are a common intervention for the treatment and prevention of disease, disability and death; however, they can have many adverse effects on a patient that can range from minor side effects to death. Medication-related adverse events can be caused by a number of factors including a patient receiving a medication they should not have been prescribed, overuse or underuse of medications and inadequate medication adherence. The Texas Health and Human Services Commission (HHSC) estimates that the Texas Medicaid program spent $17.9 million on adverse drug events for all Medicaid clients in fiscal year 2009. A

2001 study in the Journal of American Pharmacists Association estimated that more than 1.5 million preventable medication-related adverse events occur each year in the U.S. with direct and indirect costs totaling more than $177 billion annually. This cost includes spending on drug-related hospitalizations and long-term care facility admissions. The study also identified a correlation between inadequate medication adherence and long-term care facility admissions.

MEDICATION THERAPY MANAGEMENT

Medication therapy management (MTM) is a patient-centered service typically provided by pharmacists in collaboration with physicians and other healthcare providers, that seeks to improve the quality of medication use among patients who are at high risk of having adverse reactions from medications. MTM services may also be referred to as pharmaceutical case management or drug therapy management. The goal of MTM is to enhance a patient's knowledge of medications, increase adherence to prescription medication regimens, and detect potential adverse drug events and patterns of over-use or under-use of prescription drugs. Patients can be referred to a pharmacist for MTM services by their health plan, a physician, or other healthcare professional.

MTM programs can serve a broad base of patients or be limited to patients that meet certain high-risk criteria, such as persons with hypertension and diabetes who take more than 10 medications and have annual prescription drug expenses exceeding $5,000. MTM services are provided by a pharmacist or qualified healthcare provider and typically include five core elements or activities. **Figure 1** outlines the five core elements of MTM as defined by the American Pharmacist's Association and the National Association of Chain Drug Stores Foundation.

Both the public and private sectors have implemented MTM and the services have been shown to prevent and minimize adverse reactions caused by medications. In the public sector, MTM services are available through Medicare Part D Plans, in various state Medicaid programs, and in some community health centers. In the private sector, various self-insured employer groups or managed care plans provide MTM services for their employees. MTM services may be provided in a retail pharmacy, clinic, or hospital setting and the intensity of services can vary by setting and patient needs.

How program sponsors administer and provide MTM services varies, but many MTM programs include the following components:

FIGURE 1
THE FIVE CORE ELEMENTS OF MEDICATION THERAPY MANAGEMENT
2008

ELEMENT	DESCRIPTION
Medication Therapy Review	A pharmacist collects patient medical information and assesses medication therapies to identify any problems and develops a prioritized list of medication-related problems.
Personal Medication Record	A pharmacist creates a comprehensive record of the patient's medication including prescription medications, over the counter medications and herbal products. The record is intended for the patient to use in medication self-management.
Medication-related Action Plan	A pharmacist provides the patient with a list of actions for the patient's use in tracking progress for self-management.
Intervention and/or Referral	A pharmacist identifies cases needing intervention including collaborating with physicians and other clinicians. Pharmacist may contact physicians by telephone or fax to recommend drug therapy adjustments where indicated.
Documentation and Follow-up	A pharmacist documents services and interventions and schedules a follow-up based on the patient's medication-related needs.

Sources: American Pharmacist's Association; National Association of Chain Drug Stores.

- **Administration of MTM programs**—Plan sponsors of MTM, such as a self-insured employer groups, may administer a MTM program independently or contract with a MTM administrator group. These groups provide an online network for documenting and billing MTM sessions.
- **Targeting of patients, eligibility criteria, and enrollment of patients**—Many programs rely on claims data or physician referrals to target patients with multiple chronic disease and multiple medications.
- **Activities included in a MTM consultation and provider type**—Many MTM programs rely on a pharmacist to provide MTM services who may follow a five step service model using a face-to-face, telephonic or mailing intervention style.
- **Reimbursement and documentation of services**—The most common type of reimbursement for MTM services is fee-for-service or a salaried-based

reimbursement for in-house pharmacists that work in a hospital or clinic setting.

The Lewin Group, a Virginia-based healthcare policy research and management consulting firm, completed a review in 2005 that summarized various MTM programs. According to the study, payers of medical and drug insurance can realize immediate savings from MTM from reduced physician visits and hospitalizations, when provided to high-risk clients. A six-year study that began in 2000 and was published in the Journal of the American Pharmacists Association assessed the clinical and economic outcomes of a long-term, community-based MTM program for patients with select medical conditions. MTM participants achieved significant clinical improvements sustained for years. Another study in 2007 in the Journal of the American Pharmacists Association found that patients who received MTM services from a community pharmacist experienced decreased drug costs. The same study concluded that further studies were needed to assess the effect of various types of MTM intervention on financial, clinical, and humanistic outcomes. The University Of Minnesota College Of Pharmacy completed a study in 2002 assessing the clinical and economic outcomes of medication therapy services for certain private health insurance patients with select medical conditions. An average of 2.3 medication-related complications was resolved per patient, and patients that received face-to-face MTM services had improved health outcomes. Reductions in total healthcare expenditures exceeded the cost of providing MTM services by more than 12 to 1.

MTM COORDINATION WITH OTHER MEDICATION-RELATED PROGRAMS

MTM is complementary to many other medication-related programs and services, but MTM services are distinct and unique from medication dispensing, patient counseling for new prescriptions, and personal electronic refill reminders because these services focus on medications, and MTM focuses on the patient.

MTM has some overlap with drug utilization reviews. The Texas Medicaid Drug Utilization Review (DUR) program seeks to improve the quality of pharmaceutical care by ensuring that outpatient prescription drugs are appropriate, medically necessary, and not likely to result in adverse medical outcomes. DURs are intended to promote appropriate use of pharmaceuticals in the outpatient Medicaid program through education of healthcare practitioners. DURs can be either prospective, occurring at the point-of-sale, or retrospective, which includes the examination of claims data to identify patterns of inappropriate prescribing. Both types of DURs may result in education outreach to physicians. Unlike MTM services, DURs are provider-focused, not patient-focused. The goal of MTM is to enhance patient knowledge of medications, increase adherence of prescription medications regimens and detect adverse drug events and patterns of over-use and under-use of prescription drugs.

MTM can be offered with disease management programs but are different because disease management programs focus on a specific disease in many aspects beyond medication use. The focus on medications, within disease management programs, is limited to only those medications that treat the patient's disease rather than their entire medication regimen.

MTM IN MEDICARE PART D PLANS

Medicare provides health insurance for persons age 65 or older, under age 65 with certain disabilities, and for persons of any age with end-stage renal disease. Medicare is administered by the federal Centers for Medicare and Medicaid Services (CMS).

Medicare Part D is a voluntary outpatient prescription drug benefit that provides prescription drug coverage to Medicare part D clients. To get Medicare drug coverage, clients must join a Medicare drug plan. In Medicare Part D, plan sponsors are private insurance companies such as Aetna and Humana that contract with CMS to provide prescription drug benefits to clients. Medicare clients can select from over 1,400 prescription drug plans offered by plan sponsors, and each plan varies by prescription drugs and services covered. Plan sponsors contract directly or indirectly with providers such as retail pharmacists to provide prescription drug coverage and MTM services. Plan sponsors may contract with a MTM administrator group to provide an online network for documenting and billing MTM sessions.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 required all Medicare Part D prescription drug plan sponsors to establish a MTM program designed to optimize therapeutic outcomes for targeted clients by improving medication use and reducing adverse events. MTM programs were implemented in Medicare Part D plans in January of 2006. The Centers for Medicare and Medicaid Services established requirements for qualifying for MTM in the Medicare Part D program which included the following criteria:

- A client must have multiple chronic diseases (such as, but not limited to diabetes, asthma, hypertension, hyperlipidemia, and congestive heart failure; and
- be taking multiple part D drugs; and
- Be likely to incur annual costs of at least $4,000 for all covered Part D drugs (cost threshold specified by the U.S. Secretary of Health and Human Services).

Initial requirements for MTM programs were loosely defined in federal statute. Congress and CMS gave Part D prescription drug plan sponsors discretion in designing their MTM programs. Plan sponsors had flexibility in determining which targeted populations were appropriate for MTM as long as they met guidelines set in statute. Plan sponsors also had discretion to determine program components such as method of enrollment, interventions, and provider type and outcomes evaluation. As a result, plans vary in their eligibility criteria and program design. Some common characteristics of MTM programs in 2009 included the following:

- approximately 84 percent of programs required either a minimum of two or three chronic diseases for program eligibility;
- 85.3 percent of programs targeted any chronic disease as opposed to defining specific chronic diseases;
- 90 percent of MTM programs targeted clients with a minimum threshold of eight or fewer Part D drugs;
- 52.3 percent of MTM programs used an opt-out method of enrollment (a client that meets the eligibility criteria is auto-enrolled and is considered to be participating unless he/she declines to participate);
- 95 percent of plans identified target clients at least quarterly;
- pharmacists were the leading provider of MTM services; and
- the ten most common intervention for MTM programs included medication review, phone outreach, face-to-face interaction, refill reminders, intervention letters, educational newsletters, prescriber consultation, drug interaction screening, case management and medication profiles.

In 2008, CMS conducted an analysis and evaluation of MTM programs offered by Medicare Part D plan sponsors. CMS analyzed best practices related to enrollment, targeting of clients, intervention models and outcomes reporting requirements. One important finding was that more Medicare clients could benefit from MTM programs. As a result, CMS enhanced the program requirements to increase the number of clients eligible for MTM services, increase the intensity of interventions, and collect more outcomes information. CMS established the following requirements for Medicare Part D plan sponsors that offer an MTM program:

- plan sponsors must use an opt-out enrollment method;
- plan sponsors must target clients who have multiple chronic diseases, are taking multiple Part D drugs, and are likely to incur annual medication costs of $3,000 or more; and
- at a minimum, plan sponsors must target clients on a quarterly basis.

Effective in January 2010, CMS' latest requirements prohibit plan sponsors from requiring more than three chronic diseases as the minimum needed to qualify for MTM. Plans sponsors must also target at least four of seven specified chronic disease states (hypertension, heart failure, diabetes, dyslipidemia, respiratory disease, bone disease-arthritis, and mental health disorders). Interventions must include an annual comprehensive medication review that includes an interactive face-to-face consultation. This real time interaction may be face-to-face or through other interactive methods such as telephone. CMS also outlined additional reporting requirements for plan sponsors.

MTM IN STATE MEDICAID PROGRAMS

Medicaid provides health insurance coverage for eligible low-income individuals and families, the elderly, and persons with disabilities. Medicaid is jointly funded by state and federal governments and is state-administered. Each state program can set its own guidelines regarding eligibility and services. States can choose whether to provide some level of prescription drug coverage in their state Medicaid program and can design prescription drug coverage plans provided all federal rules are met.

The Texas HHSC provides outpatient prescriptions drugs to Medicaid recipients through the Vendor Drug Program (VDP). The VDP does not cover drugs administered in a doctor's office, inpatient hospital, outpatient hospital, or any location other than the client's home, nursing facility, or extended care facility. In these settings, prescription drug coverage is provided by other programs within Medicaid.

Texas Medicaid outpatient drug benefits vary by client group and service delivery setting. The following groups may receive unlimited outpatient prescription drugs:

- children under the age of 21;
- nursing facility residents;
- adults eligible for a Medicaid long-term care waiver program; and
- adults enrolled in a capitated managed care organization.

Adults who receive services through the non-capitated primary care case management model or on a fee-for-service basis are limited to three outpatient prescription drugs per month. Most Medicaid clients who are dually eligible for Medicaid and Medicare receive their prescription drug benefits through the Medicare program.

In 2008, 33 states and the District of Columbia provided some level of prescription drug coverage to their Medicaid clients. Of these 33 states, at least 17 states implemented a MTM program for high-risk clients in their Medicaid program. Typically, states have used different program designs for implementing MTM in their Medicaid programs; however, there are some common characteristics that state Medicaid MTM programs share, which may include:

- programs that are pharmacist-base;
- programs that use current procedural terminology codes or a similar system for billing. Current procedural terminology codes are established by the American Medical Association and are used to document service delivery and bill health plans for services;
- programs that were designed by an advisory board comprised of, but not limited to, pharmacists, physicians, state officials, pharmacy and physician organizations, and faculty members from area universities; and
- programs that target Medicaid clients with specified risk factors.

California, Iowa, Florida, Minnesota and New York are some states that provide MTM services for high-risk Medicaid clients. In all five states, MTM legislation was passed or the state budget authorized the implementation of a Medicaid MTM program or pilot program. The State Medicaid Plan was amended in Iowa, Minnesota and in New York. In Minnesota and in Iowa, an advisory committee comprised of pharmacy school faculty members, physicians, state commissioners and a consumer representative designed and implemented the MTM program. The MTM program implementation dates in each of the states are as follows:

- California, 2004 to 2009 (program was suspended due to lack of funding);
- Florida, 2007 to present;
- Iowa, 2000 to present;
- Minnesota, 2006 to present; and
- New York, 2010 to present.

ADMINISTRATION OF OTHER STATE MEDICAID MTM PROGRAMS

California, Florida, Iowa and New York contract with external entities to administer their MTM programs. The California Department of Human Services directly contracted with pharmacies to administer the MTM program and provide services to eligible clients. The agency processed and paid claims for participating pharmacies. Florida has a contract with an administrator group that provides pharmacists with access to an online program that prepares specific interventions and processes payment claims for participating pharmacists. The New York State Department of Health contracts with a university to administer the MTM program and the contractor is responsible for document drafting, provider enrollment and training, patient enrollment, community outreach, pilot promotion, data collection, analysis and pilot evaluation. Iowa's contractor processes eligibility applications for patients, the pharmacy and pharmacists. Iowa specified that the state is responsible for establishing policy and procedures including reimbursement rates and process coordination with the contractor. All states that contract with outside entities provide oversight of the contract. Unlike the other states, Minnesota administers the MTM program independently through the pharmacy unit of the Minnesota Department of Human Services. **Figure 2** shows some key features of the MTM program in these five states.

EVALUATION OF OTHER STATE MTM PROGRAMS

Three out of the five states listed in **Figure 2** evaluated their MTM program and found that the implementation of a MTM program increased patient adherence to medication regimes and reduced the total healthcare costs per patient. Evaluation results for the five states are as follows:

FIGURE 2
SELECTED STATES' MEDICAID MTM PROGRAM FEATURES
2010

STATE	ELIGIBILITY CRITERIA AND PATIENT TARGETING	SERVICE DELIVERY MODEL	REIMBURSEMENT MODEL AND COSTS	OUTCOMES/COSTS SAVINGS
California	HIV/AIDS patient identified by pharmacist or claims data, age 18 or older, required to have filled 50% or more of antiretroviral prescriptions in the last year at one of the ten participating pharmacies	Specialty HIV pharmacy providers that provide face-to-face consultations	California Medicaid program pays $9.50 per claim in addition to the usual reimbursement for pharmacy claims	Increased medication adherence rates, fewer excess refills and contraindicated regimes. First year cost per MTM patient increase by 10 percent
Iowa	4 or more medications, 1 of 12 selected diseases, not a nursing home resident	Collaborative effort in community setting with doctor and pharmacist	Medicaid pays $75 for initial session, $40 for follow-up; $24 for preventive follow-up. From fiscal years 2002 to 2005 $254,797 was paid for PCM	2.6 medication complications found per patient. MTM had no affect on Medicaid expenses. Emergency room and outpatient use decreased for MTM patients
Florida	HIV/AIDS patients using more than 20 medications in a 180-day period. Patients in the top 1,000 in annual spending	Face-to-face counseling by pharmacist	Data not available	No formal evaluation
Minnesota	Patients taking 4 or more medications to treat 2 or more chronic medical conditions	Face-to-face or interactive video counseling by pharmacist	$83 per claim; Average MTM cost/ client/yr = $154 all funds (50/50 federal match)	3.1 medication complications found per patient. MTM resulted in $403 annual cost savings per patient
New York	Patients Age 21 to 63 with asthma diagnosis and one or more of other asthma-related criteria and living in a specified area and enrolled in fee-for-service Medicaid	Face-to-face counseling by pharmacist	FFS; initial visit: $80; follow-up: $70; cost to the state per encounter is $35 to $40 (50/50 match rate)	Program to be evaluated in 2011 after pilot conclusion

Source: Legislative Budget Board.

- **California**—After the first year of the California MTM program, the University of California San Diego (UCSD) completed a preliminary evaluation of the MTM program and found that participating patients received more appropriate treatment and improved adherence to their mediations but the cost per MTM participant increased by 10 percent. The increase in cost per patient was driven by an increase in prescribing medications intended to limit adverse reactions of antiretroviral drugs and an increase in outpatient and mental healthcare services. UCSD believes that the long-term benefit of patient adherence to therapy will manifest over several years.
- **Iowa**—the Iowa MTM program resulted in improved prescribing of appropriate medications and a decrease in the use of high risk medications. Iowa's MTM program did not result in an increase in Medicaid costs, suggesting that payment for MTM services was offset by reductions in emergency room and outpatient facility utilizations.
- **Florida**—the MTM program in Florida has not been fully evaluated; however, Florida has preliminarily found that the cost of implementing the MTM program has exceeded any savings.
- **Minnesota**—in the Minnesota Medicaid MTM program, 3.1 medication complications were identified per patient and patients who participated in the program experienced a reduction in total healthcare costs of $403 per year.
- **New York**—the MTM programs in New York has not been fully evaluated.

The states reviewed offered recommendations for implementing a MTM program including the following:

- implement a MTM program through a pharmacy benefits manager to include more chain pharmacies and pharmacists in the provider network to provide MTM consultations (Florida);
- use a prospective or point-of-sale intervention method because retrospective data analysis does not capture medication-related problems quickly enough (Florida);
- establish an advisory committee to build the program and assist in the acceptance of the final MTM program (Minnesota);
- initiate a patient opt-out program and implement MTM best-practices (New York); and
- train pharmacist on program policy and billing requirements and assure competency and accountability of MTM providers. (California and New York).

MTM IN TEXAS

According to the Texas State Board of Pharmacy, MTM has been in development in Texas since 2003. As required by the federal Medicare Prescription Drug, Improvement and Modernization Act of 2003, all Medicare Part D prescription drug plan sponsors offer MTM services to eligible Medicare clients. MTM services may be provided in a retail pharmacy, clinic or hospital setting. Eligible Medicare clients in Texas may receive MTM services in these types of settings. In the Texas private sector, various self-insured employer groups or managed care plans provide MTM services for their clients. In a four-month period in 2010, there were 600 to 700 pharmacists in Texas who submitted claims for MTM payments with one of the nation's major MTM administrator groups.

Major Texas grocery chains like HEB and Kroger provide MTM services in their pharmacies. HEB in-store pharmacies offer MTM services on behalf of plan sponsors for private and public insurance plan sponsors. HEB pharmacists primarily provide MTM services to Medicare clients, and sessions take place in an isolated counseling area in the pharmacy or in a private office within the store. HEB pharmacies also handle some telephonic MTM cases for other states through a call-center.

The Texas Pharmacy Association (TPA) coordinates a county-funded diabetes MTM program for Williamson County, which has over 2,000 county employees. The program started in May 2008 and is a coordination of disease management and MTM services. The program is promoted to all eligible Williamson County employees, and enrollment is voluntary. County employees who participate in the program receive MTM services in addition to diabetes-focused coaching, education and skills training on a six- to eight-week basis. Approximately 15 pharmacists from HEB and Scott and White pharmacies provide services for the program participants. Initial counseling sessions are one hour and follow-up sessions are conducted as needed and are 15 to 30 minutes. Williamson County contracts with TPA, which provides the structure and tools for the pharmacist to provide program services. TPA contracts with participating pharmacists and provides pharmacist training, a patient documentation and billing platform, patient materials and coaching session tools. Williamson County pays for the pharmacist services, a data management fee, and they absorb the waived co-pays for diabetes-related medications and glucose testing equipment and supplies as an incentive to participate in the program. Williamson County has not formally evaluated the program, but patient satisfaction survey results indicate that participants are very satisfied with the program. A similar program that combined disease management with MTM in 2008 was supported by the TPA and resulted in improved clinical outcomes and patient adherence to medications. Patients who participated in the program had an increase in drug claims but a decrease in medical claims.

IMPLEMENT A MTM PILOT PROGRAM IN THE TEXAS MEDICAID PROGRAM

Adverse drug events increase the risk of hospitalizations, nursing facility admissions and result in greater use of medical care, including services paid for by the Texas Medicaid Program. However, high-risk Medicaid clients that are only eligible for Medicaid and not Medicare, do not have access to medication therapy management, which could reduce overall healthcare spending.

The Minnesota Medicaid program found that savings exceeded the cost of providing MTM services by more than 2 to 1. Costs were offset by savings realized from reduced overall health care spending per client. Applying Minnesota's MTM savings results to Texas, the implementation of a MTM pilot program for a subset of the Texas Medicaid population who are at high-risk for experiencing

medication-related problems could save $450,000 in General Revenue Funds for the 2012–13 biennium.

Recommendation 1 would require HHSC to allocate up to $170,000 in General Revenue Funds and an estimated $170,000 in Federal Funds from funds appropriated in Goal B, Medicaid, to establish a MTM pilot program designed to reduce adverse drug events and related medical costs for high-risk Medicaid clients. The rider would establish minimum requirements for the pilot program based on best-practices to ensure the most effective outcomes.

Implementing a MTM pilot program in the Medicaid program would require that the HHSC reimburse providers for their services. Factors to consider in developing a pilot program include the following:

- appropriate service area;
- criteria and identification of high-risk clients;
- outreach and retention of potential Medicaid clients and providers;
- provider training needs;
- contractor needs;
- pharmacy compatibility and location;
- billing formulas;
- federal approval, and;
- other state recommendations and best-practices.

Recommendation 2 would require HHSC to determine the effectiveness of the MTM pilot program established to reduce adverse drug events and related medical costs for high-risk Medicaid clients and submit a report to the Governor and the Legislative Budget Board by December 1, 2012. This evaluation would allow HHSC and the Legislature to consider expanding the pilot program in the 2014–15 biennium. If the pilot results are consistent with Minnesota's experience, a MTM program that applies to all non-dual eligible Medicaid clients at high-risk of experiencing medication-related adverse events could save the state $6.4 million in General Revenue Funds per biennium.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations do not have a direct fiscal impact in the 2012–13 biennium. Recommendation 1 would require HHSC to use existing appropriations to reimburse providers in the pilot program for MTM services.

Applying Minnesota's MTM annual cost per client, it is estimated that the HHSC would allocate up to $170,000 in General Revenue Funds for the 2012–13 biennium to establish a medication therapy management pilot program for a subset of Texas Medicaid clients and HHSC could use existing resources to complete the evaluation report required by Recommendation 2. It is assumed that the cost of the pilot program and the evaluation would be offset by reductions in overall healthcare spending in the Medicaid program.

The introduced 2012–13 General Appropriations Bill includes a rider that implements Recommendations 1 and 2.

A COMPARISON OF BEHAVIORAL HEALTH DATA ACROSS NORTHSTAR AND OTHER SELECTED SERVICE DELIVERY AREAS

The Texas Department of State Health Services contracts with 38 local mental health authorities and more than 200 substance abuse treatment providers to ensure the provision of behavioral health services to persons in crisis, Medicaid clients, and medically indigent persons living in communities across Texas. Local mental health authorities are responsible for planning, policy development, coordination, resource development and allocation, and for ensuring the provision of mental health services in designated regions. Behavioral health services are funded with a combination of local, state and federal funds. Medicaid clients may also receive behavioral health services through other behavioral health providers contracted with the Texas Medicaid program.

Medicaid clients and medically indigent persons who meet eligibility criteria residing in the seven-county service delivery area surrounding Dallas receive all behavioral health services through NorthSTAR—a publicly funded managed care program. NorthSTAR combines the following features that differ from the provision of behavioral health services throughout the rest of the state: at-risk model, behavioral healthcare services carved out of the physical health service delivery system, integration of mental health and substance abuse services, blended local, state, and federal funding, and authority-provider separation (i.e., the entity responsible for authorization is not the provider of services). The Texas Department of State Health Services, which manages NorthSTAR at the state-level, contracts directly with a private behavioral health organization, currently ValueOptions, to manage NorthSTAR. The agency also contracts with the North Texas Behavioral Health Authority to serve as the local behavioral health authority for the entire NorthSTAR service area.

Behavioral health process indicators related to spending, utilization, and level and amount of care, comparing NorthSTAR to other selected service delivery areas, are mixed or unknown. Furthermore, inadequate measurement of behavioral health client outcomes prevents the state from determining NorthSTAR's overall effectiveness relative to the rest of the state. Improving the measurement and reporting of behavioral health client outcomes could help ensure that services effectively meet client needs, thus reducing spending on more expensive types of care, and improve the state's ability to monitor program performance and make system improvements.

FACTS AND FINDINGS

- Behavioral health process indicators related to spending, utilization, and level and amount of care, comparing NorthSTAR to other selected service delivery areas, are mixed. Furthermore, certain indicators for Medicaid clients are unknown due to data limitations.
- In general, it costs less to serve an indigent client in NorthSTAR than in most other comparison service delivery areas in Texas. For example, the average amount spent per adult indigent client on mental health services in NorthSTAR was $2,303 during fiscal year 2009 while the average amount spent in the comparison service delivery areas ranged from $1,872 to $4,410 per client.
- One measure of access to care is the percentage of persons potentially eligible for treatment who receive services. Also known as a penetration rate, this percentage for medically indigent persons in NorthSTAR is equal to or greater than each of the other comparison service delivery areas.
- In contrast, a greater percentage of NorthSTAR clients were underserved than clients in most other comparison service delivery areas. Underserved means that the client was authorized to receive a set of services that were less intense than recommended. Clients may by underserved due to resource constraints, consumer choice, consumer need, or continuity of care.
- Clients are authorized to receive a package of services that includes one or more core services. The percentage of authorized clients who received at least one core service is usually lower in NorthSTAR than in the other comparison service delivery areas.
- NorthSTAR clients authorized in certain service packages received, on average, fewer core service hours than clients in most other comparison service delivery areas. Similarly, NorthSTAR clients received,

on average, a smaller amount of certain substance abuse treatment services.

CONCERN

- The state cannot determine NorthSTAR's overall effectiveness relative to the rest of the state because behavioral health outcome data is incomplete. Furthermore, the reliability of existing outcome data is uncertain due to inadequate data collection procedures and oversight.

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill that would require the Texas Department of State Health Services to improve the measurement, collection, and reporting of behavioral health client outcome data.

- **Recommendation 2:** Include a rider in the 2012–13 General Appropriations Bill that would direct the Texas Department of State Health Services to submit a report on efforts planned or implemented to improve the measurement, collection, and reporting of behavioral health client outcome data to the Governor and the Legislative Budget Board by December 1 of each year of the biennium.

- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill that would direct the Texas Department of State Health Services, in consultation with the Texas Health and Human Services Commission, to conduct a comparative analysis of publicly funded behavioral health systems in Texas that serve medically indigent persons and Medicaid clients, and submit a report on the study findings to the Legislative Budget Board and the Governor by December 1, 2012.

DISCUSSION

"Behavioral health" is a term used to encompass both mental and chemical dependency disorders and services. Multiple public programs finance behavioral health services in Texas. Funding sources include local funds, state general revenue, Medicaid, federal block grant funds, and other federal funding. Private non-profit and for-profit providers as well as public entities deliver publicly funded behavioral health services. This report does not include data or information on behavioral health services funded by CHIP or Medicare. Services are available to the following categories of persons who meet financial and/or clinical eligibility criteria:

- Persons in Crisis—any individual experiencing a behavioral health crisis who requires stabilization may access crisis services. These persons may also qualify to receive temporary transitional or ongoing services. These services are funded with a combination of local, state, and federal funds and are provided primarily through the state's local mental health authorities (LMHAs). The Texas Department of State Health Services (DSHS) contracts with 38 locally governed LMHAs to ensure the provision of mental health services in communities across Texas.

- Medicaid Clients—Medicaid, financed with both federal and state funds, is a healthcare program for low-income families, the elderly, and persons with disabilities. Persons eligible for Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI) are automatically eligible for Medicaid. Other persons who do not receive cash assistance may be eligible for Medicaid depending on age, family income, pregnancy, or disability. Behavioral health services are available to Medicaid clients enrolled in fee-for-service and managed care delivery models. These clients may receive behavioral health services funded by Medicaid and/or other local, state, and federal programs. Medicaid clients enrolled in the non-capitated Primary Care Case Management (PCCM) model or in traditional fee-for-service receive Medicaid-funded behavioral health services on a fee-for-service basis. Medicaid clients enrolled in the capitated Health Maintenance Organization (HMO) model, also known as the State of Texas Access Reform (STAR) program, receive behavioral health services as a covered benefit through their STAR or STAR+PLUS HMO. Certain Medicaid-funded behavioral health services are excluded from the HMO capitation rate and are funded on a fee-for service basis. For Medicaid HMOs participating in the Dallas service area, all behavioral health services are excluded from the HMO capitation rate and are provided through the NorthSTAR program (discussed below) or the Vendor Drug Program. Medicaid clients may also receive behavioral health services that are not covered by Medicaid through other public programs. Services are delivered through the state's LMHAs, DSHS contracted substance

abuse providers, and other behavioral health providers contracted with the Texas Medicaid program.

- Medically Indigent—medically indigent persons who reside in the service area and meet eligibility criteria may access behavioral health services through the state's LMHAs and through a network of more than 200 substance abuse providers contracted by DSHS. These services are funded with a combination of local, state, and federal funds. In the LMHA system, persons with countable incomes greater than 150 percent of the federal poverty level based on family size may have cost sharing requirements on a sliding scale. The primary source of public funding for substance abuse treatment is the federal Substance Abuse Prevention and Treatment (SAPT) block grant administered by DSHS. For SAPT-funded treatment services, persons with countable income greater than 200 percent of the federal poverty level based on family size may have cost sharing requirements on a sliding scale.

Persons who receive non-crisis mental health services paid for with state general revenue funds must be in the DSHS priority population. LMHAs can provide services to people other than those in the priority population using non-DSHS funds. The priority population for adult mental health services includes adults who have severe and persistent mental illnesses, such as schizophrenia, major depression, bipolar disorder, or other severely disabling mental disorders, who require crisis resolution or ongoing and long-term support and treatment. The children's mental health priority population includes children and adolescents ages 3 through 17 years with a diagnosis of mental illness who exhibit serious emotional, behavioral, or mental disorders and who (1) have a serious functional impairment (Global Assessment of Functioning of 50 or less currently or in the past year); or (2) are at risk of disruption of a preferred living or child care environment due to psychiatric symptoms; or (3) are enrolled in a school system's special education program because of a serious emotional disturbance.

NORTHSTAR OVERVIEW

NorthSTAR, which began in 1999, is a publicly funded managed care program that provides behavioral health services to certain Medicaid clients and medically indigent persons who meet eligibility criteria residing in the seven-county service delivery area surrounding Dallas (i.e., Collin, Dallas, Ellis, Hunt, Navarro, Rockwall, Kaufman). Medicaid clients in nursing facilities or intermediate care facilities for the mentally retarded, clients in child protective foster care, or persons whose Medicaid eligibility is for an emergency situation only are not enrolled in NorthSTAR.

NorthSTAR combines the following features that differ from the provision of behavioral health services throughout the rest of the state: at-risk model, behavioral healthcare services carved out of the physical health service delivery system, integration of mental health and substance abuse services, blended local, state, and federal funding, and authority-provider separation (i.e., the entity responsible for authorization is not the provider of services). Once enrolled, NorthSTAR clients have access to a uniform benefit package as access to services is determined by clinical need, not funding source. Also, clients who lose Medicaid coverage, but who meet medically indigent eligibility criteria, may continue to receive services.

DSHS, which oversees NorthSTAR at the state-level, contracts directly with a private behavioral health organization (BHO), currently ValueOptions, to manage NorthSTAR. ValueOptions performs utilization management functions, manages a provider network, adjudicates provider claims, maintains a quality management program, and has customer service and complaint/appeals department. DSHS' contract with ValueOptions requires that they spend at least 88 percent of state funding on direct services. The remaining amount is retained by ValueOptions for administration and profit. ValueOptions is paid a prospective monthly capitation for Medicaid clients that adjust up to seven months after the initial payment based on Medicaid enrollment changes, and an annual budget for all other local, state, and federal funds paid out in equal monthly installments, or based on receipt of funds.

DSHS also contracts with the North Texas Behavioral Health Authority (NTBHA) to serve as the local behavioral health authority for the entire NorthSTAR service area. NTBHA is a local organization with a board appointed by county commissioners from the seven counties participating in NorthSTAR. NTBHA functions include local input and planning, local contract oversight, stakeholder education, and ombudsman services. NTBHA also secures local county funds and oversees jail diversion activities and the state hospital admission and discharge process. DSHS is working with NTBHA to strengthen their role related to contract oversight and decision-making.

Except for Medicaid, behavioral health program funding throughout Texas has not kept pace with utilization demands.

Medicaid premiums are re-based each year to account for increases in client enrollment, but other funding streams are fixed. The 37 LHMAs under contract with DSHS are allowed to maintain waiting lists for services whereas the NorthSTAR BHO is required to maintain open access to services at the system level. As a result, there is no waiting list for services or medications in NorthSTAR. NorthSTAR providers can, however, have capacity limitations.

The open access system coupled with finite funding has challenged the NorthSTAR program. Several changes have been implemented since NorthSTAR's inception to maintain financial viability of the model. The most recent change is implementation of a blended case rate beginning in October 2009. The blended case rate is a fixed monthly rate that is prepaid to certain outpatient mental health providers. The rate is intended to pay for services across all levels of care; however, certain services are excluded. There were also changes related to intensive outpatient and supportive outpatient services provided by substance abuse providers. The main change was to require intensive outpatient as a precondition for supportive outpatient services. DSHS is currently monitoring the impact of these changes on system performance.

Figure 1 shows the number of persons served in NorthSTAR and spending by client type during fiscal year 2009. Spending on behavioral services provided to NorthSTAR clients totaled $131.3 million. Of this amount, $119 million was for mental health services and $12.3 million was for substance abuse treatment services.

Figure 2 describes the characteristics of each of the service delivery models in Texas that provide behavioral health services to medically indigent persons and Medicaid clients in Texas.

FIGURE 1
NORTHSTAR: NUMBER OF PERSONS SERVED AND SPENDING BY CLIENT TYPE, FISCAL YEAR 2009

	NUMBER OF CLIENTS SERVED	SPENDING (IN MILLIONS)
Mental Health Services		
Medicaid		
Adults	11,406	$20.4
Children	13,454	$18.7
Indigent		
Adults	30,593	$70.4
Children	5,912	$9.5
SUBTOTAL[1]	--	**$119.0**
Substance Abuse Treatment Services		
Medicaid		
Adults	1,363	$1.9
Children	462	$0.8
Indigent		
Adults	7,265	$8.5
Children	1,068	$1.1
SUBTOTAL[1]	--	**$12.3**
TOTAL	--	**$131.3**

[1]The number of persons served cannot be summed because clients may have moved between client types during the fiscal year.
NOTE: Data on NorthSTAR services provided to clients whose county of residence fell outside the Dallas service delivery area is not included.
SOURCE: Legislative Budget Board.

COMPARISON OF BEHAVIORAL HEALTH DATA ACROSS SELECTED AREAS OF TEXAS

The following report sections compare NorthSTAR performance on select performance indicators to behavioral health service delivery in seven service delivery areas in Texas—Bexar, El Paso, Harris, Lubbock, Nueces, Tarrant, and Travis. Services in these areas are provided by state and non-state mental health facilities, LMHAs, contracted substance abuse treatment providers, and other behavioral health providers contracted with the Texas Medicaid program or NorthSTAR. The performance indicators are grouped into the following categories:

- Per client spending—the average amount spent per medically indigent client (All Funds)
- Penetration rates—the percentage of medically indigent persons or Medicaid clients potentially eligible for treatment who received services.
- Service utilization by delivery setting—the percentage of medically indigent persons or Medicaid clients who received behavioral health services in an outpatient/community setting, in an inpatient/residential setting, or in both settings.
- Level and amount of care provided—the appropriateness of the package of services medically indigent persons or Medicaid clients were authorized to receive, the amount of core mental health services medically indigent persons or Medicaid clients received, the amount of substance abuse treatment

FIGURE 2
AN OVERVIEW OF THE SERVICE DELIVERY MODELS THAT DELIVER BEHAVIORAL HEALTH SERVICES IN TEXAS
FISCAL YEAR 2009

	LOCAL MENTAL HEALTH SERVICE DELIVERY SYSTEM	SUBSTANCE ABUSE BLOCK GRANT TREATMENT (SAPT) SYSTEM	NORTHSTAR	MEDICAID FEE-FOR-SERVICE AND PRIMARY CARE CASE MANAGEMENT	MEDICAID MANAGED CARE: STAR	MEDICAID MANAGED CARE: STAR PLUS
Who oversees the program?	DSHS	DSHS	DSHS	HHSC	HHSC	HHSC
What geographic area is served?	Statewide. Each LMHA has a designated service area	Statewide. Each SAPT funded provider has a designated service area	Limited to Collin, Dallas, Ellis, Hunt, Kaufman, Navarro and Rockwall counties	Statewide.	Most urban areas	Most urban areas
Who are the eligible populations?	Medicaid recipients with a mental health diagnosis who reside in the LMHA service area. Non Medicaid persons who reside in the LMHA service area, and meet target diagnostic criteria	Medicaid recipients with a substance abuse/chemical dependency diagnosis who reside in the provider's service area. Non Medicaid persons who reside in the provider's service area, with a substance abuse/chemical dependency diagnosis.	Most Medicaid recipients with a mental health and/or substance abuse/chemical dependency diagnosis who reside in the NorthSTAR service area. Non Medicaid persons who reside in the NorthSTAR service area, and meet target diagnostic criteria and have incomes <= 200% federal poverty level (based on family size)	Qualify for Medicaid based on eligibility criteria.	Qualify for Medicaid based on eligibility criteria.	Qualify for Medicaid based on eligibility criteria.
Is there a contract?	Yes, between DSHS and individual LMHAs. Non competitive.	Yes, between DSHS and SAPT funded providers. Issued through a competitive process (RFP)	Competitive procurement with qualified Health Maintenance Organizations (HMO). Contract between DSHS and HMO. HMO contracts with providers.	No. Medicaid providers participate via an open enrolment process. Must be a recognized provider type.	Competitive procurement with qualified Health Maintenance Organizations (HMO). Contract between HHSC and HMO. HMO contracts with providers.	Competitive procurement with qualified Health Maintenance Organizations (HMO). Contract between HHSC and HMO. HMO contracts with providers.

FIGURE 2 (CONTINUED)
AN OVERVIEW OF THE SERVICE DELIVERY MODELS THAT DELIVER BEHAVIORAL HEALTH SERVICES IN TEXAS
FISCAL YEAR 2009

	LOCAL MENTAL HEALTH SERVICE DELIVERY SYSTEM	SUBSTANCE ABUSE BLOCK GRANT TREATMENT (SAPT) SYSTEM	NORTHSTAR	MEDICAID FEE-FOR-SERVICE AND PRIMARY CARE CASE MANAGEMENT	MEDICAID MANAGED CARE: STAR	MEDICAID MANAGED CARE: STAR PLUS
How is this program funded?	General revenue, mental health block grant, local funds, and other funds. Medicaid billed separately for Medicaid recipients. Other funding sources billed separately depending on coverage.	Federal Block Grant with DSHS general revenue maintenance of effort. Medicaid billed separately for Medicaid recipients. Other funding sources billed separately depending on coverage.	Funding sources in LMHA and SAPT systems.	State and federal Medicaid funds	State and federal Medicaid funds	State and federal Medicaid funds
How are providers paid?	LMHAs receive a prospective quarterly allocation of state funds. Depending on coverage of person served, LMHA may bill Medicaid, CHIP, Medicare or other insurance. LMHA subcontractors are paid in a manner acceptable by LMHA, subcontractor and DSHS.	SAPT funded providers are paid by DSHS on a cost reimbursement basis. Depending on coverage of person served, SAPT funded providers may bill Medicaid, CHIP, or other insurance.	HMO is paid prospectively on a capitated basis. HMO subcontracted providers bill NorthSTAR contracted HMO and are paid either fee for service or case rate models. Depending on coverage of person served, providers may bill CHIP, Medicare or other insurance.	Primarily fee for service, with some diagnosis related group (DRG) payment methodologies. Providers bill TMHP, the state's Medicaid claims administrator.	HMO is paid prospectively on a capitated basis. HMO subcontracted providers bill STAR contracted HMO and are paid either fee for service, case rate or capitated models. Depending on coverage of person served, providers may bill Medicare or other insurance.	HMO is paid prospectively on a capitated basis. HMO subcontracted providers bill STAR Plus contracted HMO and are paid either fee for service, case rate or capitated models. Depending on coverage of person served, providers may bill Medicare or other insurance.
How are services provided?	Thirty-seven (37) regional LMHAs oversee community mental health services in catchment area of one or multiple counties. In most areas of the state, a Community MHMR Center (CMHMRC) serves as the LMHA. CMHMRCs are the primary provider of mental health services, and also serve as the "providers of last resort."	Services are provided thru SAPT funded provider system	Services provided thru HMO network. Some out of network exceptions apply.	Service are provided thru provider system of Medicaid providers.	Services provided thru HMO network. Some out of network exceptions apply.	Services provided thru HMO network. Some out of network exceptions apply.

FIGURE 2 (CONTINUED)
AN OVERVIEW OF THE SERVICE DELIVERY MODELS THAT DELIVER BEHAVIORAL HEALTH SERVICES IN TEXAS
FISCAL YEAR 2009

	LOCAL MENTAL HEALTH SERVICE DELIVERY SYSTEM	SUBSTANCE ABUSE BLOCK GRANT TREATMENT (SAPT) SYSTEM	NORTHSTAR	MEDICAID FEE-FOR-SERVICE AND PRIMARY CARE CASE MANAGEMENT	MEDICAID MANAGED CARE: STAR	MEDICAID MANAGED CARE: STAR PLUS
How is treatment reviewed and/or authorized?	Treatment reviewed and/or authorized by LMHA	Treatment reviewed and/or authorized by SAPT funded providers (OSAR-residential)	Treatment reviewed and/or authorized by NorthSTAR HMO	Treatment reviewed and/or authorized by TMHP	Treatment reviewed and/or authorized by STAR HMO	Treatment reviewed and/or authorized by STAR Plus HMO

Source: Legislative Budget Board.

services medically indigent persons or Medicaid clients received, and the percentage of Medicaid clients who received follow-up care in the community following a hospitalization for mental illness.

- Client outcomes—client outcome data is obtained from the Texas Recommended Assessment Guidelines (TRAG) assessment process, substance abuse claims data, client interviews conducted by contracted substance abuse treatment providers, and data analyzed by the Medicaid External Quality Review Organization (i.e., the Institute for Child Health Policy at the University of Florida).

Except when noted, the data is reported separately for Medicaid adults, Medicaid children, medically indigent adults, and medically indigent children. Data is also reported separately for mental health services and substance abuse treatment services. Due to data limitations, spending on prescription drugs related to behavioral health treatment is not included in this analysis.

Data by service delivery area includes services provided to clients whose county of residence fell within the given service delivery area. In most cases, clients receive services in the service delivery area that corresponds to their county of residence. Service delivery areas may encompass one or more LMHAs, multiple substance abuse treatment providers, and multiple Medicaid HMOs. This report does not include data on services provided to clients residing in the Dallas service delivery area, but not enrolled in NorthSTAR. This report also does not include data on NorthSTAR services provided to clients whose county of residence fell outside the Dallas service delivery area. Due to data limitations, non-NorthSTAR data does not include spending for certain services, such as emergency room visits and local inpatient services pursuant to local LMHA agreements. Also, the comparative analysis did not control for all variables that might account for differences between service delivery areas, such as client health status.

PER CLIENT SPENDING

Figure 3 shows the average amount spent per client on behavioral health services administered by DSHS for indigent clients across selected service delivery areas in Texas. Mental health average per client spending for indigent adults ranged from $1,872 in the Lubbock service delivery area to $4,410 in the Bexar service delivery area. Mental health average per client spending for indigent children ranged from $1,114 in the El Paso service delivery area to $2,771 in the Tarrant service delivery area. Substance abuse treatment average per client spending for indigent adults ranged from $1,137 in the Bexar service delivery area to $1,887 in the Harris service delivery area. Substance abuse treatment average per client spending for indigent children ranged from $996 in NorthSTAR to $2,773 in the Harris service delivery area. The average amount spent per client on mental health and substance abuse treatment services provided to indigent adults and children is less in NorthSTAR than in most of the other comparison service delivery areas in Texas.

As shown in **Figure 4**, the average amount spent per indigent client on mental health and substance abuse outpatient/community services and inpatient/residential services is, in most cases, less in NorthSTAR than in the other comparison service delivery areas in Texas. The greatest spending differences are for mental health inpatient/residential services for adults.

Due to data limitations, it is not possible to compare spending on behavioral health services provided to Medicaid

FIGURE 3
BEHAVIORAL HEALTH AVERAGE PER CLIENT SPENDING FOR INDIGENT CLIENTS
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
MENTAL HEALTH SERVICES								
Adults	$4,410	$3,636	$4,232	$1,872	$2,794	$3,121	$2,973	$2,303
Children	$1,724	$1,114	$2,310	$1,438	$1,212	$2,771	$2,158	$1,612
SUBSTANCE ABUSE TREATMENT SERVICES								
Adults	$1,137	$1,832	$1,887	$1,479	$1,142	$1,371	$1,307	$1,175
Children	$1,181	$1,373	$2,773	$1,327	$1,626	$1,608	$1,860	$996

Source: Legislative Budget Board.

FIGURE 4
BEHAVIORAL HEALTH AVERAGE PER CLIENT SPENDING FOR INDIGENT CLIENTS BY SERVICE TYPE
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
MENTAL HEALTH SERVICES								
Outpatient/Community Services								
Adults	$1,374	$1,130	$1,268	$887	$1,004	$1,006	$1,054	$990
Children	$1,255	$635	$1,281	$1,109	$805	$1,202	$1,199	$782
Inpatient/Residential Services								
Adults	$28,766	$20,342	$11,640	$6,758	$15,432	$19,544	$11,592	$10,948
Children	$6,785	$6,252	$6,487	$7,681	$7,832	$17,138	$9,073	$7,090
SUBSTANCE ABUSE TREATMENT SERVICES								
Outpatient/Community Services								
Adults	$574	$769	$1,067	$662	$662	$702	$780	$619
Children	$679	$1,131	$1,519	$712	$814	$756	$1,132	$558
Inpatient/Residential Services								
Adults	$1,910	$2,798	$2,589	$2,006	$1,646	$1,971	$2,125	$1,688
Children	$3,681	$2,922	$5,835	$3,431	$4,521	$4,031	$3,981	$2,120

Source: Legislative Budget Board.

clients across service delivery areas and NorthSTAR. Medicaid clients not enrolled in NorthSTAR may receive Medicaid-funded behavioral health services from contracted Medicaid providers on a fee-for-service basis or through managed care. They may also receive behavioral health services that are not covered by Medicaid through other public programs. Spending data on services provided by Medicaid HMOs is incomplete. As a result, efforts to calculate the average amount spent on behavioral health services per Medicaid client are inaccurate.

PENETRATION RATES

Figure 5 shows the percentage of the estimated population at or below 200 percent of the federal poverty level who received publicly-funded behavioral health services across selected service delivery areas in Texas. These percentages, which are also referred to as penetration rates, are one measure of access to care. Data is reported for clients who received behavioral health services through state and non-state mental health facilities, LMHAs, DSHS' contracted substance abuse treatment providers, or NorthSTAR. The penetration rates

FIGURE 5
BEHAVIORAL HEALTH PENETRATION RATES FOR INDIGENT CLIENTS
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
Mental Health Services*	1.0%	2.0%	1.0%	2.0%	2.0%	2.0%	3.0%	3.0%
Substance Abuse Treatment Services*	0.5%	0.4%	0.4%	0.6%	0.8%	0.6%	0.5%	0.8%

*Due to duplication across the number of adults and children who received behavioral health services, the penetration rates for each service delivery area may be slightly over-reported.
Note: The poverty data used to calculate the penetration rates is based on 2008 data from the Texas Health and Human Services Commission.
Source: Legislative Budget Board.

were calculated by summing the number of indigent adults and children who received services and dividing by the estimated population at or below 200 percent of the federal poverty level for a given area. Penetration rates for medically indigent persons in NorthSTAR are equal to or greater than each of the other comparison service delivery areas. The percentage of the estimated population at or below 200 percent of the federal poverty level in the Dallas service delivery area who received mental health services through NorthSTAR is 3 percent while the penetration rate in other areas ranged from 1 percent to 3 percent. The penetration rate for substance abuse treatment services provided through NorthSTAR is 0.8 percent while the rate in other areas ranged from 0.4 percent to 0.8 percent.

Figure 6 shows the percentage of enrolled Medicaid clients who received publicly-funded behavioral health services across selected service delivery areas in Texas. Data is reported for clients who received behavioral health services through Medicaid fee-for-service/PCCM, Medicaid HMO, DSHS, or NorthSTAR. Due to movement across service delivery models and service delivery areas, the same client may receive services through Medicaid fee-for-service/PCCM, Medicaid HMO, DSHS, and NorthSTAR during the same fiscal year. The percentage of Medicaid clients enrolled in NorthSTAR who received mental health services through NorthSTAR is 13 percent for adults and 3 percent for children. The percentage of Medicaid clients enrolled in NorthSTAR who received substance abuse treatment services through NorthSTAR is 2 percent for adults and 0.1 percent for children. Due to data limitations, it is not possible to calculate an overall penetration rate across Medicaid fee-for-service/PCCM, Medicaid HMO, and DSHS for each service delivery area. As a result, it is difficult to compare NorthSTAR penetration rates to other service delivery areas.

SERVICE UTILIZATION BY DELIVERY SETTING

Clients accessing behavioral health services may receive care in an outpatient/community setting, in an inpatient/residential setting, or in both settings. As shown in **Figure 7**, the majority of indigent clients received behavioral health services in an outpatient or community setting. However, the percentage of clients who received services in this setting varies by service delivery area, by whether the client is a child or adult, and by whether the client is receiving mental health or substance abuse treatment services. For example, the percentage of total adult indigent service users in NorthSTAR who received mental health outpatient or community services is 98 percent while the percentage in other areas ranged from 79 percent in the El Paso service delivery area to 98 percent in the Bexar service delivery area.

Figure 7 also shows the percentage of total indigent service users who received behavioral health services in an inpatient or residential setting across selected service delivery areas in Texas. The percentage of total adult indigent service users who received mental health services in an inpatient or residential setting is lower in NorthSTAR than in all but one of the other service delivery areas—12 percent in NorthSTAR compared to 13 percent in Tarrant, 16 percent in Nueces, 22 percent in Lubbock, 27 percent in both Harris and Travis, and 36 percent in El Paso. However, for children, the percent of total indigent service users who received mental health services in an inpatient or residential setting is higher in NorthSTAR than all other areas. Non-NorthSTAR data does not include spending on local inpatient services pursuant to local LMHA agreements. As a result, the service utilization rate for inpatient or residential services in areas other than Dallas may be under-reported.

FIGURE 6
BEHAVIORAL HEALTH PENETRATION RATES FOR MEDICAID CLIENTS
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
MENTAL HEALTH								
Adults								
FFS/PCCM	10.0%	6.0%	9.0%	8.0%	10.0%	11.0%	12.0%	--
HMO	11.0%	2.0%	8.0%	3.0%	10.0%	1.0%	8.0%	--
DSHS	2.0%	1.0%	1.0%	2.0%	2.0%	3.0%	3.0%	--
NorthSTAR	--	--	--	--	--	--	--	13.0%
Children								
FFS/PCCM	6.0%	4.0%	4.0%	6.0%	8.0%	3%	4.0%	--
HMO	5.0%	5.0%	3.0%	4.0%	6.0%	2%	2.0%	--
DSHS	1.0%	0.4%	0.4%	1.0%	1.0%	1%	1.0%	--
NorthSTAR	--	--	--	--	--	--	--	3.0%
Substance Abuse Treatment Services								
Adults								
FFS/PCCM	0.3%	0.4%	0.4%	1.0%	0.5%	1.0%	0.6%	--
HMO	0.7%	0.1%	0.8%	0.3%	0.8%	0.3%	1.2%	--
DSHS	0.5%	0.2%	0.4%	0.4%	0.6%	0.6%	0.6%	--
NorthSTAR	--	--	--	--	--	--	--	2.0%
Children								
FFS/PCCM	0.1%	0.1%	0.1%	0.4%	0.3%	0.1%	0.1%	--
HMO	0.1%	0.2%	0.1%	0.4%	0.3%	0.1%	0.1%	--
DSHS	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	--
NorthSTAR	--	--	--	--	--	--	--	0.1%

SOURCE: Legislative Budget Board.

As shown in **Figure 8**, most Medicaid clients who received mental health services through NorthSTAR received services in an outpatient or community setting while less than 10 percent received services in an inpatient or residential setting. For substance abuse treatment services, most clients received outpatient or community services while about one-third received inpatient or residential services. Due to data limitations, it is difficult to compare NorthSTAR utilization rates by service delivery setting for Medicaid clients to other service delivery areas. Similar to penetration rates, it is not possible to calculate overall utilization rates across Medicaid fee-for-service/PCCM, Medicaid HMO, and DSHS for each service delivery area. Also, the data on Medicaid-funded outpatient and community services provided outside of NorthSTAR includes physician and ancillary services provided to clients in inpatient settings. Consequently, the outpatient and community service data category for non-NorthSTAR Medicaid clients is not a true representation of only outpatient and community services.

LEVEL AND AMOUNT OF CARE PROVIDED

Appropriateness of Authorized Service Package: Medically indigent persons and Medicaid clients who access mental health services through LMHAs or through NorthSTAR are assessed through a uniform assessment process known as the Texas Recommended Assessment Guidelines (TRAG) system. The TRAG assessment results in a recommended level of care or service package with specified types and amounts of services. **Figure 9** shows the service packages available to adult and child clients.

FIGURE 7
BEHAVIORAL HEALTH SERVICE UTILIZATION FOR INDIGENT CLIENTS BY SERVICE DELIVERY SETTING
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
MENTAL HEALTH SERVICES								
Outpatient/Community Services								
Adults	98.0%	79.0%	85.0%	91.0%	92.0%	95.0%	88.0%	98.0%
Children	99.0%	99.0%	96.0%	99.0%	99.8%	99.8%	99.8%	97.0%
Inpatient/Residential Services								
Adults	11.0%	36.0%	27.0%	22.0%	16.0%	13.0%	27.0%	12.0%
Children	7.0%	1.0%	8.0%	2.0%	1.0%	2.0%	1.0%	12.0%
SUBSTANCE ABUSE TREATMENT SERVICES								
Outpatient/Community Services								
Adults	77.0%	79.0%	69.0%	56.0%	61.0%	77.0%	78.0%	84.0%
Children	90.0%	95.0%	81.0%	84.0%	82.0%	88.0%	80.0%	90.0%
Inpatient/Residential Services								
Adults	36.0%	44.0%	45.0%	55.0%	45.0%	42.0%	33.0%	39.0%
Children	15.0%	10.0%	26.0%	21.0%	21.0%	23.0%	24.0%	23.0%

Source: Legislative Budget Board.

FIGURE 8
BEHAVIORAL HEALTH SERVICE UTILIZATION FOR NORTHSTAR MEDICAID CLIENTS BY SERVICE DELIVERY SETTING
FISCAL YEAR 2009

	MENTAL HEALTH SERVICES		SUBSTANCE ABUSE TREATMENT SERVICES	
	OUTPATIENT/COMMUNITY SERVICES	INPATIENT/RESIDENTIAL SERVICES	OUTPATIENT/COMMUNITY SERVICES	INPATIENT/RESIDENTIAL SERVICES
Adults	99.5%	9%	91%	36%
Children	99.0%	6%	84%	34%

Note: The percentages of clients receiving outpatient/community services and inpatient/residential services do not sum to 100 percent because clients could have received both types of services.
Source: Legislative Budget Board.

FIGURE 9
MENTAL HEALTH SERVICE PACKAGES PROVIDED THROUGH LMHAS AND NORTHSTAR

ADULTS	
Service Package 1.	Pharmacological Management and Case Management
Service Package 2.	Pharmacological Management, Case Management, and Counseling
Service Package 3.	Team-Based Psychosocial Rehabilitation
Service Package 4.	Assertive Community Treatment (ACT)
CHILDREN	
Service Package 1.1.	Brief Outpatient – Externalizing Disorders
Service Package 1.2.	Brief Outpatient – Internalizing Disorders
Service Package 2.1.	Intensive Outpatient – Externalizing Disorders – Multi-Systemic Therapy
Service Package 2.2.	Intensive Outpatient – Externalizing Disorders
Service Package 2.3.	Intensive Outpatient – Internalizing Disorders
Service Package 2.4.	Intensive Outpatient – Schizophrenia, Bipolar Disorder, Major Depressive Disorder with Psychosis, or Other Psychotic Disorders
Service Package 4.	After-Care

Source: Texas Department of State Health Services.

After assessment and recommendation into a service package, clients are then authorized by LMHA or NorthSTAR staff into a service package. Some clients are not authorized in the service package recommended primarily due to resource constraints, consumer choice, consumer need, or continuity of care per utilization management guidelines. **Figure 10** shows the percentage of authorized clients who were appropriately served (i.e., authorized service package equals recommended service package), overserved (i.e., authorized service package is more intense than recommended service package), or underserved (i.e., authorized service package is less intense than recommended service package) across selected service delivery areas in Texas. The percentage of adult and child clients authorized to receive mental health services who were underserved is greater in NorthSTAR than most other comparison service delivery areas. The percentage of NorthSTAR adults who were underserved is 16 percent, while the percentage in other areas ranged from 2 percent in El Paso to 21 percent in Harris. The percentage of NorthSTAR children who were underserved is 17 percent, while the percentage in other areas ranged from 8 percent in Travis to 21 percent in Harris. Similarly, the percentage of authorized months where the client was underserved is greater in NorthSTAR than in most other comparison service delivery areas.

As shown in **Figure 10**, in each service delivery area, for both adults and children, the percentage of authorized months where the client was appropriately served is greater than the percentage of authorized clients appropriately served. This

FIGURE 10
PERCENTAGE OF CLIENTS AND MONTHS APPROPRIATELY AUTHORIZED INTO SERVICE PACKAGE
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS* (NORTHSTAR)
ADULTS								
Appropriate								
Percentage of Clients	82%	81%	76%	76%	75%	83%	86%	79%
Percentage of Months	90%	87%	86%	87%	85%	91%	94%	87%
Overserved								
Percentage of Clients	6%	17%	3%	7%	5%	4%	4%	5%
Percentage of Months	4%	12%	2%	5%	3%	2%	2%	3%
Underserved								
Percentage of clients	11%	2%	21%	17%	20%	13%	10%	16%
Percentage of Months	6%	1%	12%	8%	12%	7%	4%	10%
CHILDREN								
Appropriate								
percentage of clients	81%	81%	64%	71%	78%	63%	79%	76%
percentage of months	86%	90%	77%	81%	87%	75%	88%	82%
Overserved								
percentage of clients	2%	0%	1%	1%	0.4%	3%	2%	0.5%
percentage of months	1%	0%	1%	1%	<1%	1%	1%	<1%
Underserved								
percentage of clients	12%	10%	21%	12%	13%	17%	8%	17%
percentage of months	10%	5%	14%	8%	7%	11%	3%	12%
Indeterminate								
percentage of clients	5%	9%	14%	15%	9%	18%	11%	7%
percentage of months	3%	5%	8%	10%	6%	13%	7%	5%

*The data for the Dallas SDA includes a few clients that are not in NorthSTAR.
NOTE: Percentages may not sum to 100 percent due to rounding errors.
SOURCE: Texas Department of State Health Services.

shows that although some clients may have been overserved or underserved at some point during fiscal year 2009, many of these clients eventually moved into the appropriate service package during the fiscal year. For example, a client may be authorized to receive five months of treatment during the fiscal year. The client may be appropriately served for four months and underserved for one month. That client would be counted as underserved because they had one month where they were underserved. However, the four months where the client was appropriately served would be included in the percentage of authorized months where clients were appropriately served.

Receipt of Core Mental Health Services: Each service package includes core services and add-on services that require additional authorization based on individual client need. **Figure 11** shows the percentage of clients authorized into a given service package who received at least one core service and the average monthly number of core service hours for these clients across selected service delivery areas in Texas. For example, in Bexar, 77 percent of adult clients authorized into Service Package 1 received at least one core service. These clients received, on average, 1.8 hours of core services per month and were enrolled an average of 6.7 months. For each adult and child mental health service package, the percentage of authorized clients who received at least one core service is most always lower in NorthSTAR than in the other SDAs. Among clients who received core services, the average number of hours received per client is sometimes higher or lower in NorthSTAR depending on the service package. **Figure 11** also shows the average number of months clients who received core services were enrolled. This data is important to consider when comparing core service hours across service delivery areas because the number of core service hours can be affected by the length of time clients are enrolled.

Receipt of Substance Abuse Treatment Services: Figure 12 shows the average number of units per client for substance abuse treatment services accessed through providers under contract with DSHS or through NorthSTAR across selected service delivery areas in Texas. NorthSTAR clients received more or less substance abuse treatment services depending on the specific service. On average, NorthSTAR clients received fewer days of residential detoxification and residential services than each of the other service delivery areas and fewer days of ambulatory detoxification than in all but one of the other service delivery areas. However, for outpatient services, NorthSTAR clients, on average, received a greater number of hours than clients in five of the other service delivery areas. NorthSTAR clients also received a greater number of opiod replacement doses—256 doses in NorthSTAR compared to a range of 117 in Tarrant to 208 in Nueces.

Follow-up after Hospitalization for Mental Illness: Figure 13 shows the percentage of clients age six or older who received follow-up care in the community following a hospitalization for mental illness in NorthSTAR and Medicaid STAR HMOs. The figure also compares NorthSTAR to the national Medicaid HEDIS mean which includes data on Medicaid managed care plans reporting to the National Committee for Quality Assurance. Follow-up care includes outpatient visits, intensive outpatient encounters, and partial hospitalizations. The percentage of NorthSTAR clients who received seven-day follow-up care is less than the national Medicaid HEDIS mean and less than all but two of the Medicaid STAR HMOs. Similarly, the percentage of NorthSTAR clients who received 30-day follow-up care is less than the national Medicaid HEDIS mean and less than all of the Medicaid STAR HMOs. The STAR Medicaid HMO data includes follow-up care provided by any physician provider whereas the NorthSTAR data and the national Medicaid HEDIS mean only includes follow-up care provided by mental health practitioners. As a result, the STAR Medicaid HMO data may be inflated.

CLIENT OUTCOMES

The outcome measures or dimensions defined in **Figure 14** are tracked by DSHS for medically indigent persons and Medicaid clients who access mental health services through LMHAs or through NorthSTAR. The data for the outcome measures is taken from the TRAG assessment process that results in client ratings on several dimensions. Two of the dimensions for children (i.e., Ohio Youth Functioning Scale and the Ohio Youth Problem Severity Scale) are included in the TRAG, but are based on the psychometrically validated instrument, the Ohio Youth Problem Severity Scale. Clients are assessed through the TRAG upon intake and are re-assessed every 90 days, except for adults in service package one who are re-assessed every 180 days. A client's initial assessment is compared to subsequent re-assessments to determine whether their rating on a certain outcome measure or dimension has improved, worsened, or stayed the same. For this report, scores on a client's last assessment in fiscal year 2009 were compared to the scores on their first assessment in fiscal year 2009. Issues with the assessment process on which this data is based impacts the reliability of

FIGURE 11
PERCENTAGE OF CLIENTS RECEIVING CORE MENTAL HEALTH SERVICES AND AVERAGE NUMBER OF CORE SERVICE HOURS PER CLIENT BY AUTHORIZED SERVICE PACKAGE, FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
ADULTS								
Service Package 1								
Percentage	77%	78%	78%	74%	80%	83%	80%	71%
Average Hours Per Month	1.8	2.1	1.8	2.0	2.2	2.3	2.6	3.6
Average Months Enrolled	6.7	7.2	6.7	6.7	7.1	7.2	6.7	7.2
Service Package 2								
Percentage	74%	100%	88%	61%	89%	83%	92%	72%
Average Hours Per Month	4.2	3.7	7.4	7.5	8.1	6.3	6.1	5.2
Average Months Enrolled	2.9	2.3	4.0	3.4	3.5	2.9	2.7	3.2
Service Package 3								
Percentage	88%	94%	89%	95%	93%	87%	97%	82%
Average Hours Per Month	19.3	23.9	28.3	25.7	28.6	25.3	30.5	26.7
Average Months Enrolled	4.1	5.5	5.1	5.4	5.4	5.2	4.5	4.9
Service Package 4								
Percentage	97%	94%	94%	99%	98%	96%	98%	93%
Average Hours Per Month	56.4	52.9	62.5	64.7	55.2	52.7	53.1	45.4
Average Months Enrolled	5.7	5.3	5.6	6.1	5.6	5.4	4.8	7.1
CHILDREN								
Service Package 1.1								
Percentage	95%	95%	97%	95%	95%	88%	94%	84%
Average Hours Per Month	11.2	13.6	13.3	12.7	11.4	11.8	10.2	15.4
Average Months Enrolled	3.7	5.2	4.8	4.2	4.6	4.2	3.6	4.7
Service Package 1.2								
Percentage	88%	92%	92%	97%	93%	83%	91%	72%
Average Hours Per Month	6.0	8.8	9.2	9.3	5.9	6.3	7.4	6.5
Average Months Enrolled	3.0	4.3	4.3	3.1	3.2	3.2	3.1	3.4
Service Package 2.1*								
Service Package 2.2								
Percentage	96%	100%	85%	85%	100%	95%	98%	85%
Average Hours Per Month	11.4	44.0	17.8	17.0	18.4	21.1	18.4	15.3
Average Months Enrolled	2.4	3.6	3.2	2.9	3.9	4.0	3.0	3.3
Service Package 2.3								
Percentage	89%	86%	92%	96%	100%	88%	95%	80%
Average Hours Per Month	7.9	39.7	16.5	9.8	8.1	13.1	12.2	11.2
Average Months Enrolled	2.3	2.8	3.3	2.0	1.9	2.8	2.5	2.7

FIGURE 11 (CONTINUED)
PERCENTAGE OF CLIENTS RECEIVING CORE MENTAL HEALTH SERVICES AND AVERAGE NUMBER OF CORE SERVICE HOURS PER CLIENT BY AUTHORIZED SERVICE PACKAGE, FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
Service Package 2.4								
Percentage	93%	100%	96%	94%	67%	100%	91%	80%
Average Hours Per Month	13.4	26.3	10.8	9.2	11.0	8.7	8.4	9.4
Average Months Enrolled	2.4	2.0	2.0	2.0	1.5	2.0	2.4	2.7
Service Package 4								
Percentage	71%	76%	85%	86%	74%	72%	68%	69%
Average Hours Per Month	1.4	1.9	3.4	2.6	1.9	1.8	1.6	3.3
Average Months Enrolled	4.2	6.7	3.8	3.7	3.9	4.7	5.9	5.1

*Data for Service Package 2.1 is not reported because the numbers are too small and therefore, not valid for comparison purposes.
SOURCES: Legislative Budget Board; Texas Department of State Health Services.

FIGURE 12
AVERAGE NUMBER OF UNITS PER CLIENT FOR SUBSTANCE ABUSE TREATMENT SERVICES
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
SERVICE	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
Residential Detox (days)	5	7	6	5	8	7	6	3
Residential Services (days)	43	42	35	25	38	31	33	14
Ambulatory Detox (days)	7	9	35	29	3	8	9	6
Outpatient Services (hours)	27	29	46	26	26	27	37	32
Opiod Replacement (dose)	122	177	158	130	208	117	130	256
Other Services	8	9	17	7	13	7	10	21

SOURCE: Texas Department of State Health Services.

the reported outcomes. These issues are discussed in more detail later in this report.

Figure 15 shows outcome data for clients accessing mental health services through LHMAs or through NorthSTAR across selected SDAs in Texas. Clients with ratings that stayed the same in cases where there was no room for improvement are included in the improved or acceptable category. Except for the adult functioning measure and the child juvenile justice involvement measure, the percentage of clients with an improved or acceptable score at re-assessment is almost always lower in NorthSTAR than in the other SDAs.

Figure 16 shows the outcome measures for medically indigent persons and Medicaid clients who access substance abuse treatment services through providers under contract with DSHS or through NorthSTAR. Each substance abuse treatment provider under contract with DSHS or participating in NorthSTAR is required to conduct follow-up client interviews between 60 and 90 days after discharge from all services. During the interview, the provider obtains self-reported outcome data related to substance use, legal status, employment status, and school attendance. Data is also collected on whether the client returned to substance abuse treatment after a 15-day break in service (i.e., recidivism rate).

Figure 17 shows outcome data for clients accessing substance abuse treatment services through providers under contract with DSHS or through NorthSTAR across selected SDAs in Texas. Clients enrolled in NorthSTAR have a higher recidivism rate than clients in other SDAs. Specifically, the recidivism rate in NorthSTAR for adults and children is 27 percent while the recidivism rate in other areas ranged from

FIGURE 13
FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS
FISCAL YEAR 2007

HMO	7-DAY FOLLOW-UP	30-DAY FOLLOW-UP
HEDIS 2007 Medicaid Mean	39.1%	57.7%
NorthSTAR	28.9%	55.0%
Amerigroup Community Care*	34.2%	60.9%
Community First Health Plans	35.3%	70.5%
Community Health Choice	38.2%	60.4%
Cook Children's Health Plan	25.6%	65.1%
Driscoll Children's Health Plan	35.8%	73.5%
El Paso First Premier Plan	24.0%	68.0%
FirstCare STAR	34.1%	63.6%
Molina Healthcare of Texas	53.1%	68.8%
Parkland HEALTHfirst*	--	--
Superior HealthPlan	37.9%	71.6%
Texas Children's Health Plan	46.5%	77.2%
UniCare Health Plans of Texas*	--	--

*Data on clients in the Dallas service delivery area are excluded because they receive behavioral health services through NorthSTAR.
Note: Data for Aetna and United Healthcare is not included because the number of clients eligible for the measure is less than 30.
Source: Texas Health and Human Services Commission.

FIGURE 14
OUTCOME MEASURES FOR CLIENTS ACCESSING MENTAL HEALTH SERVICES THROUGH LMHAS OR NORTHSTAR
FISCAL YEAR 2009

OUTCOME MEASURE	DEFINITION
ADULTS	
Functional Impairment	The level of functional impairment is evaluated using several indicators, such as, ability to interact with others, maintain hygiene and functions of daily living, fulfill role responsibilities, and maintain activities (i.e., sleep, eating).
Housing Instability	The person's housing situation is examined to determine whether they experience no or minimal housing instability, or whether they are marginally or literally homeless.
Employment	The degree of employment problems experienced by the individual within the past year, including the person's number of jobs, number of days of employment, and whether or not the person has a need or desire to work.
Criminal Justice	The person's criminal justice contact, including their current involvement with parole or probation, history of arrests, and type of offense.
Co-occurring Substance Abuse	The person's co-occurring substance use (i.e., alcohol, illegal drugs, prescription medication, or over-the-counter medication), including the frequency and duration as well as the cognitive, behavioral, or physiological consequences of it during the past 90 days.
Support Needs	The extent to which support is unavailable from family, friends, and community sources, and the likelihood that these supports will be unable and unwilling to provide sufficient help when needed.

FIGURE 14 (CONTINUED)
OUTCOME MEASURES FOR CLIENTS ACCESSING MENTAL HEALTH SERVICES THROUGH LMHAS OR NORTHSTAR
FISCAL YEAR 2009

OUTCOME MEASURE	DEFINITION
CHILDREN	
Ohio Youth Functioning Scale	This scale assesses the functioning of children and adolescents receiving publicly-funded mental health services.
Ohio Youth Problem Severity Scale	This scale assesses the problem severity of children and adolescents receiving publicly-funded mental health services.
Juvenile Justice Involvement	The child's juvenile justice involvement in the last 90 days, including involvement with parole or probation, history of arrests, and type of offense.
School Behavior	The extent to which the child's behavior has resulted in problems in school or daycare.
Co-occurring Substance Use	The person's co-occurring substance use (i.e., alcohol, illegal drugs, prescription medication, or over-the-counter medication), including the frequency and duration as well as cognitive, behavioral, or physiological consequences.
Family Resources	The extent to which the family environment is stable and caregiver feels able to meet the current needs of the child or adolescent.
Severe Disruptive or Aggressive Behavior	The child's behavior is evaluated, such as whether they are engaging in verbal outbursts or threats, aggression towards objects or persons, assaults, or damage to property.

Source: Legislative Budget Board.

FIGURE 15
OUTCOME DATA FOR CLIENTS ACCESSING MENTAL HEALTH SERVICES THROUGH LMHAS OR NORTHSTAR
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS* (NORTHSTAR)
ADULTS								
Functional Impairment								
Improved or Acceptable	31%	33%	32%	32%	36%	32%	36%	33%
Worsened	19%	23%	16%	17%	17%	25%	22%	22%
Stayed the Same	50%	44%	51%	50%	47%	43%	42%	45%
Housing Instability								
Improved or Acceptable	63%	66%	67%	64%	63%	60%	52%	44%
Worsened	18%	18%	16%	24%	17%	19%	23%	22%
Stayed the Same	19%	16%	17%	11%	20%	21%	24%	35%
Employment								
Improved or Acceptable	82%	83%	79%	79%	87%	83%	79%	73%
Worsened	11%	10%	11%	19%	9%	11%	13%	16%
Stayed the Same	8%	7%	11%	3%	4%	6%	8%	11%
Criminal Justice								
Improved or Acceptable	40%	49%	41%	46%	36%	49%	47%	36%
Worsened	10%	13%	6%	5%	8%	7%	5%	6%
Stayed the Same	50%	38%	53%	49%	56%	44%	48%	59%

FIGURE 15 (CONTINUED)
OUTCOME DATA FOR CLIENTS ACCESSING MENTAL HEALTH SERVICES THROUGH LMHAS OR NORTHSTAR
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS* (NORTHSTAR)
Co-occurring Substance Abuse								
Improved or Acceptable	82%	80%	82%	83%	84%	86%	83%	78%
Worsened	7%	10%	9%	9%	8%	8%	11%	11%
Stayed the Same	10%	9%	9%	9%	8%	6%	6%	11%
Support Needs								
Improved or Acceptable	64%	52%	69%	62%	58%	64%	63%	56%
Worsened	19%	22%	15%	24%	19%	26%	26%	21%
Stayed the Same	17%	26%	16%	14%	23%	10%	11%	23%
CHILDREN								
Ohio Youth Functioning Scale								
Improved or Acceptable	40%	41%	36%	35%	40%	42%	39%	36%
Worsened	18%	14%	18%	25%	20%	20%	22%	18%
Stayed the Same	42%	46%	47%	40%	40%	38%	40%	46%
Ohio Youth Problem Severity Scale								
Improved or Acceptable	49%	50%	39%	46%	42%	43%	44%	36%
Worsened	9%	9%	12%	11%	12%	13%	12%	13%
Stayed the Same	42%	41%	49%	44%	46%	44%	44%	51%
Juvenile Justice Involvement								
Improved or Acceptable	86%	90%	94%	82%	93%	92%	91%	98%
Worsened	15%	10%	6%	18%	7%	9%	9%	2%
Stayed the Same	0	0	0	0	0	0	0	0
CHILDREN								
School Behavior								
Improved or Acceptable	76%	85%	60%	77%	68%	70%	71%	54%
Worsened	6%	9%	11%	4%	6%	8%	9%	10%
Stayed the Same	19%	6%	29%	19%	26%	22%	21%	36%
Co-occurring Substance Use								
Improved or Acceptable	81%	83%	72%	77%	83%	78%	88%	76%
Worsened	10%	11%	9%	11%	8%	10%	7%	9%
Stayed the Same	9%	6%	19%	12%	10%	12%	5%	15%
Family Resources								
Improved or Acceptable	46%	58%	42%	41%	44%	48%	37%	31%
Worsened	21%	13%	20%	26%	15%	26%	24%	17%
Stayed the Same	32%	29%	39%	33%	41%	26%	39%	52%
Severe Disruptive or Aggressive Behavior								
Improved or Acceptable	52%	38%	31%	41%	44%	42%	44%	26%
Worsened	12%	22%	16%	18%	14%	22%	18%	17%
Stayed the Same	36%	39%	53%	41%	41%	36%	38%	57%

*The data for the Dallas SDA includes a few clients that are not in NorthSTAR.
NOTE: Percentages may not sum to 100 percent due to rounding errors.
SOURCE: Legislative Budget Board.

FIGURE 16
OUTCOME MEASURES FOR CLIENTS ACCESSING SUBSTANCE ABUSE TREATMENT SERVICES
FISCAL YEAR 2009

OUTCOME MEASURE	DEFINITION
ADULTS AND CHILDREN	
Recidivism	Client returned to substance abuse treatment after a 15-day break in service.
ADULTS ONLY	
Abstinent	Client reports they have not used any substances during the preceding 30 days.
No legal involvement	Client reports they are not currently involved with the legal system (e.g., probation, parole, courts)
Employed	Client reports they are employed full or part-time.
CHILDREN ONLY	
Abstinent	Client reports they have not used any substances during the preceding 30 days.
No legal involvement	Client reports they are not currently involved with the legal system (e.g., probation, parole, courts)
School attendance	Client reports they are currently enrolled in school.

Source: Department of State Health Services.

FIGURE 17
OUTCOME DATA FOR CLIENTS ACCESSING SUBSTANCE ABUSE TREATMENT SERVICES
FISCAL YEAR 2009

	SERVICE DELIVERY AREA							
	BEXAR	EL PASO	HARRIS	LUBBOCK	NUECES	TARRANT	TRAVIS	DALLAS (NORTHSTAR)
ADULTS AND CHILDREN								
Recidivism	12%	10%	9%	11%	13%	10%	15%	27%
ADULTS ONLY								
Abstinent	73%	81%	84%	70%	77%	78%	79%	77%
No legal involvement	51%	43%	42%	52%	40%	36%	43%	41%
Employed	54%	43%	45%	55%	46%	38%	47%	34%
CHILDREN ONLY								
Abstinent	78%	93%	86%	86%	82%	78%	71%	77%
No legal involvement	58%	16%	81%	70%	66%	55%	78%	37%
School attendance	87%	96%	90%	96%	85%	82%	89%	75%

Source: Department of State Health Services.

9 percent in Harris to 15 percent in Travis. Fewer adult clients in NorthSTAR reported they are employed full or part-time as compared to the other SDAs (i.e., 34 percent in NorthSTAR compared to a range of 38 percent to 55 percent in other areas). Similarly, fewer child clients in NorthSTAR reported they are currently enrolled in school (i.e., 75 percent in NorthSTAR compared to a range of 82 percent to 96 percent in other areas). Except for El Paso, fewer child clients in NorthSTAR reported they had no legal involvement. There is less variability between NorthSTAR and the other SDAs for the other measures (i.e., adult abstinence, child abstinence, adult legal involvement).

Figure 18 shows the percentage of Medicaid clients readmitted within 30 days following an inpatient stay for mental health problems across NorthSTAR and Medicaid STAR HMOs. According to the Institute for Child Health Policy at the University of Florida, mental health readmissions are frequently used as a measure of adverse outcomes that potentially result from efforts to contain behavioral health care spending such as reducing initial lengths of stay. The percentage of NorthSTAR clients who were readmitted, 9.6 percent, is less than all but one of the Medicaid STAR HMOs (i.e., FirstCare).

FIGURE 18
READMISSION WITHIN 30 DAYS AFTER AN INPATIENT STAY FOR MENTAL HEALTH
FISCAL YEAR 2007

HMO	READMISSION
NorthSTAR	9.6%
Amerigroup Community Care*	15.5%
Community First Health Plans	21.7%
Community Health Choice	15.9%
Cook Children's Health Plan	35.8%
Driscoll Children's Health Plan	22.1%
El Paso First Premier Plan	23.5%
FirstCare	5.6%
Parkland HEALTHfirst*	--
Superior HealthPlan	14.3%
Texas Children's Health Plan	19.5%
UniCare Health Plans of Texas*	--
United Healthcare – Texas	24.3%

*Data on clients in the Dallas service delivery area are excluded because they receive behavioral health services through NorthSTAR.
Note: Data for Aetna and Molina is not included because the number of clients eligible for the measure is less than 30.
Source: Texas Health and Human Services Commission.

IMPROVE THE MEASUREMENT AND REPORTING OF BEHAVIORAL HEALTH CLIENT OUTCOMES TO ENSURE CLIENT RECOVERY AND IMPROVE PROGRAM MONITORING

Behavioral health process indicators related to spending, utilization, and level and amount of care, comparing NorthSTAR to other selected service delivery areas are mixed or unknown. Furthermore, the state cannot determine NorthSTAR's overall effectiveness relative to the rest of the state because behavioral health outcome data is incomplete. Also, the reliability of existing outcome data is uncertain due to inadequate data collection procedures and oversight.

Following are the sources and types of client outcome data collected by DSHS or the Health and Human Services Commission (HHSC) and the limitations of each:

- Persons who access mental health services through LMHAs or through NorthSTAR are assessed through the TRAG system. LMHA staff and NorthSTAR providers complete the assessments. The TRAG system results in client ratings on nine dimensions for adults and 10 dimensions for children. Of these dimensions, six are used to track adult client outcomes and seven are used to track child client outcomes. A client's initial TRAG assessment is compared to their re-assessment to determine whether their rating on a certain outcome measure or dimension has improved, worsened, or stayed the same. The contracts between DSHS and LMHAs require that LMHAs either achieve certain TRAG dimension ratings or meet minimum service hour requirements, or be subject to a financial sanction. In NorthSTAR, DSHS can sanction the behavioral health organization (i.e., ValueOptions) if the behavioral health organization's contracted providers fail to either achieve certain TRAG dimension ratings or meet minimum service hour requirements. As a result, there is an inherent risk for LMHA staff or NorthSTAR providers to manipulate assessment data to show positive outcomes. Furthermore, the reliability of the TRAG data may be affected by differences in how the assessment tool is completed across the state making it difficult to compare data across LMHAs and NorthSTAR. Local staff turnover and limited centralized training at DSHS increase the risk that administration of the TRAG is inconsistent. Also, DSHS quality management oversight of TRAG administration is limited preventing the state from evaluating TRAG data reliability. For example, DSHS staff do not audit TRAG assessments to evaluate consistent application of the instrument. Finally, certain TRAG dimensions (e.g., housing) are partially affected by local conditions beyond the control of an individual LMHA or NorthSTAR. These factors make the reliability of the outcome data based on the TRAG uncertain.
- The contracts between DSHS and LMHAs and between DSHS and the NorthSTAR BHO require the tracking and reporting of other non-TRAG data that could be helpful for comparing client outcomes. For example, the rate at which clients are readmitted to a hospital is a key client outcome indicator. However, differences in how these outcome measures are defined prevent the comparison of data between LMHAs and NorthSTAR.
- The state's contracted external quality review organization tracks certain quality of care measures for NorthSTAR and Medicaid STAR HMOs. For example, the rate at which clients are readmitted within 30 days following an inpatient stay for mental health is tracked. This data, while useful, is limited to comparing performance between NorthSTAR and

Medicaid STAR HMOs, not between LMHAs and NorthSTAR.

- Each substance abuse treatment provider under contract with DSHS or participating in NorthSTAR is required to conduct follow-up client interviews between 60 and 90 days after discharge from all services. During the interview, the provider obtains self-reported outcome data related to substance use, legal status, employment status, and school attendance. The validity of the data is impacted because it is self-reported and there is no comparison to client status before treatment (i.e., pre-test).

Recommendation 1 would include a rider in the 2012–13 General Appropriations Bill to require DSHS to improve the measurement, collection, and reporting of behavioral health client outcome data. DSHS should evaluate and improve the tool used to measure client outcomes, remove incentives for data manipulation, provide continuing education on administration of the tool, improve state oversight of data collection, and post data on the agency's website on a regular basis.

Recommendation 2 would include a rider in the 2012–13 General Appropriations Bill that would direct DSHS to submit a report on efforts planned or implemented to improve the measurement, collection, and reporting of behavioral health client outcome data to the Governor and the Legislative Budget Board by December 1 of each year of the biennium.

Recommendation 3 would include a rider in the 2012–13 General Appropriations Bill that would direct DSHS, in consultation with HHSC, to conduct a comparative analysis of publicly funded behavioral health systems in Texas that serve medically indigent persons and Medicaid clients, and submit a report on the study findings to the Governor and the Legislative Budget Board by December 1, 2012. The comparative study should report data by client type (e.g., Medicaid, medically indigent) and by age (e.g., adults and children) and should include, at a minimum, an analysis of the following performance indicators:

- aggregate and per client spending overall and by service delivery setting;
- penetration rates;
- service utilization by delivery setting;
- level and amount of care provided; and
- client outcomes.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations in this report direct DSHS to implement improvements to the measurement and reporting of behavioral health client outcome data, submit a report to the Governor and the Legislative Budget Board on improvements planned or implemented, and to conduct a comparative analysis of publicly funded behavioral health systems in Texas. The recommendations are intended to help ensure that Medicaid clients and medically indigent persons with behavioral health needs receive appropriate high-quality services, thus reducing spending on more expensive types of care, and improving the state's ability to monitor program performance and make system improvements. It is estimated that the recommendations would have no significant fiscal impact because they could be implemented using existing resources.

The introduced 2012–13 General Appropriations Bill includes a rider that implements Recommendations 1, 2 and 3.

INCREASE ACCESS TO PRIMARY CARE SERVICES BY ALLOWING ADVANCED PRACTICE REGISTERED NURSES TO PRESCRIBE

Both nationally and in Texas, advanced practice registered nurses have helped mitigate the effects of a general practice physician shortage. An advanced practice registered nurse is a registered nurse with an advanced degree, certification and license to practice as a nurse practitioner, clinical nurse specialist, nurse-midwife, or nurse anesthetist, in some cases with a focus on a defined population.

Although advanced practice registered nurses practice as autonomous or nearly autonomous primary care providers in 20 states and the District of Columbia, Texas limits their ability to establish a medical diagnosis and prescribe medications. The state's site-based, delegated model of prescriptive authority limits patient access to affordable, quality healthcare providers, particularly in rural and health professional shortage areas. Developing a tiered model for prescriptive authority, in which an advanced practice registered nurse could apply for an autonomous prescriptive authority license after working within a delegated prescriptive authority arrangement for two years, would increase the availability of lower-cost primary healthcare providers.

FACTS AND FINDINGS

- While advanced practice registered nurses work as healthcare providers for patient populations they have been educated to treat in accordance with scope of practice models defined by national certification agencies, they are licensed and regulated by state boards of nursing.
- Advanced practice registered nurses serve as primary care providers in a variety of acute and outpatient settings, including pediatrics, internal medicine, anesthetics, geriatrics and obstetrics.
- Regulations defining scope of practice for advanced practice registered nurses vary widely by state. Texas is among the most restrictive. Twenty states and the District of Columbia allow advanced practice registered nurses to practice either autonomously or nearly autonomously.
- No studies comparing the care provided by physicians and advanced practice registered nurses have shown better health outcomes for patients in states with more restrictive regulatory environments.

CONCERNS

- As of October 2010, Texas had 180 areas or counties designated as primary care health professional shortage areas, which means they have an exceptionally low physician to population ratio.
- Even though they are educated and trained to perform many routine aspects of primary care, advanced practice registered nurses lack the statutory authority to diagnose illnesses and prescribe medicines in Texas and therefore are underutilized in the provision of primary care.
- Texas' statutes regulate advanced practice registered nurses differently depending on the location of the practice site. This inconsistency limits patient access to qualified primary care providers and is especially onerous for physicians and advanced practice registered nurses in rural areas.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Occupations Code, Chapter 301, to include "advanced assessment, diagnosing, prescribing, and ordering" in the scope of practice for advanced practice registered nurses.
- **Recommendation 2:** Amend the Texas Occupations Code, Chapter 301, to require the Board of Nursing to adopt rules for assigning prescriptive authorization to a qualified advanced practice registered nurse who has completed 3,600 hours of practice within a delegated prescriptive authority arrangement with a physician or fully authorized advanced practice registered nurse and to establish a surcharge to cover the administration of the tiered prescriptive authority.
- **Recommendation 3:** Include a contingency rider in the 2012–13 General Appropriations Bill to appropriate surcharge revenue to the Texas Board of Nursing to administer the tiered prescriptive authority.

DISCUSSION

In 2007, the American Medical Association reported that medical students are less likely to choose primary care and

more likely to pursue careers as specialists. The result is that each year there are fewer primary care physicians entering the workforce. This decline combined with population growth and aging contributes to a nationwide deficit of primary care practitioners that could be between 35,000 and 44,000 by 2025.

Both nationally and in Texas, advanced practice registered nurses (APRNs) have helped mitigate the effects of this shortage. An advanced practice registered nurse is a registered nurse with either a masters or doctoral degree who has passed a national board certification exam and is licensed to practice in one of four roles (nurse practitioner, clinical nurse specialist, nurse-midwife, or nurse anesthetist), in some cases with a focus on a given population.

Certified nurse practitioners (NPs) are educated and trained to provide a range of primary and acute care, including taking medical histories; providing physical examinations; ordering and interpreting diagnostic tests; and diagnosing, treating and managing acute and chronic illnesses and diseases. They are certified and licensed to provide care to a defined population-focus area. The Texas Board of Nursing (BON) recognizes nine population-focus areas for nurse practitioners:

- Acute Care – Adult;
- Acute Care – Pediatrics;
- Adult;
- Family;
- Gerontological;
- Neonatal;
- Pediatric;
- Psychiatric-Mental Health; and
- Women's Health.

Clinical nurse specialists (CNS) are also educated to diagnose, treat and prescribe for patients within their population-focus, but most of them work in specialty clinics, hospitals and nursing education programs to analyze healthcare systems and improve patient outcomes. BON recognizes six types of clinical nurse specialists:

- Adult Health/Medical Surgical;
- Community Health;
- Critical Care;
- Gerontological;
- Pediatric Nursing; and
- Psychiatric-Mental Health.

Certified nurse-midwives (CNM) provide a full range of primary and obstetrical healthcare services to women. This range includes prenatal and postpartum care, childbirth, newborn care, and gynecological and family planning services. Nurse-midwives are not certified with a population-focus, as their education and certification already defines the population with whom they work.

Certified registered nurse anesthetists (CRNA) provide anesthesia care for individuals whose health status range from healthy to any level of acuity, including those with immediate, sever or life-threatening injuries. Like CNMs, nurse anesthetists do not further narrow their focus, since they already have the educational preparation to work with all client populations.

APRN EDUCATION, CERTIFICATION AND LICENSING

All APRN education programs are accredited, and housed within nationally accredited graduate programs. They also provide a broad-based curriculum, including graduate-level courses in pathophysiology, health assessment, pharmacology, and courses in their population-focus area.

The educational program must also include a 500-hour practicum. APRN applicants seeking recognition in more than one role or population-focus area (for instance, a nurse practitioner who focuses on neonatal and pediatric care) must have 500 hours in each role or area.

Following completion of an education program, but preceding state licensure, an APRN must pass a national certification exam in their particular APRN role. These exams assess the APRN candidate's core, role and (if applicable) population focus competencies. Certification programs accredited by a national certification accreditation body administer the exams. In Texas, BON designates the certification exams acceptable for a state license.

In addition to completing a recognized graduate education program and passing a designated certification exam, applicants to practice in Texas must:

- hold a current, unrestricted license as a registered nurse in Texas;
- have practiced for 400 hours or have completed schooling in the previous two years; and

- participate in 20 hours of continuing education in each advanced practice role and population-focus in which BON authorizes the candidate to practice.

Sanctions for failing to meet BON's standards for using a particular title, or using an APRN title without being recognized by the agency, include termination of rights to practice as an APRN.

APRNs renew their licenses to practice in Texas every two years. To maintain their licensure, APRNs must have 20 hours of continuing education every two years. APRN's with prescriptive authority must have an additional five hours of continuing education in pharmacotherapeutics**.** The APRN must also practice a minimum of 400 hours each biennium.

Though APRNs are educated and certified according to national standards, states regulate scope of practice differently, sometimes widely.

Twenty states and the District of Columbia allow APRNs to practice as autonomous, or very nearly autonomous, healthcare providers, up to the limits of their education and training. In these states, the boundaries of their scope of practice are defined by the APRN's education and certification and enforced by the state's regulatory agency. When confronted with a patient whose diagnosis or treatment may be outside their scope of practice, APRNs in these states refer to the appropriate general practice or specialist physician. The states that do not allow autonomy have a range of regulations on APRNs' practice. They require a collaborative practice agreement between an APRN and a physician, but in most cases APRNs retain their ability to diagnose and prescribe.

LIMITATIONS ON AN APRN'S PRESCRIPTIVE AUTHORITY IN TEXAS

Texas has some of the most restrictive scope of practice guidelines in the U.S. for APRNs. Only physicians have statutory authority to establish a diagnosis or write prescriptions for drugs, devices or other therapeutic treatments. An APRN's ability to establish a diagnosis and prescribe medication is delegated by a physician. In Texas, an APRN's delegated ability to diagnose does not carry any supervisory requirements for the delegating physician.

The delegated prescriptive authority, however, does put limitations on APRNs, physicians, and patients. Physicians may only delegate to APRNs in one of four types of practice sites: a primary site, an alternate site, site serving a medically underserved population, or a facility-based practice.

PRIMARY PRACTICE SITES

A physician may delegate prescriptive authority to a total of four APRNs (or four full-time-equivalents) at their primary practice site. At a primary site, there are no specific supervisory requirements, but the physician must maintain protocols for delegation and quality assurance and be available by phone for consulting with the APRN.

ALTERNATE PRACTICE SITES

A physician may also delegate at an alternate practice site provided they are there at least 10 percent of the time each APRN is onsite. Physicians are limited to delegating prescriptive authority to no more than four APRNs between the primary and alternate practice sites. Alternate practice sites must be within 75 miles of the physician's primary practice site or residence, and must offer the same type of healthcare services as the primary site. The physician must also review 10 percent of each APRN's patient charts and be available as needed by phone.

MEDICALLY UNDERSERVED SITES

At site serving a medically underserved population, there is no limitation on the number of APRNs a physician may delegate prescriptive authority. However, the physician is limited to delegating prescriptive authority at no more than three medically underserved sites that have a combined 150 operating hours per week. The physician is required to be onsite once every 10 business days that the APRN is onsite, audit 10 percent of the APRN's patient charts, keep a log of their other supervisory activities, and receive daily telephone calls regarding complications or problems not covered by the physician's protocols.

FACILITY-BASED SITES

Certain physicians may also delegate at hospitals and long-term care facilities, collectively referred to as facility-based sites. Physicians delegating at hospitals may delegate to as many APRNs as they like, but the physician is limited to delegating at just one hospital. A physician who is a medical director at a long-term care facility may delegate authority to up to four APRNs between a maximum of two long-term care facilities.

LIMITATIONS ON CONTROLLED SUBSTANCES

Eight states, including Texas, restrict an APRN's ability to prescribe controlled substances. Controlled substances are drugs with a potential for addiction. They are classified in terms of Schedules I–V, with Schedule I being either illegal

narcotics or drugs with no medical use. When prescribing controlled substances, Schedules III–V, an APRN in Texas may not write a prescription that is for more than 90 days, authorize a refill beyond the initial 90 days without consulting the delegating physician, or write a prescription for a child under age two without consulting with the delegating physician.

Texas APRNs are prohibited from prescribing Schedule II controlled substances to any patient, even if it is the standard of care. For example, attention deficit hyperactivity disorder (ADHD) is generally managed by prescription of a Schedule II controlled substance, such as Adderall. Managing ADHD is within the scope of practice of pediatric, adult and family nurse practitioners, although in Texas they are legally prohibited from prescribing medication to treat the disorder.

In addition to these statutory regulations, a delegating physician may place additional limitations on an APRN's prescriptive authority. This lack of uniformity limits patient access to qualified primary care providers and is especially onerous for physicians and APRNs in rural areas.

PRIMARY CARE PROVIDER SHORTAGES

The Texas Department of State Health Services' (DSHS) Primary Care Office maintains and updates the state's shortage designations. The U.S. Department of Health and Human Services recommends a provider-to-patient ratio of one primary care physician to every 2,000 individuals (1:2,000). The threshold for health professional shortage area (HPSA) designation is a physician to population ratio of 1:3,500. In areas with exceptionally high rates of poverty or infant mortality, the threshold is 1:3,000. Counties can be designated HPSAs in whole or in part.

As of October 2010, there were 132 counties in Texas designated as whole county primary care HPSAs. Forty-eight additional counties were partially designated as primary care HPSAs. Approximately 26 percent of the state's population lives in these areas.

Texas is below the U.S. average in its primary care physicians-to-population ratio. According to the DSHS Center for Health Statistics, the rate of growth of primary care physicians in the state is also slowing. From 1981 to 1988, the ratio of primary care physicians to 100,000 population increased from 53.5 to 59.3. From 1988 to 1998, the physician to 100,000 population ratio increased from 59.3 to 65.0. But from 1998 to 2009, the ratio only increased from 65.0 to 67.7.

Overall, the numbers of APRNs in Texas have steadily increased since 1990, especially nurse practitioners. Estimates by the DSHS Center for Health Statistics shows that their rates per 100,000 population increased from 5.6 to 12.4 between 1991 and 2000. From 2000 to 2009 the rates of nurse practitioners per 100,000 population increased from 12.4 to 23.1, an increase of 86.3 percent.

The supply of NPs in Texas is still lower than the US average. It is also lower than states with less restrictive regulatory environments. A study published in the New England Journal of Medicine found that states with favorable practice environments had a greater supply of NPs.

Using data from the US Census Bureau and state boards of nursing, Legislative Budget Board staff estimated the rates per 100,000 population of NPs in each state whose scope of practice laws allow autonomous, or near-autonomous, practice. This data counted more NP licenses than did the DSHS Center for Health Statistics, which counted only active NP licenses. The results in **Figure 1** still show the Texas ratio to be below the ratio in states that allowed more autonomy.

In addition to limiting the supply of and access to APRNs, restrictive scope of practice laws may also limit the expansion of retail clinics, which generally employ APRNs to provide a limited range primary healthcare. A 2008 report in a San Antonio newspaper quoted a pharmacy-based retail clinic chain executive as stating Texas' scope of practice regulations were a factor in that company's decision not to expand as quickly in Texas as they do in other states.

SAFETY OF APRNS

A number of healthcare and policy researchers have compared physician and APRN patient outcomes and found them comparable. These findings are consistent across studies; no findings have shown better health outcomes for patients in states with more restrictive regulatory environments.

An Institute of Medicine (IOM) report published in October 2010 recommends that states amend their scope of practice laws to allow APRNs to practice to the full extent of their education and training in order to meet the demand for primary and preventative care resulting from the federal healthcare reform legislation of 2010. That report cites positive outcomes resulting from Pennsylvania's expanded APRN scope of practice in 2007 and concludes that regarding quality of care it is difficult to distinguish states with restrictive and more expansive scopes of practice.

FIGURE 1
NURSE PRACTITIONERS IN TEXAS AND AUTONOMOUS PRACTICE STATES, OCTOBER 2010

STATE	NURSE PRACTITIONER LICENSES	POPULATION (IN MILLIONS)	NURSE PRACTITIONERS PER 100,000 POPULATION
Texas	8,142	24.8	32.9
New Mexico	753	2.0	37.5
Idaho	584	1.5	37.8
Iowa	1,265	3.0	42.1
Utah	1,259	2.8	45.2
Arizona	2,989	6.6	45.3
Washington	3,407	6.7	51.1
New Jersey	4,560	8.7	52.3
Kentucky	2,339	4.3	54.2
Maryland	3,172	5.7	55.7
Colorado	3,008	5.0	59.9
Oregon	2,317	3.8	60.6
Rhode Island	700	1.1	66.5
Hawaii	930	1.3	72.2
Montana	722	1.0	74.1
Maine	980	1.3	74.3
New York	14,578	20.0	74.6
Connecticut	2,900	3.5	82.4
Wyoming	462	0.5	84.9
Alaska	650	0.7	93.1
New Hampshire	1,435	1.3	108.3
District of Columbia	1,640	0.6	273.5

SOURCE: Legislative Budget Board.

A 2009 RAND Corporation study of Massachusetts' universal health insurance law recommends the state change its scope of practice regulations to allow nurse practitioners to practice autonomously to the limits of their education and training as primary care providers. In making this recommendation, RAND cited the state's critical shortage of primary care physicians, the comparability of patient outcomes under NP-provided care, and the need to contain overall healthcare costs.

A number of factors, including the aging of World War II veterans and the wars in Afghanistan and Iraq, have increased demand on the federal Department of Veterans Affairs (VA). To meet this demand, the VA has transformed from a hospital-based system into one that focuses on primary care and chronic disease management. To do so, it expanded its use of nurse practitioners to provide primary care in inpatient and outpatient settings. Multiple studies of the VA's model have shown that in terms of quality of care, patient outcomes, and spending per enrollee, the VA compares favorably to or exceeds the results of Medicare's fee-for-service program.

A number of other studies and articles, including a 1998 editorial in the *Journal of the American Medical Association* have also concluded that within their particular scope of practice, nurse practitioners offer a quality of care equivalent to that of physicians.

EXPANDING PRESCRIPTIVE AUTHORITY FOR ADVANCED PRACTICE REGISTERED NURSES

Amending statute to authorize APRNs to diagnose and prescribe up to the limits of their education and professional scope would allow NPs, CNMs, and certain CNSs to provide care for patients within their professional scopes without

physician oversight or supervision. It would not completely sever the relationship between an APRN and physician, as identifying problems whose complexity is beyond their scope is an integral component of ARN education and training. In such cases, the APRN's professional responsibility is to refer the patient to the appropriate healthcare provider (such a general practice or specialist physician).

Third-party payers can reimburse most NPs, CNMs and CNSs. All APRNs who bill the Texas Medicaid Program directly are reimbursed at 92 percent of the physician's rate. If an NP or CNS bills Medicare, they are paid 85 percent of the fee paid to physicians.

Recommendation 1 would amend the Texas Occupations Code to allow APRNs to establish a diagnosis and prescribe medication.

Recommendation 2 would amend the Texas Occupations Code to require BON to adopt rules for assigning a prescriptive authorization to an advanced practice registered nurse who has completed 3,600 hours of practice within a delegated prescriptive authority arrangement and allow the agency to establish a surcharge on advanced practice registered nurse license renewals to generate revenue to fund the cost of licensing APRNs and overseeing the tiered prescriptive authority.

In 2009, Colorado adopted a similar tiered system. As of July 2010, APRNs in Colorado earn a provisional prescriptive authority license through a post-graduate mentorship lasting 1,800 hours. During this period, the APRN does not have prescriptive authority and a fully authorized prescriber must sign all their prescriptions. Following the mentorship phase, the APRN must practice for 1,800 hours with a provisional prescriptive authority under the guidance of a physician or fully authorized APRN. Upon completion of their provisional prescriptive authority hours, the APRN can submit an articulated plan for safe prescribing to the state's board of nursing and be granted full prescriptive authority. Because Texas's delegated model of prescriptive authority is a combination of both of Colorado's tiers, dividing the 3,600 hours into two tiers of 1,800 hours is unnecessary.

Recommendation 3 would include a contingency rider in the 2012–13 General Appropriations Bill to appropriate surcharge revenue to the Texas Board of Nursing to administer the tiered prescriptive authority.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 1 has no fiscal impact.

As shown in **Figure 2**, Recommendation 2 would generate $128,348 in General Revenue Funds during the 2012–13 biennium. This revenue would be used by BON for the licensing and regulatory requirements related to establishing a tiered model of prescriptive authority. This estimate is based on a surcharge of about $12 on 5,500 APRN license renewals (the average number of annual license renewals between 2006 and 2010). The costs associated with implementing Recommendation 2 include staffing and technology costs. BON has staff dedicated to processing initial and renewal RN and APRN licenses, but would require one additional full-time-equivalent position to implement the two tiers of licensing and regulatory requirements of Recommendation 2.

FIGURE 2
FIVE-YEAR FISCAL IMPACT
FISCAL YEARS 2010 TO 2016

FISCAL YEAR	PROBABLE GAIN GENERAL REVENUE FUND	PROBABLE (COST) IN GENERAL REVENUE FUND	CHANGE TO FULL-TIME-EQUIVALENTS COMPARED TO 2010–11 BIENNIUM
2012	$67,657	($67,657)	1
2013	$60,692	($60,692)	1
2014	$60,692	($60,692)	1
2015	$60,692	($60,692)	1
2016	$60,692	($60,692)	1

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

INCREASE INFORMATION AVAILABLE ABOUT INTEREST LISTS FOR LONG-TERM CARE PROGRAMS

The Department of Aging and Disability Services manages interest lists for several home and community-based services waiver programs. These lists identify persons who have expressed interest in receiving services that are currently unavailable due to limitations on the number of program participants. Waiting lists differ from interest lists in that waiting lists include only people eligible for services. The agency reports the size of the interest lists to the Texas Legislature through performance measures, and this information is a primary method for the Texas Legislature to measure demand for community services and make appropriation decisions. However, the size of the lists alone does not accurately reflect the need for services. Converting existing performance measures on the size of the interest lists to key measures and establishing new key performance measures to reflect the percentage of persons who receive services from other agency programs and on the number of persons who declined or were found ineligible for services when they were offered would provide the Legislature with more complete information to use in making appropriation decisions about whether to expand the programs.

FACTS AND FINDINGS

- Interest lists are a tool used by the Legislature in making appropriation decisions about whether to expand the number of persons served in each waiver program based on perceived need.
- Interest lists operate on a first-come, first-served basis; no prioritization of need occurs.
- When a person signs on to an interest list, no eligibility determination is made.
- Persons may sign on to multiple interest lists; as of August 31, 2010, all lists contained 140,480 names, and the unduplicated count excluding the state's managed care program for persons with disabilities in certain urban service delivery areas was 103,145.

CONCERN

- Interest list information is of limited use because it does not take into account the number of persons who decline or are denied services once they become available or the number or persons who receive other services from Department of Aging and Disability Services programs while they wait for waiver services.

RECOMMENDATIONS

- **Recommendation 1:** Convert the existing explanatory performance measure on the size of the interest list for each of the five home and community-based waiver programs with interest lists from a non-key to a key performance measure.
- **Recommendation 2:** Add a new explanatory performance measure to the 2012–13 General Appropriations Bill for each of the five home and community-based waiver programs with interest lists that would require the Department of Aging and Disability Services to report the number of persons who declined or were found to be ineligible for services offered in the prior fiscal year.
- **Recommendation 3:** Add a new explanatory performance measure to the 2012–13 General Appropriations Bill for each of the five home and community-based waiver programs with interest lists that would require the Department of Aging and Disability Services to report the average monthly number of persons on the interest list receiving services from other programs offered by the agency.
- **Recommendation 4:** The Department of Aging and Disability Services should collect information on whether persons on interest lists who are receiving other department services have unmet needs.

DISCUSSION

Historically under the federal Medicaid program, states have provided long-term care to aging persons and persons with physical and intellectual/developmental disabilities in institutional settings such as nursing homes, skilled nursing facilities, and Intermediate Care Facilities for Persons with Mental Retardation (ICF/MR). However, states also have the authority under Medicaid to develop home and community-based services through optional 1915(c) Medicaid waivers, the mandatory home health benefit, and optional state plan personal care services benefit.

Over the past two decades, states have invested significantly in the expansion of community programs due to several factors. The 1999 *Olmstead v. L.C. (Olmstead)* U.S. Supreme Court decision established the legal framework that prohibits states from unnecessarily institutionalizing persons with disabilities and from failing to serve them in the most integrated setting. To comply with the ruling, states developed a variety of initiatives to move persons from institutions to the community and expand community services to prevent institutionalization. Also, growing consumer demand to be served in their communities has driven investment in community services. Finally, states' desires to control costs associated with institutional care have prompted many states to invest in community services, even though most expenditures remain for institutional care.

Nationwide, most non-institutional expenditures for home and community-based services are for 1915(c) waivers. Section 1915(c) of the federal Social Security Act enables states to develop programs that "waive" off some of the requirements of institutional care. This means that states gain flexibility in that they can set the medical and financial eligibility criteria for waiver services, limit the number of persons served through slots, and limit programs to certain geographic areas or populations. The cost to serve persons in the community in the aggregate must not exceed costs associated with comparable levels of institutional care. States targeted many of the early 1915(c) waivers to aging persons and persons with physical and intellectual/developmental disabilities, but have more recently offered programs to serve persons with other conditions such as HIV and acquired brain injuries.

TEXAS 1915(C) WAIVER PROGRAMS

Figure 1 shows the 1915(c) waiver programs operated by the Department of Aging and Disability Services (DADS).

The programs exclusively waiving off nursing facility services include Community Based Alternatives program (CBA) and the Medically Dependent Children Program (MDCP). Programs waiving off ICF/MR services include Home and Community-based Services (HCS), Community Living Assistance and Support Services (CLASS), Deaf Blind Multiple Disabilities (DB/MD), and the Texas Home Living (TxHL) program.

The Consolidated Waiver Program (CWP) waives off both nursing facility and ICF/MR services. The program was designed as a pilot in Bexar County to test the feasibility of consolidating five of the state's 1915(c) waivers into one program. Legislation enacted by the Eighty-first Legislature, Regular Session, 2009, eliminated CWP because the small size of the program made it difficult to evaluate the pilot's effectiveness and expansion of the STAR+PLUS program, a capitated program that integrates acute and long-term care services in certain urban service areas, limits the number of clients who can participate in CWP. DADS continues to operate the program due to American Recovery and Reinvestment Act of 2009 maintenance of effort requirements.

Over the past 10 years, the Legislature has increased appropriations to increase the number of persons served in each waiver program. **Figure 2** shows increased long-term care expenditures by waiver over the last two biennia. **Figure 3** shows the increase in the number of persons served by waiver program from fiscal years 2006 to 2009.

USE OF WAITING AND INTEREST LISTS IN LONG-TERM CARE WAIVER PROGRAMS

In the federal Medicaid program, nursing facility services are an entitlement and ICF/MR services function like an entitlement if a state offers them, meaning that a state must serve all eligible persons. However, waiver programs are not entitlement programs and states can limit the number of persons served. In practice, some states treat their waiver programs as entitlements meaning that consumers do not have to wait for services, but in many other states, persons must wait for services until funding is available. To manage interest in services and provide a process to offer services to persons as appropriations allow, states have developed lists (e.g., waiting, interest, and planning lists) and registries. Implementation of lists varies by state, but generally, waiting lists include persons for whom eligibility has been determined, interest lists include persons that have expressed interest in receiving service but may or may not be eligible, and planning lists include persons who anticipate a need to receive services in the future. *Olmstead* permits a state to operate a waiting list, as long as it moves "at a reasonable pace not controlled by the State's endeavors to keep its institutions fully populated."

Figure 4 shows the 10 states with the largest total persons waiting for or interested in 1915(c) HCBS waiver services in 2008. The total number of persons waiting in Texas exceeds other states for persons with developmental disabilities and the aged and disabled populations, however it is difficult to compare states. Some states assess a person's functional or financial eligibility prior to list placement and ineligible

FIGURE 1
TEXAS 1915(C) MEDICAID WAIVERS, 2010

PROGRAM WAIVE OFF	WAIVER	SUMMARY OF SERVICES	ELIGIBILITY CRITERIA	SERVICE AREA	AVERAGE MONTHLY CASELOAD (FISCAL YEAR 2010)	AVERAGE MONTHLY COST PER CLIENT (FISCAL YEAR 2010)	TOTAL FISCAL YEAR 2010 EXPENDITURES
Nursing facility	**Community Based Alternatives (CBA)**	• Case management • Adaptive aids • Medical supplies • Dental • Adult Foster Care • Assisted living/residential care • Emergency response • Nursing • Minor home modifications • Occupational therapy • Personal assistance • Home delivered meals • Physical therapy • Respite care • Speech pathology • Transition assistance	• Age 21 or older • Meet medical necessity for nursing facility care • Medicaid eligible • Monthly income within 300% of Supplemental Security Income (SSI) • Countable resources not to exceed $2,000 • Have an individual service plan that does not exceed 200% of the reimbursement rate for nursing facility services	Statewide	26,108	$1,562	$490,296,131
Nursing facility	**Medically Dependent Children Program (MDCP)**	• Adaptive aids • Adjunct support services • Minor home modifications • Respite • Financial management services • Transition assistance services	• Individuals under age 21 • Meet medical necessity requirements or nursing facility care • Monthly income limit within 300%of the SSI limit • Countable resources not to exceed $2,000 • Have an individual plan of care that does not exceed 50% of the reimbursement rate for nursing services	Statewide	2,626	$1,560	$49,159,848
Nursing facility	**Home and Community-Based Services (HCS)**	• Case management • Residential assistance • Supported employment • Day habilitation • Respite • Dental treatment • Adaptive aids • Minor home modifications • Specialized therapies (social work, behavioral support, occupational therapy, physical therapy, audiology, speech/ language pathology, dietary services, and licensed nursing)	• Individuals of any age • Have a determination of mental retardation or a related condition • Meet ICF/MR or ICF/RC (Related Condition) Level of Care I • Monthly income within 300% of the SSI limit • Have an individual service plan that does not exceed 200% of the reimbursement rate for ICF/ MR services	Statewide	17,255	$3,534	$731,844,517

FIGURE 1 (CONTINUED)
TEXAS 1915(C) MEDICAID WAIVERS, 2010

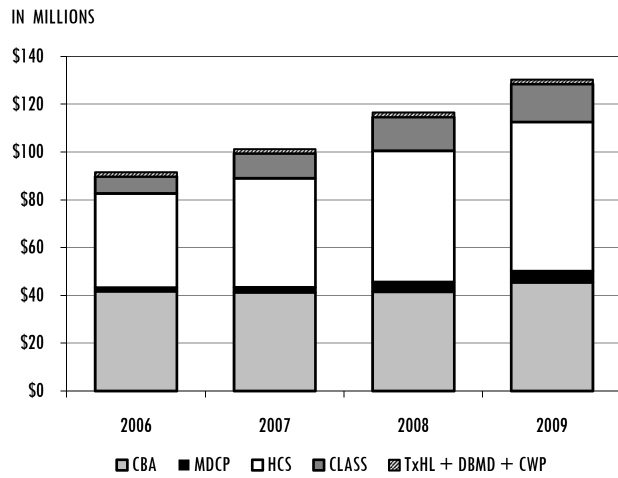
PROGRAM WAIVE OFF	WAIVER	SUMMARY OF SERVICES	ELIGIBILITY CRITERIA	SERVICE AREA	AVERAGE MONTHLY CASELOAD (FISCAL YEAR 2010)	AVERAGE MONTHLY COST PER CLIENT (FISCAL YEAR 2010)	TOTAL FISCAL YEAR 2010 EXPENDITURES
Intermediate Care Facility for Persons with Mental Retardation/ Related Condition	**Community Living Assistance and Support Services (CLASS)**	• Case management • Adaptive aids and medical supplies • Consumer directed services • Habilitation • Minor home modifications • Nursing services • Occupational and physical therapy • Behavioral support services • Respite • Specialized therapies • Speech pathology • Pre-vocational services • Supported employment • Support family services • Transition assistance services	• Individuals of any age • Have a determination of a related condition • Monthly income within 300% of the SSI limit • Countable resources not to exceed $2,000 • Have an individual service plan that does not exceed 200% of the reimbursement rate for ICF/MR services for a person qualifying for ICF/MR Level of Care VIII	Statewide	4,210	$3,650	$185,690,883
Intermediate Care Facility for Persons with Mental Retardation/ Related Condition	**Texas Home Living (TxHL)**	• Community Living Service including community support, day habilitation, employment assistance, supported employment, and respite • Technical and Professional Supports Services including skilled nursing, behavioral support, adaptive aids, minor home modifications, dental treatment, and specialized therapies	• Individuals of any age • Determination of mental retardation or a related condition • Living in own home or in a family home • Medicaid eligible • Meet the requirements for ICF/MR Level of Care I • Have an individual service plan that does not exceed $18,135 • Cannot be assigned a Pervasive Plus Level of Need (LON 9)	Mostly Statewide	994	$698	$8,324,074
Intermediate Care Facility for Persons with Mental Retardation/ Related Condition	**Deaf Blind with Multiple Disabilities (DB/MD)**	• Case management • Adaptive aids and medical supplies • Dental services • Assisted living • Behavioral support services • Chore services • Minor home modifications • Residential habilitation • Day habilitation • Intervener • Nursing services • Occupational therapy	• Individuals of any age • Have deaf blindness with one or more disabilities that impairs independent functioning • Monthly income within 300% of the SSI limit • Countable resources not to exceed $2,000 • Have an individual service plan that does not exceed 200% of the reimbursement rate for a person qualifying for ICF/MR Level of Care VIII	Statewide	150	$4,082	$7,347,798

FIGURE 1 (CONTINUED)
TEXAS 1915(C) MEDICAID WAIVERS, 2010

PROGRAM WAIVE OFF	WAIVER	SUMMARY OF SERVICES	ELIGIBILITY CRITERIA	SERVICE AREA	AVERAGE MONTHLY CASELOAD (FISCAL YEAR 2010)	AVERAGE MONTHLY COST PER CLIENT (FISCAL YEAR 2010)	TOTAL FISCAL YEAR 2010 EXPENDITURES
Intermediate Care Facility for Persons with Mental Retardation/ Related Condition (Continued)		• Physical therapy • Orientation and mobility • Respite • Speech • Hearing and language therapy • Supported employment • Employment assistance • Dietary services • Financial management services for the consumer directed services option • Transition assistance					
Both Nursing Facility and ICF/MR	**Consolidated Waiver Program (CWP)**	• Adaptive aids/medical supplies • Adult foster care • Assisted Living/Residential Care • Audiology • Behavioral support • Dental • Dietary • Emergency response services • Day habilitation • Home-delivered meals • Independent advocacy • Intervener • Minor home modifications • Nursing • Orientation and mobility • Personal assistance • Transportation • Respite • Social work • Employment assistance • Supported employment • Physical and occupational therapy • Speech/language therapy	• Live in Bexar County • On the interest list for STAR+PLUS, HCS, CLASS, DB/MD, or MDCP • Monthly income within 300% of SSI limit • Countable resources not to exceed $2,000 • Have an individual service plan that does not exceed 200% of the reimbursement rate for a nursing facility or ICF/MR • Meet medical necessity requirements for nursing facility services or requirements for service in ICF/MR	Bexar	159	$1,904	$3,623,609

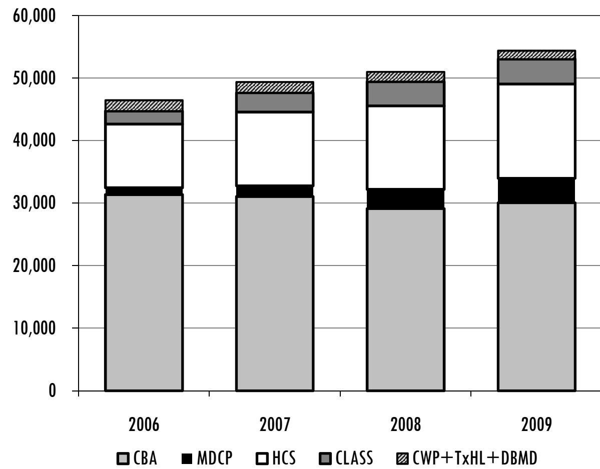
NOTES: The average monthly number of persons receiving a waiver's services and costs exclude persons receiving the service through the Promoting Independence Initiative, except in the case of HCS. The average monthly number of persons receiving CBA services includes persons who are receiving CBA services through the Integrated Care Management but excludes the 3,793 persons receiving CBA services through STAR+PLUS. The average monthly cost and total fiscal year expenditures do not include acute care costs.
SOURCE: Legislative Budget Board.

FIGURE 2
EXPENDITURES BY 1915(C) WAIVER PROGRAM
FISCAL YEARS 2006 TO 2009



Notes: Expenditures do not include acute care costs for waiver recipients. Expenditures for CBA do not include persons who access CBA services through the STAR+PLUS program.
Sources: Legislative Budget Board; Department of Aging and Disability Service.

FIGURE 3
PERSONS SERVED BY 1915(C) WAIVER PROGRAM
FISCAL YEARS 2006 TO 2009



Notes: Persons served by CBA exclude persons who access CBA services through the STAR+PLUS program. Includes persons served in the waiver programs through the Promoting Independence Initiative.
Source: Legislative Budget Board.

FIGURE 4
TEN STATES WITH THE LARGEST TOTAL NUMBER OF PERSONS WAITING FOR 1915(C) HOME AND COMMUNITY-BASED (HCBS) WAIVER SERVICES, 2008

	MR/DD	AGED	AGED AND DISABLED	PHYSICALLY DISABLED	CHILDREN	HIV/AIDS	TBI/SCI	TOTAL
1. Texas	58,449	NA	40,107	22	12,282	NA	NA	110,860
2. Ohio	50,670	NA	1,224	NA	NA	NA	NA	51,894
3. Indiana	33,753	NA	1,279	NA	NA	NA	169	35,201
4. Florida	22,639	0	12,684	0	3	0	434	35,760
5. Pennsylvania	20,460	0	NA	0	0	0	0	20,460
6. Oklahoma	12,207	NA	0	NA	NA	NA	NA	12,207
7. Georgia	10,364	NA	763	NA	0	NA	115	11,242
8. Louisiana	9,151	NA	8,433	NA	4,384	NA	NA	21,968
9. Virginia	8,334	0	0	0	NA	0	NA	8,334
10. Wisconsin	3,930	NA	13,296	NA	NA	NA	117	17,343
United States	253,306	6,343	109,859	2,994	18,967	14	1,613	393,096

Source: Kaiser State Health Facts.

persons never sign on to the list, while others such as Texas do not, resulting in a list that could draw from more persons (both those who are eligible and ineligible).

List management practices vary across states, and **Figure 5** shows other state examples of list management techniques, with Texas' policy provided for comparison. In a 2004 report, the Kaiser Commission on Medicaid and the Uninsured found more than 60 percent of individual waivers maintained by states screened clients for Medicaid eligibility prior to placement on the list. Approximately 46 percent of waivers prioritized certain persons (e.g., institutionalized persons) for

FIGURE 5
EXAMPLES OF LIST MANAGEMENT PRACTICES BY STATE

	OTHER STATES	TEXAS, 2010
Initial Assessment of Need	Pennsylvania and Illinois use the Prioritization of Urgency of Need for Services instrument to measure need.	DADS does not assess need prior to list placement.
Prioritization Based on Need	• Virginia: uses three types of lists for the Mental Retardation/Intellectual Disability waiver: an urgent waiting list, a non-urgent waiting list for people needing services within 30 days, and a planning list. Virginia uses the Supports Intensity Scale, an assessment tool to reflect needs, and prioritizes people on the waiting list based on SIS score. • Georgia: employs short and long-term waiting lists and places people on the appropriate list depending on need and the timing of when services will be required. • Kansas: uses a first-come, first served process for its lists, but has a crisis exemption for individuals with immediate needs. • Florida: allows individuals in crisis to receive priority enrollment in a waiver. • Alabama: uses a ranking to denote need on the waiting list that is calculated by criticality summary score and the length of time a person has been waiting for services.	The lists operate on a first-come, first-served basis. However, some exceptions exist: • HCS: Some slots exist to serve persons at risk of institutionalization. • CBA: Persons receiving MDCP or Health Steps Comprehensive Care Program services can access CBA services when they turn 21 without a wait. A waiver bridge policy exists to enable persons who have been erroneously waiting for one waiver's services to be transferred to the appropriate program with the original interest list date.
Periodic Reassessment of Need	• Georgia: screens persons every four months to see if needs have changed. • Kansas: screens annually.	DADS does not reassess need for persons on the interest list.
Periodic List Review	Maryland matches registry data with vital statistics data to remove deceased persons.	DADS removes uninterested and deceased persons identified through: • Annual calls to persons on the lists • Matching of interest list data with SAVERR and Social Security Administration data to identify deceased persons.
Notification of Status	Wisconsin requires the administering agency to notify persons on the list every six months about their status and provide an estimate of when funding will be available to serve them.	DADS sends an initial letter to persons once they sign on to an interest list. DADS contacts individuals on the lists annually but does not provide notification of status unless a person inquires about their status.
Reporting	Michigan produces a quarterly report on the number of persons waiting for services, the length of the wait, new persons enrolled, and persons eliminated from list and reasons for their removal.	DADS publishes current and historical data on its website for each interest list including the number of persons released/removed from each list over the past biennium, enrolled, in the pipeline, and denied/declined, and the total number of persons on each interest list and the length of time persons wait for services.

Source: Legislative Budget Board.

waiver services (potentially enabling them to bypass lists) and most of the waivers allow for certain persons to be placed higher on the list based on certain characteristics (e.g., need).

INTEREST LISTS IN TEXAS

DADS maintains interest lists for the following programs:

- 1915(c) waivers: CBA, MDCP, HCS, CLASS, DB/MD programs;
- Medical assistance-only: ICM and STAR+PLUS;
- Non-Medicaid funded services: Adult Foster Care, Consumer Managed Personal Attendant Services, Day Activity and Health Services, Emergency Response Services, Family Care, Home Delivered Meals, Residential Care, and Special Services for Persons with Disabilities; and
- In-Home and Family Supports.

There is no list for the TxHL program; services are offered to persons on the HCS list in regions with the TxHL program.

The lists were developed as interest lists and remain that way; the lists operate on a first-come, first-served basis and no determination of functional or financial eligibility occurs prior to placement on a list. The lists are managed on a statewide basis for all the waivers except CBA and the two medical assistance-only lists, which are managed regionally. **Figure 6** shows the number of persons on each list, by program.

FIGURE 6
INTEREST LIST BY WAIVER PROGRAM, AS OF AUGUST 31, 2010

WAIVER PROGRAM	NUMBER OF PERSONS ON INTEREST LIST
CBA	35,220
STAR+PLUS	5,288
CLASS	32,650
DB/MD	316
HCS	45,756
MDCP	18,404
Total	**140,480**
Unduplicated Total (without STAR+PLUS)	**103,145**

SOURCE: Department of Aging and Disability Services.

The time a person can expect to wait for services varies by program. **Figure 7** shows the number of persons and percentage of persons waiting by the duration of their wait.

FIGURE 7
TIME ON INTEREST LIST, AS OF AUGUST 31, 2010

DURATION (YEARS)	CBA	STAR+PLUS	CLASS	DB/MD	MDCP	HCS
0 to 1	17,001 (48.3%)	3,477 (65.8%)	7,177 (22.0%)	253 (80.0%)	5,646 (30.7%)	9,476 (20.7%)
1 to 2	15,356 (43.6%)	1,692 (32.0%)	6,437 (19.7%)	47 (14.9%)	4,693 (25.5%)	8,499 (18.6%)
2 to 3	2,863 (8.1%)	50 (0.9%)	5,791 (17.7%)	12 (3.8%)	4,146 (22.5%)	6,768 (14.8%)
3 to 4		58 (1.1%)	4,927 (15.1%)	4 (1.3%)	3,423 (18.6%)	5,571 (12.2%)
4 to 5	--	11 (0.2%)	3,136 (9.6%)	--	496 (2.7%)	4,381 (9.6%)
5 to 6	--	--	2,529 (7.7%)	--	--	3,488 (7.6%)
6 to 7	--	--	2,440 (7.5%)	--	--	3,425 (7.5%)
7 to 8	--	--	-213 (0.7%)	--	--	3,156 (6.9%)
8 to 9	--	--	--	--	--	992 (2.1%)

SOURCE: Department of Aging and Disability Services.

The interest lists are a tool for the Legislature to use in measuring interest in and need for community services. Although it is likely that the lists underestimate total interest in waiver programs to an unknown degree because each time funding allows for the creation of new slots and persons move off the lists, new persons take their place, a number of known limitations result in an overstatement of the need for services.

Summing the number of persons on each interest list does not provide an accurate count of total persons interested in services because current list management policy allows persons to sign on to multiple lists, resulting in duplication across programs. According to DADS, as of August 31, 2010, the total number of persons on all lists was 140,480 but the unduplicated count was 108,433. The unduplicated count excluding persons in STAR+PLUS service areas was 103,145

The lists also contain many persons who are found ineligible or decline services when they become available. This occurs because functional and financial assessments do not take place prior to list placement, and also because people sign on to a list in anticipation of future needs, given the wait for the program, but may not have a need for services once they are available.

According to DADS, as of August 31, 2010, of the 21,873 persons released or removed from the interest lists for fiscal years 2010 and 2011, 11,929 were denied/declined (54.5 percent). **Figure 8** shows by waiver, the number of persons enrolled, in the process of enrollment, and denied/declined for fiscal years 2010 and 2011. Analysis of available data from DADS' website for fiscal years 2008 to 2010 illustrates that the number of persons who are denied or decline services varies by waiver and year but that this trend has existed for several prior years.

DADS analyzed reasons why persons are denied or decline services for fiscal years 2010 and 2011. The agency identified the primary explanatory factors of death, could not locate, did not respond, declined, and does not meet eligibility criteria, as shown in **Figure 9**. Of persons who declined services, three

FIGURE 8
PERSONS RELEASED/REMOVED FROM THE INTEREST LISTS, FISCAL YEARS 2010 TO 2011, AS OF AUGUST 31, 2010

	CBA	ICM	STAR+PLUS	CLASS	DB/MD	MDCP	HCS	TOTAL
Clients on Interest List - August 31, 2009	34,050	1,948	3,685	27,674	79	14,347	42,360	124,143
Total Released/Removed from Interest List	8,595	3,237	2,895	1,718	0	626	4,802	21,873
Enrolled	1,180	233	540	96	0	106	2,370	4,525
In the Pipeline	1,763	719	719	785	0	104	1,329	5,419
Denied/Declined	5,652	2,285	1,636	837	0	416	1,103	11,929
Current Interest List - August 31, 2010	35,220	2,846	5,288	32,650	316	18,404	45,756	140,480

Source: Department of Aging and Disability Services.

FIGURE 9
ANALYSIS OF PERSONS WHO WERE DENIED OR DECLINED SERVICES, FISCAL YEARS 2010 TO 2011, AS OF AUGUST 31, 2010

	CBA	ICM	STAR+PLUS	CLASS	DB/MD	MDCP	HCS
Denied/Declined	5,652	2,285	1,636	837	0	416	1,103
Deceased	4.5%	7.8%	6.6%	1.2%	0.0%	0.2%	1.3%
Could Not Locate	0.8%	2.3%	2.5%	4.1%	0.0%	10.3%	1.2%
Did Not Respond	4.7%	7.8%	23.0%	57.4%	0.0%	19.5%	22.2%
Declined*	55.5%	43.8%	33.6%	35.6%	0.0%	52.2%	68.2%
Does Not Meet Eligibility	30.0%	12.6%	26.3%	1.8%	0.0%	14.7%	7.2%
Other	4.5%	25.9%	8.1%	0.0%	0.0%	3.1%	0.0%
"Declined" includes, but is not limited to:							
Receiving Other Services	7.6%	0.8%	1.3%	12.9%	0.0%	13.2%	49.1%
Medicaid Estate Recovery Program	7.2%	2.3%	3.2%	0.0%	0.0%	0.0%	0.1%
Voluntarily Withdrew	20.7%	28.4%	15.3%	5.5%	0.0%	21.6%	11.3%

Source: Department of Aging and Disability Services.

of the most common explanations included that they were receiving other services, that they did not want to be subject to the Medicaid Estate Recovery Program, or that they voluntarily withdrew.

The size of the interest list does not reflect unmet need, because a segment of persons on most of the lists receive services in other programs while they wait. **Figure 10** shows the number and percentage of persons who received other DADS' services while they waited for waiver services. The figure does not include persons who might be receiving services from other health and human services agencies or through school-based services. While it is possible the services persons receive are not as robust as the services for which they are waiting to receive, the fact that a number of persons declined services because they were receiving other services suggests that at least some of their current needs were being met. The extent to which this occurs varies by waiver and consumer, however.

FIGURE 10
CONSUMERS ON THE INTEREST LIST RECEIVING OTHER DADS' SERVICES, JUNE 30, 2010

PROGRAM	PERSONS ON INTEREST LIST	PERSONS RECEIVING OTHER SERVICES	PERCENTAGE RECEIVING OTHER SERVICES
CBA	35,220	22,255	62.1%
STAR+PLUS	5,288	2,042	45.0%
CLASS	32,650	5,407	17.2%
DB/MD	316	108	37.1%
HCS	45,756	10,839	23.2%
MDCP	18,404	340	1.9%

Source: Department of Aging and Disability Services.

Taken together, these data demonstrate that the use of interest lists alone to gauge interest in and need for 1915(c) waiver services is problematic. It also suggests that the policy goal of eliminating interest lists so that there is no wait for services is not feasible or desirable as long as no functional needs or financial assessments occur prior to placement on a list and as long as people speculate about their future needs for services.

PROVIDING ADDITIONAL INTEREST LIST DATA

Recommendation 1 would convert the existing explanatory performance measure on the size of the interest list for each of five home and community-based services waiver programs (CBA, CLASS, DB/MD, HCS, and MDCP) from a non-key to a key performance measure. This would add the measures and related targets to the 2012–13 General Appropriations Bill.

Recommendations 2 and 3 would require DADS to provide the Legislature with additional data about the composition of the interest lists to assist the Legislature in assessing need and making appropriation decisions. The additional performance measures would provide context for data DADS already reports on the size of each interest list by waiver program.

Recommendation 2 would add an explanatory performance measure to the 2012–13 General Appropriations Bill for the CBA, CLASS, DB/MD, HCS, and MDCP programs requiring DADS to report on the number of persons who declined or were found to be ineligible for a slot offered in the prior fiscal year.

Recommendation 3 would add an explanatory performance measure to the 2012–13 General Appropriations Bill for the CBA, CLASS, DB/MD, HCS, and MDCP programs requiring DADS to report on the average monthly number of persons on the interest list receiving services from other programs offered by the agency.

Recommendation 4 would encourage DADS to collect information about whether persons on interest lists who are receiving other DADS' services have unmet needs. This analysis assumes DADS could capture this information when it contacts persons on the interest lists annually.

Aside from these recommendations, other options exist that would result in an improvement in the quality of information available to the Legislature about persons needing waiver services. These options include use of an assessment of functional needs and financial status prior to list placement, conversion to a needs-based list system that prioritizes persons with higher needs, and adoption of a planning list in addition to the interest list in each program. However, such options are cost-prohibitive at this time, and even though they would result in better information about the lists, they would create additional challenges.

The Texas Department of Human Services previously examined assessment of need and conversion to a needs-based list system in a 1999 report, in response to a 1998 Sunset Advisory Commission recommendation that the agency maintain a needs-based waiting list for community care programs. Legislation proposed in the Seventy-sixth

Legislature, Regular Session, 1999, which would have required the adoption of a needs-based list. The agency found given the size of the interest list, such assessments would be cost-prohibitive given that reassessments would be required because peoples' needs change. In addition, prioritizing needs would be difficult, given the wide range of needs of consumers. Given the long-standing use of a first-come, first-served list, shifting to a needs-based approach could be perceived as unfair for those who had been waiting the longest but whose needs might be deemed as less severe than others who have been waiting for a shorter period. According to DADS, these concerns remain valid today.

Use of planning lists could help to prioritize needs, but would need to be implemented along with assessments before placement, otherwise, duplication could occur across lists.

FISCAL IMPACT OF THE RECOMMENDATIONS

This analysis assumes there is no cost to implement the recommendations.

The introduced 2012–13 General Appropriations Bill includes the performance measures suggested in Recommendations 1, 2, and 3.

STRENGTHEN CERTIFIED NURSE AIDE TRAINING TO IMPROVE THE QUALITY OF LONG-TERM CARE

Nurse aides are direct-care workers who provide the bulk of bedside care, such as assistance with eating, bathing, housekeeping, and observing and reporting changes in a client's condition. Federal law requires nurse aides who work in nursing homes participating in Medicare or Medicaid to be certified. To become a certified nurse aide, candidates must complete a state-approved training program, pass a competency test, and be listed in the state's nurse aide registry.

In 2002, the Office of Inspector General at the U.S. Department of Health and Human Services concluded that the current training for certified nurse aides is too short and outdated. Federal legislation enacted in 1987 established regulations regarding education for certified nurse aides. Since then, the educational requirements have not been updated. Twenty-six states require more education than the federal standard. Texas requires the federal minimum of 75 hours with 51 hours devoted to classroom training and 24 hours for practical or clinical training. In November 2009, the Department of Aging and Disability Services formed the Certified Nurse Aide Stakeholder Workgroup to generate ideas and discussion as to how the agency could improve activities related to the training and regulation of certified nurses aides within their existing authority. The workgroup consisted of representatives from nursing facilities, home health agencies, hospitals, state regulatory staff, as well as certified nurse aides, and nurses. The workgroup recommended that the Department of Aging and Disability Services raise the minimum requirement of training hours and suggests the current certified nurse aide curriculum would need to be reviewed to determine the number of additional hours that would be appropriate to accommodate new or expanded topics.

Federal regulations also require nursing facilities to offer at least 12 hours of continuing education each year to certified nurse aides, but there is no matching state or federal requirement for certified nurse aides to attend continuing education as a condition to renew their certification. Without a requirement tying continuing education to the recertification process a regulatory gap exists. Increasing nurse aide training hours and strengthening the recertification process by requiring continuing education hours would help improve the quality of long-term care.

CONCERNS

- For the past five fiscal years during licensing inspections of Texas nursing homes, nurse aides under observation have not able to demonstrate they had the proper skills to care for patients, thereby raising questions about their abilities to provide adequate care to vulnerable populations. This was the fourth most frequently cited health code deficiency in fiscal year 2009, according to the Texas Department of Aging and Disability Services.
- Federal regulations require nursing facilities to offer at least 12 hours of continuing education each year to certified nurse aides. However, there is no state or federal regulation requiring certified nurse aides to complete continuing education hours as a condition of recertification, thus missing an opportunity to ensure certified nurse aides receive ongoing training needed to improve their skills.

RECOMMENDATIONS

- **Recommendation 1:** Amend statute to increase the number of hours required for a nurse aide certification program from 75 hours to no less than 120 hours and no more than 359 hours.
- **Recommendation 2:** Amend statute to require 12 hours of continuing education annually as a condition for the renewal of nurse aide certification.
- **Recommendation 3:** Amend statute to add an expiration date to each nurse aide certificate issued.

DISCUSSION

Long-term care is a broad term to describe the type of assistance with daily activities that older persons and persons with a disability receive to minimize, rehabilitate, or compensate for the loss of independent physical or mental functioning. Long-term care may be provided in an institutional setting, such as a nursing home, or through home- and community-based settings, such as an adult day care center, board and care homes, or an individual's home.

Instrumental in the ability to provide long-term care is an adequate, skilled, and diverse workforce. Doctors, registered

nurses, licensed vocational nurses, nurse aides, and informal caregivers (family and friends) are all a part of the long-term care workforce. Nurse aides are direct-care workers who provide the bulk of bedside care, such as assistance with eating, bathing, housekeeping, and observing and reporting changes in a client's condition. Nurse aides are also known as nurse assistants, personal care workers, orderlies, attendants, home health aides, and certified nurse aides (CNAs). Federal law requires nurse aides who work in nursing homes participating in Medicare or Medicaid to be certified. To become a CNA, candidates must complete a state-approved training program, pass a competency test, and be listed in the state's CNA registry.

Using data from the U.S. Bureau of Labor Statistics, the Paraprofessional Health Institute estimated in 2008, there were 3.2 million paraprofessionals employed nationwide as a direct-care worker. In 2009, the Texas Workforce Commission reported there were 99,940 nursing aides, orderlies, and attendants employed in Texas. The direct-care workforce is predominantly female. Figure 1 shows the characteristics of direct-care workers compared to all female workers.

As **Figure 1** shows, direct-care workers are older and typically have a high school education or less. The average age for a direct-care worker is 41. Forty-three percent of direct-care workers have children under age 18. According to the American Association for Retired Persons (AARP), direct-care workers are usually natural caretakers and choose this type of work because of a desire to help people in the healthcare system. Throughout history, female family members provided care for older persons in their extended family. However, in the late 20th century, large numbers of women entered the workforce and many families moved away from their extended families, thereby increasing the demand for paid caregivers.

The primary pool of workers for direct-care jobs are women aged 18 to 45, and the future demand for direct-care jobs is expected to grow.

There is a growing concern about the current and future supply of long-term care paraprofessionals. Many aspects of the work environment that affect workforce shortages are magnified in the long-term care sector. Previous research points to many interrelated factors contributing to high rates of turnover including low wages, lack of a full-time work schedule, lack of health insurance benefits and paid time off, emotionally taxing and physically daunting work, limited opportunities for advancement, and inadequate and outdated training. Training is the first step to improving the stability of the long-term care workforce. If nurse aide training does not adequately prepare a worker for the job, then no amount of money, benefits, or work schedule flexibility will be able to compensate for its inadequacy.

The Texas Department of Health last updated Texas' CNA training in 2000. Representatives from several nurse aide training programs, registered nurses and licensed vocational nurses from nursing facilities and colleges, program specialists, and a nursing specialist from the Texas Department of Human Services participated in the process.

PRE-EMPLOYMENT EDUCATION REQUIREMENTS

The federal Nursing Home Reform Act which was part of the Omnibus Budget Reconciliation Act of 1987 created federal requirements regarding certified nurse aide (CNA) education. It established CNAs must have a minimum of 75 hours of

FIGURE 1
CHARACTERISTICS OF DIRECT-CARE WORKERS AND ALL FEMALE WORKERS

CHARACTERISTIC	ALL FEMALE WORKERS	DIRECT-CARE WORKERS	NURSING HOME AIDES	HOSPITAL AIDES
Race and Ethnicity				
-White, non Hispanic	70%	51%	51%	55%
-Black, non Hispanic	13%	29%	35%	30%
-Hispanic	11%	15%	10%	11%
-Other	6%	5%	4%	5%
Have Children under 18	41%	43%	50%	32%
Average Age	42%	41%	38%	40%
Education Level: High School or Less	37%	62%	65%	51%

Source: U.S. Bureau of Labor Statistics.

training, of which 16 hours must be supervised practical or clinical training. **Figure 2** shows the current federal curriculum requirements.

Texas requires the federal minimum number of hours, with 51 hours devoted to classroom training and 24 hours for clinical training.

Twenty-six states require more pre-employment training hours than federally required. Missouri requires the highest number of hours at 175 followed by California at 160 hours. All Texas training facilities teach the same curriculum distributed by the Texas Department of Aging and Disability Services (DADS); however, each training facility can vary the length of training provided it meets the minimum federal and state requirements. CNA training may be facility-based, as in a nursing home, or non-facility-based, such as a community college, vocational-technical school, high school, or private school. According to DADS, Texas had 321 facility-based training programs and 462 non-facility-based training programs in fiscal year 2009.

CNA training that is facility-based is free to students due to federal regulations prohibiting nursing facilities from

FIGURE 2
FEDERAL CERTIFIED NURSE AIDE CURRICULUM REQUIREMENTS, 2010

Topic	Requirements
Communication and Interpersonal Skills	
Infection Control	
Safety and Emergency Procedures	• Heimlich maneuver
Promoting the Resident's Independence	
Respecting the Resident's Rights	
Basic Nursing Skills	• taking and recording vital signs • measuring and recording height and weight • caring for the resident's environment • recognizing abnormal changes in body functioning and the importance of reporting such changes to a supervisor • caring for the resident when death is imminent
Personal Care Skills	• bathing • grooming • mouth care • dressing • toileting • assisting with eating and hydration • proper feeding techniques • skin care and transfers • positioning • turning
Mental Health and Social Service	• modifying aide's behavior in response to the resident's behavior • awareness of developmental tasks associated with the aging process • how to respond to the resident's behavior • allowing the resident to make personal choices • providing and reinforcing other behavior consistent with the resident's dignity • using the resident's family as a source of emotional support
Care of Cognitively Impaired Residents	• techniques for addressing the unique needs and behaviors of an individual with dementia (Alzheimer's disease and others) • communicating with a cognitively impaired resident • understanding the behavior of cognitively impaired residents • appropriate responses to the behavior of a cognitively impaired resident • methods of reducing the effects of cognitive impairments
Basic Restorative Services	• training the resident in self care according to the resident's abilities • use of assistive devices in transferring • ambulation, eating, and dressing • maintenance of range of motion • proper turning and positioning in bed and chair • bowel and bladder training care and • use of prosthetic and orthotic devices

FIGURE 2 (CONTINUED)
FEDERAL CERTIFIED NURSE AIDE CURRICULUM REQUIREMENTS, 2010

Resident's Rights	• providing privacy and maintenance of confidentiality • promoting the resident's right to make personal choices to accommodate their needs • giving assistance in resolving grievances and disputes • providing needed assistance in getting to and participating in resident, family, group, and other activities maintaining care and security of the resident's personal possessions • promoting the resident's right to be free from abuse, mistreatment, and neglect and the need to report any instances of such treatment to appropriate facility staff • avoiding the need for restraints in accordance with current professional standards

SOURCE: Code of Federal Regulations.

charging for it. Medicaid and Medicare-certified nursing facilities receive reimbursement for a portion of CNA training and examination costs. Nursing facilities are reimbursed at a pro rata share based on each facility's specific ratio of Medicaid clients to the total number of clients in a facility. In fiscal year 2009, DADS reimbursed nursing facilities $457,709 in All Funds for certified nurse aide training. Students receiving training other than from a nursing home may be reimbursed a portion of their expenses for tuition, textbooks, testing, or other required course materials if the student accepts an offer of employment from a certified Medicaid or Medicare facility within one year of the completion of their training.

In 2002, the U.S. Department of Health and Human Services Office of the Inspector General studied nurse aide training to determine if the training prepares nurse aides for jobs in nursing homes. The national study determined that nurse aide training has not kept pace with nursing home industry needs. Current nursing home residents are sicker and require more care, which results in the use of medical technologies previously only seen in hospitals. Technology, such as intravenous feedings, ventilators, and oxygen are now used regularly in nursing homes. Nationally, nurse aides report that they are taught outdated practices and how to use outdated equipment.

The Inspector General's report found nurse aide training does not meet the needs of the current nursing home population. According to the Paraprofessional Health Institute, nurse aides are put in situations that require unusually sophisticated interpersonal and communication skills in addition to being called upon to manage conflict, set limits, make ethical decisions, grieve, help others grieve, and support other members of the care-giving team. Current training does not address the psycho-social needs of residents. Nurse aides need additional training in interpersonal communication and an understanding of the aging process. According to research conducted in 2006 by AARP, states already requiring more pre-employment training (classroom and clinical) than the federal minimum believe there is still a need to increase total training hours further. There is not agreement among researchers or stakeholders about the number of training hours needed for CNAs. However, in 2008, the Institute of Medicine recommended to Congress to increase the federal standard for certified nurse aide training to at least 120 hours.

The Inspector General also found that nurse aide clinical training exposure is too short and unrealistic. Twenty-nine states, including Texas, have clinical training requirements beyond the federally required 16-hour minimum. Texas requires 24 clinical hours. California and Missouri are tied for the state requiring the highest number of clinical training hours, each requires 100 hours. Long-term care stakeholders agree more clinical training is needed, but there is not a clear consensus on the number of hours needed. Some stakeholders suggest a new minimum of 50 to 60 hours, while others support 50 percent of the overall CNA training be devoted to clinical or practical training.

CNAs in Texas nursing facilities have consistently been unable to demonstrate they had the proper skills to care for patients. For the past five fiscal years during licensing inspections of Texas nursing homes, nurse aides under observation have not able to demonstrate they had the proper skills to care for patients. This was the fourth most frequently cited health code deficiency in fiscal year 2009, according to the Texas Department of Aging and Disability Services. Nurse aides without the proper skills to care for patients

raises concerns about their abilities to provide adequate care to current and future vulnerable populations. Other service occupations in Texas, such as a registered veterinary technician, a barber, and a cosmetologist all require substantially more hours of training than the current federal and state standards require for a nurse aide to work in a long-term care facility. **Figure 3** shows a comparison of these training requirements.

FIGURE 3
REQUIRED TRAINING HOURS FOR CERTIFIED NURSE AIDES AND OTHER OCCUPATIONS IN TEXAS, 2010

OCCUPATION	REQUIRED TRAINING HOURS
Certified Nurse Aide	75 hours
Barber	1,500 hours
Cosmetologist	1,500 hours
Registered Veterinary Technician	Associate of Science degree (2 years)

SOURCE: Legislative Budget Board.

In November 2009, DADS formed the Certified Nurse Aide Stakeholder Workgroup to generate ideas and discussion as to how the agency could improve in areas related to the training and regulation of CNAs within their existing authority. The workgroup consisted of representatives from nursing facilities, home health agencies, hospitals, DADS regulatory staff, as well as CNAs, and nurses.

The workgroup recommended that DADS raise the minimum requirement of training hours and suggested the current CNA curriculum would need to be reviewed to determine the number of additional hours that would be appropriate to accommodate new or expanded topics. Both DADS and providers participating in the workgroup expressed a desire to ensure CNAs are well trained and successful in their roles. According to workgroup members, "they are not looking for CNA personnel to show up with a certificate," rather, the workgroup expressed that CNA staff in long-term care needs to know what to do to ensure patient safety and provide the best possible care. To do this, the workgroup believes CNAs need to be given tools to succeed and suggested additional training and information in the following areas should be added to the curriculum: sensitivity training/cultural diversity, dealing with difficult behaviors, technologies and equipment, culture change, infection control, communication and conflict resolution strategies, and identification of evidence-based practices in long-term care. According to the agency, regulatory services staff have begun internal discussions regarding the process for updating the Texas CNA curriculum.

In August 2010, stakeholders such as direct-care workers and their associations testified before the U.S. Senate Special Committee on Aging to urge the U.S. Congress to require all direct-care workers to have 120 hours of education and continuing education on the job as a part of recertification. The Institute of Medicine also recommended in a 2008 report that CNA training should be increased to a minimum of 120 hours. Moreover, these groups also support competency-based professional credentialing programs for all direct-care workers to allow for recognition of their knowledge and generate opportunities for advancement within the occupation.

Recommendation 1 would amend statute to increase the number of hours required for a nurse aide certification program to no less than 120 hours and no more than 359 hours (education programs requiring 360 hours or more are regulated by the Texas Higher Education Coordinating Board). Given DADS' recent work and findings from the CNA Stakeholder Workgroup this recommendation would not only help to ensure nurse aides are better prepared for their work, but also continue to build on DADS' existing efforts. Moreover, it would provide the agency with flexibility, clear authority, and legislative guidance to ensure the CNA curriculum remains current and relevant in preparing CNAs for the workplace now and in the future.

NURSE AIDE RECERTIFICATION

Certified nurse aides are required to renew their certification every two years to maintain an "active" status on the state Nurse Aide Registry. Federal regulations require states to maintain a registry of persons who meet all state and federal requirements to work as a CNA. In Texas, to maintain certification, CNAs must demonstrate paid employment as a CNA for any length of time during the preceding two-year period and register any address or telephone number changes. To renew their certification, a nurse aide must contact DADS to update their contact information and submit proof of employment for the preceding two years.

Federal regulations also require nursing facilities to offer at least 12 hours of continuing education each year to CNAs, but there is no matching state or federal requirement for CNAs to attend continuing education as a condition to renew their certification. Without a requirement tying continuing education to the recertification process a

regulatory gap exists. Continuing education allows CNAs to receive ongoing training needed to improve their skills.

To strengthen the CNA renewal process, Recommendation 2 would amend statute to require CNAs to obtain a minimum of 12 hours of continuing education each year as a condition of renewing one's certification.

Recommendation 3 would amend statute to require DADS to add an expiration date to each CNA certificate issued. Adding the expiration date will help to ensure current and accurate information about each CNA is present in the Nurse Aide Registry, as well as helping to ensure each CNA's credentials is kept current.

FISCAL IMPACT OF THE RECOMMENDATIONS

There is no fiscal impact associated with implementing Recommendations 1–3. It is assumed DADS could implement the recommendations with existing resources.

No adjustments have been made to the introduced 2012–13 General Appropriations Bill as a result of these recommendations.

IMPROVE ABUSE REPORTING OF LICENSED PROFESSIONALS

Professional licensing boards ensure licensees comply with laws and regulations regarding competence and safe practice. Reports of misconduct to professional licensing boards are investigated and disciplinary action is taken, if warranted, to ensure the safety of clients regardless of where the licensed professional is employed. Employers of certain licensed professions, like nurses, are required by state law to report misconduct to the licensing board.

Despite a statutory requirement for state agencies to report misconduct by nurses to their licensing board, confirmed acts of abuse, neglect, and exploitation by nurses employed at state facilities are not reported consistently to the Texas Board of Nursing. To improve reporting to state licensing boards, the Texas Department of Aging and Disability Services and the Texas Department of State Health Services should identify gaps in policies and procedures that prevent consistent notification to state licensing boards about licensees who have committed confirmed acts of abuse and report to the Governor and the Legislative Budget Board regarding the actions taken to ensure each agency's compliance with statutory requirements.

FACTS AND FINDINGS

- ♦ Licensed professionals working in state facilities who have committed an act of abuse are not subject to reporting in the Employment Misconduct Registry. Instead, acts of misconduct are tracked, investigated, and disciplined by the respective professional state licensing boards.
- ♦ Licensed and unlicensed state workers who commit acts of abuse in state facilities are listed in a state internal reporting system, the Client Abuse and Neglect Reporting System. This system is not available to public employers to use to screen prospective workers.
- ♦ State agencies are statutorily required to report acts of abuse by nurses to the Board of Nursing. From fiscal year 2005 to August 2010, only 24 percent of nurses employed at state supported living centers and 33 percent of nurses employed at state hospitals who had committed a confirmed act of abuse had been reported to the Board of Nursing.

CONCERN

- ♦ Neither the Texas Department of Aging and Disability Services nor the Texas Department of State Health Services consistently report confirmed acts of abuse committed by nurses working in state supported living centers and state hospitals to the Board of Nursing. When these acts go unreported by state agencies, not only will future employers have no knowledge of the bad acts, but nurses miss an opportunity to receive additional education or other needed training to ensure competence and patient safety.

RECOMMENDATION

- ♦ **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Department of Aging and Disability Services and the Texas Department of State Health Services to review their processes for reporting licensed professionals employed in state facilities who have committed confirmed acts of abuse to their respective licensing board and to report on actions taken to ensure the agencies are complying with statutory requirements.

DISCUSSION

Reports of confirmed acts of abuse, neglect, and exploitation (hereafter collectively referred to as abuse) by long-term care workers are tracked through two state registries and one state reporting system as a means to ensure the safety of current and future long-term care recipients. The two registries contain names of unlicensed direct-care workers who have committed a confirmed act of abuse. The registries and reporting system act as screening tools to prevent workers who have committed an act of abuse from working in long-term care facilities, including state-supported living centers. The Texas Department of Aging and Disability Services (DADS) oversee the two state registries and shares oversight with the Texas Department of State Health Services (DSHS) for the reporting system.

The two publicly accessible registries are the Employee Misconduct Registry (EMR) and the Nurse Aide Registry (NAR). The EMR was established by the Seventy-sixth

Legislature, Regular Session, 1999, to protect long-term care facility residents and consumers by ensuring that unlicensed personnel who commit acts of abuse, misappropriation, or misconduct against residents and consumers are denied employment in facilities and agencies regulated by DADS.

The NAR was developed as an additional protective measure for nursing home residents because nurse aides are their primary caregivers. The NAR is a federally required registry of all individuals registered to work as nurse aides in the state. Texas established its registry in 1989. If a certified nurse aide (CNA) has been found to have committed an act of abuse, then that information would also be noted in the NAR.

The internal state reporting system, the Client Abuse and Neglect Reporting System (CANRS) is administered by the Texas Health and Human Services Commission (HHSC) for DADS and DSHS. This database captures information regarding individual consumer abuse in state-supported living centers, state hospitals, and community mental health and mental retardation centers committed by licensed and unlicensed workers. CANRS contains information regarding the injury, treatment, diagnosis, physician's determination of seriousness of the abuse, family contact, law enforcement contacted, name of the abuser, and disciplinary action taken. The Texas Department of Mental Health and Mental Retardation developed CANRS in 1982 as a risk management tool. According to the HHSC human resources handbook, staff members at state supported living centers and state hospitals are required to check CANRS, EMR, and NAR to ensure job applicants do not have a finding of abuse against them. A limited number of DADS and DSHS staff has access to CANRS.

REPORTING LICENSED AND UNLICENSED WORKERS WHO COMMIT ACTS OF ABUSE

To ensure unlicensed workers who had committed acts of abuse did not continue to seek employment in a long-term care setting, workforce registries were established because no licensing board or other entity existed to track all unlicensed direct-care workers and their training, education, and acts of misconduct. Unlike unlicensed direct-care workers, licensed professionals have state licensing boards that track their compliance with regulations, education and training requirements. Therefore, licensed professionals (nurses, doctors, and social workers) who have committed acts of abuse are not added to the EMR. Instead, acts of misconduct or other issues involving licensed professionals are tracked, investigated, and disciplined by the respective state licensing boards.

Moreover, statute requires employers to report acts of misconduct by certain professions to the state licensing board. According to the Texas Occupations Code Section 301.405, state agencies, as well as other employers, are statutorily required to report to the Board of Nursing acts of misconduct where substantive disciplinary action has been taken against a nurse for practice-related errors or omission. According to the Board of Nursing, a confirmed finding of abuse would qualify as a practice-related error or omission.

LICENSED STATE WORKERS WITH CONFIRMED ABUSE FINDINGS GO UNREPORTED

The internal state reporting system, CANRS, tracks licensed and unlicensed state workers and employees of community-based mental health/mental retardation centers who have been found to have committed acts of abuse. However, information in CANRS is not available to private employers. The lack of public access to CANRS information increases the significance for state agencies to report confirmed acts of abuse to state licensing boards because if they do not, then future employers will have no knowledge of the prior bad acts and may unknowingly hire former state workers who have committed acts of abuse. Additionally, licensed professionals who go unreported miss an opportunity to receive additional education or other needed training to ensure competence and patient safety.

Legislative Budget Board staff researched the previous five fiscal years to determine the percentage of workers in state supported living centers and state hospitals who are licensed professionals and who have committed a confirmed act of abuse that was reported to a state licensing board. Of licensed workers who had committed a confirmed act of abuse, more than 90 percent were employed as nurses in a state facility. From fiscal year 2005 to August 2010, only 24 percent of nurses employed at state supported living centers and 33 percent of nurses employed at state hospitals who had committed a confirmed act of abuse at a state facility had been reported to the Board of Nursing. Moreover, it is not known if these reports to the Board of Nursing were made by a state agency as required by law or by another entity or person.

RECOMMENDATION

To improve the notification to state licensing boards about acts of abuse committed at state facilities, Recommendation

1 would include a rider in the 2012–13 General Appropriations Bill to direct DADS and DSHS to submit a report that reviews their processes for reporting licensed professionals who have committed confirmed acts of abuse to their respective licensing board. The report would also identify any related statutory requirement related to an employer's duty to report misconduct committed by licensed professionals. The report would also identify: (1) actions taken by each agency to ensure their compliance with statute, (2) gaps in each agency's processes and policies for reporting licensed professionals who have committed confirmed acts of abuse while employed at a state facility, (3) corrective actions taken by each agency to comply with statutory requirements for reporting nursing professionals and other licensed professionals who have committed confirmed acts of abuse, neglect, or exploitation to their respective professional state licensing boards, and (4) the number of persons reported to each licensing board by the start of fiscal year 2012. The report would be submitted to the Governor and the Legislative Budget Board by May 15, 2012.

FISCAL IMPACT OF THE RECOMMENDATION

There is no fiscal impact associated with implementing Recommendation 1. It is assumed DADS and DSHS could each implement the recommendation with existing resources.

Recommendation 1 would include a rider to direct DADS and DSHS to review their processes for reporting licensed professionals who have committed confirmed acts of abuse to their respective state licensing boards and to report on actions taken to ensure the agencies are complying with statutory requirements to report acts of misconduct. The report would also identify the number of persons reported to each licensing board by fiscal year beginning in fiscal year 2012.

The introduced 2012–13 General Appropriations Bill includes the rider proposed in Recommendation 1.

REGULATE URGENT CARE CENTERS IN TEXAS TO STANDARDIZE QUALITY OF CARE

Alternative care delivery models to hospital-based emergency care and office-based primary care have emerged in the U.S. and Texas in recent years in response to consumer demand for increased convenience and access to care. A 2009 Legislative Budget Board report contained recommendations to regulate freestanding emergency medical centers and urgent care centers. The Eighty-first Legislature, Regular Session, 2009, enacted legislation to regulate freestanding emergency medical centers; however, urgent care centers in Texas remain unregulated. Regulation of these facilities would standardize the quality of care provided and assist patients in selecting the appropriate location to receive medical care.

FACTS AND FINDINGS

- New urgent-emergent care models are emerging in the U.S. and Texas, which offer patients more choices than traditional hospital-based emergency rooms and physician office-based primary care.
- Federal law and Texas statute establish licensing and regulatory standards for hospital-based emergency rooms and some emerging models of care including freestanding emergency medical centers.
- Approximately 8,700 urgent care centers operate in the U.S. The exact number in Texas is unknown but is estimated to be 300 facilities.

CONCERNS

- Urgent care centers in Texas are not regulated by the state. They are not required to meet staffing, equipment, and facility requirements and there are variations in their operation. The lack of standardization could cause patient harm because these facilities hold themselves out to the public as capable of providing varying degrees of urgent care, but may not be able to deliver the level of care patients expect.
- The Texas Department of State Health Services receives complaints about urgent care centers but lacks the authority to investigate them. Comprehensive complaint data for these facilities are unavailable.

RECOMMENDATIONS

- **Recommendation 1:** Amend Title 4 of the Texas Health and Safety Code to require the Texas Department of State Health Services to regulate urgent care/minor emergency centers and the use of related terminology, and impose a fee to pay for the cost of regulation.
- **Recommendation 2:** Include a contingency rider to the 2012–13 General Appropriations Bill that appropriates the fee revenue to the Texas Department of State Health Services to regulate urgent care/minor emergency centers.

DISCUSSION

Traditionally, emergency medical care has been provided in hospital-based emergency rooms (ERs), and preventive and primary care has been provided in primary care physicians' offices. Over time, new models of care have emerged that provide patients with greater choices about where to obtain care. One such model that falls between the ER and the primary care physician's office on the continuum of care is an urgent care center, also known as a minor emergency clinic. Urgent care centers provide primary care at extended hours, but also some comparable care to that provided in ERs for patients with lower acuity. Key features of the urgent care center as defined by the Urgent Care Association of America include delivery of ambulatory medical care outside of a hospital ER (outpatient care), no requirement for a patient appointment (walk-in), operation Monday through Friday evenings with at least one day over the weekend, the ability to perform suturing of minor lacerations, and provision of on-site x-ray services.

Figure 1 shows a comparison of provider types to distinguish urgent care centers from other settings. Distinguishing between these providers can be difficult. Different facility types use similar nomenclature (e.g. "urgent" and "emergent" and their derivatives). In addition, due to competition, many providers are adapting their business models to provide similar services. For example, some ERs operate fast-track units which provide care resembling that provided in urgent care centers and some primary care physicians offer extended hours and can treat minor emergency conditions.

FIGURE 1
COMPARISON OF CURRENT HEALTHCARE SETTINGS IN TEXAS, 2010

CHARACTERISTICS	RETAIL CLINIC	PRIMARY CARE PROVIDER	URGENT CARE/ MINOR EMERGENCY CENTER	FREESTANDING EMERGENCY MEDICAL CARE FACILITY	EMERGENCY ROOM AND HOSPITAL-AFFILIATED FREESTANDING EMERGENCY MEDICAL CARE FACILITY
Appointment Required	No	Yes	No	No	No
Extended Hours	Yes Most offer extended hours and weekend access	No Some offer minimal after-hours access or hotlines	Yes Most are open between 8 AM to 8 PM and provide weekend access	Yes State law requires all facilities to operate 24 hours per day/7 days per week by September 1, 2013	Yes Nearly all are open 24 hours per day/7 days per week
Services Provided	Limited general medical services (e.g., common cold, sinus infections, sore throat, flu)	Preventive/wellness health care, care for chronic diseases	Episodic treatment for minor emergencies, capable of diagnostic testing	Episodic treatment for minor emergencies and emergent conditions (aside from trauma), capable of performing surgery and patient observation	Episodic treatment for same cases as freestanding ER. Advanced capabilities in provision of trauma care vary by hospital. Some fast-track areas divert non-emergent patients.
Primary Provider of Care	Nurse Practitioner	Physician Physician's Assistant Nurse Practitioner	Physician Physician's Assistant Nurse Practitioner	Physician	Physician
Admission Capabilities	Nurses refer patients to other providers as needed	Many physicians have admitting privileges to local hospitals	Some physicians have admitting privileges Must send emergent patients to the ER	Must admit to another facility with inpatient capabilities	Admit to parent hospital or within facility

SOURCE: Legislative Budget Board.

DEMAND FOR URGENT CARE CENTERS

Urgent care centers appeared in the 1980s, but became more prevalent in the 1990s. The Urgent Care Association of America (UCAOA) estimated in February 2010 that there are approximately 8,700 centers in operation, based on a national survey of providers. This count is likely to be incomplete, due to a difficulty identifying urgent care centers, especially those that are hospital-affiliated, and could also include facilities that do not meet UCAOA's definition of urgent care such as campus-based health care providers and retail clinics. The number of facilities in Texas is unknown, but the Texas Department of State Health Services (DSHS) estimates there are approximately 300.

The increase in the number of urgent care centers has been fueled by "consumer backlash" over the lack of convenience in obtaining care in primary care practices and hospital-based ERs.

Accessing primary care can be inconvenient and difficult for patients. Primary care clinics typically operate during the week and standard business hours, and require patients to make appointments. The wait to see physicians can be several weeks. A 2008 Commonwealth Fund survey of adults with chronic conditions in eight countries found 26 percent of adults surveyed from the U.S. could make a same-day appointment and 23 percent of adults had to wait six days or more, or were unable to make an appointment. The U.S. ranked last or nearly last in both measures. Accessing care after hours is also difficult. According to a 2009 Commonwealth Fund study, the U.S. ranked last out of 11 countries in primary care offices with after-hours arrangements for patients to see a doctor or nurse. The 2008

study also found 40 percent of adults with chronic diseases reported it was very difficult and 20 percent reported that it was somewhat difficult to access care on nights, weekends, or holidays without going to an ER.

Accessing care in ERs can be inconvenient as well. A 2006 Centers for Disease Control (CDC) survey of ERs found the median patient wait time to see a physician was 31 minutes and the median total care time, including the wait time, was 3.1 hours.

EFFECT OF URGENT CARE CENTERS ON HEALTHCARE DELIVERY

Proponents of the urgent care model maintain that urgent care benefits consumers and reduces overall healthcare costs. They support expansion of the urgent care model because of its convenience to patients from extended hours, walk-in service, and reduced wait times. Systematic evaluations of the wait times of urgent care centers compared to other healthcare studies have not been conducted; however, the self-reported wait times of urgent care centers, as collected by UCAOA in 2007, average between 0 to 45 minutes for 35 percent of patients and 45 to 60 minutes for 28 percent of patients.

Providing an option for patients to access minor emergency care in urgent care centers could reduce the volume of patients presenting in the ER and overall health system costs. Nationally, ERs are strained for a variety of reasons. The American Hospital Association (AHA) found in 2007 that 47 percent of all hospital ERs and 65 percent of urban hospital ERs are at or over capacity. Factors contributing to capacity problems include an increase in ER utilization, a decrease in the number of ERs in operation, and other staffing or capacity issues at hospitals. The CDC reported that ER visits increased from 90.3 million to 119.2 million from 1996 to 2006 (increase of 32 percent). This trend has been accompanied by a decrease in the number of hospital ERs in operation from 4,019 in 1996 to 3,833 in 2006. Staffing shortages in ERs and hospital-wide have also reduced the number of beds available for patient admission, resulting in longer patient boarding in ERs. A 2007 AHA survey reported that 55 percent of hospitals have specialty coverage gaps in their ERs and many experience hospital-wide shortages of therapists, registered nurses, pharmacists, and nursing assistants, among other positions.

Many studies have documented the use of ERs by patients with non-emergent conditions. The CDC found in a 2006 survey of ERs that at the point of triage, only 5.1 percent of patients needed to be seen immediately, 10.8 percent were considered emergent and needed to be seen within 1 to 14 minutes, and 36.6 percent were urgent, needing care within 15 to 60 minutes. Of patients using an ER, 47.5 percent were considered semi-urgent, non-urgent, or of unknown status, and could be treated within 2 to 24 hours of arrival. While it is true that some of these patients would still have to be seen in an ER to determine that their conditions are not emergencies, urgent care centers could provide an alternative to these patients. The extent to which patients choose to go to an urgent care center over an ER has been debated in the literature, but should this diversion occur, it could reduce ER volumes and healthcare system costs, given that provision of care in urgent care centers is less expensive than ER-based care.

Critics of the urgent care model raise concerns about the lack of standardization and regulation of urgent care centers, and the negative effects of the provision of episodic healthcare. Aside from the states that have regulated the term's use, facilities that do not meet UCAOA's definition of "urgent care" can use the term. Because many states do not regulate urgent care centers, there is a lack of standardization across centers regarding staffing and equipment, which affect the range and quality of services provided. Other concerns with urgent care centers stem from their episodic focus that by nature limits patient follow-up and continuity of care. This focus increases the risk of patient fraud, especially for those with addictions to prescription medication. Recent indictments of urgent care centers for allegedly operating "pill mills" contribute to this criticism. Additionally, some argue that the model exposes physicians to a greater risk of malpractice lawsuits, as some research argues that the stronger the relationship between a physician and patient, the less likely the patient will sue the physician over malpractice.

REGULATION OF URGENT CARE CENTERS

Federal and state laws define several provider types on the continuum of care and provide for their regulation. Lack of inclusion of urgent care centers is a regulatory gap that could cause patient harm.

For the purposes of Medicare reimbursement, federal law defines a dedicated ER as any department or facility of the hospital, regardless of whether it is located on or off the main hospital campus, which meets at least one of the following requirements:

- it is licensed by the state in which it operates under applicable state law as an ER or emergency department;

- it is held out to the public (by name, posted signs, advertising, or other means) as a place that provides care for emergency medical conditions on an urgent basis without requiring a previously scheduled appointment; or
- during the calendar year immediately preceding the calendar year in which a determination under this section is being made, it provides at least one-third of all of its outpatient visits for the treatment of emergency medical conditions on an urgent basis without requiring a previously scheduled appointment.

Texas Health and Safety Code, Chapter 222, provides DSHS with the authority to license hospitals. Rules developed by the agency specify operational requirements for ERs pertaining to staffing, supplies, and equipment, and participation in a local emergency medical system. A more detailed discussion of these requirements can be found in the Legislative Budget Board's *Government Effectiveness and Efficiency Report*, *2009* "Regulate Emergency Care Facilities to Standardize Quality of Care."

Texas statute also provides for the licensing and regulation of ambulatory (outpatient) healthcare settings. Ambulatory surgery centers are licensed for two years at a cost of $5,200. DSHS provides specifications for construction and design standards, qualifications for staff, equipment essential to the health and welfare of patients, and sanitary and hygienic conditions. As a result of House Bill 1357, Eighty-first Legislature, Regular Session, 2009, DSHS also licenses and regulates freestanding emergency medical care facilities. Statute required DSHS to develop rules proscribing construction and design standards, staff and administration requirements, equipment, sanitary and hygienic conditions, medical records management, lab and radiology standards, distribution of drugs and controlled substances, and a quality assurance program, among other requirements.

Although some urgent care centers and physicians have voluntarily pursued and attained national accreditation or certification from UCAOA and the American Board of Urgent Care Medicine, among others, no federal or state laws govern the operation of these facilities in Texas, though personnel are regulated under their professional licenses by the Texas Board of Nursing and Texas Medical Board. The effects of this regulatory gap include a lack of standardization of care and a lack of data on complaints.

Urgent care centers in Texas are not required to meet staffing requirements or maintain certain equipment levels. In addition, UCAOA has documented significant variation in the types of services provided by urgent care centers. In conducting its survey of urgent care providers, UCAOA identified many facilities that initially appeared to be urgent care centers but later determined they did not meet the definition. Because these facilities market themselves as capable of providing varying degrees of urgent care and determining where to seek care can be confusing for patients, there is a risk of patient harm if a facility cannot deliver the level of care a patient expects.

In addition to the lack of standardization, because no one entity is entrusted with regulation, complaint data for the facilities are not available. DSHS receives complaints about these facilities but lacks the statutory authority to investigate them and refers cases to the applicable licensing agency. Anecdotally, most complaints relate to billing. The Texas Medical Board does not capture detailed facility data on complaints. Texas Board of Nursing does not track facility data on complaints, but its system does allow for creation of an action history on the files of nurses whose records are updated by board action. Some action histories include facility information. The action history records indicate that there have been 15 Licensed Vocational Nurses and 103 registered nurses who received disciplinary action from fiscal years 2003 to 2009 who were employed in a freestanding clinic. However, this category of freestanding facility is broad and could include many types of clinics including urgent care clinics, rural health clinics, and clinics operated by hospitals. In addition, because some nurses work in multiple locations, it cannot be determined whether the complaint is related to work the nurse performed in a freestanding clinic or another setting.

Other states that have regulated urgent care can provide Texas with models of regulation. At least two states, Arizona and New Hampshire, regulate urgent care centers. Maryland does not regulate physician-owned urgent care centers, but requires a "freestanding medical facility" that is owned by a hospital to be licensed and this could include an urgent care center. **Figure 2** shows a comparison of features of state regulation.

Other states including Delaware, Illinois, and New Jersey regulate the use of terms like "urgent care" and "emergent," and their derivatives, to prevent public confusion of the facilities with ERs, and have imposed various advertising

FIGURE 2
COMPARISON OF FEATURES OF STATE REGULATION OF URGENT CARE, 2010

FEATURE	ARIZONA	NEW HAMPSHIRE	MARYLAND
Fee	**Initial Fees:** Application: $50 License: $365 (1-year) **Renewal Fees:** Application: $50 License: $365 (1-year)	**Initial Fees:** Application: N/A License: $500 (1-year) **Renewal Fees:** Application: N/A License: $500 (1-year)	**Initial Fees:** Application: N/A License: $3,000 (3-year) **Renewal Fees:** Application: N/A License:$3,000 (3-year)
Facility Type and Basic Requirements	Licenses a “Freestanding Urgent Care Center,” an outpatient treatment center that: Is open twenty-four hours a day, excluding at its option weekends or certain holidays, but is not licensed as a hospital. Claims to provide unscheduled medical services not otherwise routinely available in primary care physician offices. By its posted or advertised name, gives the impression to the public that it provides medical care for urgent, immediate or emergency conditions. Routinely provides ongoing unscheduled medical services for more than eight consecutive hours for an individual patient.	Licenses “Non-emergency walk in care center” where a patient can: Receive medical care which is not of an emergency life-threatening nature Without making an appointment, and Without the intention of developing an ongoing care relationship with the licensed practitioner. Includes urgent care centers, retail health clinics, and convenient care clinics.	State licenses “freestanding medical facility” owned by a hospital. A “freestanding medical facility” is defined as one: In which medical and health services are provided; That is physically separated from a hospital or hospital grounds; and That is an administrative part of a hospital or related institution.
Staffing Requirements	Each facility is required to have an administrative director, acting administrative director, and a chief clinical officer who is eligible or board certified and has 12 months of experience or training providing dialysis. A registered nurse or medical staff member is required to be on the premises when a patient receiving dialysis is on the premises. A clinical staff member must be on the premises at all times during the hours of clinical operation.	Each facility is required to have an administrative director, a medical director that is either a physician or advanced practice nurse, at least one licensed practitioner on site at all times, professional staff as appropriate.	Each facility is required to have an administrative director, a board-certified medical director, and at least one physician, sufficient nurses/ other professionals to provide advanced life support, a certified medical radiation technologist, and a laboratory technician on duty at all times.
Equipment Requirements	None in Arizona code.	Each facility must meet design standards and storage of supplies including oxygen must meet specific requirements.	Equipment and supplies available must be consistent with American College of Emergency Physicians Suggested Equipment and Supplies for Emergency Departments.
Facility Requirements	The facility must meet sanitation and physical plant standards and storage of supplies including oxygen must meet specific requirements.	Physical environment must meet requirements outlined in statute and access requirements from the American Institute of Architects.	Statute provides for construction and zoning requirements, fire safety, housekeeping, equipment maintenance, and requires all entrances to be marked and accessible.

FIGURE 2 (CONTINUED)
COMPARISON OF FEATURES OF STATE REGULATION OF URGENT CARE, 2010

FEATURE	ARIZONA	NEW HAMPSHIRE	MARYLAND
Other Statutory Requirements	Statute requires a quality management program, medical records management, and medication management.	Administrative rules require: patient records management, infection control program, quality improvement program, medication management, and laboratory requirements.	Statute requires compliance with infection control protocol. A facility must accept patients through the Emergency Medical System and have transfer agreements in place with facilities capable of providing definitive care.

Source: Legislative Budget Board.

requirements and directions for posting services rendered and hours of operation.

APPROACH TO REGULATING URGENT CARE CENTERS

Regulating urgent care centers and the use of related terminology could increase the standardization of care and assist the public in making informed decisions about where to seek care.

Recommendation 1 would amend Title 4 of the Texas Health and Safety Code to require DSHS to define and license "urgent care/minor emergency centers". As with freestanding emergency medical centers, the agency would be required to develop rules for design standards, staff qualifications, equipment requirements, and sanitary and hygienic conditions, in addition to requiring transfer protocol for patients requiring advanced care. DSHS should consider statutes and rules developed by other states as examples of how to address some of the concerns about the operation of urgent care centers through regulation and seek stakeholder input.

Building on House Bill 1357 of the Eighty-first Legislature, Regular Session, 2009, which regulated the term "emergent" and its derivatives, the statute would prohibit unlicensed facilities from using the term "urgent" and its derivatives and require that these facilities post the services they provide at their entryways. Regulation of terminology and posting of services could provide patients with a greater understanding of the level of care provided at urgent care centers to assist them in decision-making about where to seek care.

FISCAL IMPACT OF THE RECOMMENDATIONS

The recommendations, if implemented, would result in a gain of $22,618 in General Revenue Funds for the 2012–13 biennium.

Since Recommendation 1 requires statutory change, Recommendation 2 would include a contingency rider to the 2012–13 General Appropriations Bill to appropriate licensing fees to the agency and increase staff members for the regulation of these facilities.

Figure 3 shows the five-year fiscal impact of the recommendation.

The expected costs and revenue gain were calculated based on the assumption that 300 urgent care centers would be licensed. As it does in its licensing of other healthcare settings, the agency would license all facilities in fiscal year 2012, issuing some one-year licenses and some two-year licenses to stagger the renewals for future years. Because it is the agency's practice to set licensing fees at a level to enable recovery of regulatory costs, the analysis assumes a one-year licensing fee of $3,050 and a two-year license/renewal fee of $6,100.

The costs associated with implementing Recommendation 1 include staffing costs, technology costs, and a referral charge to send cases to the State Office of Administrative Hearings (SOAH). DSHS will require 12.75 full-time-equivalent (FTE) positions to implement the licensing and regulatory requirements of Recommendation 1 by December 1, 2012, assuming 300 entities to regulate. Given that staff will be phased in during the first year of the biennium, the number of staff required will total 10 nurses, 6 architects, and one administrative assistant. After the first year of implementation, the staffing need will decrease to 7.5 positions, with 6 nurses, 1.5 architects, and 1 program specialist. Costs include salaries, benefits, travel, and other administrative expenses. DSHS will incur technology costs as a result of Recommendation 1. DSHS will need to make a one-time system modification to its existing health facility licensing integrated system and would encounter hardware and software costs for the additional FTE positions. The agency would also incur a minimal charge for cases referred to SOAH.

FIGURE 3
FIVE-YEAR FISCAL IMPACT
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN IN GENERAL REVENUE FUNDS	PROBABLE (COST) IN GENERAL REVENUE FUNDS	CHANGE IN STATE FULL-TIME-EQUIVALENT POSITION FROM THE 2010–11 BIENNIUM
2012	$1,372,500	($1,575,360)	12.75
2013	$915,000	($689,523)	7.5
2014	$915,000	($689,523)	7.5
2015	$915,000	($689,523)	7.5
2016	$915,000	($689,523)	7.5

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

ESTABLISH A SUPERVISED REENTRY PROGRAM TO REDUCE COSTS AND IMPROVE EFFICIENCY

Most offenders released annually from Texas prisons are released to various supervision programs that incorporate reentry support and penalties for violations of parole supervision conditions. However, an increasing number of offenders serve their entire sentence in prison without being paroled and are discharged with no conditions or support services. Leaving these offenders to transition from prison to the community on their own can lead to increased recidivism and public safety costs. In establishing a supervised reentry program, Texas can balance criminal justice costs with the imperative of public safety. Allowing certain parole-eligible offenders to be released to a supervised reentry program when the offender is one year from their discharge date or on the date the individual has served 90 percent of their sentence could decrease the demand for prison beds by 1,800 offenders in the 2012–13 biennium. The decreased demand for prison capacity from this program would allow the state to address prison facility inefficiencies and realize savings by closing one or more prison units that have significant deferred maintenance and repair needs.

FACTS AND FINDINGS

- ♦ The number of offenders who serve their entire sentence in prison has increased from 5,028 (14 percent of released offenders) in fiscal year 2000 to 8,598 (20.4 percent of released offenders) in fiscal year 2010.
- ♦ Texas appropriated approximately $2.5 billion per fiscal year to the Texas Department of Criminal Justice to operate and maintain the state's prison facilities for the 2010–11 biennium.
- ♦ Based on fiscal year 2008 data, the cost per day to house an offender in prison is $47.50 compared to the daily cost of $25.54 for the most intense parole supervision level for high risk offenders.

CONCERNS

- ♦ Offenders who serve their entire sentence are discharged from prison, sometimes after serving sentences of more than ten years, without parole and reentry services. Almost 8,600 offenders were discharged in fiscal year 2010. Lack of support for this population can lead to increased recidivism and decreased public safety.
- ♦ After more than 160 years of development, the state's aging network of correctional facilities is expensive to maintain and exposed to varying levels of inefficiency and obsolescence.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Government Code, Chapter 508, to establish a supervised reentry program for offenders who are eligible for release on parole and are one year from their discharge date, or have served 90 percent of their sentence.
- ♦ **Recommendation 2:** Include a contingency rider in the 2012–13 General Appropriations Bill that would require the Texas Department of Criminal Justice to reduce its prison facility inventory by a minimum of 1,700 offender beds through the closure and sale of existing prison facilities, contingent upon the enactment of legislation establishing a supervised reentry program for eligible offenders one year from discharge.

DISCUSSION

The Texas Department of Criminal Justice (TDCJ) is responsible for the housing, monitoring, and rehabilitation of criminal offenders in Texas. TDCJ currently operates and oversees 116 correctional institutions and facilities throughout Texas, including prisons, state jails, transfer facilities, medical and mental health units, treatment programs, and privately managed facilities. Along with California and Florida, Texas manages one of the three largest prison systems in the country, housing more than 150,000 offenders.

Imprisonment is the most expensive form of criminal punishment. Correctional officer salaries and benefits and offender healthcare comprise the largest portion of corrections budgets, which must keep pace with the number of prisoners in custody. Prisons also require capital expenditures for on-going maintenance initiatives. All of these costs have increased as prison populations have grown.

During the 2010–11 biennium, Texas budgeted approximately $2.5 billion per fiscal year to incarcerate offenders. In 2007, Texas ranked sixth out of all states in corrections as a percentage of general fund expenditures. In addition to considering options to divert offenders from prison to more cost-effective settings, the Texas Legislature can consider other ways to more effectively reduce prison populations and preserve public safety. Expediting the release of certain offenders to reentry supervision can do both.

DISCHARGED OFFENDERS

Most offenders are released to the community through the parole process and expected to transition back into society as productive, law-abiding citizens. Studies have shown that providing offenders with comprehensive support services upon their release can improve post-release outcomes.

In fiscal year 2010, approximately 42,000 offenders were released from prison. Twenty percent of these offenders, rather than being paroled, were discharged. This is higher than the proportion of offenders discharged in 2000 (13.9 percent). Offenders who are discharged from prison have served their entire sentence, and are released with no conditions or support services to aid in their transition. As this population increases, so does the number of former offenders who enter the community with no oversight or support services. The average sentence length for discharged offenders in fiscal year 2010 was 4.9 years. **Figure 1** shows that of the 8,598 discharges in fiscal year 2010, there were 1,088 offenders with sentence lengths of 10 years or more who transitioned to the community without any supervision or reentry services.

FIGURE 1
DISCHARGES BY SENTENCE LENGTH
FISCAL YEAR 2010

SENTENCE LENGTH (YEARS)	NUMBER OF DISCHARGES
2 or less	2,880
3	1,324
4	865
5	1,325
6	380
7	337
8	344
9	55
10	502
11 to 15	368
16 to 20	208
21 to 25	6
31 to 40	2
41 or more	2
TOTAL	**8,598**

Source: Legislative Budget Board.

Based on a cohort of offenders released in fiscal year 2005, TDCJ analysis found that the three-year recidivism rate involving new convictions for those offenders who were discharged was higher than for those who were released to supervision. LBB analysis also found that for a cohort of offenders released in fiscal year 2004, a greater percentage of discharged offenders were rearrested than paroled offenders. The rearrest rate for paroled offenders may be due in part to increased supervision and detection of potentially criminal activity.

Offenders who commit non-violent crimes are more likely to be paroled than those who commit violent crimes (54 percent to 40 percent, respectively), and violent offenders are more likely to be discharged than non-violent offenders (44 percent to 12 percent, respectively). This means that violent offenders are more likely to be discharged to the community without the supervision and reentry support services that help reduce recidivism. This is contrary to what criminal justice experts believe—that it is important to focus rehabilitative resources on higher risk offenders and decrease the chances of re-offending. **Figure 2** shows the percentage of discharges and parole releases by offense type in fiscal year 2010.

Focusing on offenders' successful reintegration into society is especially important when they are being released directly from administrative segregation. Administrative segregation is a custody level that serves to separate an offender in complete isolation from the general population to maintain safety and security. While there are mandated periodic reviews of offenders in administrative segregation for continued placement, there is no time limit for which an offender can be confined under these circumstances. In fiscal year 2010, about 9.5 percent of the offenders that were discharged were released directly from administrative segregation.

Although research on the effects of segregation is limited and contradictory, some research suggests prolonged administrative segregation can be harmful to an offender's mental health and social functioning. Those segregated are often offenders with the greatest difficulty adjusting.

FIGURE 2
TYPES OF RELEASE BY OFFENSE
FISCAL YEAR 2010

	TYPE OF EXITS			
OFFENSE	DISCHARGE (PERCENTAGE OF TOTAL)	PAROLE (PERCENTAGE OF TOTAL)	OTHER	TOTAL OFFENDERS
Arson	25.4%	37.8%	36.8%	209
Assault/Terroristic Threat	38.1%	34.4%	27.5%	5,891
Burglary	13.1%	46.2%	40.8%	5,787
Commercialized/Sex Offense	25.7%	30.0%	44.3%	70
Drug-Delivery	5.9%	70.4%	23.7%	4,009
Drug-Other	5.8%	62.6%	31.6%	361
Drug-Possession	9.5%	57.9%	32.6%	7,831
DWI	3.4%	65.2%	31.4%	3,894
Escape	21.0%	39.5%	39.5%	481
Failure to Register as a Sex Offender	56.3%	28.2%	15.6%	663
Family Offense	22.9%	24.1%	53.0%	166
Forgery	9.2%	47.8%	43.0%	379
Fraud	9.7%	46.0%	44.3%	309
Homicide	17.8%	60.1%	22.1%	903
Kidnapping	34.6%	34.0%	31.4%	156
Larceny	14.1%	44.9%	49.2%	1,188
Obstruction/Public Order	9.6%	52.7%	37.6%	977
Other	18.7%	31.3%	50.0%	386
Robbery	31.5%	64.4%	4.1%	4,024
Sexual Assault	55.2%	29.7%	15.2%	698
Sexual Assault Against a Child	65.6%	30.0%	4.3%	972
Sexual Offense Against a Child	62.4%	19.1%	18.6%	1,007
Stolen Vehicle	16.1%	44.3%	39.6%	341
Stolen/Damaged Property	16.3%	37.2%	46.5%	43
Weapons Offenses	20.9%	37.9%	41.2%	1,370

SOURCE: Legislative Budget Board.

Providing support services and monitoring to offenders who have had little human contact or intellectual stimulation immediately after release from prison will increase their chances for a successful return to the community.

ESTABLISH A SUPERVISED REENTRY PROGRAM

With new supervision strategies and technologies now available, those who are discharged, especially those with sentences of more than ten years, can be managed safely and held accountable in the community at lower costs and potentially better results. Recommendation 1 would amend the Texas Government Code to establish a supervised reentry program for offenders who are eligible for release on parole but who have not been released on parole or to mandatory supervision. TDCJ and the Parole Board would be required to work together to define the requirements of the supervised reentry program. Such a program would require a parole panel to order the release of an offender to the supervised reentry program either one year before the date on which the offender would discharge his sentence, or the date on which the offender would have served 90 percent of his sentence (whichever is later). The offender's release date would be determined by the actual calendar time the offender served, without consideration of good conduct time. TDCJ, to the extent practicable and before an offender is discharged,

would make arrangements for the offender's supervised reentry into the community. A parole panel releasing an inmate to a program of supervised reentry would impose the conditions for reentry supervision. An offender who fails to comply with the conditions of supervised reentry would be subject to revocation or other sanctions decided by the Parole Board. The period of supervised reentry would be calculated by subtracting from the sentence of an offender the calendar time served on the sentence.

While Recommendation 1 does not prescribe the level of supervision that offenders of the supervised reentry program would receive, the fiscal analysis for this recommendation assumes offenders released into the reentry program would be subject to the highest level of supervision TDJC's Parole Division currently provides. Because some offenders released under a supervised reentry program would be offenders that the Board of Pardons and Paroles had previously determined not to be suitable candidates for parole or mandatory supervision release, this analysis assumes that the level of supervision for offenders would be comparable to the Super-Intensive Supervision Program (SISP).

The supervision of SISP offenders is more stringent than that of other offenders on supervision. Offenders supervised on SISP must remain on parole under these conditions for the duration of their term of supervision, or until designated members of the Board of Pardons and Paroles authorize the removal of an offender's SISP special condition. Parole officers make more contacts with offenders in SISP, and all SISP offenders are monitored using some form of electronic monitoring, including global positioning satellite which is able to track an offender's location instantaneously. Additionally, all SISP offenders are required to complete daily schedules each week, in advance, documenting their activities. Should the proposed supervised reentry program provide for additional levels of less intensive supervision, net savings from the reentry program would be greater.

EFFECT OF A SUPERVISED REENTRY PROGRAM ON PRISON DEMAND

Establishing a supervised reentry program would reduce demand for prison capacity and would allow for the closure of one or more prison units, eliminating on-going operating expenses. Without closure, the full extent of potential savings from establishing a supervised reentry program would not be realized.

To estimate the impact of Recommendation 1, the changes proposed for release policy were applied in a simulation model. The model considered: (1) a prison population that reflects the distribution of offenses, sentence lengths, and time served; and (2) a post release model reflecting the increase in the number of persons in a supervised reentry program.

Assuming sentencing patterns and release policies remain constant, the probable impact of implementing Recommendation 1 during each of the first five years following the enactment of the proposed legislation, in terms of daily demand upon the adult corrections agencies, is estimated in **Figure 3**. The reduction in the number of bed days translates into a reduction in the prison population of 5,320 in fiscal year 2012 and 3,730 in fiscal year 2013.

FIGURE 3
IMPACT OF SUPERVISED REENTRY PROGRAM ON PRISON CAPACITY
FISCAL YEARS 2012–2016

FISCAL YEAR	DECREASE DEMAND FOR PRISON CAPACITY	AVERAGE NUMBER OF DAYS RELEASED EARLY	NUMBER OF OFFENDERS RELEASED
2012	1,728	119	5,320
2013	1,808	177	3,730
2014	2,043	221	3,380
2015	1,724	242	2,600
2016	1,362	267	1,860

Source: Legislative Budget Board.

ADDRESS EXCESS CAPACITY THROUGH PRISON CLOSURE

The network of Texas prison facilities was developed over 161 years, including eight units constructed more than 100 years ago. A substantial building campaign during the 1990s and corresponding increase in incarcerated populations during the same period added 26 general population units capable of housing more than 54,000 offenders. Numerous specialty units, such as medical treatment facilities, substance abuse program units, and transfer facilities, were also constructed during this period. Due mostly to the system being developed over an extended length of time, state prison facilities vary widely in size and design, with units capable of housing 200 to more than 4,000 offenders. This variance affects the efficiency of maintenance and operational processes at each facility, with larger facilities generally being more efficient to operate.

TDCJ correctional system facilities are funded through two appropriations goals: Goal C Incarcerate Felons; and Goal D Ensure Adequate Facilities. Goal C provides funding for the majority of institutional correctional programs such as security, maintenance, healthcare, institutional treatment programs, and training programs. In fiscal years 2010 and 2011, Goal C programs were appropriated approximately $2.5 billion per fiscal year in all funds, primarily in General Revenue Funds. Goal D provides funding for the construction, repair, and purchase of institutional correctional facilities by the agency, and was appropriated $58.0 million in fiscal year 2010 and $41.9 million in fiscal year 2011. The decreased demand for prison capacity resulting from the implementation of Recommendation 1 provides the state with an opportunity to reduce the system's total costs by closing inefficient units.

PRISON CLOSURES IN OTHER STATES

In the last several years, as part of a larger process of reducing budget deficits and addressing revenue shortfalls, at least 10 states took action to close or suspend the operations of state-run prison facilities. The method of facility selection and closure varied from state to state. Of the states profiled for this review, only North Carolina cited a published report as support for closure decisions, a year-long study conducted in 1992. Michigan closed three full units and five prison camps based on the results of a year-long realignment process, reducing the state's offender capacity by 6,400 beds and eliminating 1,000 agency positions. These actions were expected to result in prison expenditure reductions of $120 million during the state's 2010 fiscal year. However, part of the savings realized by Michigan was due to the reclassification of maximum security prisoners to lower level facilities, allowing the state to double-bunk these offenders and increase capacity at a remaining facility.

Other states, including New York, Colorado, North Carolina, and Kansas, closed units with excess capacity, left correctional positions vacant, reduced correctional staffing levels, reclassified facilities and offenders, and terminated contracts for private facility operations. In most cases, decisions on prison closures, reclassifications, and changes in staffing levels necessary to achieve the desired level of savings were made by the chief executive leadership of the states' Department of Corrections under direction by the Legislature or governor. North Carolina and Kansas both experienced savings of approximately $23 million from the realignment decisions, while New York's changes resulted in savings of $8.4 million per year.

METHODOLOGY FOR DETERMINING CORRECTIONAL FACILITY CLOSURES

The selection of specific individual units for closure can be a complex process as there are many components to consider with inter-related effects on the system. Due to the complexity of, and relationships between cost factors, and the sheer size of the Texas prison system, LBB staff developed a three-step methodology to identify prison units that could be candidates for closure. The analysis begins by narrowing the field of possible units for closure using descriptive criteria including age; security level; occupancy; direct cost-per-offender-per-day; ratio of offenders to correctional officers; ratio of offenders to non-security staff; square feet per offender; utility costs per square foot; and deferred maintenance needs per square foot. After narrowing the number of units under consideration, the methodology applies a facility cost-based ranking process to determine the most inefficient units of the remaining group. The methodology concludes with the application of subjective criteria used to refine the first rankings and exclude units from consideration due to other factors, such as the inclusion of agricultural or industrial programs that would be difficult or costly to relocate or discontinue upon the unit's closure. Other examples of subjective criteria to consider would include units on land with active deed restrictions limiting their future use, reversion clauses activated if land is removed from state ownership, or maintaining regional medical facilities.

TDCJ uses three classification groupings to broadly distinguish between the different units within its facility inventory. System I units are general population facilities of older design styles constructed prior to 1987. System II units are general population facilities constructed on newer prototype models originally built to house either 1,000 or 2,250 offenders, although, most of these units have been subsequently expanded to house larger numbers of offenders. System III units are predominantly special use units, such as substance abuse treatment units, medical facilities, transfer facilities, and state jails. System III units were excluded from review in this study because they carry more variable cost structures than general population units and are not comparable to the general population units. Many System III units, as a result of their focus on special populations, reduce general population numbers and have a positive effect on recidivism rates, conditions necessary for the state to see long-term declines in total prison populations.

System II units were also excluded from the ranking stage of the model. System II units, while serving general population

offenders, were excluded due to their higher general operational efficiency ratings than System I units, a direct result of advances in facility designs and construction methods. The increased efficiency of these units can be seen most clearly in the higher occupancy levels TDCJ achieves in offender placement in System II than in System I units. As of October 2010, offender occupancy in System II units was 103.2 percent compared to 98.3 percent in System I units, based on system capacity of 96 percent of unit capacity. The difference in occupancy percentages is a result of a greater number of adjustments TDCJ makes to the available capacity of System I units, such as separating offenders by security classifications, transferring inmates between facilities, and observing the requirements of federal prisoner rights standards. The 25 units included in System I also accounted for 53 percent of the projected deferred maintenance needs of the entire agency's facilities, while the 26 units in System II represented 17 percent of the total. Therefore, for the purposes of this review, only System I units were included in the ranking process.

This process resulted in a relative ranking of the 25 prison facilities classified as System I units. The highest ranking units, indicating the most efficient average operations, were: Coffield, Beto, Pack, Furgeson, and Eastham. The lowest ranking units, indicating the least efficient operations, were: Goree, Vance, Byrd, Hilltop, and Central. However, these rankings do not provide a complete picture of the actual efficiency of the units included in the ranking nor should they be used to conclude that the lowest ranked units should be closed when total prison capacity changes allow. As previously discussed, there are also subjective factors that should be considered and used in refining the rankings. For example certain units contain programs, such as a regional medical facility or an industrial operation, which would be costly to move and could create space allocation issues at other facilities. Units with vast agricultural operations should undergo further review prior to selection for closure because of the specific geographic land needs of those programs which can be difficult, if not impossible, to recreate at other units. The closure of a unit with these types of specialization, without more detailed review and analysis, could place strain on other programs and divisions throughout the prison network and result in additional, or unexpected, cost increases.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1 and 2 combined would generate estimated savings and revenue ranging from $3.4 million to $33.1 million in General Revenue Funds during the 2012–13 biennium. This estimate includes the increased cost to the TDCJ Parole Division for the supervised reentry program and the savings and revenue realized from a single System I unit closure beginning the second year of the biennium. The estimate also includes the expected revenue gain from the sale of a single prison unit; however, the actual sales price realized would depend on the level of bond indebtedness remaining on specific units identified for closure.

Recommendation 1, to establish a supervised offender reentry program, results in an estimated decrease in capacity demand of 1,728 beds in fiscal year 2012 and 1,808 beds in fiscal year 2013. A supervised reentry program would increase Parole Division expenses by an estimated $8.7 million during fiscal year 2012 and $16.9 million of General Revenue Funds during fiscal year 2013. The cost estimates for fiscal year 2012 assume even growth of the program, reaching the total 1,728 projected program caseload in August 2012, and the 2008 per offender per day cost of $25.54 for super-intensive supervision. **Figure 4** shows the five-year fiscal impact of the recommended super-intensive supervised reentry program.

FIGURE 4
FIVE-YEAR FISCAL IMPRACT OF RECOMMENDATION 1
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	GENERAL REVENUE COST OF OFFENDERS MANAGED UNDER SISP	NUMBER OF OFFENDERS
2012	$8,745,713	1,728
2013	$16,854,357	1,808
2014	$19,045,050	2,043
2015	$16,071,300	1,724
2016	$12,696,700	1,362

Source: Legislative Budget Board.

Implementation of Recommendation 1 provides the state the opportunity to reduce total prison capacity by 1,700 to 1,800 offender beds in the next biennium. The projected reduction in demand for prison beds precludes the complete closure of any units with total offender capacity above 1,800 beds, unless other prison population reductions occur simultaneously. Within System I classification, the Beto, Coffield, Crain, Darrington, Eastham, Ellis, Estelle, Ferguson, Ramsey, and Wynne units support total capacities of more than 1,800 beds. **Figure 5** shows the specific amount

FIGURE 5
FISCAL IMPACT OF TDCJ SYSTEM I UNIT CLOSURES OF LESS THAN 1,800 BEDS
FISCAL YEARS 2012 TO 2016

FACILITY	OFFENDER CAPACITY	ANNUAL SAVINGS FROM UNIT CLOSURE	REVENUE GAIN FROM UNIT SALE	FISCAL IMPACT OF UNIT CLOSURE FROM 2012 TO 2013	FISCAL IMPACT OF UNIT CLOSURE FROM 2012 TO 2016
Goree	1,321	$21,468,134	$8,746,000	$30,214,134	$94,618,537
Vance	378	$7,221,597	$8,826,868	$16,048,464	$37,713,255
Byrd	1,365	$18,855,657	$5,839,570	$24,695,227	$81,262,198
Hilltop	553	$14,357,759	$10,950,478	$25,308,238	$68,381,515
Central	1,060	$18,790,588	$33,500,000	$52,290,588	$108,662,353
Mt. View	645	$17,561,722	$6,488,389	$24,050,111	$76,735,277
Huntsville	1,705	$26,296,299	$11,785,000	$38,081,299	$116,970,194
Clemens	1,215	$20,191,737	$38,500,000	$58,691,737	$119,266,949
Stringfellow	1,212	$19,028,002	$9,998,924	$29,026,926	$86,110,932
Powledge	1,137	$18,875,554	$27,084,237	$45,959,791	$102,586,454
Scott	1,130	$17,609,682	$19,975,000	$37,584,682	$90,413,730
Jester III	1,131	$19,483,013	$24,013,438	$43,496,450	$101,945,488
Luther	1,316	$18,571,537	$33,682,714	$52,254,251	$107,968,861
Terrell	1,603	$23,785,242	$20,671,645	$44,456,887	$115,812,614
Pack	1,478	$19,770,276	$33,678,389	$53,448,664	$112,759,492

SOURCES: Legislative Budget Board; Texas Department of Criminal Justice; General Land Office.

of fiscal savings and revenue gain related to the closure of each facility discussed in the ranking process for System I units with capacities of less than 1,800 beds. These estimates assume full closure and sale of a unit by the end of fiscal year 2013.

The potential fiscal impact of closing a System I facility, with total capacity of less than 1,800 offenders, ranges from $16.0 million to $58.7 million in General Revenue Funds during the 2012–13 biennium. The five-year fiscal impact of single unit closure ranges from $37.7 million to $119.3 million. Additionally, several of the facilities could be closed simultaneously and still remain under the 1,800 bed closure limit. For example, closing both the Byrd and Vance units would reduce offender capacity by 1,743 beds and result in a fiscal impact of $40.7 million in General Revenue Funds during the 2012–13 biennium, and $119.0 million over a five year period.

The combined fiscal impact of implementing the recommended supervised offender reentry program in fiscal year 2012 and enacting a single prison closure during fiscal year 2013 is shown in **Figure 6**.

Figure 7 shows the elements included in the calculations of fiscal impact in **Figure 6**. The fiscal impact of multiple prison closures can be calculated from the information provided in **Figures 4 and 5** by subtracting the cost of the supervised reentry program in fiscal years 2012 and 2013 from the combined fiscal impact of selected unit closures from fiscal year 2012 to 2013. All amounts represent General Revenue Funds.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

FIGURE 6
FISCAL IMPACT OF COMBINED IMPLEMENTATION OF RECOMMENDATIONS 1 & 2
FISCAL YEARS 2012 TO 2016

FACILITY	FISCAL YEAR 2012 SAVINGS/(COST)	FISCAL YEAR 2013 SAVINGS/(COST)	FISCAL YEAR 2014 SAVINGS/(COST)	FISCAL YEAR 2015 SAVINGS/(COST)	FISCAL YEAR 2016 SAVINGS/(COST)
Goree	($8,745,713)	$13,359,778	$2,423,084	$5,396,834	$8,771,434
Vance	($8,745,713)	($805,892)	($11,823,453)	($8,849,704)	($5,475,103)
Byrd	($8,745,713)	$7,840,871	($189,393)	$2,784,357	$6,158,957
Hilltop	($8,745,713)	$8,453,881	($4,687,291)	($1,713,541)	$1,661,059
Central	($8,745,713)	$35,436,232	($254,462)	$2,719,288	$6,093,888
Mt. View	($8,745,713)	$7,195,754	($1,483,328)	$1,490,422	$4,865,022
Huntsville	($8,745,713)	$21,226,942	$7,251,248	$10,224,998	$13,599,598
Clemens	($8,745,713)	$41,837,381	$1,146,687	$4,120,437	$7,495,037
Stringfellow	($8,745,713)	$12,172,569	($17,048)	$2,956,702	$6,331,302
Powledge	($8,745,713)	$29,105,435	($169,496)	$2,804,254	$6,178,854
Scott	($8,745,713)	$20,730,326	($1,435,368)	$1,538,382	$4,912,982
Jester III	($8,745,713)	$26,642,094	$437,962	$3,411,712	$6,786,312
Luther	($8,745,713)	$35,399,894	($473,513)	$2,500,236	$5,874,837
Terrell	($8,745,713)	$27,602,530	$4,740,192	$7,713,942	$11,088,542
Pack	($8,745,713)	$36,594,308	$725,226	$3,698,975	$7,073,576

Source: Legislative Budget Board.

FIGURE 7
FACTORS INCLUDED IN THE CALCULATION OF RECOMMENDATION 1 & 2 COMBINED FISCAL IMPACT
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	FACTORS INCLUDED
2012	Cost to SISP for Offenders in Supervised Reentry
2013	Operating Savings from Unit Closure
	Revenue Gain from Unit Sale
	Cost to SISP for Offenders in Supervised Reentry
2014	Operating Savings from Unit Closure
	Cost to SISP for Offenders in Supervised Reentry
2015	Operating Savings from Unit Closure
	Cost to SISP for Offenders in Supervised Reentry
2016	Operating Savings from Unit Closure
	Cost to SISP for Offenders in Supervised Reentry

Source: Legislative Budget Board.

REDUCE PRISON POPULATION BY REDUCING PAROLE PROCESS DELAYS

Inefficiencies in the parole release process create delays in an offender's release and limits bed availability. Of the 22,632 offenders approved for parole in fiscal year 2010, the release of 8,222 offenders was contingent upon their completion of specified rehabilitation programs. Based on historical data, many of these offenders may encounter delays in program enrollment and release to parole upon program completion.

The Eighty-first Legislature passed legislation to allow the Texas Department of Criminal Justice to release offenders who had completed rehabilitation programs within a range of dates approved by the Board of Pardons and Paroles. This legislation was not enacted, but to address the issue of offenders completing specified programs before their target release dates, the agency and the Board of Pardons and Paroles developed processes aimed at improving communication about offenders' program completion status. While these changes have had modest results, requiring the Texas Department of Criminal Justice and the Board of Pardons and Paroles to evaluate, identify, and effectively address process inefficiencies as they relate to the parole review and release of offenders whose release is contingent upon successful completion of an assigned rehabilitation program could lead to reduced prison populations and decreased demand for bed capacity.

FACTS AND FINDINGS

- Legislation that reduced delays in the release of offenders who successfully completed a parole approved rehabilitation program as a condition of parole was vetoed in June 2009.
- The Board of Pardons and Paroles and the Texas Department of Criminal Justice have made efforts to address parole review and release process inefficiencies by making certain offender risk assessment forms needed for parole review available via computer, initiating a pilot project that includes the preparation of offender case summaries on a computer, and increasing coordination between an offender's program completion date and release date.
- For those offenders released from September 2009 to June 2010, offenders completing a three-month rehabilitation program waited an average of 57 days from the time they successfully completed their program to their release.

CONCERN

- Despite efforts to ensure that offenders are not held for extended periods after completing a program required by the Board of Pardons and Paroles as a condition for release, data shows that there still exist some opportunities to reduce delays in the offender parole review and release process.

RECOMMENDATION

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill that directs the Texas Department of Criminal Justice and the Board of Pardons and Paroles to evaluate and identify process inefficiencies that relate to the parole review and release of offenders whose release is contingent upon successful completion of an assigned rehabilitation program.

DISCUSSION

While increased parole approval rates, and the continued expansion of treatment programs for offenders and prison diversion initiatives have slowed the growth of the prison population, the Texas Department of Criminal Justice's (TDCJ) costs continue to be high. In total, TDCJ was appropriated $6.2 billion in All Funds for the 2010–11 biennium, up from the previous biennial appropriation of $5.9 billion. The incarceration of offenders, which includes, operation and maintenance costs, health care, and treatment programs made up $4.9 billion of total 2010–11 appropriations.

A 2009 Legislative Budget Board (LBB) Texas State Government Effectiveness and Efficiency report, "Reduce the Prison Population by Reducing Parole Process Delays," found that TDCJ and the Board of Pardons and Paroles' (Parole Board) processes to prepare offender case summaries used by the Parole Board to review an offender for release were inefficient and identified the need for a more coordinated effort to reduce delays in offenders' releases.

Specifically, LBB staff found that offenders whose release was contingent upon successful completion of a rehabilitation program (FI–R vote) completed the program and satisfied the terms of the Parole Board vote earlier than anticipated, but were ineligible for release because they had not met their target release date.

The target release date is established by the Parole Board at the time parole is approved based on the Parole Board's estimate of when the offender will start and complete the assigned rehabilitation program. Based on data for offenders released between September 2006 and March 2008, more than 7,000 offenders with further investigation–rehabilitation (FI–R) votes were released two weeks or more after completing their assigned program. When a parole panel votes to approve an offender's release, certain elements of the decision are reflected in a notation beginning with the letters "FI." When a vote is to approve a release contingent upon successful completion of a particular rehabilitation program, the "FI" is followed by a number representing the length of the program and an "R". These rehabilitation programs are designed to provide offenders an opportunity to prepare themselves for return to the community and to facilitate their successful reentry into society.

TDCJ lacks the authority to release an offender before the offender meets his target release date regardless if the offender has complied with all other requirements set forth by the Parole Board. As a result, the offender has to either wait in the rehabilitation program taking up limited capacity or be transferred to the general population where the benefits of the program treatment may be diminished. Either way, the time offenders wait to reach their release date results in an unnecessary cost to the state.

Legislation passed by the Eighty-first Texas Legislature, 2009, required a parole panel that votes to place an offender in a specific TDCJ rehabilitation program as a condition of release to specify a range of dates during which TDCJ would have been authorized to release the offender upon successful program completion and compliance with all other conditions of release. This change would have ensured that offenders were released in a timely manner since the range of dates authorized by the Parole Board would be based on the date the offender is likely to have completed the program specified by the parole panel. A range of release dates would allow TDCJ flexibility that a specific target release date does not. The bill was vetoed by the Governor but to reduce unnecessary delays in an offender's release, the Governor directed the Parole Board and TDCJ to work collaboratively to develop a process to ensure that offenders are not held longer than necessary. Furthermore, the Parole Board was ordered to establish procedures that provide for TDCJ to notify the Parole Board of the successful completion of parole release requirements so the Parole Board can release an offender prior to the target release date.

PREVIOUS EFFORTS TO REDUCE RELEASE DELAYS

TDCJ and the Parole Board have taken steps to mitigate delays resulting from inefficiencies in the case summary review process and the misalignment of rehabilitation program start dates, completion dates, and release dates. In response to an LBB recommendation, the Parole Board has taken some steps to maximize the use of technology in the case summary process which is used to develop the offender's file needed by the Parole Board to vote. Once institutional parole officers (IPOs) receive an offender's file, they must manually sort through information to prepare the required forms and assessments that make up the offender's case summary. This part of the process can be very time consuming, involve many staff, and delay the completion of a case summary and Parole Board review of an offender. IPOs can now complete certain risk assessment forms on a computer. For example, an offender's "Parole Guidelines" risk assessment form, which contains current and historical information that is available in TDCJ's system, has been computerized. The risk assessment instrument is used to determine an offender's parole guideline score. The Parole Board reports that allowing IPOs to access this form via computer has reduced duplication of work and reduced data entry errors since calculations are automated. Prior to this, the IPO completed the form, one clerical person entered a portion of the scores in the system, and another entered the scores on an Excel spreadsheet and submitted the scores monthly to TDCJ's Central Office.

Other initiatives have been undertaken to prepare IPOs for the full implementation of the Offender Information Management System Reengineering (OIMS) project introduced in 1997. One component of OIMS relating to the prerelease of an offender was implemented in September 2006. As of June 2010, more than 10,000 cases were processed through the prerelease OIMS system for the fiscal year. The OIMS prerelease component is used only for those initial cases involving offenders that are new to the system and for those who are given subsequent parole review dates. While the majority of the thousands of remaining offenders approaching Parole Board review continue to be processed through the legacy system consisting of paper-based files, the

Parole Board introduced a pilot project, Legacy to OIMS (LEGO), in April 2010. This new system allows IPOs to use OIMS as a word processor when completing their case summaries. The Parole Board reports that this hybrid option allows the case summary to bypass typists, thereby reducing errors, and go directly to voting members the same way a legacy case is delivered. While LEGO eliminates certain inefficiencies, there is no timeline for expansion of the project. Therefore, process improvements must be achieved in other ways.

One such improvement includes a board directive that the Parole Board passed in April 2009, which establishes a process for reconsidering a parole approval vote when an offender completes a required rehabilitation program prior to the specified future release date. The procedures provide that TDCJ must, upon becoming aware of a situation where an offender has completed a program prior to the target release date, immediately forward a transmittal to the Parole Board to reconsider the vote. To expedite the review and release process, TDCJ reports that only the transmittal and most recent case summary is faxed to the Parole Board rather than forwarded with the parole division file. The parole panel in reconsidering its vote can act to immediately release the offender. The Parole Board does not track data on the number of transmittals submitted by TDCJ for vote reconsideration and those receiving a vote for immediate release. As a result, the agency cannot determine whether this process has reduced delays in offenders' releases.

OPPORTUNITIES FOR IMPROVEMENT

Despite these technological improvements and other efforts to ensure that offenders are not held for extended periods after completing a program required by the Parole Board as a condition for release, data for offenders released between September 2009 and June 2010 shows that 5,575 offenders received FI–R votes (not including FI–4R votes) and 1,756 completed their assigned rehabilitative program at least two weeks before their target release date. Therefore, offenders still wait several weeks, sometimes months, to be released.

Figure 1 shows that, on average, offenders assigned to a three-month rehabilitation program (FI–3R) waited 57 days to be released after successful completion of the program. This is compared to the 61 days identified in the previous LBB report. Data for offenders released through June in fiscal year 2010 showed that FI–3R votes made up 59 percent of all FI–R votes. This means that the state incurs costs for an additional 57 days, on average, for the unnecessary delayed release of offenders for the majority of all offenders with FI–R votes.

Figure 1 shows that offenders with other FI–R votes experience similar delays between the time an offender completes a program and the time they are released.

FIGURE 1
AVERAGE TIME BETWEEN PROGRAM COMPLETION AND RELEASE BY PAROLE VOTE
SEPTEMBER 2009 TO JUNE 2010

AVERAGE NUMBER OF DAYS	PAROLE VOTE REQUIRING REHABILITATION PROGRAM AS A CONDITION FOR PAROLE
57	FI–3R
31	FI–6R
56	FI–7R
115	FI–18R

Source: Legislative Budget Board.

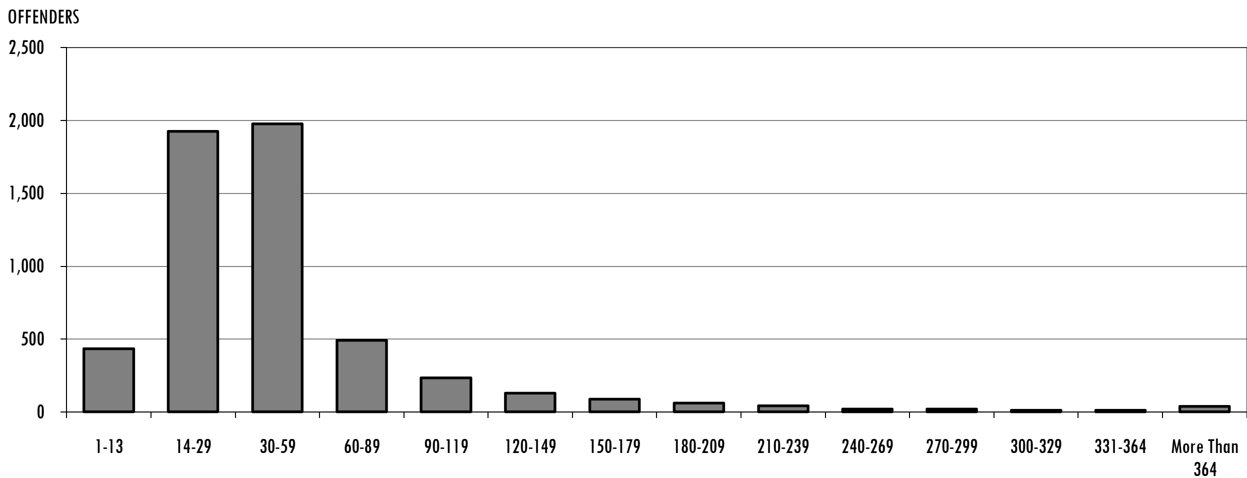
Figure 2 shows that most of these offenders were released between 14 and 59 days after program completion. Based on fiscal year 2008 cost data, at a daily prison cost of $47.50 per offender, the total cost of these delays can quickly add up.

For those offenders released between September 2009 and June 2010, more than 200 offenders were released at least six months after completion of their assigned program. It is possible that approved housing options were not available to some of these offenders, which would prevent them from being released despite meeting their target release date. TDCJ reports that as of June 2010, there were 447 offenders who were approved for parole, date eligible, and had completed an assigned program, but did not have an approved release plan—which is required for release on parole. An additional 106 offenders were waiting to be placed in a halfway house. This data indicates that housing options for paroled offenders continues to be an issue.

However, delays occur not only when an offender is ready for release but also when the offender is placed in a program. LBB staff analysis also shows that, on average, offenders with FI–R votes must wait weeks, sometimes months, to be placed in a rehabilitation program. For example, **Figure 3** shows that offenders with FI–6R votes waited an average of 82 days to start a rehabilitation program, almost half of the duration of the six-month program.

TDCJ reports that, as of July 2010, there were waiting lists only for the rehabilitation program for sex offenders (FI–4R and FI–18R). All other programs that satisfy FI–R votes have

FIGURE 2
NUMBER OF DAYS OFFENDERS WAIT TO BE RELEASED AFTER PROGRAM COMPLETION
SEPTEMBER 2009 TO JUNE 2010



Source: Legislative Budget Board.

FIGURE 3
AVERAGE TIME BETWEEN PAROLE VOTE AND PROGRAM PLACEMENT, SEPTEMBER 2009 TO JUNE 2010

AVERAGE NUMBER OF DAYS	PAROLE VOTE REQUIRING REHABILITATION PROGRAM AS A CONDITION FOR PAROLE
18	FI–3R
82	FI–6R
83	FI–7R
218	FI–18R

Source. Legislative Budget Board.

unused capacity. According to TDCJ, to help in the efficient assignment of program requirements, it periodically informs the Parole Board of the rehabilitation programs that have waiting lists to help in the efficient assignment of program requirements.

IDENTIFY AND ADDRESS PROCESS INEFFICIENCIES

Recommendation 1 would require the TDCJ and the Board of Pardons and Paroles to evaluate, identify, and effectively address parole review and release process inefficiencies for offenders whose release are contingent upon successful completion of an assigned rehabilitation program and could lead to reduced prison populations, decreased demand for bed capacity, and indirect savings.

The average number of days from program completion to release for an offender with an FI–3R vote is 57 days; 31 days for an offender with an FI–6R vote; 56 days for an offender with an FI–7R vote; and 115 days for an offender with an FI–18R vote. **Figure 4** shows that decreasing the number of days in prison after program completion for an offender with an FI–3R vote, FI–6R vote, and FI–7R by 50 percent, and by 25 percent (29 days) for an offender with an FI–18R vote would reduce the prison population and increase bed availability by 1,083.

Recommendation 1 would include a rider in the 2012–13 General Appropriations Bill to require the TDCJ and the Board of Pardons and Paroles to conduct a study to evaluate and identify process inefficiencies that relate to the parole review and release of offenders whose release is contingent upon successful completion of an assigned rehabilitation program. The report including recommendations and

FIGURE 4
FIVE-YEAR FISCAL AND CAPACITY IMPACT OF REDUCING TIME BETWEEN PROGRAM COMPLETION AND RELEASE FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS TO TDCJ	PROBABLE DECREASE IN DEMAND FOR PRISON BEDS
2012	$9,046,505	566
2013	$8,252,261	517
2014	$8,695,112	544
2015	$8,287,269	519
2016	$7,723,640	484

Source: Legislative Budget Board.

strategies to better align parole votes, program start dates, and offender releases would be submitted to the Governor and LBB by January 1, 2012. An update to this report including any additional actions implemented since January 1, 2012 and any associated savings from actions taken to reduce delays in releasing paroled offenders who have completed an assigned rehabilitation program would be required to be submitted to the Legislative Budget Board and Governor by December 1, 2012. Actual savings or decreases in demand for prison beds would vary from what is shown in **Figure 4** and would be contingent upon the initiatives TDCJ and the Parole Board implement.

FISCAL IMPACT OF THE RECOMMENDATION

Recommendation 1 will not result in direct savings of General Revenue Funds. However, reducing delays in the parole review and release process has the potential to reduce prison populations and allow TDCJ and the Parole Board to redirect resources that may be freed up as a result. Decreased prison populations resulting from these improvements allows TDCJ to consider prison closures should capacity exceed demand, resulting in savings of General Revenue Funds.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendation 1.

ELIMINATE STATUTORY BARRIERS TO CONTAIN COSTS IN CORRECTIONAL MANAGED HEALTHCARE

In Texas, the annual cost to house an offender in state correctional facilities in fiscal year 2009 was $18,082 and the cost to provide healthcare was $3,482 per offender, or 19.3 percent of the total cost per day. The Texas Department of Criminal Justice and its partners, University of Texas Medical Branch and the Texas Tech University Health Science Center, work to ensure more than 150,000 offenders who are incarcerated receive proper medical care and mental health treatment. Together, these entities are responsible for providing quality healthcare within budgetary constraints.

Research of cost containment measures in correctional healthcare identified three areas where Texas could improve correctional healthcare operations and outcomes. However, these changes would require statutory change to provide the agencies with additional authority and flexibility to implement them. Using more efficient methods to distribute prescription drugs in prisons and providing outpatient dialysis treatment at existing inpatient facilities could reduce costs in the correctional managed healthcare program. Expanding the Board of Pardon and Paroles' authority to release additional sick and elderly offenders to a more cost effective setting under the Medically Recommended Intensive Supervision parole program could decrease the state's cost of care for certain offenders with extensive and costly medical needs.

FACTS AND FINDINGS

- The 2010–11 biennial appropriation for correctional managed healthcare was $836.8 million in General Revenue Funds. In March 2010, The University of Texas Medical Branch projected a loss of $82.3 million and Texas Tech projected a loss of $6 million for the 2010–11 biennium.
- Medical staff dispenses an average of 155,000 medication doses per day. Texas Department of Criminal Justice offenders may have only certain prescription drugs in their possession and therefore are required to pick up their medications each day from a medical professional at the clinic pill distribution windows.
- Approximately 800 offenders have varying degrees of kidney failure. In fiscal year 2009, an average of 191 offenders required dialysis. The cost for dialysis treatments provided by the University of Texas Medical Branch was $4.1 million in fiscal year 2009, averaging about $21,500 per patient.
- The Medically Recommended Intensive Supervision program allows for the early release of certain offenders from prison who require long-term care or are terminally or seriously ill, elderly, mentally ill or mentally disabled.
- In fiscal year 2009, 74 offenders died while waiting for review by the Board of Pardons and Paroles for Medically Recommended Intensive Supervision parole release. Since 1991, 1,287 offenders have been released under the program.

CONCERNS

- Healthcare workers who work in corrections need additional training that is specific to the corrections setting. Currently, there is no corrections specific training for medication aides in Texas. Certified Medication Aides are trained to dispense medication. Without medication aides, correctional managed healthcare providers must hire licensed vocational nurses at a higher rate of pay to dispense medication.
- The University of Texas Medical Branch-Hospital Galveston has a licensed inpatient dialysis treatment center that is underutilized because few patients admitted to the hospital require treatment. However, there are patients at the outpatient clinic co-located with Hospital Galveston that could benefit from having treatment while onsite. The treatment center is not licensed to provide outpatient treatment because current law provides for dialysis centers to be licensed either as part of the hospital or as an outpatient clinic.
- The limited use of Medically Recommended Intensive Supervision prevents elderly offenders from being treated in a more cost effective setting. The state expends resources to identify and process over 250 offenders for medical release who are disapproved for parole.

RECOMMENDATIONS

- **Recommendation 1:** Amend statute to establish a corrections certification program for Certified Medication Aides.
- **Recommendation 2:** Amend statute to authorize the Texas Department of State Health Services to provide the University of Texas Medical Branch an exception for Hospital Galveston to use its inpatient dialysis center to treat both inpatient and outpatient clients with dialysis needs.
- **Recommendation 3:** Amend statute to expand eligibility for medical release under the Medically Recommended Intensive Supervision Program

DISCUSSION

Offenders incarcerated at prisons operated by the Texas Department of Criminal Justice (TDCJ) receive healthcare from the correctional managed healthcare program through a contract with the University of Texas Medical Branch (UTMB) or the Texas Tech University Health Science Center (TTUHSC). Offenders are treated by medical providers at prison infirmaries, regional medical centers, the prison hospital in Galveston, and some community care providers. The prison infirmaries, staffed by qualified UTMB and TTUHSC healthcare providers, function similarly to a managed care clinic in the community. They provide ongoing care for both acute (e.g., skin conditions, cold/flu, medication side effects) and less complex chronic conditions (e.g., diabetes, high blood pressure, heart disease).

The cost to provide healthcare to offenders in Texas prisons continues to increase. The average cost per day in fiscal year 2006 was $7.61 per offender ($2,778 annually) and it has increased to $9.54 per offender ($3,482 annually) in fiscal year 2009. The 2010–11 biennial appropriation for correctional managed healthcare was $836.8 million in General Revenue Funds, however, both correctional managed healthcare providers project that the amount appropriated is insufficient to pay for the cost of care. In March 2010, UTMB projected a loss of $82.3 million for the 2010–11 biennium, and TTUHSC projected a $6 million gap between appropriations and actual costs. Containing healthcare costs is a challenge for correctional administrators, and states have struggled to balance quality care and at a reasonable cost for offenders who are constitutionally entitled to receive care.

REDUCING THE COST OF PHARMACY SERVICES

Based on standard practices of care, offenders are prescribed drugs to treat and manage health problems. Offenders can keep a few low cost, non-problematic (no potential for abuse or misuse, not caustic, not harmful, no risk of overdose, or no server side effects) medications with their belongings, as determined by the prescribing doctor and correctional managed healthcare's pharmacy and therapeutics committee. However, most medications are distributed on a daily basis at the pill window. There are one, two, or more pill windows in each unit depending on number of beds in the unit. Offenders pick up and take or use their medication as prescribed (sometimes under the supervision of pill window staff). Offenders must go to the pill window each time they are required to take medication. According to UTMB and TTUHSC, medical staff dispense an average of 155,000 doses per day at TDCJ.

TDCJ's Health Services Division requires pill windows be staffed with medical personnel who have the authority to distribute medication so that staff at the pill window can answer questions about the medication for the offender. Registered nurses (RNs), licensed vocational nurses (LVNs), or certified medication aides (CMAs) may perform this task. **Figure 1** shows the staffing levels and average hourly salary for medical personnel who may work the pill window. In fiscal year 2010, UTMB and TTUHSC employed 463 RNs, 922 LVNs, and 413 CMAs.

FIGURE 1
CORRECTIONAL MANAGED CARE STAFF AT UNIVERSITY OF TEXAS MEDICAL BRANCH AND TEXAS TECH UNIVERSITY HEALTH SCIENCE CENTER
FISCAL YEAR 2009

PROVIDER TYPE	BUREAU OF LABOR STATISTICS AVERAGE HOURLY RATE IN TEXAS IN MAY 2009	AVERAGE CORRECTIONAL HEALTHCARE STAFF IN FISCAL YEAR 2009
Registered Nurse	$31.09	463
Licensed Vocational Nurse	$19.57	922
Nurse Aide/ Medication Aide	$10.39	413

Sources: Bureau of Labor Statistics; The University of Texas Medical Branch; Texas Tech University Health Science Center.

Using CMAs to dispense medication is cost effective. Without medication aides to dispense medication, a higher paid RN or LVN performs the duty. UTMB and TTUHSC

have difficulty retaining CMAs because of healthcare worker shortages and the challenges of attracting workers to the corrections setting instead of a nursing home or other private healthcare provider.

The Department of Aging and Disability Services (DADS) oversees the curriculum and licensing for CMAs. An individual who completes a training program, clinical work, and successfully passes the DADS written exam is certified to work in nursing homes, intermediate care facilities, correctional institutions, and assisted living facilities as a CMA. UTMB modifies DADS CMA training material to train employees it hires to work as medication aides in the corrections setting. In fiscal year 2009, UTMB spent $0.2 million training staff to work as medication aides in prisons. Once UTMB employees complete the employer paid training and pass the DADS written exam, they are certified CMAs qualified to work in the corrections setting and in other care settings. UTMB reports that once it trains and licenses CMAs for the corrections setting, they often seek employment outside the corrections setting.

The American Nursing Association has recognized correctional nursing as a nursing specialty since 1985. There is not a similar corrections specialty for CMAs. Healthcare workers who work in corrections need specialized training specific to the unique features of the corrections setting. Recommendation 1 would amend statute to establish a corrections certification for certified medication aides. TDCJ and its healthcare vendors, currently UTMB and Texas Tech, would develop a certification training program for certified corrections medication aides (CCMA). The CCMA training curriculum and certification should consider elements of the American Corrections Association curriculum for Certified Corrections RNs and LVNs and DADS' curriculum for CMAs as a basis for the corrections specific training. The corrections specific curriculum would remove sections specific to treatment in a nursing home setting and replace those with training needed to provide care in a corrections setting. DADS would approve modifications to the curriculum and certify CCMAs considering the training and travel needs of staff attending the training. Having CCMAs trained specifically for the corrections setting could also potentially reduce turnover, minimizing the loss of investment UTMB and TTUHSC are making to train and license CMAs.

EXPANDING THE USE OF THE INPATIENT DIALYSIS CLINIC AT HOSPITAL GALVESTON

Dialysis is the medical treatment for individual with diseases that affect the kidney's ability to remove waste and extra fluids from the body. Common causes of poor kidney health are hepatitis, diabetes and high blood pressure. Kidney failure (also called end-stage renal disease) occurs when kidney damage is so severe that a person needs a dialysis machine or a kidney transplant to maintain life. TDCJ has 33 licensed outpatient dialysis stations at two medical facilities, and UTMB-Hospital Galveston has four inpatient dialysis stations. **Figure 2** shows the location and number of dialysis stations used to treat offenders.

FIGURE 2
IN-AND-OUT-PATIENT END STATE RENAL DIALYSIS STATIONS IN THE CORRECTIONAL MANAGED HEALTHCARE PROGRAM, 2010

FACILITY	LOCATION	TYPE	NUMBER OF STATIONS
Carol Young Facility	TDCJ – Texas City	Outpatient Hemodialysis	4
Estelle Unit	TDCJ – Huntsville	Outpatient Hemodialysis	29
UTMB - Hospital Galveston	Galveston	Inpatient Hemodialysis	4

Sources: Department of State Health Services; The University of Texas Medical Branch; Texas Tech University Health Science Center.

According to UTMB, there are approximately 800 offenders who have varying degrees of kidney failure. In fiscal year 2009, an average of 191 offenders required dialysis on a regular basis. The cost for dialysis treatments provided by UTMB was $4.1 million in fiscal year 2009, averaging about $21,500 per patient.

Inpatient and outpatient dialysis centers are licensed differently. Outpatient dialysis centers are licensed by the Texas Department of State Health Services (DSHS) under the Texas End Stage Renal Disease Facilities Licensing Act. Outpatient centers must be accredited individually as free standing treatment centers. Inpatient dialysis centers do not undergo licensing on their own. They are located in hospitals and are covered by the hospital license secured through the DSHS Facility Licensing Group.

State run hospitals are exempt from licensing, but may choose to be accredited. The UTMB-Hospital Galveston is accredited by the Joint Commission, an industry recognized leader in developing standards for quality and safety in

healthcare delivery, and evaluating organization performance based on these standards. Hospital Galveston has an inpatient dialysis treatment center, but it is currently under-utilized. Offenders are transported from prison units across the state to be treated at Hospital Galveston for both inpatient hospital services and outpatient specialty care (e.g., ophthalmologist, urologist, cardiologist, nephrologist). The specialty care clinic is co-located within Hospital Galveston. Offenders may travel up to three days from their assigned unit to the medical facility and back. Offenders who need dialysis treatment while visiting Hospital Galveston for other purposes must either be admitted to the hospital for treatment at the inpatient clinic, or wait until they return to one of the other units that are licensed to provide treatment. UTMB Hospital Galveston could more effectively treat dialysis patients if the facility could use its inpatient dialysis center to treat both inpatient and outpatient offenders. The treatment center is not licensed to provide outpatient treatment, because current law provides for dialysis centers to be licensed either as part of the hospital or as an outpatient clinic. Recommendation 2 would amend statute to authorize DSHS to provide the UTMB, TTUHSC, or another state run entity providing care in the correctional managed healthcare program an exception to use inpatient dialysis centers to treat both inpatient and outpatient clients with dialysis needs. The inpatient dialysis center would be required to meet all the necessary licensing criteria to ensure quality care. This exception would not affect the quality of care, but would allow flexibility in the setting where care is provided.

MEDICALLY RECOMMENDED INTENSIVE SUPERVISION

The Texas Medically Recommended Intensive Supervision program (MRIS) allows the release of certain offenders from prison who require long-term care, or are terminally or seriously ill, elderly, physically handicapped, mentally ill, or mentally disabled. The intent of the program is to parole offenders who, due to their physical condition pose minimal public safety risk, and place them in more cost effective alternatives. This population could be served in an alternative setting at a lower cost. Offenders are not eligible for Medicare or Medicaid while incarcerated which means that the state pays the full cost of treatment for all illnesses. In an alternative setting such as a nursing home, the state would use one-third of the current expenditure of General Revenue Funds and draw down Federal Funds to provide the same level of care at a lower cost.

Offenders are referred to the MRIS program based on their medical and mental health condition. A referral may be initiated by the prison medical/mental health staff (most common), offenders, or external sources (e.g., elected officials, family members, concerned citizens, social service agencies). Referrals are screened by the Texas Correctional Office for Offenders with Mental or Medical Impairments (TCOOMMI) MRIS program staff to determine if the offender meets the statutory requirements of the program. If an offender is eligible, TCOOMMI staff process the medical parole file, including medical summaries completed by a physician or appropriate healthcare provider which indicates qualifying diagnosis and prepares the information necessary to present the offender to the Board of Pardons and Paroles (BPP).

The BPP reviews qualified offenders for medical parole. According to BPP, the MRIS panel bases its decisions on the offender's medical condition and medical evaluation, and whether the offender constitutes a threat to public safety. If approved for medical parole under the MRIS program, the offender:

- remains under the care of a physician in a medically suitable placement;
- complies with standard parole requirements and the terms and conditions of the MRIS program; and
- follows the TCOOMMI approved release plan.

MRIS parole terminates if the offender is revoked and returned to prison, discharged having completed his sentence, or dies. In fiscal year 2009, 74 offenders died while waiting review by BPP for MRIS parole.

Of the categories of offenders who were referred for MRIS parole from fiscal years 2006 to 2009, terminally ill and long-term care offenders have the highest referral rate, and terminally ill offenders had the highest approval rate. **Figure 3** shows each type of condition for which an offender may be considered for medical parole and the number of offenders released under that category.

Since fiscal year 1991, 1,287 offenders have been released under the program. **Figure 4** shows the outcome of each offender released under the MRIS program.

HIGH COST OFFENDERS

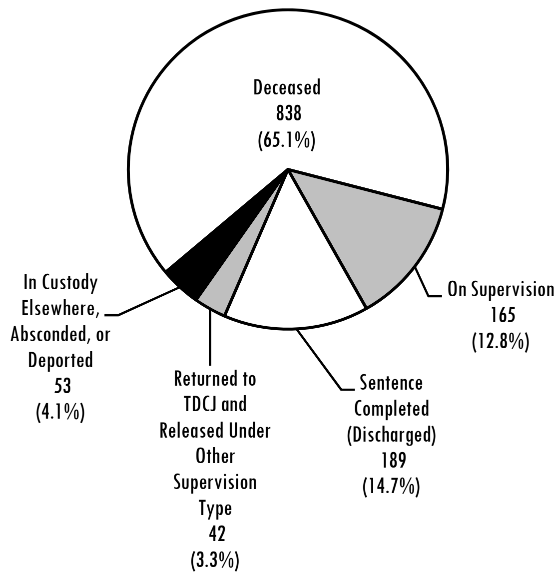
An aging general population and tougher sentencing laws keeping offenders incarcerated longer are contributing to the growing elderly prison population. In the general population outside of prison, persons older than age 65 are the fastest growing segment of the U.S. population. According to

FIGURE 3
MEDICALLY RECOMMENDED INTENSIVE SUPERVISION CONSIDERATIONS AND RELEASES IN FISCAL YEAR 2009

MEDICAL CATEGORY	NUMBER CONSIDERED	NUMBER APPROVED	APPROVAL RATE
Terminally Ill	85	34	40.0
Long-term Care	229	24	10.5
Physically Handicapped	6	0	0.0
Elderly	8	1	12.5
Mentally Ill	8	0	0.0
Mentally Disabled	1	0	0.0
TOTAL	**337**	**59**	

Source: Texas Correctional Office for Offenders with Mental or Medical Impairments.

FIGURE 4
OUTCOME OF OFFENDERS GRANTED MEDICAL PAROLE UNDER THE MEDICALLY RECOMMENDED INTENSIVE SUPERVISION PROGRAM, FISCAL YEARS 1991 TO 2009



Source: Texas Correctional Office for Offenders with Mental or Medical Impairments.

Robert Wood Johnson Foundation projections, 20 percent of Americans will be older than age 65 by 2050. The aging U.S. population distribution is reflected in the TDCJ population. In the 1990s, states' laws focused on longer sentences for violent and felony convictions and required offenders to serve greater portions of their sentences before becoming eligible for parole. The average sentence length for the TDCJ population in fiscal year 2009 was 17.6 years. **Figure 5** shows the age distribution of the TDCJ population in fiscal year 2009. At that time, there were approximately 24,082 offenders who were age 50 or older. In fiscal year 2000, those age 50 and older made up 8.4 percent of the population.

As the elderly offender population has increased, correctional administrators have encountered challenges in managing the requirements of older offenders and those with special physical and medical needs. According to the Journal of Elder Abuse & Neglect (2007), most correctional systems have inadequate resources, processes, and personnel to manage the elderly population.

Elderly offenders are more costly to the correctional healthcare program than their younger counterparts. Both incarceration and lifestyles that result in incarceration typically result in poorer health. An incarcerated offender age 55 is likely to have health problems equivalent to a non-incarcerated person who is age 65.

According to the 2010 Correctional Managed Healthcare Committee's (CMHCC) study of cost drivers, the increase in the aging offender population is the primary cause of increasing offender healthcare cost. Offenders age 55 and older account for 7.6 percent of the service population and 30.8 percent of hospitalization costs.

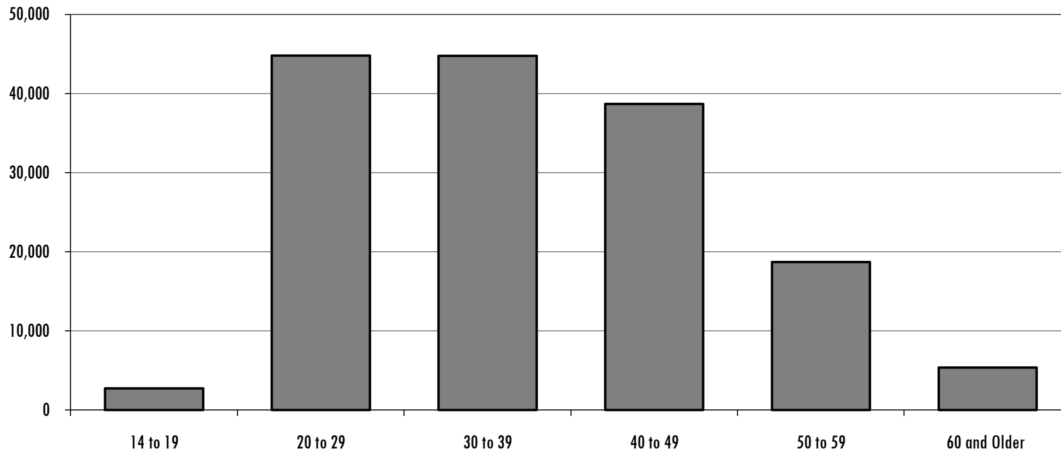
The National Commission on Correctional Health Care uses age 55 as its threshold for "elderly" inmates. At least 27 states have a definition for who qualifies as an "older prisoner," 15 states use age 50, five states use age 55, four states use age 60, two states use age 65, and one uses age 70. The medical conditions that qualify offenders for medical release vary by state as well. Common features of medical release programs in other states include:

- meet minimum age and percentage of sentence served;
- provide exclusions for violent offenders; and
- require a grave physical condition, terminal illness, or chronic debilitating disease.

The medical requirements for MRIS in Texas are:

- Terminally ill—condition is incurable and is expected to result in death within six months regardless of treatment.
- Long-term care—offender is deficient in the area of self-care and there is reasonable medical probability that the clinical condition(s) producing that inability

FIGURE 5
AGE DISTRIBUTION OF TEXAS DEPARTMENT OF CRIMINAL JUSTICE POPULATION
FISCAL YEAR 2009



SOURCE: Texas Department of Criminal Justice.

will not change over time and will continue to require nursing care.

- Elderly—offender age 65 or older.
- Physically handicapped—a severe, chronic disability that is likely to continue indefinitely and results in substantial functional limitations
- Mentally ill—an illness, disease or condition that either substantially impairs the individuals perception, reality, emotional process, judgment, or grossly impairs an offenders behavior, as manifested by recent disturbed behavior
- Mentally disabled—significantly sub-average general intellectual functioning that is concurrent with deficits in adaptive behavior and originates during the developmental period.

Over 1,000 offenders are identified each year as appropriate for medical parole under the MRIS program because of their health status. Those with certain violent or capital offenses are ineligible for the program. About 350 of those identified are processed and presented to the BPP who approve 25 percent of the cases presented to them each year. The limited use of MRIS prevents elderly and ill offenders from being treated in a more cost effective setting.

Recommendation 3 would amend statute to expand the definition of who is eligible for medical parole under the MRIS and provide additional medical information to the BPP to support their ability to make appropriate medical parole decisions. The definition of terminally ill would be expanded to include those with an incurable condition that is expected to result in death within 12 instead of six months. The definition of elderly would be reduced from age 65 to age 60 to address early aging that commonly occurs in the corrections population. Offenders released on MRIS who qualify for Medicaid would save the state approximately 66 percent of the cost of their health and long-term care since the federal government provides a 66 percent match for Medicaid.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would not have a fiscal impact in the 2012–13 biennium. The recommendations would result in operational efficiency. Any savings would be retained by the agency and used for correctional healthcare. Recommendation 1 would decrease staff cost by allowing the correctional managed healthcare providers (UTMB and TTUHSC) to staff pill distribution windows with Certified Corrections Medication Aides instead of more costly medical professionals. If correctional managed care employed 50 medication aides at $10.39 per hour instead of a nurse at $19.57 per hour, the state could save $1 million per year in reduced salary payments to employees.

Recommendation 2 would allow UTMB to use its inpatient dialysis for outpatient care at Hospital Galveston without transporting patients to another medical facility or admitting

a patient. This would result in reduced transportation and security costs for UTMB and TDCJ.

Recommendation 3 would expedite the release of offenders in need of high cost medical services to a more cost effective setting such as a nursing home or community care provider. If the BPP released 5 percent more (17 offenders) chronically ill offenders at an average cost of $10,545 per year for medical treatment, correction managed healthcare could avoid $0.2 million in medical costs. The overall saving to the state would be reduced by any increased amount paid for offenders who received care covered by Medicaid.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

IMPROVE MANAGEMENT AND SUCCESSFUL RE-ENTRY FOR ADULT AND JUVENILE REGISTERED SEX OFFENDERS

Sex offender registries were developed to improve law enforcement's ability to monitor offenders and to increase public awareness of dangers in the community. In 2010, the Texas Sex Offender Registry had more than 61,000 adult and juvenile registrants. It is the second largest in the nation, and it grows every day. Individuals on the sex offender registry were convicted of crimes that were sexual in nature, but the severities of the offences vary greatly. All registrants appear on the registry in a like manner, regardless of offense, making it difficult for the public to distinguish between the different types of offenders. As a result, registrants are often regarded the same by the public and law enforcement regardless of offense.

In 2006, the federal government passed the Adam Walsh Act establishing comprehensive sex offender registration and notification requirements that may be costly for states to implement. Due to misconceptions about the sex offender registry, it is difficult for low-risk registered sex offender to reintegrate into the community. Offenders have a higher risk of recidivism when they are unable to maintain relationships in the community, find a job, and secure housing. Amending state statute to modify the sex offender registry and address concerns about the Adam Walsh Act could increase public safety and reduce recidivism.

FACTS AND FINDINGS

- ♦ Texas began registering sex offenders September 1, 1991. In 2010, there were over 61,000 registered sex offenders: 12,690 are considered low-risk and 4,800 are between the ages of 10 and 17. The Texas Department of Public Safety adds new registrants every day. The number of registered sex offenders will continue to increase because sex offenders are required to register for either 10 years or lifetime depending on the circumstances of their offense.
- ♦ States manage sex offenders differently. The federal Adam Walsh Act requirements are contrary to some states' philosophies on sex offender management and complying could require costly and extensive changes. States that do not comply with the Act lose 10 percent of a federal law enforcement grant.
- ♦ In Texas, certain youthful offenders (age 19 or younger) convicted of a sex offense based on consensual sexual contact are required to register if they and their victims are within three years of each other and the victim is age 13 or older. The federal law is more lenient, requiring offenders to register if the victim is age 13 or older and the difference in ages is not more than four years.
- ♦ There is little evidence supporting the theory that residency restrictions improve public safety. Sex offenders are less likely to reoffend when they reconnect with family and the community, find jobs, and live with a support network. Therefore, displacing registrants could increase recidivism.
- ♦ Most sex offenders in Texas must live more than 500 feet away from where children gather. The Board of Pardons and Parole determines each sex offenders residency restriction based on risk. According to the Texas Municipal League, at least 42 Texas cities have established broad sex offender residency restriction of greater than 500 feet.

CONCERNS

- ♦ The quantity of registered sex offenders and the quality of information on the sex offender registry limit the registry's ability to improve public safety.
- ♦ Non-violent juvenile offenders respond well to treatment and have lower recidivism rates than other categories of juvenile and adult offenders. Requiring them to register in the same manner as adults could hinder their success in reintegrating into the community.
- ♦ Sex offenders are less likely to reoffend when they reconnect with family and the community, find jobs, and live with a support network. Broad residency restrictions make it more difficult for sex offenders to comply with parole and probation requirements.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Code of Criminal Procedure to improve the usefulness of the sex offender registry and eliminate barriers to

successful reentry into the community by one or all of the following options: (a) require the Texas Department of Public Safety to include more information on the sex offender registry to help the public distinguish between registrants who are a risk to them and their families versus others whose actions resulted in registry; (b) require the Texas Department of Public Safety to limit the public registry to compliant medium- and high-risk registrants and all non-compliant registrants; and (c) clarify when the court may grant a petitioner's request for early termination of an individuals' obligation to register.

- **Recommendation 2:** Amend the Texas Code of Criminal Procedure statute to exempt certain youthful offenders from registration for a sex offense based on consensual sexual conduct if both participants are at least 13 years old and neither participant is more than four years older than the other.
- **Recommendation 3:** Amend the Texas Code of Criminal Procedure to prohibit local jurisdictions from establishing additional local residency restrictions for sex offenders.

DISCUSSION

Every state has a sex offender registry, and all state registry information is consolidated on the federal sex offender registry. Sex offender registries were developed to improve law enforcements ability to monitor offenders and to protect the public from sexual violence. Improved monitoring by law enforcement should deter some offenders from committing another crime. Registries are also intended to protect the public from sexual violence by raising awareness of the presence of individuals in the community who had been convicted of sexual violence, which should reduce the occurrence of sex crimes and enhance community safety.

Texas began registering sex offenders in 1991. By 1994, the first piece of federal sex offender legislation was enacted, the Jacob Wetterling Crimes against Children and Sexually Violent Offender Registration Act. At that time, 24 states had sex offender registration statutes in place. In 1997, Texas sex offender registration laws were made retroactive requiring every individual with a certain sex offence that occurred on or after September 1, 1970 to register.

In 2010, there were more than 61,000 registered sex offenders in Texas. Of the 61,000, approximately 4,800 registered sex offenders are between the ages of 10 and 17. Texas requires sex offenders to register for either 10 years or life, depending on the crime committed, and there is no process for an adult sex offender to be removed from the registry. Because of the length of time a sex offender is registered, the number of registered sex offenders has almost doubled since 1997.

EFFECT OF THE SEX OFFENDER REGISTRY ON RECIDIVISM

Extensive media coverage of high profile sex crimes has influenced the public and policymakers perceptions of sex crimes. Federal laws are named after high profile cases (Jessica's Law, Megan's Law, Adam Walsh Act), however, these cases are atypical of the crimes represented on the sex offender registry. According to the Bureau of Justice Statistics, 93 percent of sexual assaults against victims under 18, and 73 percent of sexual assaults against adults are committed by a family member or acquaintance of the victim.

The minority of registered sex offenders are violent, pedophiles, or rapists. There were 166 sexually violent predators in the state's civil commitment program in June 2010, and in the same year, 12.3 percent of registered sex offenders were considered high-risk offenders (most likely to commit another crime or sex crime).

Researchers have found that current registration policies are not effective in preventing sexual violence or decreasing sex crime recidivism, but instead may contribute to difficulty offenders have successfully reentering the community. Registries create an environment of negativity and stress for the offenders, both risk factors for increased recidivism. Sex offenders are less likely to reoffend when they reconnect with family and the community, find jobs, and live with a support network. Barriers to housing combined with employment and resistance from communities to support offenders convicted of sex crimes ultimately could increase an offender's risk of recidivism. The Washington State Institute for Public Policy's analysis of the effectiveness of sex offender registries and notification policies on reducing sex crimes found that registries do not have a statistically significant effect on recidivism. Although there is some concern about generalizing the results of the research to all populations, the research casts doubt about the effectiveness of current registry laws.

Nationally, researcher have found that sexual offenders are more likely to reoffend with a nonsexual offense than a sexual offense. Low-risk offenders reoffend at a lower rate than high-risk offenders, and older offenders reoffend at a lower rate than younger offenders. Sex offenders have a lower rate of recidivism than other groups of offenders. According to the Legislative Budget Board's (LBB) report Statewide

Criminal Justice Recidivism and Revocation Rates, 2009, the average re-incarceration rates for offender released from Texas prisons in fiscal year 2005 was 27.2 percent and the re-incarceration rate for sex offenders during the same period was 24.9 percent. However, in this Texas prison population the sex offense recidivism rate was higher than the nonsexual offense recidivism rate. The national statistics are based on all sex offenders not only those who reoffend after being incarcerated.

IMPLEMENTING THE ADAM WALSH ACT

Both state and federal laws play a role in establishing sex offender registration and notification requirements. In 1994, Congress enacted the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act. Federal lawmakers concerned about possible gaps in sex offender law that resulted from modifications since its enactment, passed the Adam Walsh Child Protection and Safety Act (AWA) in 2006 to "protect children from sexual exploitation and violent crime." The AWA includes provisions to:

- standardize the registration and notification procedures;
- create a national sex offender registry; and
- Established the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART) to oversee compliance with AWA.

After its enactment in 2006, many organizations and states voiced concern that AWA did more than set minimum standards; it created comprehensive standards. The National Conference of State Legislatures (NCSL) agreed with the overall purpose of AWA, but expressed concern about its comprehensive approach and impractical standards. In a 2007 letter from NCSL to the Director of the SMART office, the organization states that:

> "States have recognized the need to deter sex offenders, provide law enforcement with means for identifying and tracking locations of sex offenders and increase public protection from dangerous offenders with laws that require released sex offenders to register with law enforcement or other state agencies. Each state has sex offender registration laws, and, since inception of these laws many states have expanded requirements to include more categories of offenders, extended the duration of registration for the most serious offenders, added requirements for updating and verifying registry information, and established penalties for non-compliance. NCSL objects to the AWA one-size-fits all approach to classifying, registering and, in some circumstances, sentencing sex offenders. These provisions preempt many state laws and create an unfunded mandate for states because there are no appropriations in the Act or in any appropriations bill. Many of the provisions of the AWA were crafted without state input or consideration of current state practices. The mandates imposed by the AWA are inflexible and, in some instances, not able to be implemented."

States that do not "substantially comply" with the requirement of AWA can be penalized with a 10 percent reduction in federal Byrne Justice Assistance Grant funds awarded under 42 U.S.C. Section 3750 et seq. If a state fails to substantially implement AWA, the 10 percent reduction in their Byrne Grant will be applied only to the 60 percent in direct grants to states, and not the 40 percent in direct grants to local governments. The reduction will be applied in the fiscal year following the deadline for implementation (fiscal year 2012 allocation). The reduced funds would be redirected to other states that request additional funds to implement AWA. In 2010, four states have substantially complied with AWAs requirements: Ohio, Delaware, Florida and South Dakota. The deadline to implement AWA is July 2011.

State laws governing sex offender registration and notification varied prior to AWA making it more difficult for some states to comply with these changes than others. Implementing the federal requirements is contrary to some states' philosophies on sex offender management. In some states, complying with AWA would require costly and extensive changes in laws and processes, therefore, states including California, Colorado, and Missouri have indicated it is more cost effective to delay or not implement AWA. **Figure 1** shows some primary differences between the provisions of AWA and current law in Texas.

States that do not comply with AWA may be required to spend significantly more than the 10 percent reduction in their Byrne Grant to implement the federal requirements. **Figure 2** shows the projected costs of implementing AWA in other states and the likely loss in Byrne Grant funds for not implementing AWA. State's costs vary based on the difference between the states' current law and proposed federal law, and the affected number of offenders and law enforcement units.

The Justice Policy Institute used the Virginia Department of Planning and Budget's formula to estimate the cost of

FIGURE 1
ADAM WALSH ACT PROVISIONS COMPARED TO CURRENT TEXAS LAW, 2010

Adam Walsh Act Provision	Texas Law	In Compliance
Requires certain juveniles be registered	Requires certain juveniles be registered	Yes
All categories of adult sex offenders on the public registry	All categories of adult sex offenders on the public registry	Yes
Tiered risk levels based on offense	Tiered risk levels based on risk assessment	No
In person registration and periodic updates based on risk level	Registration by mail and annual update regardless of risk level	No
No process for deregistration	A process for deregistration	No

Note: Juvenile registration provisions were amended in guideline issued by the U.S. Attorney General in May 2010 allowing jurisdictions discretion to exempt information concerning sex offender required to register on the basis of juvenile delinquency adjudications from the public web posting site.
Sources: Legislative Budget Board; Council on Sex Offender Treatment.

FIGURE 2
SELECTED STATES' COSTS OF IMPLEMENTING THE ADAM WALSH ACT, 2010

STATE	ESTIMATED COST OF IMPLEMENTING AWA (IN MILLIONS)	POTENTIAL LOSS IN FEDERAL GRANT FUNDS (IN MILLIONS)	NUMBER OF REGISTRANTS
California	$38.0	$3.2	115,542
Florida	$3.2	$1.9	50,393
New Jersey	$5.1	$0.7	12,353
Virginia	$12.5	$0.6	15,261

Sources: Legislative Budget Board; Council on Sex Offender Treatment; National Conference of State Legislatures.

implementing AWA in each state. In every state, the first-year cost of implementing the AWA outweighed the cost of losing 10 percent of the state's Byrne Grant funds. The institute's cost estimate to implement AWA in Texas is $38.8 million. According to the Texas Department of Public Safety (DPS), the 10 percent penalty would have cost the state $2.2 million in fiscal year 2010.

AWA would increase the number of sex offenders required to register and the frequency at which they report in person to local law enforcement agencies. Most of the cost increases required by AWA to manage sex offenders would be absorbed by local law enforcement; however, the loss in federal grant funds would only affect the state. The Texas Association of Counties (TAC) surveyed local law enforcement in September 2010 and collected information about the sex offender population and local jurisdictions' processes to better estimate the total cost to Texas to implement AWA. The questions included:

- number of sex offenders currently registered and residing in each local jurisdiction;
- number of law enforcement compliance verifications performed in calendar year 2009;
- number of additional in-person appearances at the registration office; and
- length of registration and number of high-risk offenders in each local jurisdiction.

Based on response from 75 local law enforcement agencies and a study conducted by the Austin Police Department, TAC and Texas Municipal League report that it is reasonable to assume implementing AWA could cost the state of Texas $14 million per year to register sex offenders in the manner prescribed by AWA.

OFFENSES REQUIRING REGISTRATION

Federal and state laws define the categories of offenses that require registration, the age at which an offender is required to register, and the duration of registration. The actions of the registrant are not always captured by the title of the law that is listed on the registry with the offense or conviction information. The following titles are the statutory cites listed on the registry used to indicate a registrant's offense.

- Online Solicitation of a Minor;
- Compelling Prostitution;
- Prohibited Sexual Conduct;

- Possession or Promotion of Child Pornography;
- Indecent Exposure;
- Indecency With a Child;
- Sexual Assault;
- Aggravated Sexual Assault;
- Sexual Performance by a Child;
- Unlawful Restraint, Kidnapping, or Aggravated Kidnapping;
- Aggravated Kidnapping with intent to violate or abuse the victim sexually; and
- Burglary of a Habitation with intent to commit a sex crime.

The information on Texas' sex offender registry is not informative or easy to understand. The registry includes a photograph, a physical description of the registrant, home address, employer name and address, and legal description of registrant's offense. The basic offense information is not sufficiently detailed to be informative. **Figure 3** is a sample of one registrant's offense information.

The information on the registry does not make it easy to distinguish between violent and non-violent offenders. There are a variety of actions that could result in a conviction under Texas Penal Code 33.021, Online Solicitation of a Minor, Sex Conduct. A conviction for Online Solicitation of a Minor could range from a 33 year old adult posting an online advertisement seeking sex with a 13 year old minor to an 18 year old male sending an inappropriate sexual text message to his younger girlfriend. *Family Court Review, 2008,* suggests that minor criminals who do not pose any real or specific threat to children should not be grouped with the dangerous and violent sexual predators.

RISK SCORE

Each sex offender is assigned a risk level that is listed on the registry. The risk assessment is intended to predict future crime and manage offender treatment and risk while under probation or parole supervision. There is general consensus among researchers that sex crime recidivism is associated with two broad factors: (1) deviant sexual interest and (2) antisocial lifestyle. There are four risk assessments that have an established history in the criminal justice community: Static99; Hare Psychopathy Checklist Revised (PCL-R); Level of Service Inventory revised (LSI-R), and Wisconsin Risk and Needs Tool.

Texas Department of Criminal Justice is directed by law to use the Static99 to assess offenders who are required to register as a sex offender. Some offenders are evaluated with a dynamic risk assessment which includes three assessments Static99, PCL-R, and the LSI-R. The Risk Assessment Review Committee and the Council on Sex Offender Treatment (CSOT) oversee the risk assessment process.

The Static99 assesses characteristics and behavior that correlate to recidivism. The Static99 considers 10 factors that are predictive of recidivism, including:

- number and type of prior offenses;
- relationship and gender of victim;
- age of offender; and
- offender's relationships.

Based on the results of the Static99 or the dynamic risk assessment, each offender is given a risk score of one, two or three.

FIGURE 3
EXAMPLE OF A TEXAS SEX OFFENDER REGISTRY ENTRY

Offenses

TX:36990024 ONLINE SOLICIT MINOR SEX CONDUCT

Victim Sex	Victim Age	GOC	Time	Disposition Date	Discharge	Status
FEMALE	14	ATTEMPT TO COMMIT	10Y	2/28/2008	NO	PROBATION
Citation						
TEXAS PENAL CODE §33.021 (C)						

SOURCE: Texas Department of Public Safety.

1. Level one is low-risk—the individual poses a low danger to the community and will not likely engage in criminal sexual conduct.
2. Level two is moderate-risk—the individual poses a moderate danger to the community and may continue to engage in criminal sexual conduct.
3. Level three is high-risk—the individual poses a serious danger to the community and will continue to engage in criminal sexual conduct.

AWA requires that states' tier (I, II, or III) registered sex offenders, and AWA assigns risk by crime type and not by risk assessment score. CSOT believes establishing risk with an assessment rather than using crime type is more accurate and predictive of future behavior, and changing the way Texas tiers offenders to comply with AWA would be a step backwards.

INFORMATION ON THE SEX OFFENDER REGISTRY

Each state's sex offender registry is different. New Jersey, Minnesota, and Rhode Island record individuals who commit a sex offense that requires registration, but only include medium-risk, high-risk, and non-compliant offenders on its public registry. Low-risk offenders are registered, but their information is accessible only by law enforcement officials. In Texas, there were 12,690 low-risk offenders on the registry in July 2010. Removing low-risk offenders from the public registry would reduce the number of registrant by approximately 21 percent.

Figure 4 shows the categories of information included in the registry's offense field and their meaning. Each data element may be useful to law enforcement but because its meaning is not self-evident, would not be informative to the public.

States maintain a variety of information on their registries. **Figure 5** shows examples of registry information included in other states' registries that may be helpful in making the registry informative to the public and help the public recognize violent and predatory registrants.

FIGURE 4
DESCRIPTION OF REGISTRY OFFENSE FIELD INFORMATION, 2010

OFFENSE FIELDS AS THEY APPEAR ON THE REGISTRY	MEANING – NOT DEFINED FOR THE READER
GOC	General Offense Character is used to define predatory offenses (e.g., Attempted Sexual Assault).
Time	Length of sentence in prison or on probation.
Disposition Date	The date the court ruled on the registrant's offense.
Discharge	An offender who serves his full sentence is not on parole after his release. He is considered discharged from state supervision.
Status	The status of the registrant's sentence, it may be supervision probation, parole, or incarceration.

Source: Legislative Budget Board.

FIGURE 5
BENEFICIAL INFORMATION IN OTHER STATES' REGISTRIES, 2010

REGISTRY INFORMATION	PURPOSE	STATES INCLUDING INFORMATION IN REGISTRY
Offenders age at the time of the offense	Allows the public to compare offender's age and victim's age at the time of the offense. The registry information may mislead the viewer if the registrant has been registered for several years, but was a youthful offender at the time the court ruled.	Alabama, Delaware, Washington DC, Illinois
Relationship with the victim	To inform the public if the offender preys on strangers.	New Jersey, New York, North Dakota, West Virginia
Pattern of crime	To assist the public in assessing danger and risk level.	New Jersey, New York, Oregon
Original charge, conviction, or plea	To assist the public in assessing danger and risk level.	Missouri, New York, South Dakota, West Virginia
Repeat offender	To assist the public in assessing danger and risk level.	New Jersey
Use of force or a weapon	To assist the public in assessing danger and risk level.	New York
Definition of sentence	Provide a description of the legal citation in layman's terms.	Hawaii
Contact information for supervising officer	To give those who have concerns about a specific registrant a contact to follow up with about issues and concerns instead of approaching the registrant directly.	Oregon

Source: Legislative Budget Board.

OPTIONS TO IMPROVE THE USEFULNESS OF THE REGISTRY

A sex offender registry is intended to increase public awareness of dangers in the community by providing information on sex offenders who are a significant threat, however, there is an established body of research which finds that registration laws are limited in their ability to reduce sexual victimization. Some registrants are unlikely to reoffend because of age, marital and employment status and ties to the community. They respond well to treatment and are not serial or dangerous. Some sex offenders committed a sexually violent act against an adult or a child, they have a previous criminal history, and they are likely to reoffend. There are too many offenders on the registry both in terms of numbers and type of offense to make the registry useful to the public as they try to understand which offenders are dangerous. Local law enforcement officers who register and monitor sex offenders in the community have limited staff and resources to monitor the growing population of registrants. They could be more efficient if they focused their resources on high-risk offenders which would result in improved public safety.

There are options to improve the quality of information and the usefulness of the sex offender registry, but they differ depending on Texas' decision whether to implement the Adam Walsh Act. Options included in Recommendation 1 are not exclusive. All three could be implemented together, however, Option B and Option C may result in Texas' not meeting federal requirements and losing up to $2.2 million in federal funds. According to the Texas Department of Public Safety and local law enforcement organizations, local law enforcement would not lose grant funds, but they would likely incur costs if the state were require changes in practices in Texas to comply with federal standards.

Option A of Recommendation 1 would amend Texas Code of Criminal Procedure, Chapter 62 to require DPS to include information on the sex offender registry that is currently available from local law enforcement, but is only maintained internally. Additional information about the offender and his/her offense would help the public distinguish between registrants:

- who are an immediate risk to them; and
- whose actions resulted in registry, but the circumstances of their offense and their risk level make them an unlikely threat.

The following are details that other states include on their public sex offender registry that would be helpful to include on the Texas sex offender registry.

- Offenders age at the time of the offense,
- Relationship to victim (e.g. family member, acquaintance, stranger),
- Details about the offense such as targets (e.g. teenage girls, homeless) and pattern of crime (e.g. poses as an authority figure, forcibly gains access to home)
- Use of force or a weapon during the offense,
- Original charge and conviction or plea,
- Repeat offender,
- Sentence (parole or probation), length of sentence, and contact information for the supervising officer or department.

Option B of Recommendation 1 would amend the Texas Code of Criminal Procedure Chapter 62 to require DPS to limit the public registry to compliant medium- and high-risk registrants and non-compliant registrants. The agency would register low-risk offenders in the same manner as other offenders, but low-risk registrant would be maintained on the secure registry which is only accessible to law enforcement.

Option C of Recommendation 1 would amend the Texas Code of Criminal Procedure Chapter 62 to clarify when the court may grant a petitioner's request for early termination of an individuals' obligation to register. The Texas Sex Offender Registration Program provides a process for registrants to apply to the court for early termination if he/she meets certain criteria. The early termination provisions were enacted by the Seventy-ninth Legislature, Regular Session, 2005. The provisions of the legislation include a reference to federal law. Federal law has changed significantly since the enactment the Texas deregistration process. The Jacob Wetterling Act was in place in 2005 and allowed for deregistration or an early termination for certain low-risk registrants. AWA, passed in 2006, does not allow for deregistration. Texas would have greater flexibility to manages sex offenders and the de-registration process if it were to remove reference to federal law in the Texas Code of Criminal Procedure Chapter 62.405(b)(2). This change would authorize judges to rule on the petitioner case without considering limitations of federal law.

EFFECTS OF REGISTRATION ON JUVENILE SEX OFFENDERS

In Texas, juvenile is defined as less than 17 years of age and in federal law and studies, juvenile is often defined as less than 18 years of age. Research suggests that juvenile sex offenders are more amenable to treatment than adults and pose a lower risk of reoffending. The sooner juvenile offenders enter effective treatment the more likely treatment is to prevent continued sexual offending. The Iowa Sex Offender Research Council found that the overall recidivism rate for juvenile sex offenders is low. Over three fourths of the registered juveniles studied had not had a new sex offense, charge or conviction during the three-year period of study. Recidivism data suggests that juveniles with sexual behavior problems are more likely to commit a property crime than another sexual offense, less than 10 percent of juveniles with sexual behavior problems recidivate with a new sex crime. According to the Iowa Sex Offender Research Council, placing juveniles on the sex offender registry for the same length of time as adults has significant negative effects on the future ability of juveniles to establish stable life styles.

The Texas registration requirements for youthful offenders (age 19 or younger) involved in a "consensual relationship" are stricter than the provisions of AWA. AWA is considered a comprehensive approach to sex offender management; therefore, it may be appropriate to evaluate provisions that are more stringent than AWA. In Texas, individuals under age 18 cannot legally consent to a sexual relationship; however, the relationship is described as "consensual" because both partners are willing participants. According to AWA, a sex offense conviction based on consensual sexual conduct does not require registration if both participants are at least age 13 and neither participant is more than four years older than the other. In Texas, individuals are required to register if the younger partner is age 13 or older and the difference between the partners' ages is more than three years. **Figure 6** shows the difference between Texas law and the provisions of AWA.

Non-violent juvenile offenders respond well to treatment and have lower recidivism rates than other categories of juvenile and adult offenders. Requiring juveniles to register in the same manner as adults could have a negative impact on their recovery and successful reintegration into the community worsen their success in the community post conviction. Recommendation 2 would amend statute to mirror AWA. Recommendation 2 would exempt certain offenders age 19 or younger from registration for a sex offense conviction based on consensual sexual conduct if both participants are at least age 13 and neither participant is more than four years older than the other. Recommendation 2 would increase, by one year, the age range between two individuals who engage in a sexual relationship for which the individual under age 18 and is unable to give consent. Current law allows individuals convicted of certain age related offenses to petition the court to be exempt from the duty to register as a sex offender. This process would continue unchanged.

FIGURE 6
CONSENSUAL RELATIONSHIP SCENARIOS AND REGISTRATION REQUIREMENTS, 2010

	AGE DIFFERENCE (YEARS)	OLDER PARTNER'S AGE	YOUNGER PARTNER'S AGE
As Proposed by Recommendation 2	4	19	15
	4	18	14
	4	17	13
Current Texas Law	3	19	16
	3	18	15
	3	17	14

SOURCE: Legislative Budget Board.

SEX OFFENDER RESIDENCY RESTRICTIONS

There is little evidence supporting the theory that residency restrictions improve public safety. Sex offenders are less likely to reoffend if they reconnect with family and the community, find jobs, and live within a support network, therefore, displacing registrants could increase recidivism. The most common reentry barriers reported by sex offenders are difficulties securing housing and employment, ostracization, harassment, and emotional problems with their families. According to *The Journal of Contemporary Criminal Justice, 2005*, sex offender registries likely lead to social withdrawal and heightened anxiety and stress for sex offenders, both common precursors to reoffending. Accurately assessing sex offender risk levels, implementing effective interventions, and applying reasonable policies could reduce recidivism among sex offenders. Managing the challenges sex offenders face when reentering the community can reduce the risk that the sex offender will reoffend. According to the *Seton Law Review, 2004*, effective sex offender management strategies such as increased field contact, community support networks, and specialized surveillance benefit the public and reduce the number of future victims of sexual assault.

Most sex offenders in Texas must live 500 feet away from where children gather. The Board of Pardons and Parole

establishes each sex offenders' residency restriction based on the Board's assessment of risk. Residency restrictions in other states' vary from 500 to 2,000 feet. According to the Texas Municipal League, at least 42 Texas cities have established sex offender residency restrictions of greater than 500 feet from where children gather. The *Texas Tech Law Review, 2010,* published an evaluation of the implications of sex offender registry and urged the Texas Legislature to preempt municipal residency restrictions because they undermine the individualized treatment of offenders currently underway in Texas.

Expanded local residency restrictions limit housing and make it more difficult for sex offenders to comply with parole and probation requirements. Accurately assessing sex offender risk levels, and applying reasonable restrictions that balance safety and reentry needs could reduce recidivism among sex offenders. Recommendation 3 would amend statue to prohibit local jurisdictions from establishing additional local residency restrictions for sex offenders beyond the requirement the Board of Pardons and Paroles identified for the offender.

FISCAL IMPACT OF THE RECOMMENDATIONS

The state's decision whether to implement AWA or not would likely have a fiscal impact on state and local governments. None of the Options included in Recommendation 1 would result in a significant fiscal impact to the state. DPS estimates for previous legislation modifying the sex offender registry indicated the agency would not require additional appropriations. Therefore, it is assumed that the agency would absorb improvements to the usefulness of the registry within its current level of appropriations. Recommendations 2 and 3 would have no direct fiscal impact to the state. These recommendations would have no fiscal impact on units of local government.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

IMPROVE REPORTING FOR THE COASTAL EROSION PLANNING AND RESPONSE ACT PROGRAM

Texas has 367 miles of beaches and more than 3,300 miles of bay shoreline. The last census found that 25 percent of the state's population lives in coastal zone counties and the University of Texas Bureau of Economic Geology estimates that one-third of Texas' economic resources are found along the coastal zone. These resources include tourism, agricultural products, mineral production, seaports, sport fishing, and activities associated with waterfowl. As the beach line erodes so does the area from which the state controls mineral resources. Additionally, erosion reduces the land available for tourist activities and farming and increases the cost of maintaining Texas' ports.

The Seventy-sixth Legislature passed the Coastal Erosion Planning and Response Act (CEPRA) to help address coastal erosion along the Texas Gulf Coast. Administered by the General Land Office, projects undertaken under the CEPRA Program have helped to replenish and stabilize critically-eroding areas of Texas beaches. Ensuring that the Texas Legislature has complete information about the program's results would help members make funding decisions for the program.

FACTS AND FINDINGS

- Coastal tourism is estimated to generate more than $780 million annually in state tax receipts and 147,000 jobs in Texas.
- Texas ports annually bring in $5 billion in state and local taxes and employ approximately 1 million Texans.
- Since fiscal year 2000, the CEPRA Program has been appropriated $86.9 million in General Revenue and General Revenue–Dedicated Funds, which has funded 223 projects.
- The CEPRA Program has effectively partnered with local, state, and federal entities to generate $180.5 million in matching funds, including one federal dollar for every state dollar appropriated to the program.
- CEPRA Program activities are effective at alleviating the negative consequences of coastal erosion in Texas and have resulted in an average of $11.69 in economic benefits for Texas.

CONCERN

- Performance measures in the 2010–11 General Appropriations Act regarding the CEPRA Program do not provide all information necessary to determine the benefits of this funding. Without this information, it difficult for the Legislature to determine the effectiveness of coastal erosion activities and make funding decisions.

RECOMMENDATION

- **Recommendation 1:** Add a new performance measure to the 2012–13 General Appropriations Bill that would require the General Land Office to report the economic benefits of state funds spent on projects funded by the CEPRA Program.

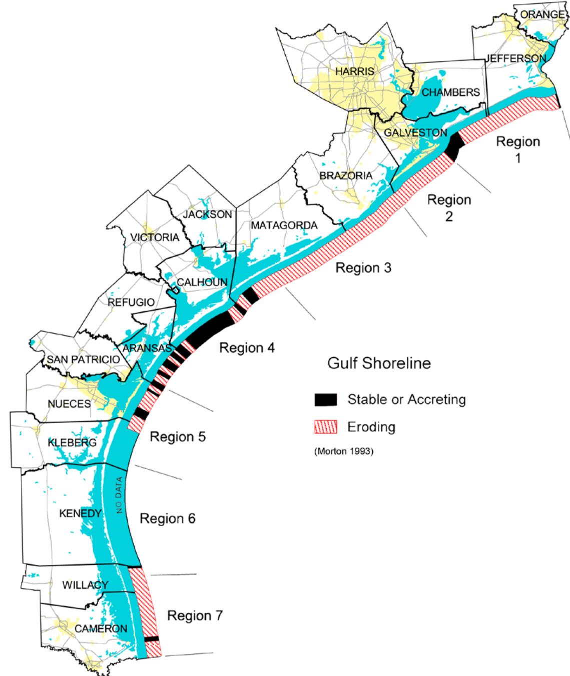
DISCUSSION

Texas has some of the highest rates of erosion in the nation, with approximately 64 percent of the coast undergoing critical erosion (statutorily defined as an historical erosion rate of more than two feet per year). Erosion causes an average loss of 235 acres of land per year in Texas and erosion rates are as high as 10 feet per year in some spots. **Figure 1** shows all of the critically eroding areas along the Texas coast. Erosion of the Texas coast is the result of natural processes and has been intensified by the effects of coastal industries such as tourism and shipping as well as the coastal population along the beach. According to the General Land Office and Veterans' Land Board (GLO), the processes causing erosion in Texas are linked and the combination of natural and man-made factors can intensify the impacts caused by each erosion process.

CAUSES OF EROSION ALONG THE TEXAS COAST

Coastal erosion resulting from natural processes occurs as a result of environmental factors such as variations in the amount of sand washed from river deltas; rising sea levels; and weather including prevailing winds, high-tide events, and hurricanes. Natural processes result in sand movement which may create beach erosion, beach accretion, dune build-up, or submerged sand bars. Natural erosion is generally temporary and the beach is typically restored through natural processes. However, in Texas, 63 percent of

FIGURE 1
CRITICALLY ERODING AREAS OF THE TEXAS GULF COAST



Source: General Land Office.

the coastline is experiencing net long-term erosion resulting in shoreline recession.

GLO has found that long-term coastal erosion in Texas results, at least in part, from increasing coastal development activity. Construction of dams and municipal reservoirs has decreased the amount of sand and sediment deposited into the Gulf Coast. The natural path of rivers has been altered to enhance intracoastal shipping lanes, causing erosion and flooding issues. The building of protective structures such as seawalls has caused erosion of down-drift beaches and shorelines. Wetlands have been dredged and filled to create more land for development, diminishing the wetland's natural ability to absorb the eroding effects of winds and waves.

Economic activities occurring along the coast also contribute to beach erosion. Navigation structures such as jetties and dikes used to aid in shipping can change the path of sand along the coast producing down-drift shorelines. For example, the beach on the north side of the Mansfield Channel jetties in Willacy County experiences up to 13 feet of erosion per year, as shown in **Figure 2**. Boats, ships, barges, and other vessels create wakes, surges, and waves that add to erosion rates. An increase in the number of ships that create large wakes, as expected to occur along the Texas Coast with

FIGURE 2
MANSFIELD CHANNEL JETTIES, WILLACY COUNTY

Source: General Land Office.

the expansion of the Panama Canal, could prove detrimental to certain parts of the coast. The extraction of petroleum (as well as groundwater) from coastal lands worsens land subsidence. This causes the ground to settle and fill up the space previously occupied by these substances. When coastal areas subside, wetlands, which can serve as a natural buffer against storm surge by reducing wave energy, are often flooded. Subsidence and erosion can also cause damage to roads, homes, and other infrastructure.

ECONOMIC IMPACT OF THE TEXAS COASTAL REGION

The coast has a significant impact on Texas' economy. According to economic researchers, in calendar year 2008, visitors to the Gulf Coast region spent $13.9 billion. This created $787 million in state tax receipts and 147,000 jobs for the state's travel industry. The coastal environment has created natural habitats that are popular recreational spots. GLO reports that approximately 850,000 sport fishers contribute $2 billion annually to the Texas economy. These habitats draw 40,000 waterfowl hunters, photographers, swimmers, campers, bird-watchers, boaters, and sightseers per year who are estimated to contribute $3 billion annually along the coast.

The coast also contains many of the state's natural resources. In calendar year 2009, 5.5 million barrels (BBL) of crude oil, 8.5 million cubic feet (MCF) of natural gas obtained from oil wells (Casinghead), 308.7 MCF of Gas Well Gas, and 8 million BBL of condensate was produced onshore in Texas coastal zone counties. Offshore, in the coast's seaward boundary (extending 10.3 miles from the coast), 229,984 BBL of crude oil, 85,937 MCF of Casinghead, 34.8 BCF of

Gas Well Gas, and 905,461 BBL of condensate was produced in 2009. According to GLO, this makes up 40 percent of the U.S.'s natural petrochemical industry, and the coast's mineral production equals nearly $1 billion per year. Additionally, 25 percent of U.S. petroleum-refining capacity is located in the Texas coastal zone. These percentages will increase if liquefied natural gas facilities within Texas harbors expand.

The location of refining facilities along maritime commerce routes in Texas means our coastal industry is largely based on petrochemicals. However, fishing and agriculture activities also occur in this area. Commercial fisheries along the Gulf Coast annually produce 178.1 million pounds of fish, worth $331.3 million. Agricultural products produced along the coast are valued at $500 million a year.

Texas has 16 coastal ports; three of which are listed in the 10 largest ports in the nation. In calendar year 2007, the state's ports' handled 18.9 percent of the nation's deep-sea vessel calls and 19.1 percent of the country's total domestic and foreign maritime cargo. The Texas Ports Association credits this with creating approximately 1 million jobs in Texas and nearly $5 billion in local and state tax revenue, and more in personal income, as shown in **Figure 3.** Marine and intermodal transportation accounts for almost $65 billion, or 10 percent, of Texas' gross state product. Several cruises also operate out of the Port of Galveston, and over 1 million passengers have sailed from the port since 2000. Texas A&M Galveston estimates that cruise ships generate more than $445 million per year for the Texas economy.

OVERVIEW OF THE CEPRA PROGRAM

The Coastal Erosion Planning and Response Act was passed by the Seventy-sixth Legislature in 1999. This legislation allowed for coordinated efforts to combat coastal erosion. These efforts are led by GLO and include both federal and local entities. The CEPRA Program funds several types of erosion control projects, as shown in **Figure 4.**

Some of the most common CEPRA Program projects are beach nourishment and dune restoration. These projects involve importing large amounts of sand to widen beaches so that they are restored to their natural widths and continue natural beach processes. The goal of these projects is to maintain wide, exposed beaches and they are considered successful if wave and erosion damages are reduced or prevented to allow for continued development and ecosystems behind dunes. Beach nourishment projects are measured by the length of beach and sand placement density. A small project is expected to last one to two years and will cost between $300,000 and $400,000. GLO has found that larger beach nourishment projects are more cost effective than small projects; doubling a project's length generally increases the project's lifespan by a factor of four. In recent years, GLO has begun to undertake larger beach nourishment projects to ensure funding is focused toward longer-lasting projects.

Beach nourishment by itself, however, cannot solve all long-term erosion problems. For this reason, the CEPRA Program also funds structural shoreline protection projects including the construction of seawalls, groins, bulkheads, revetments, and breakwaters. These methods, while able to stabilize beaches in the areas they serve, may unintentionally interfere with natural beach processes on either side of the structure. For this reason, their use is carefully considered and extensive analysis of alternatives and feasibility studies are conducted early in the process of completing these projects. Structural shoreline protection projects are often found in populated areas along the Texas coast and are generally used to protect public parks and infrastructure. All but one shoreline protection project completed to date has been located along ship channels and bay shorelines with the intent of protecting public property. The unit cost for this type of project ranges from $400/foot to more than $1,000/foot; and the project's life span is generally 25 years or longer.

Shoreline protection projects may also be temporarily used as part of wetland restoration projects. The United States Army Corps of Engineers (USACE) estimates that 2.7 miles of wetlands reduce storm surges by one foot. Habitat restoration projects are undertaken to replenish coastal wetlands that are able to protect adjacent bay shorelines. These projects focus on protecting, restoring, and creating coastal wetland habitats and several methods may be used in one project. Examples of these techniques include breakwater construction and vegetative planting. In these instances, geotextile tubes, rock revetments, and breakwaters may provide structural protection to guard marshes against waves while vegetation becomes established and to help create aquatic habitats.

Since 2006, the scope of the CEPRA Program has expanded to allow structural removal or relocation projects. These occur in areas that have experienced severe erosion and the movement of structures results in a development free zone allowing coastal fluctuations to naturally remedy erosion. These projects often involve moving structures such as homes that were once on private property but because of coastal erosion are now located on public beaches. This has been a point of litigation in recent years, with some cases costing

FIGURE 3
ECONOMIC IMPACT OF TEXAS PORTS, AS OF 2010

PORT	IMPORTS/EXPORTS	JOBS	ECONOMIC VALUE
Arthur	Forest products, petroleum coke, steel pipe, project cargo, steel slabs, and miscellaneous steel	5,926	Over $305 million in personal income and economic value
Beaumont	Forest products, aggregate, military cargo, steel, project cargo, bulk grain, potash, forest products, and project cargo	3,730	Over $251 million in personal income and economic value
Brownsville	Steel and other metals, petroleum products, ores and minerals, vegetable oils, grains	38,429	Over $4.7 billion in personal income and economic value
Corpus Christi	Crude oil, gas oil, fuel oil, feed stock, naphtha, condensate, reformate, toluene, frozen beef, fresh fruits, bauxite ore, barite ore, limestone aggregates, wind turbine components, diesel, alumina, petroleum coke, cumene gas oil, asphalt, coal	40,833	Over $4.93 billion in personal income and economic value
Freeport	Petroleum crude, fruit, textiles, wind generators, aggregate, paper goods and plastics, autos, chemicals, clothing, and foods	55,192	Over $14 billion in personal income and economic value
Galveston	Various fruits, agricultural equipment and implements, machinery and machines, vehicles, fertilizer products, lumber products, project cargos, wind turbine related cargo, military-related cargo, bulk grains, liner board and paper, carbon black, and light fuels	13,367	$2.97 billion in labor income and business revenue
Harlingen	Petroleum, cement, sand, fertilizer, and sugar	88	Over $23 million in labor income and business revenue
Houston	Petroleum and petroleum products, organic chemicals, crude fertilizers and minerals, cereals and cereal products, iron and steel articles, machinery, plastics, vehicles, and containerized consumer goods	785,049	Over $156 billion in personal income and economic value
Isabel	Off-shore oil work; all land has been leased for deepwater exploration and production	948	Over $109 million in labor income and business revenue
Lavaca	Chemicals, fertilizer, petroleum products, bauxite, and fishing	16,583	Over $3.2 billion in personal income and economic value
Mansfield	Sport fishing and South Texas Spaceport	167	Over $16 million in labor income and business revenue
Orange	Maritime administration ships, transmodal domestic cargo, barge and tug dry docking, fleeting, repair and construction of tugs, barges, and offshore petroleum drilling rigs, warehousing, packaging bulk cargo, and railroad/truck shopping operations	N/A	N/A
Palacios	Shrimping, fishing, tourism, and a shipyard industry	658	Over $52 million in labor income and business revenue
Texas City	Crude oil, gasoline, diesel, jet fuel, intermediate chemicals, and petroleum coke	15,050	Over $923.70 million in personal income and business revenue.
Victoria	Sand, gravel, chemicals, fertilizers, grain, and crude oil	9,235	Over $2.04 billion in personal income and economic value
West Calhoun	Industrial products including petroleum coke and chemicals, commercial seafood production and oil and gas exploration also occur	N/A	N/A

Source: Texas Department of Transportation.

FIGURE 4
CEPRA PROGRAM PROJECTS BY TYPE, FISCAL YEARS 2001 TO 2010

PROJECT TYPE	NUMBER OF PROJECTS
Study/Monitoring	83
Shoreline Protection	78
Beach Nourishment	74
Habitat Restoration	57
Dune Restoration	26
Beneficial Use of Dredge Material	23
Structural Removal	17
Damage Assessment	7
Debris Removal	1

NOTE: Individual projects may use several methods to address erosion; therefore, the total number of projects when classified by project type is greater than the total number of projects completed with CEPRA Program funding to date.
SOURCES: Legislative Budget Board; General Land Office.

more than $400,000. The high cost of these cases made incentives a more cost-effective approach to handling structural removal, and applicants have been eligible for as much as $50,000 to reimburse some of the cost of relocating homes.

GLO works with USACE to identify opportunities for the beneficial use of dredged materials. These materials come from USACE's maintenance of navigation channels, and attempt to return valuable natural resources to shore areas or wetland environments. These projects are considered one of the most economically-effective sources of sediments for beach nourishment marsh restoration. Shoreline change surveys have shown that when dredged materials were not available to be used for renourishment, shoreline change rates returned to long-term historic levels and erosional hot spots developed. However, Texas has few navigation channels with sediment that is considered to be beach-quality.

Funding can also be used for evaluations and studies. Environmental and natural resource studies are required by the Texas Natural Resources Code, Section 33.608, to occur after each CEPRA Program funding cycle is completed. Additionally, funding has been used for aerial photography, topographic/bathymetric surveys, and site inspections that allow comparisons of beach widths over multiple years. Before any project begins, and after completing a project, GLO conducts topographic and bathymetric surveys. GLO uses this data as a baseline to monitor the project through aerial photography, Light Detection and Ranging, and topography or bathymetric surveys. These surveys can be used to determine where and the rate at which erosion is occurring as well as monitor coastal erosion projects that have been completed and the effects of major storms and high tide events. Lastly, some funding is used for research of coastal erosion response methods, such as determining which size of sand grain is the least susceptible to erosion along the Gulf Coast.

CEPRA Program funding has been used for damage assessment and debris removal projects as well. These projects generally occur after severe high-tide and storm events such as Hurricane Ike in 2008. The CEPRA Program-funded projects that are destroyed by a natural disaster (Presidentially declared) are eligible for reimbursement from the Federal Emergency Management Agency of 75 percent to 90 percent of the restoration cost. In the case of Hurricane Ike, CEPRA Program claims are expected to generate approximately $30 million in Federal Funds to help restore previously completed projects at a cost of $3.3 million in state funds. However, state funding must be spent to complete the project before federal funding is received.

PROJECT SELECTION PROCESS

Projects funded under the CEPRA Program are selected based on criteria laid out in the CEPRA legislation including severity of erosion, public access and safety issues, project benefits, feasibility, and cost effectiveness. Projects are also subjected to a second round of reviews that take into account legislative directives such as geographical location of the project, the level of federal and private funds that can be leveraged, and economies of scale. Potential projects are reviewed and scored and then the agency creates a list of priority projects.

Figure 5 provides information on the number of applications received for CEPRA Program projects and the number of projects awarded in each cycle. As a result of GLO's finding that larger beach nourishment projects are longer-lasting and more successful than smaller scale projects, Cycle 5 and 6 projects generally have a larger cost, resulting in smaller number of projects selected for CEPRA Program funding. Additionally, Hurricanes Ike and Dolly hit the Texas Gulf Coast during Cycle 5. This resulted in a large increase in federal funding, which was provided as a reimbursement to the state after CEPRA Program funds were expended for disaster response projects. As a result, some CEPRA Program projects were delayed until federal funds were received, and the number of projects undertaken was increased.

FIGURE 5
CEPRA PROGRAM FUNDING CYCLES, 2000–01 TO 2010–11 BIENNIA

CYCLE (BIENNIUM)	APPROPRIATIONS	NUMBER OF PROJECTS FUNDED	TOTAL FUNDING REQUESTS	NUMBER OF APPLICATIONS RECEIVED
Cycle 1 (2000– 01)	$15.0 million	42 erosion response projects and studies	$129.2 million	63
Cycle 2 (2002– 03)	$15.0 million	53 erosion response projects and studies	$108.2 million	64
Cycle 3 (2004– 05)	$7.3 million	24 erosion response projects and studies	$36.5 million	77
Cycle 4 (2006– 07)	$7.3 million	20 erosion response projects and studies, 14 structures removed	$111.8 million	81
Cycle 5 (2008– 09)	$17.3 million	58 erosion response projects and studies	$58.1 million	84
Cycle 6 (2010– 11)	$25.2 million	26 erosion response projects and studies	$80.7 million	60
TOTALS	**$87.1 million**	**223 erosion response projects and studies**	**$524.5 million**	**429**

Source: General Land Office.

LEVERAGING MATCHING FUNDS

Most projects funded through the CEPRA Program have matching requirements. The CEPRA Program can provide between 60 percent and 75 percent of the cost of a project while partners must provide a 25 percent to 40 percent match, depending upon the type of project. GLO has effectively partnered with a variety of local, state, and federal entities to provide additional and/or matching funds for coastal erosion projects. Since the program began the state has received approximately one federal dollar for every state dollar provided to the CEPRA Program. In the current funding cycle, GLO was able to receive $6 in federal funds for every state dollar provided, or a 500 percent federal match. Since the inception of the CEPRA Program, the state has appropriated the program $86.92 million in General Revenue and General Revenue–Dedicated and $180.5 million in matching Federal Funds for projects has been received.

Under optimal conditions a coastal erosion project takes two years to complete. The cycle begins when GLO is appropriated CEPRA Program funding and selects projects for the biennium. Project cooperation agreements between GLO and local partners are then executed and preliminary engineering begins. During the preliminary engineering phase data is collected and topographic/bathymetric surveys are completed, geotechnical investigations are undertaken and a site condition analysis occurs. This data is included in permit applications to the United States Army Corps of Engineers (USACE), which are federally required of all projects. The preliminary engineering and USACE permit phase can take as long as 10 months to complete. Once the application is submitted it can take 12 to 18 months to receive the permit, at which time final engineering and construction bidding occurs. Construction timeframes vary depending upon the size, scope, complexity, and location of a project. A large-scale beach nourishment or wetland restoration project can take nine to 12 months to complete while smaller projects may take as few as three months. Construction timeframes are also impacted by tourist and hurricane seasons as well as sea-turtle nesting season, during which special and rarely obtained federal approvals are required for construction to occur.

BENEFITS OF CEPRA PROGRAM PROJECTS

GLO takes efforts to reduce project costs when plausible, beginning with the planning phase. Project schedules are adjusted to leverage federal funding sources, allowing larger-scale projects to be completed that decrease the overall unit price. Additionally, when possible, project funding schedules are set to occur during the off-season to prevent interfering with tourist season as well as avoid hurricanes that could damage projects before they are completed.

GLO is required by statute to submit to the Legislature the economic benefits of each coastal erosion response study from the preceding biennium. This is included in the CEPRA Program Report to the Legislature via a benefit-cost ratio. **Figure 6** shows the average amount of economic benefits realized in Texas as the result of every state dollar invested in CEPRA Program projects. Studies completed by the University of Texas Bureau of Economic Geology and private ntractors have determined the average economic benefits of projects vary by CEPRA Program project.

Although GLO has complied with statutory requirements to publish the economic and natural resource benefits of CEPRA Program projects, a lack of understanding continues

FIGURE 6
ECONOMIC BENEFITS OF CEPRA PROJECTS, AS OF 2010

BIENNIUM	ECONOMIC BENEFITS
2000–01	$16.10
2002–03	$13.90
2004–05	$11.66
2006–07	$5.09
2008–09	$ not yet available – will be in Dec./early Jan.

Source: General Land Office.78

to surround the benefits of these projects. To increase transparency and make information more accessible, Recommendation 1 would amend performance measures in the introduced 2012–13 General Appropriations Bill, Strategy B.1.1. (Coastal Management), of GLO's budget pattern. Currently, the program is measured in the 2010–11 General Appropriations Act based on the number of coastal management program grants awarded. Metrics should be updated to include a performance measure demonstrating the cost-benefit analysis of coastal erosion projects. GLO is already required to collect this information, and has done so by contracting with outside entities to complete cost-benefit analyses. Therefore, GLO should be able to implement this recommendation using existing resources.

NATURAL RESOURCE ANALYSIS OF PROJECTS FUNDED

Almost all CEPRA Program projects are required by federal law to receive a USACE Section 10/404 permit in compliance with the federal National Environmental Policy Act. This helps to ensure that projects do not negatively impact endangered or threatened species, native flora, historic archeological sites, and water quality.

Texas A&M University at Corpus Christi operates the Beach Monitoring Program which annually surveys five beach locations at which CEPRA Program projects have occurred. These locations are Corpus Christi North Beach, McGee Beach, University Beach, Rockport Beach, and Indianola Beach. Overall, it has been found that the bayside beaches have remained relatively stable and experienced limited erosion. One site did experience significant shoreline retreat of 25 feet per year as a result of Hurricane Ike. Additionally, South Padre Island has been surveyed on a semi-annual basis since 1997. These surveys have demonstrated that shoreline change rates were small during times at which the beach was periodically renourished through the beneficial use of dredged material. However, when renourishment did not occur because of factors such as sea-turtle nesting season, shoreline change rates accelerated to historic-levels. Overall, studies such as those conducted by TAMUCC and on South Padre Island have shown that beach nourishment projects have performed as designed under normal conditions.

The reduction in erosion and protection resulting from these projects positively contributes to the social and economic value of coastal areas. Maintaining beaches and wetlands provides a buffer from tropical storms as well as increasing the value of properties. Additionally, preserving natural coastal habitats protects aquatic and terrestrial species that are part of the natural coastal environment as well as attracting millions of visitors and persons participating in recreational activities. The period for which coastal erosion response projects are believed to provide natural resource benefits in the form of protection and restoration varies by project type. Small projects may only last two years while large-scale projects and those involving structures could last as long as 20 years.

FISCAL IMPACT OF THE RECOMMENDATION

No fiscal impact would result from implementing Recommendation 1 during the 2012–13 biennium. It is expected GLO can perform the required tasks and activities within its current levels of appropriations and authorized resources.

The introduced 2012–13 General Appropriations Bill includes a performance measure in GLO's budget pattern that addresses Recommendation 1.

REQUIRE ALL BENEFICIARIES TO HELP FUND THE COASTAL EROSION PLANNING AND RESPONSE ACT

Erosion affects 64 percent, or 367 miles, of the Texas Gulf coast. This erosion is the result of natural processes and has been accelerated by human activities such as navigational dredging practices, ship wakes, and subsidence related to oil and gas development. In 2001, the Seventy-seventh Legislature passed the Coastal Erosion Planning and Response Act (CEPRA), a coordinated effort of state, federal, and local entities to address this issue. However, not all beneficiaries of the CEPRA Program contribute to its funding, and program levels have fluctuated since its inception.

Coastal residents, coastal industries, and the public should all contribute funding for the CEPRA Program because each of these parties contribute to erosion and/or benefit from erosion control projects. Redirecting existing funds from Outer Continental Shelf Settlement Monies and Unclaimed Motorboat Fuels Tax Refunds as well as establishing a nominal fee on commercial landings would provide $25 million in General Revenue Funds for the program during the 2012–13 biennium from all parties who contribute to and benefit from state activities to address coastal erosion.

FACTS AND FINDINGS

- The CEPRA Program was appropriated $25.2 million in General Revenue Funds for the 2010–11 biennium. This appropriation was made from Sporting Goods Sales Tax receipts and is provided to the General Land Office through a Memorandum of Understanding with the Texas Parks and Wildlife Department.
- Federal permitting requirements and concerns for endangered species, tourist season, and tropical storms slow down the construction process for coastal erosion response projects. These factors make it difficult to complete many coastal erosion projects during a two-year period.

CONCERNS

- Not all groups benefiting from reductions in coastal erosion share in the cost of funding mitigation projects.
- Statutory authorization for the Land Commissioner to fund projects without a match for up to one-half of Coastal Erosion Planning and Response Act appropriations causes missed opportunities to maximize funds that are leveraged for coastal erosion response projects. This also reduces the equity of sources from which coastal erosion response funding is derived.
- Funding the CEPRA Program on a biennial basis results in many projects being divided into two phases—engineering/permitting and construction. Biennial funding makes long-term planning and the completion of large-scale projects, which are considered most effective, difficult.
- The instability of funding levels and sources for General Land Office activities under the purview of the CEPRA Program makes it difficult to commit to large-scale coastal erosion response projects and create long-term plans.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Natural Resources Code, Chapter 33, and the Texas Tax Code, Chapter 152, to create new sources of funding for the Coastal Erosion Planning and Response Act (CEPRA) Program including adding a $2 commercial landing fee, redirecting a portion of Outer Continental Shelf Settlement Monies, and requiring 25 percent of Unclaimed Motorboat Fuels Tax Refunds to be deposited to the Coastal Erosion Response Account.
- **Recommendation 2:** Include a contingency rider in the 2012–13 General Appropriations Bill that removes the requirement for the Texas Parks and Wildlife Department to transfer Sporting Goods Sales Tax General Revenue to the General Land Office and replaces the reduced portion of Unclaimed Motorboat Fuels Tax Refunds.
- **Recommendation 3:** Amend the Texas Natural Resources Code, Chapter 33, to limit funding for CEPRA Program projects that do not have a match requirement.

- **Recommendation 4:** Amend the Texas Natural Resources Code, Chapter 33, to require GLO develop a 10-year plan for funding CEPRA Program projects.
- **Recommendation 5:** Include a contingency rider in the 2012–13 General Appropriations Bill that appropriates General Revenue–Dedicated Funds from the Coastal Erosion Response Account to the General Land Office for the CEPRA Program.

DISCUSSION

The Texas coast, composed of 367 miles of coastline and more than 3,300 miles of bay shores, suffers from some of the highest rates of erosion in the country. On average, the state loses 235 acres of Gulf shoreline each year.

This loss of shoreline results from two types of erosion. Periodic erosion is caused by storms and hurricanes whose winds can drive currents and significant volumes of sand down the coast. Long-term erosion, affecting 64 percent of the Gulf shoreline, is caused by the rate of relative sea-level rise and the lack of new sediment coming into the coastal system. This natural process has been accelerated by human activities such as waves generated by boats, the dredging and jettying of ship channels, the use of shoreline protection structures, oil and gas-related subsidence, and the diversion of freshwater flows.

The coastal area is dominated by industries that are important to the Texas economy. These include oil and gas, transportation and navigation of goods entering the country through Texas ports, commercial fishing, tourism, and other related activities. Additionally, 25 percent of the state's population lives in coastal counties. The state undertakes projects addressing coastal erosion to allow these industries to continue to thrive and the coast to remain a geographically stable location in which to live. **Figure 1** shows the number of projects the state has funded under the Coastal Erosion Planning and Response Act (CEPRA) Program and the amount of requests for funding received each biennium.

FUNDING FOR THE CEPRA PROGRAM

To address erosion concerns and provide funding for erosion control projects, the Seventy-sixth Legislature, Regular Session, 1999, established the CEPRA Program. This is a coordinated effort of state, federal, and local entities to control coastal erosion. The General Land Office (GLO) administers the program, which is currently in its sixth cycle of funding.

The amount of funding provided for CEPRA Program projects has varied each cycle since its inception. **Figure 2** shows that funding amounts have ranged from $7.3 million to $25.2 million per biennium and have come from a variety of sources. This inconsistency makes it difficult for GLO to make long-range plans regarding the CEPRA Program. Recommendation 1 would create dedicated sources of funding that would make it possible for GLO to project future available funding amounts as well as prioritize projects and develop plans beyond a two-year window. Additionally, the ability to plan beyond two-years will help GLO decide how to allocate funding across the coast and local stakeholders to prioritize coastal erosion projects.

From fiscal years 2000 to 2003, CEPRA Program projects were funded from a $12.6 million biennial appropriation of General Revenue Funds and a $2.4 million biennial appropriation of General Revenue–Dedicated Funds (Coastal Protection Account). The Seventy-eighth

FIGURE 1
CEPRA PROGRAM FUNDING CYCLES
2000–01 TO 2010–11 BIENNIA

BIENNIUM	APPROPRIATIONS	NUMBER OF PROJECTS AND STUDIES FUNDED	TOTAL FUNDING REQUESTS	NUMBER OF APPLICATIONS RECEIVED
2000–01 (cycle 1)	$15.0 million	42	$129.2 million	63
2002–03 (cycle 2)	$15.0 million	53	$108.2 million	64
2004–05 (cycle 3)	$7.3 million	24	$36.5 million	77
2006–07 (cycle 4)	$7.3 million	20*	$111.8 million	81
2008–09 (cycle 5)	$17.3 million	58	$58.1 million	84
2010–11 (cycle 6)	$25.2 million	26	$80.7 million	60

*Does not include the removal of 14 structures in Brazoria and Galveston Counties that received CEPRA funds.
Source: General Land Office.

FIGURE 2
SOURCES OF CEPRA PROGRAM APPROPRIATIONS
2000–01 TO 2010–11 BIENNIA

BIENNIUM	GENERAL REVENUE FUNDS	COASTAL PROTECTION ACCOUNT GENERAL REVENUE–DEDICATED FUNDS	SPORTING GOODS SALES TAX	TOTAL APPROPRIATIONS
2000–01	$12.6 million	$2.4 million	-	$15.0 million
2002–03	$12.6 million	$2.4 million	-	$15.0 million
2004–05	-	$7.3 million	-	$7.3 million
2006–07	-	$7.3 million	-	$7.3 million
2008–09	-	-	$17.2 million	$17.2 million
2010–11	-	-	$25.2 million	$25.2 million

Source: Legislative Budget Board.

Legislature, Regular Session, 2003, appropriated $7.3 million in General Revenue–Dedicated Funds (Coastal Protection Account) and did not appropriate any General Revenue Funds for the 2004–05 biennium based on a proposal from GLO as a means to comply with required budget reductions. This proposal, however, did not comply with statute. According to statute, General Revenue–Dedicated Coastal Protection Account appropriations for coastal erosion projects should not exceed the annual amount of interest income earned within this account, estimated to be $1.1 million for the 2004–05 biennium. The General Revenue–Dedicated Coastal Protection Account, which was primarily funded by a $0.02-per-barrel fee on crude oil loaded or unloaded in Texas ports, was originally created to fund oil spill prevention and response efforts and was not to be used as a primary funding source for coastal erosion projects.

The Seventy-ninth Legislature, 2005, enacted legislation, which removed the statutory cap on the use of the General Revenue–Dedicated Coastal Protection Account to fund coastal erosion projects for the 2006–07 biennium. This legislation also permanently decreased the Coastal Protection Fee from $0.02- per barrel of oil to $0.013 per barrel of oil, the ceiling on the account from $25 million to $20 million and the floor on the account from $14 million to $10 million. These modifications generated additional revenue by increasing the number of months the Coastal Protection Fee is collected. A rider in the 2006–07 General Appropriations Act appropriated GLO $14.6 million in General Revenue–Dedicated Funds (Coastal Protection Account) for the 2006–07 biennium, contingent on the Comptroller of Public Accounts certifying the additional revenue. One-half of the revenue was used to fund programs other than the CEPRA Program.

During the Eightieth Legislature, Regular Session, 2007, no dedicated sources of funding for coastal erosion were created nor was the use of the Coastal Protection Fee for funding the state's coastal erosion programs continued. However, the Legislature appropriated $17.2 million of Sporting Goods Sales Tax revenue to GLO for coastal erosion projects in the Eightieth Legislature and $25.2 million of Sporting Goods Sales Tax in the Eighty-first Legislature, Regular Session, 2009. The Sporting Goods Sales Tax is currently transferred from the Texas Parks and Wildlife Department (TPWD) to GLO via an Interagency Contract.

ALTERNATIVE FUNDING SOURCES

To fund the CEPRA Program equitably, revenue should come from parties that cause erosion and benefit from erosion control projects. Some erosion occurs naturally along the coast, particularly during high-tide events and large storms such as hurricanes. There is evidence that the dredging and ship wakes associated with large commercial and recreational ships have in many cases accelerated erosion along the Texas coast. Additionally, the drilling performed by the petrochemical industry has exacerbated the problem by causing subsidence in certain coastal areas. Several parties benefit from erosion control, including coastal residents who benefit directly from CEPRA Program projects such as shoreline protection structures that protect city parks, neighborhood roads, and private and public infrastructure. Coastal industries also benefit from CEPRA Program projects. For example, the CEPRA Program has funded several projects that have maintained and protected the Gulf Intracoastal Waterway, on which most of the state's

petrochemical facilities are located, from erosion. The coast is also a popular tourist destination and hotels, restaurants, and the cruise line industry all profit from maintaining Texas' shoreline. There are also many CEPRA Program projects that benefit the public. Texans, no matter where they live, benefit from erosion control and other coastal resource projects, including enjoying the protection of restored wetlands that serve as buffers against hurricane winds and the trade that comes through our state as a result of coastal ports. For these reasons, Recommendation 1 establishes dedicated sources of funding for the CEPRA Program that come from the public, coastal residents, and industry.

PROGRAM FUNDING FROM THE PUBLIC

Recommendation 1 would reallocate a portion of Unclaimed Motorboat Fuels Tax Refunds presently deposited to the General Revenue Fund for TPWD to the Coastal Erosion Response Account to provide funding from the public for coastal erosion response. Currently, 75 percent of these refunds are deposited to the General Revenue Fund for TPWD and 25 percent is deposited to the Available School Fund. During the 2008–09 biennium, $44 million was deposited to the General Revenue Fund from Unclaimed Motorboat Fuels Tax Refunds, $33 million of which was directed to TPWD.

Amending the Texas Tax Code, Section 162.502(b), to require 25 percent of Unclaimed Motorboat Fuels Tax Refunds deposited to General Revenue for TPWD to be deposited to the Coastal Erosion Response Account would generate $10.8 million in the 2012–13 biennium. Correspondingly, statute would continue to require TPWD to receive 50 percent of funds deposited to General Revenue from Unclaimed Motorboat Fuels Tax Refunds. The Legislature should offset the loss to TPWD. Recommendation 2 would remove the requirement for TPWD and GLO to enter into a Memorandum of Understanding for the transfer of Sporting Goods Sales Tax revenue for coastal erosion and appropriate an additional $10.8 million in Sporting Goods Sales Tax to TPWD during the 2012–13 biennium. The 25 percent of the Unclaimed Motorboat Fuels Tax Refunds currently deposited to the Available School Fund would be unaffected.

PROGRAM FUNDING FROM COASTAL RESIDENTS

Funding for CEPRA Program projects is a mix of state and matching funds; therefore, local communities along the coast already contribute funding to most CEPRA Program projects benefitting them. The Texas Natural Resources Code, Section 33.603(e), requires project partners to provide at least a 25 percent match for beach nourishment and natural dune restoration projects, and a 40 percent match for shoreline protection, marsh restoration, and other projects or studies. A potential project partner may be any local government, state or federal agency, institution of higher education, or other public or private entity that submits a proposal to finance, study, design, install, or maintain an erosion response project. **Figure 3** shows that during the history of the CEPRA Program, it received $94.8 million in General Revenue and General Revenue–Dedicated Funds and $180.7 million in matching Federal Funds.

FIGURE 3
STATE AND MATCHING FUNDS FOR THE CEPRA PROGRAM 2000–01 TO 2010–11 BIENNIA

BIENNIUM	STATE FUNDING	MATCHING FEDERAL FUNDS
2000–01 (cycle 1)	$15 million	$10 million
2002–03 (cycle 2)	$15 million	$9.4 million
2004–05 (cycle 3)	$7.3 million	$14.5 million
2006–07 (cycle 4)	$7.3 million	$8.5 million
2008–09 (cycle 5)	$17.3 million	$27.9 million
2010–11 (cycle 6)	$25.2 million	$110.4 million
TOTAL	**$87.1 million**	**$180.7 million**

SOURCE: General Land Office.

The Texas Natural Resources Code, Section 33.603(f), authorizes the Land Commissioner to conduct one or more large-scale erosion response projects without a match requirement each biennium, as long as the cost of the projects does not exceed one-half of biennial funding. This authorization was amended during the Eighty-first Legislature, Regular Session, and had previously permitted only one project per biennium, not to exceed one-third of biennial funding, to be undertaken without a match. To ensure that locals continue to contribute an adequate portion of funding for coastal erosion response projects, Recommendation 3 amends the Texas Natural Resources Code, Section 33.603(f), to authorize no more than one-third of biennial funding to be used for large-scale erosion response projects without a match. This change would allow up to $8.3 million, rather than $12.5 million, per biennium to be spent on projects without a funding match, assuming the program continues to receive funds of $25.0 million per biennia. Restoring the limitation to one-third of biennial funding amounts is also reflective of the increased funding

provided to the CEPRA Program during recent biennia; which could continue with the creation of dedicated sources of funding. The statutory requirement permitting funds used on projects without a match from exceeding one-third of appropriations to the CEPRA Program meant that during the Seventy-seventh and Seventy-eighth Legislatures, $5 million was available for this purpose while $2.4 million was available during the Seventy-ninth and Eightieth Legislatures.

PROGRAM FUNDING FROM COASTAL INDUSTRIES

Currently, the CEPRA Program does not receive funding from industries that use and rely on the Texas coast for their activities. To provide a portion of funds from the coastal industry, Recommendation 1 would establish a commercial landing fee. This fee would serve to offset some of the cost associated with erosion resulting from transporting goods through Texas via our ports and the need to address this erosion to sustain safe and useable ports. In this regard, a commercial landing fee is similar to fees charged for transporting cargo via other methods of transportation such as permits issued for trucks transporting goods on roadways. The commercial landing fee would encompass a variety of industries that benefit from maintenance of the coast. The tourist industry would contribute funding through commercial passenger vessels such as cruise liners and casino ships traveling from Texas ports. An array of cargo ships such as those transporting oil, steel, chemicals, seafood, and automobiles would also participate in the fee.

A $2 per foot commercial landing fee on commercial shipping and commercial passenger vessels docked at Texas port facilities would generate an estimated $10.5 million in the 2012–13 biennium based on information from the U.S. Army Corps of Engineers. Local port authorities would retain one percent of the commercial landing fee to cover administrative expenses. To lessen the expense to boats that dock frequently at Texas ports the fee could be capped or an optional annual fee could be paid in lieu of an individual fee charged for each landing. This fee would not apply to noncommercial and government vessels.

Additionally, Recommendation 1 would direct one-half of the portion of Outer Continental Shelf Revenue Settlement Monies currently deposited to the General Revenue Fund to the Coastal Erosion Response Account. These funds come indirectly from the oil and gas industry via the federal government. Texas receives this revenue as the result of a court decision requiring the federal government to pay the state for a share of higher oil and gas lease bonus, rent, and royalty revenues it received due to leases located adjacent to state lands on the Outer Continental Shelf. During the 2012–13 biennium, redirecting one-half of Outer Continental Shelf Revenue Settlement Monies deposited to the General Revenue Fund would result in approximately $4.1 million in General Revenue Funds for CEPRA Program projects. Outer Continental Shelf Revenue Settlement Monies currently deposited to the Permanent School Fund would be unaffected.

COASTAL EROSION RESPONSE ACCOUNT

The Coastal Erosion Response Account was statutorily established by the Seventy-sixth Legislature, Regular Session, 1999. The Texas Natural Resources Code, Section 33.604, authorizes monies in this account to be used only by the GLO for implementing the CEPRA Program and the federal Coastal Management Program. Additionally, this statute provides that the account consists of money appropriated for the purposes of the CEPRA Program, federal grants, revenues from the sale of dredged material, and certain penalties or costs associated with notice requirements. However, this account has never received any funds or appropriations.

Revenues generated from a commercial landing fee, a portion of Outer Continental Shelf Settlement Monies, and a portion of Unclaimed Motorboat Fuels Tax Refunds should be deposited into the Coastal Erosion Response Account created by the Texas Natural Resources Code, Section 33.604. Additionally, statutory authorization for funds in the account to be used for the Coastal Management Program should be removed, thus limiting the use of the account's funds for the CEPRA Program. **Figure 4** shows the allocation of these revenue sources under current law and under these recomendations.

Funding of the Coastal Erosion Response Account and the creation of three dedicated sources of revenue would make it possible for GLO to project future available funding. This funding would provide GLO the opportunity to prioritize projects and develop long-range plans as well as determine how to best allocate funding across the state's coastal area. As a result, Recommendation 4 would also amend the Texas Natural Resources Code, Section 33.608, to require the Land Commissioner to include a long-range plan for projects funded by revenue deposited to the Coastal Erosion Response Account, encompassing a minimum of 10 years, in the Commissioner's biennial report to the Legislature regarding the CEPRA Program.

FIGURE 4
COASTAL EROSION RESPONSE ACCOUNT - FUND SOURCES AND ALLOCATIONS
CURRENT AND RECOMMENDED ALLOCATION - BASED ON 2010-11 BIENNIAL APPROPRIATIONS

CONTRIBUTOR	SOURCE OF REVENUE	CURRENT ALLOCATION	RECOMMENDED ALLOCATION
Industry	Commercial Landing Fee	N/A	100% to GR–D (Coastal Erosion Response Account) ($10.5 million)
Industry (Indirectly)	Outer Continental Shelf Settlement Monies	33% to General Revenue ($8.0 million) 66% to Permanent School Fund	16.5% to General Revenue ($4.0 million) 66% to Permanent School Fund 16.5% to GR–D (Coastal Erosion Response Account) ($4.0 million)
General Public	Unclaimed Motorboat Fuels Tax Refunds	25% to Available School Fund 75% to General Revenue - for TPWD ($33.3 million)	25% to Available School Fund 50% to General Revenue - for TPWD ($22.2 million) 25% to GR–D (Coastal Erosion Response Account) ($11.1 million)
Coastal Residents	Local Match	25-40% (depending upon the type of project); one or more projects may be completed each biennium without a match as long as the project(s) do not comprise more than one-half of biennial funding	25-40% (depending upon the type of project); one or more projects may be completed each biennium without a match as long as the project(s) do not comprise more than one-third of biennial funding
General Public	Sporting Goods Sales Tax	$25.2 million to TPWD for GLO	$11.1 million to TPWD $14.1 million to General Revenue

Source: Legislative Budget Board.

To provide necessary funds for the CEPRA Program, Recommendation 5 would add a contingency rider to GLO's bill pattern in the 2012–13 General Appropriations Bill. This rider would be contingent upon passage of legislation modifying the use of Unclaimed Motorboat Fuels Tax Revenues and Outer Continental Shelf Settlement Monies and increasing revenues to the General Revenue–Dedicated Coastal Erosion Response Account and would appropriate General Revenue–Dedicated Funds for the 2012–13 biennium for coastal erosion control projects and activities.

FISCAL IMPACT OF THE RECOMMENDATIONS

Implementing the recommendations in this paper would result in a net savings of $10.1 million in General Revenue Funds for the 2012–13 biennium. The implementation of Recommendation 1 would result in an estimated $25.4 million gain to the General Revenue–Dedicated Coastal Erosion Response Account for the 2012–13 biennium, provided that the commercial landing fee generates $10.5 million during the biennium, the state receives $8.3 million in Outer Continental Shelf Settlement Monies, and Unclaimed Motorboat Fuels Tax Refunds are $41.6 million for the biennium. The loss to the General Revenue Fund would be $4.1 million from Outer Continental Shelf Settlement Monies. There would be no fiscal impact from the redirection of Unclaimed Motor Boat Fuels Tax Refunds because this is not a new appropriation. However, this redirection would decrease appropriations to TPWD. Under Recommendation 2, current appropriations to GLO from the Sporting Goods Sales Tax to fund coastal erosion projects would be appropriated to TPWD to offset the amount of Unclaimed Motorboat Fuels Tax Refunds being redirected.

Riders have been included in the House Version of 2012–13 General Appropriations Bill implementing Recomendations 2 and 5.

No other changes have been made to the introduced 2012–13 General Approriations Bill as a result of these recommendations.

FIGURE 5
FIVE-YEAR FISCAL IMPACT OF THE RECOMENDATIONS, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE NET GAIN/(LOSS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS	PROBABLE NET GAIN/(LOSS) TO LOCAL PORT AUTHORITIES
2012	$5,250,478	$7,100,000	($2,066,835)	$53,035
2013	$5,250,478	$7,100,000	($2,066,835)	$53,035
2014	$5,250,478	$7,100,000	($2,066,835)	$53,035
2015	$6,300,574	$7,100,000	($2,066,835)	$63,642
2016	$6,300,574	$7,100,000	($2,066,835)	$63,642

SOURCE: Legislative Budget Board.

INCLUDE A FUEL INEFFICIENCY SURCHARGE ON THE SALE OF CERTAIN NEW VEHICLES

Certain passenger vehicles, sport-utility vehicles, and light-duty trucks produce more emissions than the average vehicle. They are also less energy-efficient than the average vehicle. Despite the increased costs associated with inefficient vehicles, they are exempt from the federal gas-guzzler tax and do not pay any additional state taxes. In fiscal year 2010, an estimated 565,873 new vehicles were registered in Texas that did not meet federal Corporate Average Fuel Economy standards. A surcharge attached to the sale of new vehicles with high emissions would compensate for the higher-than-average transportation-related costs these vehicles create. Establishing a $100 surcharge for these vehicles would generate $115.3 million of General Revenue Funds during the 2012–13 biennium. This revenue could fund efforts to comply with federal air quality standards and fund state programs aimed at reducing pollution.

CONCERNS

- More carbon dioxide is produced in Texas than any other state, and vehicle emissions are a primary source of air pollutants. Three areas of the state do not meet ozone standards as set by the U.S. Environmental Protection Agency.
- Inefficient vehicles contribute more to the overall cost of transportation by emitting more pollutants and using fuel less efficiently than the average vehicle. However, they do not pay any additional taxes or fees to operate and use roads in Texas.

RECOMMENDATION

- **Recommendation 1:** Amend the Texas Tax Code, Chapter 152, to include a $100 surcharge on all new vehicle purchases that are considered inefficient in their fuel consumption based on Corporate Average Fuel Economy standards issued by the National Highway Traffic Safety Administration.

DISCUSSION

Inefficient vehicles emit a higher-than-average amount of air pollutants. These pollutants include particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide, and other hazardous air pollutants. Vehicle exhaust emits nitrous oxides and volatile organic compounds into the air, which react to create ozone. While ozone in the upper atmosphere is beneficial because it blocks the sun's ultraviolet rays, at the ground level ozone contributes to the creation of smog and respiratory problems.

Houston-Galveston-Brazoria, Dallas-Fort Worth, and Beaumont-Port Arthur are currently in nonattainment with federal air quality standards for ozone, and additional Texas cities could be classified as nonattainment areas based on revised standards released by the U.S. Environmental Protection Agency. Vehicle emissions are a primary source of ground level ozone and other air pollutants in nonattainment areas and the state as a whole. Costs resulting from a failure to achieve attainment status could include:

- the withholding of federal highway funding which could delay or stop highway projects and therefore increase overall project costs as construction costs continue to rise;
- the withholding of federal grant funding for the support of air pollution planning and control programs;
- the reclassification of areas into a higher nonattainment status which requires additional measures and implementations over a longer period, thus increasing the cost of achieving attainment;
- requiring certain sectors of the economy (such as manufacturing) to purchase more offsets when adding to or constructing new buildings—increasing the cost of doing business in Texas; and
- medical attention required to treat various maladies linked to air pollution caused by vehicles.

Carbon dioxide emissions from vehicles are directly related to gasoline consumption. For every gallon of gasoline used, 20 pounds of carbon dioxide is produced. Vehicles with low fuel economies consume more gas per mile and therefore emit a higher amount of carbon dioxide than vehicles with average and above-average fuel efficiency. According to the National Highway Traffic Safety Administration (NHTSA), carbon dioxide makes up 97 percent of all greenhouse gas emissions from a motor vehicle.

Texas is the leading producer of carbon dioxide in the United States. Emissions from fossil fuel combustion have been increasing since at least 1995. Carbon dioxide emissions from the transportation sector have made up between one-fourth and one-third of carbon dioxide emissions in Texas every year since 1990. In fiscal year 2010, an estimated 565,873 new vehicles were registered in Texas that did not meet Corporate Average Fuel Economy (CAFÉ) standards set by NHTSA.

COSTS TO THE STATE OF REDUCING AIR POLLUTION

The total amount spent by the state on measures to reduce pollution and meet federal air quality standards is difficult to quantify. The Texas Commission on Environmental Quality (TCEQ) reports that it spends approximately $71 million annually, excluding indirect administrative costs and pass thru programs such as the Texas Emissions Reduction Plan (TERP) and the Low-Income Assistance Replacement Program (LIRAP), to support activities related to air-quality. These activities include, but are not limited to the development of State Implementation Plans for Air Quality, air monitoring, air permitting, compliance (investigation), and enforcement.

In addition to the above-mentioned activities, TCEQ also administers various grant programs aimed at reducing pollution from emissions, including vehicles. As of August 31, 2010, $287.6 million in General Revenue–Dedicated Funds (TERP) have been awarded as grants to fund 3,355 projects relating to on-road sources of pollution. Additionally, appropriations to the TERP-funded Light Duty Motor Vehicle Purchase or Lease Incentive Program (formerly LIRAP) were increased during the 2008–09 biennium to $100 million and this appropriation level was maintained during the 2010–11 biennium. Out of these funds 13,760 vehicles were replaced and 4,732 vehicles were repaired through LIRAP during calendar years 2008 to 2010.

TAXES AND FEES CURRENTLY PAID TO OPERATE MOTOR VEHICLES IN TEXAS

All motor vehicles purchased and used on state highways by a Texas resident are charged a Motor Vehicle Sales and Use Tax of 6.25 percent of the sales price (minus any trade-in allowance). In lieu of the Motor Vehicle Sales and Use Tax, new residents, persons exchanging a motor vehicle, and persons who receive a motor vehicle as a gift pay a flat fee to register their vehicles. The Motor Vehicle Sales and Use Tax is paid by the purchaser of a vehicle to either an authorized vehicle seller or a County Tax Assessor-Collector. County Tax Assessor-Collectors are responsible for ensuring that the tax is remitted to the Comptroller of Public Accounts (CPA). Legislation enacted by the Eightieth Legislature, 2007, excluded from the Motor Vehicle Sales and Use Tax certain ultra low-emission motor vehicles that are capable of being powered by hydrogen and have a fuel economy of 45 miles per gallon or are fully powered by hydrogen.

Figure 1 shows that during the past six fiscal years, the Motor Vehicle Sales and Use Tax has generated a total of $18.5 billion in revenue for the state. This revenue is currently deposited to the General Revenue Fund, the TERP Account, and the Property Tax Relief Fund.

The Motor Vehicle Sales and Use Tax is included in the sales price of a vehicle that is seller financed. As the seller receives

FIGURE 1
REVENUE GENERATED BY THE MOTOR VEHICLE SALES AND USE TAX FISCAL YEARS 2004 TO 2010

FISCAL YEAR	TOTAL MOTOR VEHICLE SALES AND USE TAX (IN MILLIONS)	DEPOSITS TO THE GENERAL REVENUE FUND (IN MILLIONS)	DEPOSITS TO THE TEXAS EMISSIONS REDUCTION PLAN (IN MILLIONS)	DEPOSITS TO THE PROPERTY TAX RELIEF FUND (IN MILLIONS)
2004	$2,493.6	$2,485.1	$8.5	-
2005	2,582.4	2,570.1	12.2	-
2006	2,776.6	2,762.0	14.6	-
2007	3,008.9	2,984.0	16.1	$8.7
2008	3,012.8	2,987.8	13.0	12.0
2009	2,292.6	2,260.8	9.4	22.3
2010	2,329.6	2,320.0	8.3	1.3
TOTAL	**$18,496.5**	**$18,363.8**	**$82.1**	**$44.3**

Note: Numbers may not sum due to rounding.
Source: Comptroller of Public Accounts.

payments for the vehicle, the tax is remitted by the seller to the CPA. **Figure 2** shows that an additional $644.0 million in Motor Vehicle Sales and Use Tax has been generated from seller-financed motor vehicle sales during the past six fiscal years.

In addition to the Motor Vehicle Sales and Use Tax, separate surcharges exist for the use of off-road heavy-duty diesel equipment, truck-tractor or commercial motor vehicles, and diesel-powered on-road motor vehicles as depicted in **Figure 3**. Revenue generated by these surcharges is deposited to the credit of TERP.

Inefficient new vehicles are not subject to additional surcharges, and their drivers do not help pay for the additional transportation-related costs their cars generate. Recommendation 1 would assess a $100 surcharge on all new vehicle purchases that are considered inefficient in their fuel consumption based on CAFÉ standards issued by NHTSA to generate revenue that could fund efforts to comply with federal air-quality standards and fund state programs aimed at reducing pollution.

THE LUXURY AND FUEL-INEFFICIENT SURCHARGE IN NEW JERSEY

New Jersey implemented a Luxury and Fuel-Inefficient Surcharge (LFIS) on July 15, 2006. The LFIS applied to all new, non-commercially registered vehicles titled in New Jersey that cost more than $45,000 or that had an EPA average fuel economy rating of less than 40 miles per gallon. Some exemptions were provided for vehicles above the price threshold that were classified as zero-emission vehicles, vehicles that exceeded the allowable sales price because of handicapped driver adaptive equipment, and trucks with a gross vehicle weight above 8,500 pounds unless they cost more than $45,000. The surcharge was assessed at 0.4 percent of the gross sale or lease price of the vehicle. During fiscal year 2007 this surcharge generated $17.4 million and an additional $20.3 million was collected in fiscal year 2008. The LFIS is collected by all vehicle dealers, both in New Jersey and out-of-state, that collect and remit New Jersey sales tax. The tax is then remitted electronically to the New Jersey Division of Revenue.

FIGURE 2
REVENUE GENERATED BY THE MOTOR VEHICLE SALES AND USE TAX – SELLER FINANCED MOTOR VEHICLES
FISCAL YEARS 2003 TO 2008

FISCAL YEAR	TOTAL MOTOR VEHICLE SALES AND USE TAX – SELLER FINANCED MOTOR VEHICLES (IN MILLIONS)
2004	$84.4
2005	82.6
2006	89.4
2007	99.0
2008	105.6
2009	103.9
2010	111.9
TOTAL	**$644.0**

Source: Comptroller of Public Accounts.

FIGURE 3
MOTOR VEHICLE SURCHARGES GENERATING REVENUE FOR THE TEXAS EMISSIONS REDUCTION PLAN, 2009

SURCHARGE	APPLICABLE VEHICLES	AMOUNT OF SURCHARGE	NOTES
Motor Vehicle Surcharge	New and used diesel-powered, on-road vehicles with a gross weight exceeding 14,000 lbs.	Model years 1997 and after: 1 percent of total consideration paid for vehicle. Model years 1996 and before: 2.5 percent of total consideration paid for vehicle.	Most recreational vehicles (RVs) are excluded from this. Diesel-powered RVs weighing more than 14,000 lbs. and used for income generation are not exempted.
Motor Vehicle Registration Surcharge	Truck-tractor and commercial motor vehicles.	10 percent of the total fees due for the vehicle's registration.	None
Off-road, Heavy-Duty Diesel Equipment Surcharge	Off-road, heavy-duty diesel equipment.	Two percent of the sales or lease price.	Applies to the sale, use, lease, or rental of applicable vehicles.

Sources: Legislative Budget Board; Comptroller of Public Accounts.

IMPLEMENTATION OF THE SURCHARGE

Vehicles subject to the $100 surcharge would be new vehicles purchased with an average fuel economy that is not within 10 percent of CAFÉ standards issued by NHTSA. The current CAFÉ standard for model year 2010 vehicles is 23.5 miles per gallon (mpg), therefore in 2010 vehicles that had an average fuel economy of 21.2 mpg or lower would have been subject to the surcharge. The standards are increasing gradually, and will be set at 34.1 mpg by model year 2016. Based on data regarding vehicles sold in Texas during 2010, vehicles subject to this surcharge primarily include large trucks, sport utility vehicles, luxury cars, and sports cars.

The surcharge could be collected by County Tax Assessor-Collectors at the same time and in the same manner as other fees and surcharges associated with motor vehicle registration are collected. Motor vehicles currently exempt from the Motor Vehicle Sales and Use Tax and other motor vehicle surcharges in the Texas Tax Code, Chapter 152; including interstate motor vehicles, hydrogen vehicles, vehicles for farm or timber use, vehicles transported out-of-state, and vehicles sold to certain child-care facilities, could also be exempt from a surcharge on inefficient vehicles. Revenue generated by the additional fee could fund TERP programs or be deposited into the General Revenue Fund to offset other costs to the state associated with reducing pollution.

FISCAL IMPACT OF THE RECOMMENDATION

A surcharge of $100 would generate $115.3 million in General Revenue Funds during the 2012–13 biennium. **Figure 4** shows the five–year fiscal impact of this recommendation. This is based on the market share and average fuel economy of vehicles sold in Texas during 2010.

FIGURE 4
FIVE-YEAR FISCAL IMPACT OF THE INEFFICIENT VEHICLE SURCHARGE, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2012	$57,632,465
2013	$57,632,465
2014	$57,632,465
2015	$57,632,465
2016	$57,632,465

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of Recommendation 1.

STRENGTHEN COST RECOVERY FOR TEXAS DEPARTMENT OF AGRICULTURE REGULATORY AND MARKETING PROGRAMS

The Texas Department of Agriculture seeks to ensure the safety and quality, and increase the market share, of state agriculture-related products and services. The agency also performs many other functions, including administration of child nutrition and economic development programs. The agency in fiscal year 2009 spent $6 million for regulatory programs and received $14.5 million in fee revenue related to these programs. For marketing programs, the agency expended $4.9 million in General Revenue Funds and received $325,579 in revenue from fees, sponsorships, and donations in fiscal year 2009. In addition, it spent $764,032 for the GO TEXAN Partnership grant program.

Although the Texas Department of Agriculture has well-established mechanisms for collecting fee revenue to cover its direct and administrative regulatory expenditures, cost recovery would be strengthened by a General Appropriations Bill rider that ensures appropriations, including those associated with indirect costs, are limited to revenue collections. Also, state appropriations for marketing services are higher than most other major agricultural-producing states. Reducing those appropriations to the amounts generated from program revenue would limit the extent to which companies benefit from those services without paying for them, and save $10.3 million in General Revenue Funds during the 2012–13 biennium.

FACTS AND FINDINGS

- General Revenue Fund appropriations for Texas Department of Agriculture marketing programs are high compared to the state funding levels allocated for this purpose by other major agriculture-producing states.
- Texas Department of Agriculture policies allow companies, regardless of size, to pay a $25 membership fee for many of the agency's marketing services.
- At least four of the Texas Department of Agriculture's regulatory programs did not collect enough revenue to cover the cost of program functions in fiscal year 2009. Because the agency does not include other direct and indirect costs in their fee revenue analysis, and in some cases the difference between revenues and agency expenditures is relatively slight, the number of programs in which revenue does not cover all relevant costs could be higher.

CONCERNS

- The Texas Department of Agriculture fee and other revenue collections covered only $325,600 of the $4.9 million General Revenue Fund annual expenditures for marketing programs in fiscal year 2009.
- Unlike most regulatory agencies in Texas, only one of the Texas Department of Agriculture's 16 regulatory programs is governed by a full cost recovery rider. As a result, most of these programs are not subject to an outside, objective analysis to ensure regulatory fee revenue covers all relevant direct and indirect costs including employee benefits.

RECOMMENDATIONS

- **Recommendation 1:** Reduce appropriations of General Revenue Funds for Texas Department of Agriculture marketing programs to the projected amount that client entities will pay in fees and sponsorships for those programs during the 2012–13 biennium.
- **Recommendation 2:** Eliminate appropriations of General Revenue Funds for the GO TEXAN Partnership Program for the 2012–13 biennium.
- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Department of Agriculture to collect revenue from all entities benefitting from its marketing services sufficient to cover the direct and indirect costs of those services in the 2012–13 biennium.
- **Recommendation 4:** Include a rider in the 2012–13 General Appropriations Bill specifying that revenue must cover all direct and indirect costs including employee benefits for each regulatory program that monitors or licenses individuals, companies, or products.

DISCUSSION

The Texas Department of Agriculture (TDA) focuses on aspects of agriculture, nutrition, consumer protection, and rural development. The agency's primary activities enable agriculture-related companies to expand markets and increase sales; protect consumers and producers by enforcing safety, quality, and commercial standards; regulate pesticides, herbicides, and related companies; control destructive plant pests and diseases; administer child and low-income nutrition programs, and assist the economic development of rural communities and young farmers. Appropriations for the agency totaled $882.7 million in All Funds and provided for 666 full time-equivalent positions during the 2010–11 biennium.

REQUIRE BENEFICIARIES TO PAY FOR MARKETING SERVICES

The agency's marketing services spotlight Texas agriculture products with promotional activities and help companies sell their goods and services to foreign and domestic customers. These services assist agriculture, food, and fiber-related companies through the GO TEXAN program; inform them of appropriate federal assistance programs; direct foreign buyers to Texas products and suppliers; and show companies how to gain entry into the global marketplace. Also, TDA oversees 10 commodity producer boards which conduct their own marketing activities separate from the agency.

Businesses with food and fiber products grown, produced, or processed in Texas can participate in the GO TEXAN program. In addition to use of the program logo on packaging and advertising material, GO TEXAN members benefit from activities such as media campaigns, participation in the Texas State Fair, grocery store demonstrations, and sales related trade shows. The annual membership fee is $25. Members include businesses or organizations in the general agriculture, wine, shrimp, restaurant, fiber, horticultural, wildlife, forestry products, and livestock industries. Through the GO TEXAN Partnership Program, grantees derive benefit from specific promotional activities, for which they contribute a dollar for dollar match. Also, the agency provides agriculture market news and industry statistics, operates six livestock export pens, and coordinates international marketing functions with the Southern United States Trade Association.

One important TDA marketing activity is facilitating sales of agriculture products. This effort is accomplished through GO TEXAN promotional campaigns and events, and other forms of assistance. **Figure 1** shows marketing performance represented by the number of sales facilitated by all TDA programs from fiscal years 2008 to 2010 (projected).

FIGURE 1
MARKETING PERFORMANCE
FISCAL YEARS 2007 TO 2010

FISCAL YEAR	NUMBER OF SALES FACILITATED
2007	4,256
2008	5,392
2009	7,435
2010*	7,658

SOURCE: Texas Department of Agriculture.

The number of sales grew by 80 percent from fiscal years 2007 to 2010. During this time, the number of companies enrolled in TDA marketing programs increased from 1,848 in fiscal year 2007 to an estimated 2,397 in fiscal year 2010. This trend indicates a high level of satisfaction with sales and marketing assistance. A study by Texas Tech University in 2009 found that 99 percent of GO TEXAN members believed the program enhanced their marketing efforts, and 60 percent could attribute a portion of their annual sales growth to program participation.

Given this level of member satisfaction, the agency could require greater financial support from companies served by its marketing programs and activities. The Texas Tech study also found that GO TEXAN services caused total member sales to increase $114.7 million, and every state dollar spent on GO TEXAN companies returned $44.46 in sales growth. A $25 annual membership is particularly low considering the economic benefits TDA provides.

A review of marketing programs in other major agriculture-producing states revealed that appropriations of state funds for these services are typically less than $1 million, and that an assessment based on company sales can generate significant funding. As shown in **Figure 2**, of the 10 states with the highest agriculture commodity sales in 2010, only three received state fund appropriations greater than $1.0 million. North Carolina appropriated $7.3 million, while Texas and Illinois allocated $5.1 million and $3.3 million for marketing assistance, respectively. Some states, including Indiana, provided less than $500,000. This evidence indicates that Texas does not need to appropriate state funds in excess of $1 million per fiscal year for marketing to compete effectively with the major agriculture-producing states.

FIGURE 2
TEN STATES WITH HIGHEST AGRICULTURE COMMODITY SALES VOLUME
STATE FUND ALLOCATIONS FOR MARKETING
FISCAL YEAR 2010

STATE	FISCAL YEAR 2010 STATE ALLOCATIONS (IN MILLIONS)
North Carolina	$7.3
Texas	$5.1
Illinois	$3.3
California	$0.0
Iowa	Less than $1
Indiana	Less than $1
Kansas	Less than $1
Minnesota	Less than $1
Nebraska	Less than $1
Wisconsin	Less than $1

Source: Legislative Budget Board.

The Texas agriculture industry could contribute a significant amount of revenue for marketing assistance, as indicated by company contributions in California. Since 1937, California has collected an industry-determined assessment from companies for agriculture marketing services and other programs. The assessments range from $0.24 per carton of apples to $0.03 per gallon of milk. In fiscal year 2009, total assessments generated $186 million, of which $128 million was spent on the state's marketing programs. The greatest revenue source for that year was a $40.6 million contribution from the California Milk Advisory Board.

Recommendation 1 would reduce funding for marketing services to the level companies are projected to contribute in the 2012–13 biennium. Recommendation 2 would eliminate appropriations of General Revenue Funds for the GO TEXAN Partnership Program because of the need to minimize appropriations in the 2012–13 biennium. Recommendation 3 would ensure companies and organizations pay for the services they receive by requiring the agency to collect revenue from them sufficient to pay for its marketing programs including other direct and indirect costs such as employee benefits. Also, TDA could establish a level of fairness by tying the annual fee to company sales volume, so that larger companies pay a higher fee than small businesses.

ENSURE ADEQUATE COST RECOVERY FOR REGULATORY PROGRAMS

As required by state law, the agency administers a variety of regulatory programs associated with agricultural products and services, pesticides and herbicides, gasoline, weight and measuring devices, and structural pest control companies. The agency received $14.5 million in fee revenue and spent $6 million for regulatory programs in fiscal year 2009. Regulation by the agency seeks to ensure product quality and safety, commercial fairness, and consumer protection. To achieve these goals, TDA performs several licensing, monitoring, and inspection functions as shown in **Figure 3**. It should be noted that the agency also performs several functions, such as roadside inspections, that manage pests and enforce quarantines but for which no fees are collected.

The agency collects 27 types of fee revenue associated with its 16 regulatory programs. These range from annual fees of $9.90 per registered fuel pump paid by retailers to $1,000 for organic food processor certification. **Figure 4** shows fee levels, revenue, and expenditures for each category in fiscal year 2009.

As **Figure 4** shows, revenues from four programs did not cover their agency expenditures. Given that the difference between revenues and agency expenditures is relatively small in some programs, there could be more programs in which revenue does not cover costs when considering other direct and indirect costs, such as employee benefits.

Another aspect of cost recovery relates to rider provisions in TDA's bill pattern in the 2010–11 General Appropriations Act (GAA). The budget contains a rider requiring the agency to collect fee revenue which offsets, when feasible, direct and indirect costs of administering its regulatory programs. There are several problems in the rider: the term "feasible" is undefined; indirect costs incurred by other agencies are not included; and one regulatory activity, seed testing, is exempt even though it affects a specific industry.

In contrast, the standard rider applicable to licensing agencies in Article VIII of the 2010–11 GAA ensures that regulatory fees cover all associated costs Under the Appropriations Limited to Revenue Collections rider, agencies must generate revenue sufficient to cover their own costs as well as other direct and indirect costs appropriated elsewhere in the Act. It also authorizes the Legislative Budget Board to direct the Comptroller of Public Accounts (CPA) to reduce appropriations if there is a shortfall. None of TDA's regulatory

FIGURE 3
TDA REGULATORY PROGRAMS, 2010–11 BIENNIUM

PROGRAM	DESCRIPTION
Aquaculture	Licenses companies involved in the sale of cultured marine species.
Citrus Budwood and Maturity (two programs)	Certifies citrus budwood as virus-free, prevents sale of citrus fruit found below standards in Texas.
Egg Law	Licenses and inspects various entities involved in egg sales and distribution.
Grain Warehouse	Licenses warehouse companies and inspects warehouses to ensure commodity quality and quantity and company solvency.
Handling and Marketing Perishable Commodities (HMPC)	Licenses perishable commodity dealers and buyers to ensure timely payment for producers and buyers; administers a compensation for damages fund.
Metrology	Calibrates all types of standards and weighing devices in two state labs.
Nursery and Floral	Licenses and inspects plant nursery and floral companies to ensure plants are pest-free.
Organic Certification	Certifies and inspects organic food and fiber producers, processors, distributors, and retailers.
Pesticide Products, Applicators, Dealers (three programs)	Registers pesticides; certifies and licenses applicators; licenses dealers; and investigates complaints
Prescribed Burn	Licenses individuals as certified prescribed burn managers; regulates manager training and other activities under policies adopted by the Prescribed Burning Board.
Seed Certification	Licenses individuals and companies involved in seed development or production; certifies seeds for proper identity and genetic purity; and inspects related facilities.
Structural Pest Control	Licenses, conducts inspections, and regulates activities of structural pest control companies and applicators.
Weights and Measures	Licenses, inspects, and performs testing associated with a wide range of business and commerce to ensure fairness and accuracy.

Sources: Legislative Budget Board; Texas Department of Agriculture; Sunset Advisory Commission.

functions, except the structural pest control program, is subject to such a rider.

Recommendation 4 would address these problems by including a new rider similar to the Article VIII, Appropriations Limited to Revenue Collections, provision.

FIGURE 4
REGULATORY PROGRAM COST RECOVERY
FISCAL YEAR 2009

PROGRAM	REVENUE	AGENCY EXPENDED	REVENUE MORE THAN/ (LESS THAN) EXPENDED
Aquaculture	$17,788	$3,846	$13,942
Citrus Budwood	$7,790	$7,285	$505
Citrus Maturity	$27,133	$15,931	$11,202
Egg Law	$582,069	$241,886	$340,183
Grain Warehouse	$358,824	$286,561	$72,263
HMPC	$62,670	$113,864	($51,194)
Metrology	$231,400	$399,914	($168,914)
Nursery & Floral	$1,332,908	$740,960	$591,948
Organic Certification	$200,712	$314,683	($113,970)
Pesticide Product Registration	$2,715,725	$53,035	$2,662,690
Pesticide Dealer Licensing	$46,830	$1,418	$45,412
Pesticide Applicator Certification	$1, 286,720	$202,661	$1,084,059
Prescribed Burn	$1,300	$34,815	($33,515)
Seed Certification	$600,257	$585,906	$74,351
Structural Pest Control	$2,058,127	$361,783	$1,696,344
Weights and Measures	$4,872,777	$2,675,126	$2,197,651

Source: Texas Department of Agriculture.

The rider would specify that revenue must cover all relevant costs for specific regulatory programs. To better control expenditures, the rider would authorize CPA to reduce program appropriations upon request by the Legislative Budget Board. This addition to the proposed legislation would provide a more consistent and specific cost recovery policy for TDA regulatory programs.

FISCAL IMPACT OF THE RECOMMENDATIONS

Implementation of Recommendations 1 and 2 would result in a savings of $10.3 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium. Savings would result from reducing the appropriations associated with marketing services under Strategy A.1.1. Economic Development by $5.1 million each fiscal year of the 2012–13 biennium. This estimate is based on reducing the marketing appropriation to the amount projected to be contributed by companies in the 2012–13 biennium, for an annual savings of $4.6 million; it also reflects eliminating appropriations to the GO TEXAN Partnership Program General Revenue–Dedicated Account, for an annual savings of $552,267.

FIGURE 5
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATION
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COST) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/ (COST) IN GENERAL REVENUE–DEDICATED FUNDS
2012	$4,584,813	$552,267
2013	$4,584,813	$552,267
2014	$4,584,813	$552,267
2015	$4,584,813	$552,267
2016	$4,584,813	$552,267

SOURCE: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes an appropriation reduction and riders to implement all four recommendations.

INCREASE PRIVATE CONTRIBUTIONS FOR STATE PARKS

The Texas Parks and Wildlife Department operates 91 state parks, natural areas, and historic sites, totaling about 602,000 acres. To manage and maintain these sites, the agency was appropriated $158.1 million in All Funds for the 2012–13 biennium. In addition to state appropriations, state parks benefit from private sector contributions provided by individuals, companies, state park friends groups, the Parks and Wildlife Foundation, and various non-profit organizations. During the 2008–09 biennium, private contributions totaled $3.3 million and approximately $3 million in fiscal year 2010.

Private contributions alone will not fully offset future budget reductions that are likely to affect state park administration, but they could provide needed funding for park infrastructure if the agency has more flexibility and a new process for increasing private contributions. Amending state statute to make these improvements would result in a gain of $3.2 million in General Revenue–Dedicated Funds for the 2012–13 biennium for the state park system.

FACTS AND FINDINGS

- Funding sources for state park system operations fluctuated significantly from fiscal years 2007 to 2010. These sources include General Revenue Funds, General Revenue–Dedicated Funds, and Federal Funds, as well as revenue from visitor fees and private donations.
- The California Department of Parks and Recreation has been successful in establishing corporate sponsorship programs that have funded infrastructure and visitor recreation projects in state parks and beaches. The agency raised approximately $6 million from fiscal years 2008 to 2010 from activities conducted under these partnerships.
- The State of Washington collects donations for its state park system through a $5 donation that individuals can make with their initial or renewed vehicle registrations. When the donation included an opt-in provision during fiscal year 2009, it generated $757,000. In fiscal year 2010 it became an automatic contribution, with the option to not donate, and is now projected to generate about $14.4 million.

CONCERNS

- State law limits the Texas Parks and Wildlife Department's ability to expand its development of corporate partnerships and joint promotional campaigns. As a result, the agency lacks the authority to develop new, financially beneficial partnerships with private for-profit companies.
- The agency's focus on conventional donation sources such as individuals and non-profit organizations overlooks new strategies that would increase private contributions. As a result, Texas is not benefitting from the kind of donation systems that benefit other states.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Parks and Wildlife Code to expand the scope of the agency's fund-raising and partnership development activities to include private entities.
- **Recommendation 2:** Include a contingency rider in the introduced 2012–13 General Appropriations Bill that would appropriate all revenue raised through fund-raising and partnership development activities to the Texas Parks and Wildlife Department for funding state park system operations and maintenance.
- **Recommendation 3:** Amend the Texas Parks and Wildlife Code to prohibit the Texas Parks and Wildlife Department from allowing any entity to advertise in state parks, historic sites, or natural areas.
- **Recommendation 4:** Amend the Texas Parks and Wildlife Code and Texas Transportation Code to require the Department of Motor Vehicles to collect a voluntary contribution of $5 for state park operations and maintenance when individuals register their vehicles initially or by renewal.
- **Recommendation 5:** Include a contingency rider in the introduced 2012–13 General Appropriations Bill to appropriate donations from motor vehicle registration renewals that are allocated to fund state park system operations and maintenance.

DISCUSSION

The Texas Parks and Wildlife Department (TPWD) manages the natural and cultural resources of Texas and provides hunting, fishing, and outdoor recreational opportunities. Appropriations for the 2010–11 biennium total $673 million in All Funds. The TPWD is authorized to employ 3,180 full time equivalent (FTE) positions. The agency's state parks division operates, maintains, and improves state parks, as well as allocates funding to local parks. The 2012–13 biennium state park system appropriation is $158.1 million. The agency is authorized to employ 1,295 FTE positions for park system administration. With these resources, the agency operates 91 state parks, natural areas, and historic sites, totaling about 602,000 acres.

Figure 1 shows total park visits, park fee revenue, and total park system operations funding for fiscal years 2008 to 2011, as well as TPWD's baseline request for the 2012–13 biennium. The baseline request meets the requirements for the 2012–13 Legislative Appropriations Request—total agency requested appropriations must include a 5 percent reduction in expenditures of General Revenue Funds and General Revenue–Dedicated Funds .

Paid park visits have fluctuated significantly during fiscal years 2008 and 2010, indicating that TPWD should not rely on them to provide a consistent and growing source of funding for park operations. **Figure 1** shows that although the agency projects paid park visits to increase at a 2.5 percent annual rate in fiscal years 2012 and 2013, paid visits are estimated to have decreased by the same rate in fiscal year 2010. The agency projects a slight increase of 0.1 percent in fiscal year 2011.

A slight downward trend in total funding for the state park system is also shown in **Figure 1**. The Texas Legislature appropriated significantly more in All Funds in fiscal year 2008 to improve services and maintenance at state parks, and then provided slight increases in fiscal years 2009 and 2010. In fiscal year 2011, funding for the system decreased by 1.8 percent.

TRENDS IN PRIVATE DONATIONS

Private sector donations supplement state funding for the state park system. This revenue category also varied greatly in fiscal years 2008 and 2010. **Figure 2** shows donations by source and their annual percent changes for those fiscal years. Varying donation levels from the Texas Parks and Wildlife Foundation and the Battleship Texas Foundation accounted for the increase of 363 percent in fiscal year 2009, and the 24 percent decrease in fiscal year 2010. The reason for this variation is foundations often direct their contributions to specific purposes in a certain year, such as restoration of the Battleship Texas or certain park infrastructure projects. The same holds true for most other donors, however their donations levels are typically less than foundation contributions.

FIGURE 1
PAID VISITS, FEE REVENUE, AND OPERATIONS FUNDING FOR THE TEXAS STATE PARK SYSTEM
FISCAL YEARS 2007 TO 2013

FISCAL YEAR	PAID PARK VISITS (IN MILLIONS)	PERCENTAGE CHANGE	PARK FEE REVENUE (IN MILLIONS)	PERCENTAGE CHANGE	TOTAL STATE PARK FUNDING (IN MILLIONS)	PERCENTAGE CHANGE
2007	See Note.		$34.6		$58.3	
2008	4.3		$37.1	7.2%	$78.8	35.2%
2009	4.5	4.7%	$38.1	2.6%	$80.8	2.5%
2010*	4.4	(2.5%)	$38.7	1.7%	$80.9	0.1%
2011*	4.4	0.1%	$39.1	1.0%	$79.4	(1.8%)
2012 **	4.5	2.5%	$39.1	0.0%	$78.4	(1.2%)
2013**	4.6	2.5%	$39.1	0.0%	$78.4	0.0%

*Budgeted.
**Baseline requested amounts.
Note: Park System operations funding includes appropriated fee revenue and donations. Paid parks visits for 2010 are estimated, while fiscal years 2011 to 2013 are projected. Texas Parks and Wildlife Department modified its park visitor calculation methodology in fiscal year 2008, therefore fiscal year 2007 is omitted.
Sources: Legislative Budget Board; Texas Parks and Wildlife Department.

FIGURE 2
DONATIONS BY SOURCE FOR THE TEXAS STATE PARK SYSTEM, FISCAL YEARS 2008 TO 2010

FISCAL YEAR	INDIVIDUALS AND BUSINESSES	PERCENTAGE CHANGE	FOUNDATIONS	PERCENTAGE CHANGE	PARK FRIENDS AND OTHER	PERCENTAGE CHANGE	TOTAL	PERCENTAGE CHANGE
2008	$191,767		$457,620		$155,684		$805,071	
2009	$214,976	12%	$2,120,800	363%	$125,273	(20%)	$2,461,049	206%
2010	$1,063,876	395%	$1,611,882	(24%)	$393,565	214%	$3,069,323	25%

SOURCES: Legislative Budget Board; Texas Parks and Wildlife Department.

EXPAND THE SCOPE OF PARTNERSHIP ACTIVITIES

Since 1992, the agency has benefited from several major sponsorships. These include Toyota Motor Sales of America Inc. funding educational programs, General Motors Company donating trucks, Academy Sports and Outdoors donating fishing equipment, and Wal-Mart and Odwalla supporting nature conservation. Companies assist the agency for several reasons. They may want to increase sales volume, practice socially responsible giving, develop brand loyalty, or promote environmental stewardship. TPWD has maintained partnership relationships directly, or benefited from those developed by, the Texas Parks and Wildlife Foundation.

Founded in 1991, the Texas Parks and Wildlife Foundation's goal is to raise private contributions for priority projects identified by the Texas Parks and Wildlife Department. In fiscal year 2009, its contributions have primarily funded wildlife-related functions and the game warden training center. Of the $7.1 million the foundation provided to the agency in fiscal year 2009, approximately $115,000 was for state park purposes. According to the foundation, its focus for fiscal years 2011 through 2013 will be on supporting the agency's new game warden training center. Since fiscal year 2008, the foundation's only consistent sponsorship that benefits the state park system is from the Toyota Motor Sales of America Inc., which funds state park information materials and education programs (e.g., the Texas Outdoor Family program).

The California Department of Parks and Recreation has developed an extensive corporate sponsorship program. By forming partnerships with Coca Cola Corporation and Stater Bros. Markets, the agency gained about $1.2 million from the sale of the companies' products, which it then used to reforest a state park affected by wildfires, and to restore several state beaches.

Other companies participating in the agency's Proud Partners program such as Subaru of America Inc. provided free leased vehicles to the agency. Overall, the agency received approximately $6 million in cash and in-kind products/services from these and other partnerships from fiscal years 2008 to 2010. Also, the promotional activities and press releases produced by these companies enhanced state residents' awareness of state park benefits, resulting in a significant amount of free advertising for the agency.

Texas state law authorizes the agency to establish and maintain partnerships, but only with non-profit organizations. The enabling statute requires TPWD to designate one organization as its official non-profit partner for fund-raising and developing sponsorships for all of the agency's activities. As previously mentioned, the Texas Parks and Wildlife Foundation serves this role. This provision, however, prevents the agency from designating other entities as official partners, specifically for-profit entities. As noted above, the California Department of Parks and Recreation has multiple partnerships with for-profit entities which have focused only on parks and beaches. These partnerships have funded necessary projects such as park reforestation.

Recommendations 1 and 2 would address this statutory limitation by amending the Texas Parks and Wildlife Code authorizing TPWD to designate for-profit entities as official partners. Amending statute and including a contingency rider in the introduced 2012–13 General Appropriations Bill, would allow new official sponsors to conduct both park-specific and statewide projects on the agency's behalf. In this context, the term "official sponsors" is a designation the agency would give any private entity for fund-raising and promotional campaigns. The recommendations would also authorize the agency to conduct new activities that increase revenue—specifically, creating agreements that better enable companies to sell park passes in their locations, joint promotions with both non-profit and for-profit entities designated as official partners, and receiving licensing fees in exchange for corporate use of the TPWD brand.

Recommendation 3 would prohibit the commercialization of state parks, historic sites, and natural areas by statutorily prohibiting the agency from allowing any entity to advertise in state parks, historic sites, or natural areas. It would also require any partnership agreement and related fund-raising activity to be approved by TPWD's Executive Director, and that the Texas Parks and Wildlife Commission be notified of the agreement in a timely manner.

STATE OF WASHINGTON VEHICLE RENEWAL DONATION SYSTEM

Washington state's park system, which includes 120 developed parks, experienced a significant funding reduction of $52 million in state funds for its 2009–11 biennium. To address this decrease, the Legislature created a vehicle registration and annual renewal donation option to keep parks open and well maintained. Motorists pay an automatic $5 donation, but can opt-out, when they first register or renew their vehicle registration. The state projects this system will generate $14.4 million in fiscal year 2010. Previously, the state had a donation system in which residents could voluntarily include a $5 state park system contribution with their initial or renewed vehicle registration. The voluntary opt-in system collected a total of $757,000 in donations in fiscal year 2009.

ESTABLISH A VOLUNTARY DONATION PROCESS FOR STATE PARK CONTRIBUTIONS

A voluntary donation method like the initial Washington state opt-in approach would generate additional funding without automatically increasing motor vehicle registration costs. Also, it would provide a consistent source of funding for park system operations. Recommendations 3 and 4 would implement this voluntary approach by amending statute and including a contingency rider in the introduced 2012–13 General Appropriations Bill that would allow motorists to opt-in and donate $5 along with their initial registration and renewals. The rider would appropriate this revenue for state park system operations and maintenance. The rider would authorize the agency to carry forward and spend the fiscal year 2012 unexpended balance in fiscal year 2013.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1 to 3, would allow the agency to develop new partnerships with for-profit businesses which would create new funding sources for parks. The amount of revenue associated with these recommendations cannot be estimated.

As **Figure 3** shows, implementation of the Recommendations 4 and 5 would result in an estimated gain of $3.2 million to the General Revenue–Dedicated Funds for the 2012–13 biennium. The estimate is based on the Washington state system for collecting a voluntary $5 donation when individuals initially register or renew their vehicle registrations. The TPWD, the Texas Department of Motor Vehicles, and counties may experience upfront modification costs to registration and accounting systems, but should be able to implement these adjustments with existing resources.

FIGURE 3
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLY GAIN/(LOSS) IN GENERAL REVENUE–DEDICATED FUNDS
2012	$1,600,000
2013	$1,600,000
2014	$1,600,000
2015	$1,600,000
2016	$1,600,000

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes contingency riders to appropriate $3.2 million in General Revenue–Dedicated Funds, and to appropriate proceeds from donations for state park system operations and maintenance.

ELIMINATE THE NEW TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM

The New Technology Research and Development Program was established within the Texas Emissions Reduction Plan as a grant program to encourage and accelerate the development and commercialization of technologies that aid in improving air quality by reducing pollution. These efforts are intended to assist Texas in its emissions reduction efforts in accordance with the State Implementation Plan. The program receives 9 percent of total Texas Emissions Reduction Plan General Revenue–Dedicated Fund appropriations by statute. The New Technology Research and Development Program has not satisfactorily met either of its two program performance objectives. None of the technologies developed through the program have been adopted by any applicants seeking grant funding through the Texas Emissions Reduction Plan. In addition, only 7 percent of the technologies funded for development have been submitted to the U.S. Environmental Protection Agency or California Air Resources Board for certification or verification purposes; a key measure in confirming the validity and effectiveness of the developed technology. Eliminating funding for the program would allow for a greater portion of funds appropriated to the Texas Emissions Reduction Plan to be applied towards more proven and effective emissions reduction efforts.

FACT AND FINDING

- ♦ The New Technology Research and Development Program has received more than $100 million in funding since its inception. Since 2004, the New Technology Research and Development Program has made an average of $7.9 million in total annual grant awards.

CONCERN

- ♦ The New Technology Research and Development Program has not satisfactorily accomplished its mission of achieving the development and commercialization of new technologies that reduce pollution.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Health and Safety Code to eliminate the New Technology Research and Development Program.
- ♦ **Recommendation 2:** Reduce appropriations for the 2012–13 biennium to the Texas Emissions Reduction Plan to reflect the elimination of funding for the New Technology Research and Development Program.

DISCUSSION

Research and development efforts within the Texas Emissions Reduction Plan (TERP) are aimed at making Texas a leader in new technologies that can solve the State's environmental issues while creating new business and industry opportunities. The New Technology Research and Development Program (NTRD) was established within TERP by the Seventy-seventh Legislature, Regular Session, 2001. The NTRD Program provides financial incentives to encourage and support the research, development, and commercialization of technologies that reduce pollution in Texas through the issuance of state funded grants. This is the only research and development grant program within the Texas Commission on Environmental Quality (TCEQ) related to air quality. Individuals, businesses, governmental agencies, and educational organizations are eligible for grant funding.

Grants awarded under the NTRD Program are focused toward:

- retrofit technologies that reduce emissions from existing engines and vehicles targeted by TERP provided there are negligible negative effects on their fuel economy;
- advanced technologies for new engines and vehicles that produce very low or zero emissions of nitrogen oxides (NOx), including stationary and mobile fuel cells and sources;
- advanced technologies for reducing NOx and other emissions from stationary sources;
- field validation of the aforementioned technologies to provide commercial acceptance; and
- technology projects that would allow qualifying fuels to be produced from energy resources in Texas.

Grant proposals are evaluated on their potential for commercialization, reduction of NOx emissions, effects on fuel consumption, maintenance costs, and the cost-effectiveness of the technology. TCEQ does not test new

systems or devices within the NTRD Program to assess their potential to reduce emissions. This is conducted by either the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board (CARB). Applicants are required to evaluate the expected cost-effectiveness of the proposed technology once it is commercialized. As the program administrator, TCEQ is required to verify all information submitted by the applicant and facilitate with technology manufacturers and other agencies such as EPA and CARB.

PROGRAM HISTORY AND FUNDING

The NTRD Program has been administered by three different entities since it was established by the Seventy-seventh Legislature, Regular Session, 2001, and its funding levels have fluctuated. The NTRD Program was first administered by the Texas Council on Environmental Technology (TCET) during fiscal years 2002 and 2003, and received 7.5 percent of total TERP appropriations. Legislation enacted by the Seventy-eighth Legislature, 2003, increased funding to the NTRD Program to 9.5 percent of total TERP appropriations. TCEQ began to administer the program in fiscal year 2004, but legislation enacted by the Seventy-ninth Legislature, Regular Session, 2005, transferred administration of the NTRD Program from TCEQ to the Texas Environmental Research Consortium (TERC) and its subcontractor, the Houston Advanced Research Center (HARC). Funding for the program was provided to TERC through a contract with TCEQ.

The enactment of House Bill 1796, Eighty-first Legislature, Regular Session, 2009, reduced statutory appropriations to the NTRD Program from 9.5 percent to 9 percent, and allocated the difference to TERP administration. TERP statutory program expiration was adjusted to fiscal year 2019 and administration of the NTRD Program was returned to TCEQ. TERC and HARC will continue to manage NTRD grants they issued until completion in fiscal year 2011.

The NTRD Program is funded through revenue deposited to the TERP Fund. Statute allocates 9 percent of TERP appropriations to the NTRD Program. Additionally, $500,000 is transferred annually from the NTRD Program to the Clean Air Account to supplement funding for air quality planning activities and local incentive projects in the state. From fiscal years 2002 to 2011, the NTRD Program was appropriated $106.1 million. A history of annual appropriations by fiscal year and program administrator is shown in **Figure 1.**

FIGURE 1
NTRD FUNDING, FISCAL YEARS 2002 TO 2011

MANAGING ORGANIZATION	FISCAL YEAR	NTRD APPROPRIATION* (IN MILLIONS)	TOTAL GRANT AMOUNT AWARDED (IN MILLIONS)	NUMBER OF GRANTS AWARDED
Texas Council on Environmental Technology	2002	$11.3	$1.7	10
Texas Council on Environmental Technology	2003	11.9	.8	5
NTRD TRANSFERRED TO TCEQ AT END OF FISCAL YEAR 2003				
Texas Commission on Environmental Quality	2004	1.6	6.0	14
Texas Commission on Environmental Quality	2005	1.6	14.5	50
NTRD TRANSFERRED TO TERC AT END OF FISCAL YEAR 2005				
Texas Environmental Research Consortium	2006	11.3	7.3	14
Texas Environmental Research Consortium	2007	11.3	5.4	13
Texas Environmental Research Consortium	2008	17.9	6.1	12
Texas Environmental Research Consortium	2009	18.3	7.9	15
NTRD TRANSFERRED TO TCEQ AT END OF FISCAL YEAR 2009				
Texas Commission on Environmental Quality	2010	10.5	6.1	8
Texas Commission on Environmental Quality	2011	10.5	N/A	N/A
TOTAL TO DATE		**$106.1**	**$55.7****	**141**

*Amounts are from rider appropriations in applicable General Appropriations Act.
**Does not include grants to be awarded in fiscal year 2011.
SOURCES: Legislative Budget Board; Texas Commission on Environmental Quality.

NTRD GRANT PROGRAM PERFORMANCE

According to TCEQ, performance measures for the NTRD Program have changed over time and increasingly focus on the efficacy of the program in developing technologies useful to TERP. Two primary measures are used to determine the performance of the NTRD Program. The first measure tracks the number of NTRD grants approved to fund technologies that are to be submitted for verification or certification by the EPA or CARB.

Of the technology-based projects funded from NTRD grants that would be applicable for certification or verification by EPA or CARB, eight projects, or 7 percent, have received EPA or CARB certification or verification. From fiscal years 2003 to 2010; three of these projects were submitted to CARB and five submitted to the EPA. **Figure 2** shows a listing of all NTRD grant projects by type and status.

The second performance measure is the percentage of TERP grants derived from NTRD technologies. No grants have met this performance target. In TCEQ's fourth quarter report on performance measures issued in 2007, it was stated that retrofits, which comprise most of the NTRD funded technologies, have not been the preferred choice of most TERP grantees, which on the whole have preferred replacement technologies. According to TCEQ's 2011–15 Strategic Plan, the targeted percentage of TERP grants to be derived from NTRD technologies is shown to gradually increase over time. In fiscal year 2012, it is projected that 2 percent of total TERP grants will be derived from technologies developed from the NTRD Program, rising to 5 percent in fiscal year 2015.

Past awards under the NTRD Program have ranged from $26,400 to $1.65 million. Since 2004, the NTRD Program has made an average of $7.9 million in total annual grant awards. The average individual grant amounts awarded each year are shown in **Figure 3**. From fiscal years 2004 to 2010, the median number of grants funded per fiscal year is 13, with the average grant award amount increasing from $372,917 in fiscal year 2004 to $757,903 in fiscal year 2010. Research and development projects have included activities such as retrofits, fuel additives, and emission control system development. Project applications have ranged from marine engines and locomotives to on-road and off-road engines.

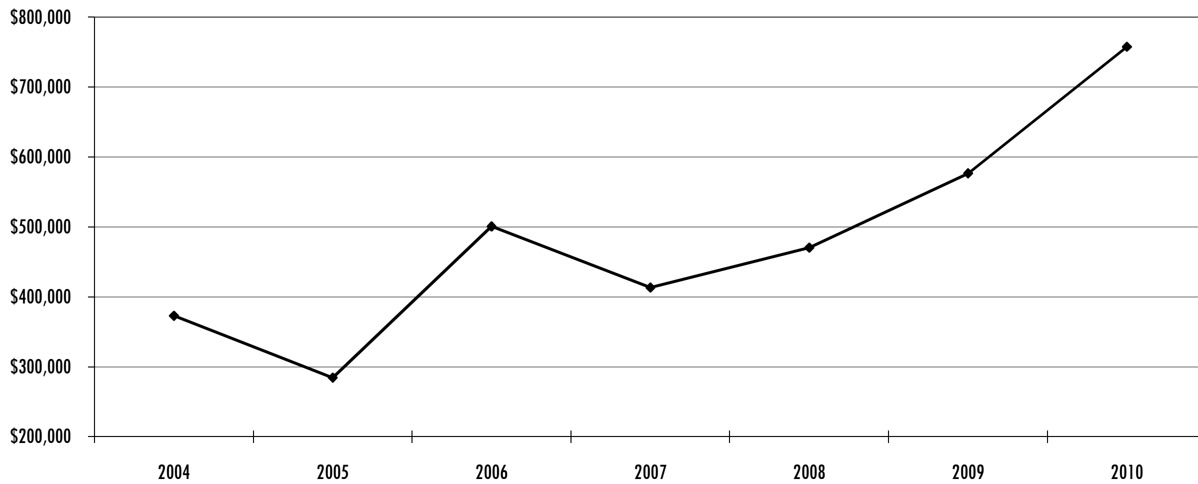
Given that the NTRD Program has not accomplished the development and commercialization of new technologies that reduce pollution that have consistently met either of its performance measures, Recommendation 1 would amend Texas Health and Safety Code, Chapter 386.252 and Chapter 387, to eliminate the NTRD Grant Program. Eliminating the NTRD Grant Program would require statute be updated to reflect that other non–grant programs currently required would be authorized under TERP. As this will create a 9 percent gap in statutory allocations made to the Texas Emissions Reduction Plan, Recommendation 1 would also amend Texas Health and Safety Code, Chapter 386.252, to increase the statutory allocation to the Emissions Reduction Incentive Grant (ERIG) Program from 87.5 percent to 96.5 percent. The ERIG Program provides grants to offset the incremental costs associated with reducing emissions from high-emitting internal combustion engines. This will allocate an increased proportion of funding to proven emissions reduction grant programs located in the ERIG area of TERP. Recommendation 2 would reduce TERP appropriations to reflect the elimination of funding for the NTRD Program. Implementing these recommendations is not anticipated to significantly affect the core mission of the TERP Program or affect the ability to obtain State Implementation Plan approval.

FIGURE 2
TYPE AND STATUS OF NTRD GRANT CONTRACTS, SEPTEMBER 2010

PROCESS	NUMBER OF GRANTS	NUMBER COMPLETED	NUMBER IN PROCESS	NUMBER WITHDRAWN OR FAILED
EPA Verification or Certification	37	5	18	13
CARB Verification	4	3	2	0
Proof of Concept Testing	18	12	5	1
Development/Demonstration	44	27	12	5
Study	16	13	3	0
TCEQ TxLED Certification	22	7	0	15
TOTAL	**141**	**67**	**40**	**34**

SOURCE: Texas Commission on Environmental Quality.

FIGURE 3
AVERAGE GRANT AWARD, FISCAL YEARS 2004 TO 2010



SOURCES: Legislative Budget Board; Texas Commission on Environmental Quality.

OTHER PROGRAMS FUNDED THROUGH THE NTRD PROGRAM

Several research-intensive programs are also currently funded via the NTRD Program through interagency contracts. These additional programs provide scientific information which is used towards the Weight of Evidence section of the State Implementation Plan. No evidence was found that these programs have been ineffective at accomplishing their statutory missions. The annual health effects study is appropriated $200,000 per year. This study focuses on a variety of issues assessing the effects of toxic substance releases, transfers, and disposal on public health. TCEQ has been involved with numerous scientific studies investigating human exposure to airborne toxic chemicals and the potential of these exposures to cause adverse health effects.

The Air Quality Research Program (AQRP) is statutorily appropriated at least 20 percent of total NTRD funding. The goal of AQRP is to support scientific research related to Texas air quality, including ozone formation and its movements in order to help meet federal requirements in a cost effective manner. This may occur via studies in atmospheric chemistry, meteorology, emissions inventory development, and providing air quality modeling. Projects funded by AQRP are selected based upon concurrence between the AQRP's independent advisory council and TCEQ. The University of Texas at Austin is the current air quality research grantee and administrator.

Statute requires TCEQ to contract with the Energy Systems Laboratory at the Texas Engineering Experiment Station (TEES) for $216,000 annually to compute creditable statewide emissions reductions obtained through renewable energy resources. This data has been used in the state's Weight of Evidence section of the State Implementation Plan. Funding is administered through a grant with TEES. The remainder and majority of funds allocated to the NTRD Program are dedicated to program grants. Funding estimates for the 2010–11 biennium are shown in **Figure 4**.

To allow the continued funding of these research projects, Recommendation 1 would amend statute to authorize these programs to receive funding under TERP.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 1 eliminates the NTRD Grant Program. Recommendation 2 reduces TERP appropriations to reflect the elimination of the NTRD Program and funds allocated for administration which yields a savings of $18.7 million in General Revenue–Dedicated Funds for the 2012–13 biennium. This estimate is based on initial and supplemental appropriations in the 2010–11 biennium and on the assumption that the Legislature continues funding for other programs currently found in NTRD statute. Savings are realized in subsequent years based on the fiscal year 2011 appropriation amount and for funds allocated for NTRD grants and administrative purposes. This estimate assumes that other programs funded through NTRD and

FIGURE 4
NTRD FUNDING DISBURSEMENTS, 2010–11 BIENNIUM

PROGRAM	FISCAL YEAR 2010 (IN MILLIONS)		FISCAL YEAR 2011 (IN MILLIONS)	
Health Effects Study	$0.2	1%	$0.2	2%
Research	2.8	20%	2.1	20%
Texas Engineering Experiment Station	0.2	2%	0.2	2%
NTRD Grants	10.4	77%	7.8	76%
TOTAL	**$13.9***	**100%**	**$10.5**	**100%**

*Increase in appropriation over rider amount is due to appropriation of supplemental funding under House Bill 4586, Eighty-first Legislature, Regular Session, 2009.
Source: Texas Commission on Environmental Quality.

authorized as part of TERP would be funded in the future. This savings to General Revenue–Dedicated Funds includes a reduction of 3.5 full-time-equivalent positions and administrative savings of $250,000 per fiscal year. The fiscal impact of these recommendations is shown in **Figure 5**.

FIGURE 5
FIVE-YEAR FISCAL IMPACT OF ELIMINATING THE NEW TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE SAVINGS/ (COST) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE ADDITION/ (REDUCTION) OF FULL-TIME EQUIVALENT POSITIONS
2012	$10,672,283	(3.5)
2013	$8,008,283	(3.5)
2014	$8,008,283	(3.5)
2015	$8,008,283	(3.5)
2016	$8,008,283	(3.5)

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes reductions implementing Recommendation 2. The introduced bill does not include any other adjustments as a result of these recommendations.

OVERVIEW OF CARBON CAPTURE AND STORAGE IN TEXAS

Carbon capture and storage is a technology for preventing carbon dioxide (CO_2) emissions from escaping into the atmosphere by capturing emissions from a large source, such as a coal-fired or natural gas power plant, and trapping it within sub-surface geologic formations for significant periods of time. Despite the Environmental Protection Agency declaring CO_2 as a harmful pollutant in 2009, neither federal nor state governments require industries to sequester CO_2 emissions, but carbon capture and storage is a possible solution to address lowered emissions standards. Current carbon capture and storage activities in Texas include industry making voluntary improvements to air quality processes and testing by academic and research entities that could position the state to benefit from future carbon capture and storage business.

Texas is well positioned to be a leader in carbon capture and storage, should a market for this technology develop in the future. The Texas Legislature has taken significant actions to address incentive and regulatory issues in this area, primarily in regards to carbon capture and storage demonstration projects related to enhanced oil recovery efforts. While the primary purpose of these efforts is to increase oil production levels, the technological processes required have been instrumental in advancing the potential of carbon capture and storage. Texas is ahead of regulatory initiatives in other states, and offers an environment for implementing carbon capture technologies throughout a variety of industries. This advantage stems from Texas' distinction as the largest CO_2 emitter in the country, a history of technological development in oil recovery efforts, and an existing base network of CO_2 pipelines installed and operating in West Texas. However, the economic viability of carbon capture would require either significant funding from state and federal government, or a regulated price on carbon emissions, such as envisioned by cap and trade or carbon tax legislation. In addition, the commercial deployment of carbon capture technologies, while an economic boon regionally, would likely come at a significant cost to the state's power generation industry.

FACTS AND FINDINGS

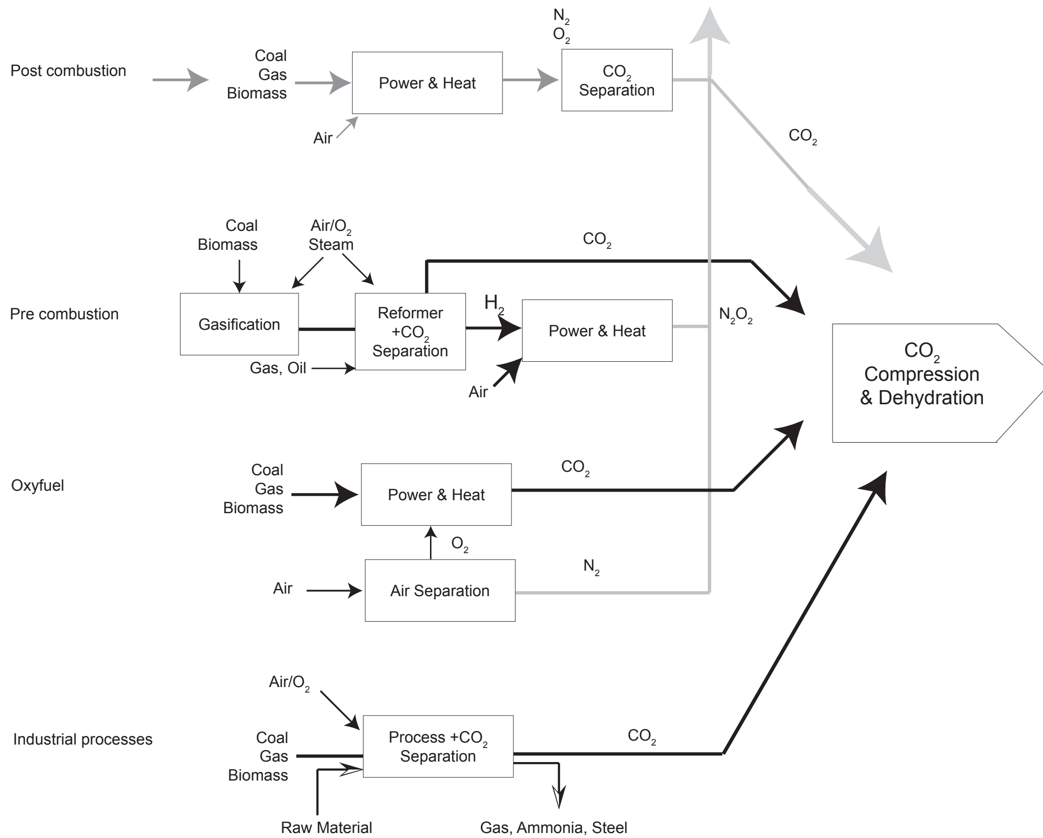
- Texas is the largest emitter of carbon dioxide in the U.S.; most emissions are from coal and natural gas power plants.
- Texas has a vast capacity for subsurface and offshore geologic storage of carbon dioxide as well as enhanced oil recovery operations.
- With proper site selection and monitoring provided by Texas Commission on Environmental Quality and the Railroad Commission of Texas, carbon capture's potential negative environmental effects can be successfully mitigated. However, carbon capture methods typically result in a 10 percent to 40 percent increase in fuel consumption.
- Carbon capture and storage is not currently economically feasible without a price attached to carbon or federal incentives for this market.
- Previous legislative sessions positioned Texas to expand its CCS industry should federal legislation or rulings regulating carbon emissions occur.

DISCUSSION

The Environmental Protection Agency (EPA) ruled in December 2009 that carbon dioxide (CO_2) and other greenhouse gases are a danger to public health, which under the federal Clean Air Act, Section 202(a), authorizes the agency to regulate CO_2 emissions. Carbon capture and storage (CCS) is a technology applicable to any large-scale emitter of CO_2, primarily coal-fired and natural gas power plants. Sequestering CO_2 emissions from the Earth's atmosphere assists in avoiding any detrimental effects to surrounding air quality. A coal power plant generates approximately twice as much CO_2 as a natural gas plant. Nationwide, natural gas comprises approximately 24 percent of total energy consumption. In Texas, however, natural gas and coal are the primary sources of energy generation accounting for 43 percent and 37.1 percent of actual energy production respectively. Due to this, CCS technology is significant to both energy supply sectors in Texas. There are currently three main techniques used to capture carbon, which are shown in **Figure 1**.

The geologic storage of CO_2 presents a feasible strategy for sequestering the large quantities needed to reduce emissions levels. In surveying the 500 largest emitters in the U.S., the U.S. Department of Energy (DOE) reported that 95 percent of those sources are within 50 miles of a potential geologic

FIGURE 1
OVERVIEW OF CO_2 CAPTURE TECHNIQUES, 2007



Source: Intergovernmental Panel on Climate Change.

sequestration site. The agency also reported that the United States has enough potential storage capacity to accommodate several thousand years of carbon dioxide at current production rates, predominately in saline formations. In this regard, Texas has a distinct advantage over most states. While Texas emits more CO_2 than any other state in the U.S., as shown in **Figure 2**, the state contains abundant subsurface storage capacity and has the longest and most active industry experience in related technologies.

ENHANCED OIL RECOVERY

The process of injecting concentrated amounts of CO_2 underground in order to access untouched deposits of oil and natural gas is called Enhanced Oil Recovery (EOR). The U.S. Department of Energy estimates that 90 percent of the nation's coal deposits are inaccessible using conventional drilling techniques, but could yield significant returns by applying EOR techniques. Approximately 15 percent of all

FIGURE 2
U.S. STATES RANKED BY CO_2 EMISSIONS, 2007

RANK	STATE	ANNUAL CO_2 EMISSIONS (IN THOUSANDS OF METRIC TONS)	PERCENTAGE OF TOTAL U.S. CO_2 EMISSIONS
1	Texas	676,751	8.5%
2	California	402,769	5.0%
3	Pennsylvania	274,269	3.4%
4	Ohio	267,666	3.4%
5	Florida	256,269	3.2%
6	Illinois	242,825	3.0%
7	Indiana	230,827	2.9%
8	New York	201,246	2.5%
9	Louisiana	194,934	2.4%
10	Georgia	184,043	2.3%

Source: Environmental Protection Agency.

oil recovered in Texas involves EOR processes. These activities typically occur in the Permian Basin area of West Texas. A large amount of the CO_2 used for EOR in West Texas originates in naturally occurring formations in New Mexico and Colorado and is transported to Texas via the Cortez CO_2 pipeline, the largest CO_2 pipeline of its kind in the world. The Bureau of Economic Geology (BEG) at the University of Texas estimates that 5.7 billion barrels of oil could be produced in Texas using this method.

CCS IN TEXAS

The Texas Legislature, recognizing the environmental and future business benefits of establishing an incentive and regulatory structure for industry adoption of CCS technology, has implemented legislation related to carbon storage activities in Texas. Due to the high cost of this technology, many of these actions have been taken as pre-emptive protections against proposed federal legislation on environmental regulation. By taking a long-term stance of developing the necessary infrastructure, Texas has positioned itself to take advantage of the growth opportunities in this emerging industry and make productive use of abundant sources of both CO_2 and underground storage capacity.

The Eightieth Legislature, 2007, enacted legislation that amended the Texas Government Code, Texas Health and Safety Code, and Texas Tax Code to provide tax and regulatory incentives to encourage businesses to develop ultra-clean energy projects. This legislation provides a 50 percent tax rate reduction on oil produced from enhanced recovery (EOR) projects using CO_2. The Advanced Clean Energy Project Grant and Loan Program was established as well as the Advanced Clean Energy Project (ACEP) Account (General Revenue–Dedicated Funds). The account consists of General Obligation bonds issued by the Texas Public Finance Authority; the first $30 million in revenues from gross receipt taxes from utilities, and authorizes the State Energy Conservation Office (SECO) to award up to $20 million in grants every biennium and up to $10 million to make or guarantee loans. Additionally, the legislation streamlined the Texas Commission on Environmental Quality (TCEQ)'s permitting process for such projects, and stated that applicable fuels for these projects would be fossil fuel-based, including various types of coal and natural gas production. To qualify as an ultra-clean energy project, an energy plant must meet all four of these emissions standards:

- reduce sulfur dioxide emissions 99 percent;
- reduce mercury emissions 95 percent;
- meet a nitrogen oxides emission rate of no more than 0.05 pounds per million BTUs; and
- render the plant capable of capturing, sequestering, or abating carbon dioxide.

The Eighty-first Legislature, 2009, enacted House Bill 469, which amended the Texas Government Code, Texas Health and Safety Code, Texas Natural Resources Code, and Texas Tax Code to require the Comptroller of Public Accounts (CPA) to adopt rules to issue a franchise tax credit to an entity implementing a clean energy project with the construction of a new facility. The legislation defined "clean energy project" as the construction of a coal-fueled electric generating facility that generates a minimum of 200 megawatts of energy and captures at least 70 percent of the carbon dioxide it emits. This CO_2 must be capable of being sequestered in a geological formation and/or be capable of supplying CO_2 for EOR purposes. The legislation set the amount of the franchise tax credit to the lesser of 10 percent of the total capital cost of the project or $100 million. This applies solely to the first three integrated gasification combined cycle (IGCC) pre-combustion coal-fired plants that can satisfy the requirements outlined in the legislation. Additionally, the legislation extended the 50 percent reduction in the severance tax rate from seven years to 30 years. This rate is applicable to oil produced through EOR projects that use CO_2.

The Eighty-first Legislature, Regular Session, 2009, enacted House Bill 1796, which amended the Texas Government Code, Texas Health and Safety Code, Texas Tax Code, and Texas Transportation Code to expand efforts to study offshore, deep-subsurface locations for future repositories of anthropogenic carbon dioxide. The bill directed the General Land Office (GLO) and the BEG to conduct a study to determine the best possible locations for an offshore carbon repository. The School Land Board is authorized to make the final determination of the location of the repository, as well as contract for the construction of infrastructure required for the transportation and storage of CO_2. CO_2 stored in a state-owned offshore repository becomes the property of the GLO School Land Board under the Permanent School Fund, and the GLO is authorized to charge a fee for the storage of CO_2. Additionally, the bill includes a New Technology and Implementation Grant (NTIG) program operated by TCEQ, focusing on funding projects to reduce emissions from stationary facilities throughout the state. Projects eligible for grants include clean energy, energy storage, or emission reduction strategies with a minimum capital cost of

$500 million. Although 2010–11 appropriations were initially set at $24.1 million, due to statewide 5 percent budget reductions enacted in 2010, the available grant award is $3 million. As of fiscal year 2010, no grants pertaining to CCS have been awarded.

Senate Bill 1387, Eighty-first Legislature, 2009, established a framework for the implementation of projects involving the capture, injection, sequestration, or geologic storage of carbon dioxide. The bill granted the Railroad Commission (RRC) jurisdiction over the administration of CO_2 storage inland, subject to further review by the Legislature after the issuance of a preliminary report to be conducted by TCEQ and BEG. Additional aspects of the report include assessing potential storage capacity and revised regulatory framework proposals. Until that time, RRC will issue permits for projects involving the capture, injection, sequestration or geologic storage of anthropogenic CO_2. Fees collected from those permits are deposited in the newly established anthropogenic CO_2 storage trust fund to cover the cost of training, inspection, remediation and enforcement.

Senate Bill 1387 also defines CO_2 stored in a geologic storage facility to be the property of the storage operator, although this does not apply to storage of CO_2 related to EOR. The owner would have the authority to treat stored CO_2 as a resource commodity at any point in the future. Both inland and offshore carbon storage options have advantages and disadvantages. The advantage to industry of storing carbon in their own inland wells would be full ownership of the stored CO_2 and the ability to use it for revenue purposes, such as EOR, partially offsetting principal CCS costs. An industry advantage to offshore carbon storage is the waiver of future liability in transferring ownership of CO_2 to the GLO for a flat fee. For the state, there is a similar dynamic: revenue would be received as fees were paid for offshore storage, whereas if industry sequestered CO_2 inland on non-government property, the state would be exempt from liability of such CO_2.

CURRENT CCS PROJECTS IN TEXAS

In 2007, the National Energy Technology Laboratory (NETL), within the DOE, awarded the BEG a $38 million 10-year grant to study the feasibility of injecting a large volume of CO_2 underground for storage purposes. NETL maintains a database of current and proposed CCS projects worldwide and conducts and supports energy research projects nationwide. Texas leads the U.S. with 18 of the 106 projects incorporating capture, storage or a combination, followed by Illinois with 10 and Mississippi with 7. As shown in **Figure 3**, projects in Texas are in various phases of planning and development, with ongoing costs and projected total costs reaching up to $3 billion. Work in this area is ongoing with some active testing projects having already commenced and many projects in the permitting and development stages, holding tentative start dates out to 2016. Funding and technological readiness are major challenges toward moving projects from development to active status. Half of the projects are in the process of seeking developmental funding from the U.S. Department of Energy.

REGIONAL PARTNERSHIPS

There are seven ongoing regional partnerships between U.S. and Canadian interests formed to encourage CCS technology development and project implementation. These partnerships include more than 40 states, four provinces of Canada, and hundreds of private sector interests. Texas is a member of two of the seven regional partnerships; West Texas is within the Southwest Partnership (SWP) and Central and East Texas is within the territory of the Southeast Regional Carbon Sequestration Project (SECARB). The goals of these partnerships include engaging local and state governments to determine the benefits of CCS, identifying potential locations for storage, addressing possible regulatory and environmental issues and pursuing the research and development of CCS technologies. These actions are separated into a phase structure, shown in **Figure 4**, with Texas currently transitioning into Phase III.

STATES CSS EFFORTS

A growing number of states have enacted legislation to develop an infrastructure beneficial to CCS operations. Highlights include Wyoming as one of the first states to have established rules surrounding subsurface pore space ownership for the area where CO_2 is stored. The ownership and liability for sequestered CO_2 and all other materials injected during the sequestration process belong to the injector of the CO_2. Pore space rights from multiple parties are aggregated for the purposes of a carbon storage project as long as 80 percent of the parties approve the project. Mining and drilling rights are also prioritized over geologic sequestration activities. In 2008, the Wyoming Legislature allocated $1.2 million toward evaluating potential CO_2 sequestration sites and approved regulation of CCS activities by the state's Department of Environmental Quality.

Whereas the operator of a CO_2 sequestration project is liable during operation, the state of Louisiana assume liability 10

FIGURE 3
TEXAS CCS PROJECT LIST, DECEMBER 2010

TYPE NAME	LOCATION	STATUS	STATUS DETAIL	UNIT BASE POWER IN MEGA WATTS	OPERATING DATE	COST	MAJOR INJECTION AMOUNT	UNIT BASE NAME
Capture and Storage	Lubbock Texas	Completed	Injection Complete	50.00	1/1/1982	n/a	1,100.00	Tonnes per Day
Storage	Houston (outside)	Completed	Post-Injection Monitroing	n/a	10/4/2004	n/a	1,450.00	Tonnes Total
Capture and Storage	Freeport	Active	Permitting	n/a	n/a	n/a	n/a	n/a
Capture and Storage	Bridgeport	Completed	n/a	n/a	1/1/1991	n/a	500.00	Tonnes per Day
Capture and Storage	Penwell	Active	Plant Design	400.00	1/1/2010	n/a	8,220.00	Tonnes per Day
Capture	Sweeny	Active	n/a	247,000 (barrels per day)	1/1/2015	n/a	27,400.00	Tonnes per Day
Capture and Storage	Pecos and Terrell Counties, Texas	Active	Injection Ongoing	n/a	n/a	n/a	70,000,000.00	Cubic Foot
Storage	Permian Basin Region	Active	Developing Infrastructure	n/a	n/a	n/a	n/a	n/a
Storage	Pecos County	Active	Injection Ongoing	n/a	1/1/2006	n/a	n/a	n/a
Capture and Storage	Worsham-Steed	Potential	Plant Design	70.00	n/a	n/a	790.00	Tonnes per Day
Capture and Storage	Port Arthur	Active	Developing Infrastructure	n/a	1/1/2010	$961,499	2,740.00	Tonnes per Day
Capture and Storage	Houston	Terminated	Site Selection	n/a	1/1/2010	$1,137,885	1,000,000.00	Tonnes Total
Storage	Texas coastline	Active	Site Characterization	n/a	12/8/2009	$5,994,350	n/a	n/a
Storage	Snyder	Active	Injection Ongoing	n/a	9/1/2008	$17,488,733	822.00	Tonnes per Day
Capture and Storage	Sugar Land	Active	Developing Infrastructure	2,475.00	1/1/2012	$154,000,000	1,096.00	Tonnes per Day
Capture and Storage	Jewett	Terminated	Site Characterization	275.00	1/1/2015	$1,000,000,000	n/a	n/a
Capture and Storage	Odessa	Terminated	Site Characterization	275.00	1/1/2015	$1,000,000,000	n/a	n/a
Capture	Sweetwater	Active	Permitting	600.00	1/1/2015	$3,000,000,000	85.00	% Reduction

SOURCE: National Energy Technology Laboratory.

years after the injection process is completed, the operator being released from future liability after this time. Ownership in the interim is determined via private contract. Additionally, the State Mineral Board and the Commissioner of Conservation are authorized to lease state lands for geologic sequestration. The State Mineral Board may enter into operating agreements whereby the state receives a portion of the revenues of a geologic storage site, and assumes all or a

FIGURE 4
U.S. AND CANADA REGIONAL PARTNERSHIP PHASES 2003 TO 2017

PHASE	YEARS	ACTIONS
Phase I Characterization	2003 to 2005	Infrastructure Development Establish network or participants Site selection and characterization Permitting and Compliance
Phase II Validation	2005 to 2009	CO2 Procurement and Transportation Validate simulations for CO2 technology Injection Operations Monitoring Activities
Phase III Deployment	2008 to 2017	Initiate large-volume sequestration tests Post-Injection Monitoring Project Assessment Site Closure (If Applicable)

SOURCES: National Energy Technology Laboratory; U.S. Department of Energy.

portion of the risk, if the Board determines that it is in the states best interest to do so.

As of 2009, Illinois has a Clean Coal Portfolio Standard Law. This legislation sets emissions standards for new coal power plants to capture and store a certain percentage of their CO_2 emissions; starting at 50 percent from 2009 to 2015 and reaching 90 percent after 2017. Illinois utilities are required to purchase at least 5 percent of their electricity from clean coal facilities rising to a 25 percent requirement by 2025. The addition of the first two CCS plants (one powered by coal, the other from natural gas) is expected to yield an increase of 4,000 jobs to Illinois, up to one quarter being permanent jobs related to facility operations.

INTERNATIONAL CCS EFFORTS

The Sleipner West Field in the North Sea off the coast of Norway was the world's first operational demonstration of CCS technology and is the first offshore CO_2 injection platform. Originally constructed in 1996, Sleipner operates with natural gas resources and has injected approximately 11 million tons of CO_2 to date into an underground reservoir beneath the ocean, at an estimated cost of $486 million. The reason for installing this technology stems from the natural gas recovered at the Sleipner Field originally containing a 9 percent inclusion of CO_2. To meet export specifications, that level had to be reduced to 2.5 percent to circumvent Norway's CO_2 tax.

The Weyburn CO_2 Monitoring and Storage Project became the first and largest successful example of CCS used for storage and simultaneous EOR purposes in 2000. The plant, operated by EnCana, is located in southeastern Saskatchewan, Canada. It is estimated to have a construction cost $1.1 billion and has injected approximately 17 million tons of CO_2 into the ground, with a potential storage capacity of 45 million tons. The CO_2 sequestered is piped from the North Dakota Gasification Plant in the U.S. In a field size of 70 square miles, 155 million barrels of oil have been recovered by using CO_2 EOR. The Weyburn project demonstrates possible uses for storing CO_2 in depleted oil fields and the framework necessary to safely and efficiently store CO_2 underground while also pursuing EOR.

COST OF CCS

The main obstacle to wide-scale implementation of CCS technology is its current cost and the lack of direct incentives to pursue adoption of such technologies. The cost of the technology associated with installing and capturing CO_2 would significantly raise the cost of generating electricity from fossil fuel plants. To the average residential consumer, this could translate to an increase from $0.025 to $0.04/kWh, depending on the type of technology and processes used. Given that the average residential price for electricity in 2009 for Texas was $0.12/kWh, this could lead to a potential increase in electricity rates of 32 percent. As a result, it is unlikely that industry will commit to the necessary investments to promote carbon capture processes without federal or state support. Government action, such as a federal limit on carbon emissions, is necessary to make CCS economically attractive to project developers.

Cost estimates for carbon capture present a wide range of values and depend on many variables such as:

- the type of capture technology employed (pre, post, oxy-combustion);
- application to an existing facility versus a newly constructed power plant; and
- the implementation of technologies in a demonstration phase versus a commercial phase.

Currently marketable carbon capture technologies increase production costs and reduce the efficiency of generating plants, as shown in **Figure 5**. The initial capital and ongoing operational costs associated with CCS for post-combustion plants is especially dramatic, reducing efficiency by up to 40

FIGURE 5
RANGE OF PROJECTED TOTAL CCS COSTS FOR NEW POWER PLANT, 2007

POWER SOURCE	INCREASED FUEL REQUIREMENT	TOTAL CAPITAL REQUIREMENT WITHOUT CAPTURE ($/kWh)	TOTAL CAPITAL REQUIREMENT WITH CAPTURE ($/kWh)
Pulverized Coal	24% to 40%	1161 to 1486	1894 to 2578
Natural Gas	11% to 22%	515 to 724	909 to 1261
Integrated Coal Gasification Cycle	14% to 25%	1169 to 1565	1414 to 2270

Source: Intergovernmental Panel on Climate Change.

FIGURE 6
ESTIMATES OF CCS COSTS AT DIFFERENT STAGES OF DEVELOPMENT, NEW COAL-FIRED POWER PLANTS, 2008

DEVELOPMENT STATE	CAPTURE	TRANSPORT	STORAGE	TOTAL
Initial demonstration	$73 to $94	$7 to $22	$6 to $17	$86 to $133
Early commercial	$36 to $46	$6 to $9	$6 to $17	$48 to $73
Past early commercial	-	-	-	$44 to $65

Note: Dollars per metric ton of CO_2.
Source: McKinsey & Company, Carbon Capture and Storage.

percent. While reduced efficiencies negatively affect utility sector players, there is a corresponding positive effect on the coal industry by increasing the demand for raw resources.

In most carbon sequestration systems, the cost of capturing CO_2 is the largest component, accounting for as much as 80 percent of total expenses. **Figure 6** shows estimates for three different stages of CCS development for new, coal-fired power plants. An average coal-fired power plant that generates 500 megawatts of electricity emits approximately 3 million metric tons of CO_2 per year. Ongoing research and development by the DOE is attempting to capture 90 percent of CO_2 with a maximum potential increase of 10 percent in the cost of associated energy services.

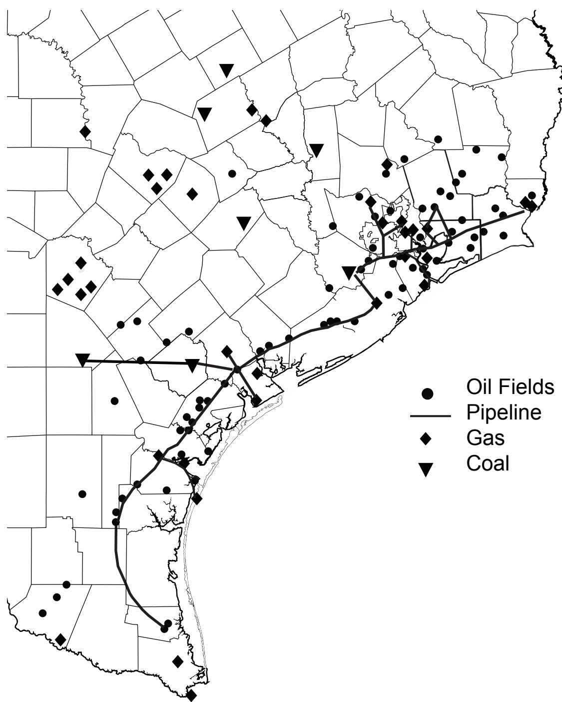
TRANSPORTATION OF CO_2 FOR CCS

Costs for pipeline transportation per project would vary depending on the quantity of CO_2 transported and the total distance from the source to a storage facility. Additionally, construction, operation and maintenance requirements would fluctuate based on project specifics and could significantly alter potential estimates. Shipping costs are also unknown because no large-scale transportation system is currently in place for CCS. Texas has existing CO_2 pipelines in the western region of the state that could be leveraged as the foundation for a larger transit system. This infrastructure, coupled with significant onshore-underground storage capacity and the possible development of an offshore Gulf Coast pipeline network, would allow a faster rate of network infrastructure development in Texas compared with competing states. In addition to conducting research on potential sites for offshore carbon storage, the BEG completed an analysis in 2008 for developing an onshore pipeline system for CO_2. The envisioned system would connect fossil fuel plants along the gulf coast and funnel CO_2 emissions to a concentrated number of sites for EOR and sequestration, as shown in **Figure 7**. Of the 11 power plants and 31 oil fields to be used for EOR and sequestration, the BEG estimated that 41 to 55 million tons of CO_2 could be transported annually over a 20 to 25-year period. The total capital cost of the proposed pipeline network was estimated between $2.4 and $3.4 billion, with an average cost per km ranging from $1.5–$2.1 million.

ENVIRONMENTAL IMPACT OF CCS

CCS technologies can lead to a reduction in CO_2 emissions released into the atmosphere, thereby improving air quality. Recent demonstration projects have shown the ability to sequester 85 percent to 90 percent of the CO_2 generated by a power plant. However, due to the 10 percent to 40 percent loss in efficiency of a plant operating with CCS technology, there is an increase in the amount of water and fossil fuels consumed in the process. Consumption of water is projected by DOE to increase by 90 percent when carbon capture technologies are incorporated with coal-fired power plants. Research into less resource dependent methods of carbon capture are ongoing.

FIGURE 7
PROPOSED GULF COAST CO_2 PIPELINE NETWORK



SOURCE: The University of Texas at Austin.

The highest direct environmental risk associated with CCS technology comes from the potential for leakage of CO_2 from a storage site. Possible side effects of injecting mass quantities of CO_2 include movement of the CO_2 outside of the storage area due to a high pressure buildup of CO_2. If this leaked CO_2 were to come in contact with a water source, it could increase the acidification of that water source, as well as the acidity of the surrounding soil and prove harmful to plant and animal life. Exposure to highly dense concentrations of CO_2 can also be harmful and potentially fatal. With proper site location, oversight, and regulation, the possibility of incurring negative environmental effects can be controlled. The advantage of sequestering CO_2 in offshore deep saline aquifers is that the mineral composition of those geologic structures is more resistant to chemical degradation. According to the Intergovernmental Panel on Climate Change, if properly sited, operated, and monitored, 99.9 percent of the CO_2 stored in deep saline aquifers could be safely contained for one thousand years, or longer. Additionally, in handling large quantities of piped CO_2, there has been no record of related fatalities in the 38-year history of EOR operations in Texas.

PROPOSED FEDERAL ENERGY LEGISLATION

Several proposed federal initiatives seek to provide national energy reform. Whether or not a carbon regulation bill can pass through Congress, an energy bill in any form will likely contain benefits to carbon capture initiatives. Various CCS provisions in these bills include: the creation of a Carbon Storage Research Corporation to devote a 10-year $1.0 billion assessment on fossil fuel generated electric utility sales; funding up to 72 gigawatts of CCS coal-fired power plant development, and, incentives to encourage coal-powered facilities, with a generation capacity of at least 200 megawatts and emissions exceeding 50,000 tons of CO_2, to develop carbon sequestration processes. Additionally, to further encourage the adoption of CCS, performance standards are being submitted that would mandate a certain level of CO_2 emissions reduction, starting at 50 percent for plants permitted from 2009 to 2019 and increasing to a 65 percent reduction in 2020.

The cornerstone of pending federal legislation is the ability to put a tangible price on CO_2 emissions, in essence turning a pollutant into a tradable commodity. This model is commonly referred to as cap and trade. The theory is that, by regulating the price of carbon, and incrementally increasing that price over time, the current portfolio of energy usage will change, phasing out technologies that are heavily reliant on fossil fuels and reducing national CO_2 emissions levels. The oversight mechanisms for such a carbon market, according to proposed federal legislation, would involve the Federal Energy Regulatory Commission as well as the Commodity Futures Trading Commission. CCS is a crucial component in aiding this transition. The likely expanded use of CCS should eventually decrease the associated capital and operations costs as well as provide further innovation in the technologies used to capture carbon. Preliminary studies vary as to what variables are necessary to achieve a sufficient economy of scale for widespread CCS adoption. Most estimates range between $15 and $90 per ton of CO_2. The Electric Reliability Council of Texas cites a target price between $40 and $60 per ton of CO_2 as needed for the process of CCS to become cost competitive under various scenarios.

CCS BENEFITS TO EMPLOYMENT

Preliminary estimates by BBC Research & Consulting, a company which provides research on emerging markets, indicate that a new CCS network of nine coal-fired power plants could increase employment opportunities in Texas by creating an estimated 223,345 job years (one person working

in construction for one year) for one-time construction purposes and 3,598 jobs annually thereafter until 2030 for operations and maintenance purposes. This estimate also includes a potential economic benefit of $12.4 billion for labor income during construction followed by $0.3 billion annually. Nationwide, it is estimated that the employment effects of federal legislation could increase annual CCS-related jobs by 96,000 from 2011 to 2020. This increase results from effort needed to undertake construction, additional coal mining and transportation; all processes that involve both increases in both labor and capital investment. Additional labor and capital is also required for adding CO_2 pipeline, injecting the CO_2, and monitoring the aftereffects of this process.

A study conducted by UT's BEG presents a similar picture. As **Figure 8** shows, various aspects of developing an infrastructure around CCS could create thousands of new jobs in Texas.

PREPARING FOR THE FUTURE

The potential benefits carbon capture and sequestration technologies present to Texas include: a reduction in CO_2, leading to improved air quality; an increase in jobs due to the development of a new industry with significant long-term infrastructure requirements; and a stable future revenue source for the Permanent School Fund from the collection of fees for offshore storage in a submerged, state-owned CO_2 repository. Texas has invested significant time and resources in developing its ability to pursue the eventual integration of CCS technologies and regulatory practices into the framework of its energy industry. Financial incentives and grant opportunities have been created in key areas of development and testing for CCS, and the Legislature has made substantial progress on devising a working regulatory framework to monitor CCS operations. The next steps are contingent on federal level actions and the resulting recommendations and responses submitted by state agencies conducting ongoing studies on potential opportunities and oversight structures. To be a leader in CCS, Texas should be prepared if a market price is placed on CO_2. The state could gain significant revenue through increased jobs and fees collected from developing a CCS network, both onshore and offshore. The unique combination of previously enacted state legislation as well as the natural geography for sequestering CO_2 positions Texas to not only sequester its own CO_2 output, but as a potential endpoint in a possible interstate CO_2 pipeline to sequester CO_2 from neighboring states as well, further increasing revenue. The pace of CCS deployment remains contingent on the timing and level of CO_2 emissions prices as well as on the technical readiness and successful commercial demonstrations of those technologies.

FIGURE 8
EMPLOYMENT ESTIMATES FOR NEW CO_2 NETWORK, 2009

TECHNOLOGY	CONSTRUCTION JOBS	CONSTRUCTION WORKERS	OPERATION JOBS	OPERATION WORKERS
CO_2 Capture	10 to 30	2000	5	6 to 40
Pipeline	120	5000 to 6000	--	--
EOR	--	--	100 to 200	1500 to 6000

SOURCES: Bureau of Economic Geology; The University of Texas.

MAXIMIZE THE FEDERAL FUNDS TEXAS RECEIVES FOR TRANSPORTATION

Federal transportation funding for Texas is primarily allocated from the Federal Highway Trust Fund, which receives revenues from: federal gasoline and diesel taxes; truck, bus, and trailer taxes; tire taxes; heavy vehicle usage fees; and alternative fuel taxes. Texas is a "donor state," meaning that more money is deposited in the Federal Highway Trust Fund from the collection of federal taxes and fees in Texas than is returned to the state in federal funding for highways and transit. According to the Federal Highway Administration, Texas is ranked last among all states in receipts it receives compared to contributions made to the fund.

Federal funding for transportation consists of guaranteed programs and discretionary programs. Funding levels for guaranteed programs are set in federal legislation—currently the Safe, Accountable, Flexible, and Efficient Transportation Equity Act. Funding for discretionary programs is determined by various federal transportation agencies which select projects based on applications received.

The state has missed opportunities to receive additional federal funding for transportation in the past and new sources of federal funding are becoming available for the Texas Department of Transportation, Department of Public Safety, and Department of Motor Vehicles. Amending state statutes and improving in state transportation planning processes would increase Texas' eligibility for additional federal funding opportunities.

FACTS AND FINDINGS

- The amount of Federal Funds the Texas Department of Transportation receives as a percentage of its total budget has declined since fiscal year 2003.
- Transportation policy changes at the federal level mean Federal Funds available for transportation purposes are increasingly being awarded for non-highway modes of transportation.
- The Texas Department of Transportation was awarded only $4 million of $8 billion in Federal Funds available nationally (less than 1 percent) for rail-related projects because the state lacked a comprehensive rail plan.

CONCERNS

- Texas' current transportation planning programs do not include the flexibility that allows the Texas Department of Transportation to shift programs with changing federal priorities and maximize opportunities to draw down federal funds.
- Opportunities for discretionary federal funding from programs such as the Scenic Byways Program and High-Speed Intercity Passenger Rail Program have been missed because of gaps in state transportation planning.
- Texas statutes do not currently comply with all requirements to receive certain federal funds such as those offered under the grant program to prohibit racial profiling as well as funds that will become available for the transportation of hazardous materials.
- The Texas Department of Transportation, Department of Public Safety, and Department of Motor Vehicles have missed opportunities for coordination to ensure that federal funding is maximized.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Transportation Code, Chapter 201, to require the Texas Department of Transportation to include in the Statewide Transportation Improvement Program a provision to maximize future federal funding opportunities for all modes of transportation.
- **Recommendation 2:** The Texas Department of Transportation should coordinate with local entities to identify projects that would be eligible for Scenic Byways federal funding.
- **Recommendation 3:** Include a rider in the 2012–13 General Appropriations Bill, contingent on the availability of grant funding, which requires the Texas Department of Transportation, the Department of Public Safety, and the Texas Transportation Institute to develop a system to measure commercial vehicle traffic at Texas' ports of entry.

- **Recommendation 4:** Amend the Texas Transportation Code, Chapter 645, to require the Department of Motor Vehicles to participate in the Uniform Hazardous Material State Registration and Permit Program.
- **Recommendation 5:** Amend the Texas Code of Criminal Procedure, Article 2.133, to meet federal requirements for data collection on the race and ethnicity of drivers and any passengers involved in motor vehicle stops made by law enforcement officers.
- **Recommendation 6:** Amend the Texas Tax Code, Sections 162.204 and 162.504, to establish a source of funding to capitalize the Rail Relocation and Improvement Fund by eliminating the rail industry exemption from the motor fuels diesel tax and directing subsequent revenue to the Rail Relocation and Improvement Fund.
- **Recommendation 7:** Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Department of Transportation, Department of Public Safety, and Department of Motor Vehicles to jointly submit a report to the Governor and the Legislative Budget Board on efforts to identify, coordinate, and implement methods to maximize discretionary sources of federal funding.

DISCUSSION

The Texas Department of Transportation (TxDOT), Texas Department of Motor Vehicles (DMV), and Texas Department of Public Safety (DPS) all expend Federal Funds received for transportation-related purposes. Historically, most of the federal funding Texas has received for transportation was for highway planning and construction. Current federal funding allocations are set in the federal Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This was set to expire in 2009, but was extended for 18 months by Congress. Authorizations for Texas were increased by 38 percent in SAFETEA-LU over the previous authorization period. SAFETEA-LU guaranteed funding linked to the federal Highway Trust Fund through the creation of the Equity Bonus.

The Equity Bonus provides funding to states based on equity considerations. These include a minimum rate of return on contributions to the Highway Account of the Highway Trust Fund, and a minimum increase relative to the average dollar amount of apportionments originally established under the 1998 highway reauthorization legislation, known as the Transportation Equity Act for the Twenty-first Century (TEA-21). SAFETEA-LU guaranteed selected states a share of apportionments and high priority projects not less than the state's average annual share under TEA-21. SAFETEA-LU enacted a specified percentage of a state's contribution to the Highway Account of the Highway Trust Fund, referred to as a relative rate of return, which was to reach 92 percent in federal fiscal year 2008. Equity Bonus funds are not subject to set-asides or sub-allocations and are more flexible than formula funds. Approximately 30 percent of Equity Bonus funds are exempt from the obligation limitation, which is the percentage of federal aid highway and transit funding the state is allowed to expend annually.

The financing cycle for the Federal-aid Highway Program (FAHP) begins when Congress develops and enacts surface transportation authorizing legislation, such as SAFETEA-LU. The authorizing act shapes and defines programs and sets upper limits (authorizations) on the amount of funds that can be made available to the U.S. Department Transportation, including discretionary accounts. Once Congress has established these authorizations, budget authority is established. There are two types of budget authority: "contract authority," which is available for obligation without further Congressional action, and "appropriated budget authority," which cannot be distributed and used until an appropriations act is passed. Although SAFETEA-LU primarily consisted of contract authority, the program experienced funding shortages in the Highway Trust Fund. As a result, additional Congressional appropriations have been required to continue SAFETEA-LU's funding stream.

FAHP uses a contract authority and reimbursement method of fund management and prevents direct federal control of cash outlays in any year; Congress relies on limitations on obligations or "ceilings" to control the program, commonly known as the obligation limitation. In brief, the obligation limitation does not restrict the amount of cash for reimbursements, but is a ceiling on obligations that can be incurred during the fiscal year. By placing a ceiling on obligations, future cash outlays are indirectly controlled. Congress established the obligation limitation in the SAFETEA-LU Authorization Act from federal fiscal years 2005 to 2009.

Congress may change or revise formulas and policies affecting federal funding for all transportation programs through either a new authorization act or in annual appropriations

made by Congress for the U.S. Department of Transportation. When the Highway Trust Fund is depleted or annual appropriations do not correspond to the amount authorized under SAFETEA-LU, federal funding rescissions may occur. When rescissions are implemented they may result in states losing obligation authority.

Although SAFETEA-LU guaranteed a minimum 92 percent rate of return for Texas, TxDOT reported in February 2010 that the state's rate of return is actually 70 percent for highways and an additional 13 percent for transit. Texas was scheduled to receive a minimum of $14.5 billion in Federal Funds for transportation under SAFETEA-LU (2005 to 2009). Apportionments in the SAFETEA-LU extension were based on fiscal year 2009 apportionments, not including high priority projects. Texas' federal fiscal year 2010 apportionment was approximately $3 billion.

Beginning in federal fiscal year 2005 a decrease in motor fuels tax receipts caused Congress to authorize rescissions of highway funding to states. Federal funding rescissions are the result of Congressional legislation canceling the availability of previously authorized budget authority before it expires. In recent years, rescissions have been used to balance amounts appropriated across appropriations acts with Congressional budget resolutions or some other spending target. Rescissions affecting transportation have recently been applied to cutting appropriated budget authority, obligation limitations, and contract authority subject to obligation limitations. Once funds are rescinded they can no longer be obligated by states. States prioritize transportation projects based on available funding; any loss of funding from rescissions may affect scheduled projects. Transportation agencies, including TxDOT, agree that reducing any funding commitments to help local governments repair local bridges, comply with the federal Clean Air Act, or increase investment in transit, bicycling, and walking will affect everyone.

Some rescissions have allowed states broad flexibility to choose from which programs' money is rescinded. States were able to take a larger share of funds from bridge and road repair, non-motorized (bicycle and pedestrian), or transit projects, while other programs dedicated to building new capacity were less affected. In 2007, Congress amended SAFETEA-LU to require proportional cuts to programs based on the amount of unspent funds remaining in each program. This action reduced state flexibility in selecting from which area funds were rescinded. According to USDOT and the FHWA, states are unable to take more than 10 percent of the amount they are directed to cut from a program; so a program with $10 million in unspent funds cannot have more than a $1 million cut as the result of a rescission.

TxDOT reported in February 2010 that rescissions in federal fiscal years 2008 and 2009 rescissions provided less flexibility than previous rescissions, and actually resulted in the state losing some obligation authority for new contracts. The federal fiscal year 2008 rescission resulted in a loss of $13.5 million in obligation authority, and the federal fiscal year 2009 SAFETEA-LU rescission resulted in $103 million reduction in obligation authority for Texas. **Figure 1** shows federal rescission amounts for Texas since calendar year 2005.

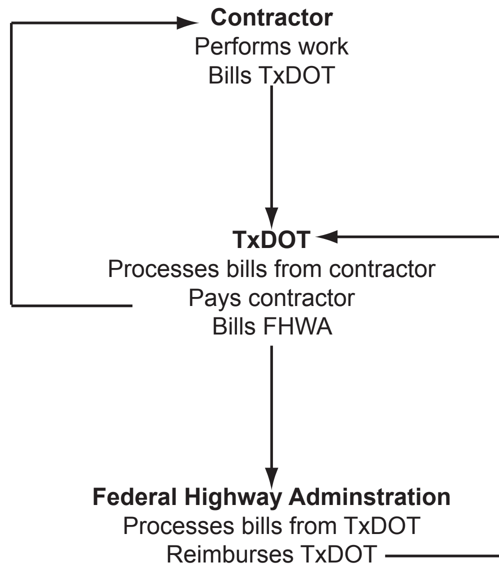
FIGURE 1
FEDERAL TRANSPORTATION FUNDING RESCISSIONS FOR TEXAS
CALENDAR YEARS 2005 TO 2010

RESCISSION DATE	RESCISSION AMOUNT (IN MILLIONS)
January 25, 2005	$102.6
December 28, 2005	158.7
March 21, 2006	90.7
July 6, 2006	55.7
March 19, 2007	288.4
June 20, 2007	72.3
March 4, 2008	258.0
April 13, 2009	272.4
September 30, 2009	740.3
August 13, 2010	193.4
TOTAL RESCISSIONS	**$2232.5**

NOTES: Congress repealed the September 30, 2009 rescission in the Jobs Act of 2009. According to the Texas Department of Transportation, only $100 million was directly apportioned back to Texas. Actual amounts may vary due to rounding.
SOURCES: Legislative Budget Board; U.S. Department of Transportation.

Much of the federal funding the state receives for transportation is through grant programs, which require states to provide matching funds. In recent years, most of Texas' match has not been provided through funding, but rather through transportation development credits that communities receive when they build toll roads that could have otherwise been built with federal funding. In rare instances, funds are provided for events such as natural disasters that do not require a state match. Federal funding is typically provided as a reimbursement for expenditures the state has already made on transportation projects. **Figure 2**

FIGURE 2
REIMBURSEMENT PROCESS FROM FEDERAL HIGHWAY ADMINISTRATION, AS OF 2010



SOURCE: Legislative Budget Board.

shows that, on federally approved projects, a contractor performs road construction or maintenance and is paid by TxDOT for the work. TxDOT then bills the Federal Highway Administration for the federal share of the project and is reimbursed. Once Federal Funds are obligated, the reimbursement process continues for the length of the project which can take several years. Therefore, Federal Funds may only be obligated based on amounts authorized in SAFETEA-LU or any subsequent congressional actions.

HIGHWAY AND TRANSIT FEDERAL DISCRETIONARY GRANT TRENDS

Due to increasing population and road congestion during the last decade, TxDOT and DPS have turned to various innovative financing measures for road construction and road safety. Along with bonds, tolling, and traditional state and federal funding sources, TxDOT has begun pursuing federal discretionary grants as an additional resource to help fund needed projects and programs.

The Texas Transportation Institute reports that there is increasing emphasis on using cost benefit analysis for evaluating transportation projects funded by discretionary federal transportation programs. TxDOT applies both a cost benefit and economic impact analysis to their planning and contracting process. Under current U.S Department of Transportation strategic goals and policies, TxDOT must consider job creation and real estate investment along with safety, livable communities, state-of-good-repair, economic competitiveness, and environmental sustainability. **Figure 3** provides a description of safety related federal discretionary funds that are available to Texas.

The newest and largest source of federal discretionary funding is the TIGER grant program. Funded under ARRA, the TIGER program received $1.5 billion nationally in its first year. Congress passed the Transportation, Housing and Urban Development Related Agencies Appropriation for 2010 and authorized an additional $600 million nationally for TIGER II. Funds are available to state and local entities to be used primarily for highway construction projects, port projects, rail projects, and transit projects. FHWA reports that, as of October 2010, Texas state and local entities had filed 131 applications for over $5.3 billion in new TIGER grants, the largest amount of discretionary funding sought by any state. In fiscal year 2009, the first round of TIGER grants, known as Tiger I, were announced. Texas received $23 million for the Downtown Dallas Streetcar project. A second round of recipients was announced for Tiger II grants in October 2010 and Texas received $34 million for the Tower 55 railroad interchange in Fort Worth.

As discretionary grants become a larger part of federal transportation funding it will be difficult to predict how much federal funding the state will receive. This will also make it more difficult for Texas to receive the state's federally established rate of return under the state's transportation plan. **Figure 3** shows how much Texas has received under select transportation related federal discretionary programs. Texas lags behind other large states in the amount of federal discretionary transportation funding it receives. To receive more federal funding in the future, Texas will need to increase its activities in modes of transportation other than highways. These activities include developing plans that correspond with federal grant priorities. Recommendation 1 would amend the Texas Transportation Code, Chapter 201, to require TxDOT to include a provision to maximize future federal funding opportunities for all modes of transportation in the Statewide Transportation Improvement Program (STIP).

The STIP is required to be developed under federal law and incorporates metropolitan and rural area Transportation Improvement Programs into a statewide plan. This plan covers a five-year period but is updated annually. The plan

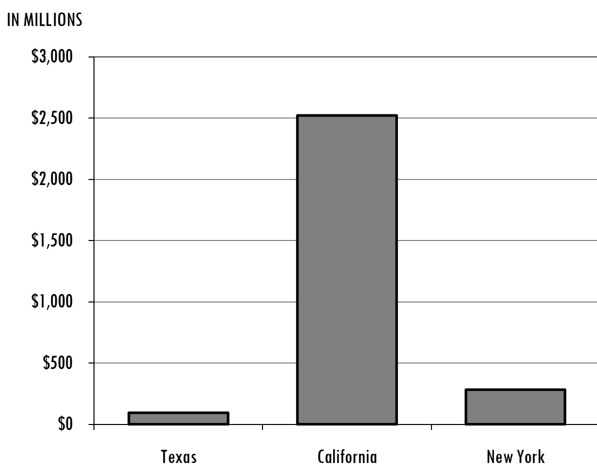
FIGURE 3
SELECT TRANSPORTATION RELATED TRANSIT AND HIGHWAY FEDERAL DISCRETIONARY PROGRAMS, SEPTEMBER 2010

FEDERAL GRANT	PURPOSE	TEXAS PARTICIPATION
Ferry Boats	Priority in the allocation of funds is given to ferry systems and public entities responsible for developing ferries that: (1) provide critical access to areas that are not well-served by other modes of surface transportation; (2) carry the greatest number of passengers and vehicles; or (3) carry the greatest number of passengers in passenger-only service.	Texas received three awards in fiscal year 2010 totaling $5.4 million. By comparison New York received $13.1 million.
Highways for LIFE	Awards to states for innovative proposals to complete highway projects using technologies that will improve safety and decrease construction-related congestion. The Highways for LIFE initiative promotes safety during and after construction, reduces congestion caused by construction, and improves the quality of the highway infrastructure.	Texas received $1 million in fiscal year 2009 to construct the FM-1938 Connector Roadway in Tarrant and Denton Counties. California received $0.3 million. Publication of fiscal year 2010 awards are pending.
Interstate Maintenance Discretionary	Provides funding for resurfacing, restoration, rehabilitation and reconstruction (4R) work, including added lanes to increase capacity, on most existing Interstate System routes.	Texas received $4.5 million for five projects in various parts of the state in fiscal year 2010. By comparison California received $7.2 million.
Scenic Byways	The program is a grassroots, collaborative effort established to help recognize, preserve, and enhance selected roads throughout the United States. The Secretary of Transportation recognizes certain roads as America's Byways® – All-American Roads or National Scenic Byways – based on archaeological, cultural, historic, natural, recreational, and scenic qualities.	Texas only received one grant of $160,000 in fiscal year 1995 to establish the Scenic Byways Program in Texas. No awards have been made to Texas under SAFETEA-LU because the grant program requires state DOTs to have statutory authority over billboard placement. Comparatively New York received $1 million in fiscal year 2009 and $4.3 million over the past five years.
Transportation and Community System Preservation (TCSP)	States, metropolitan planning organizations, local governments, and tribal governments are eligible for TCSP Program discretionary grants to plan and implement strategies which improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade, and examine development patterns and identify strategies; to encourage private sector development which achieves these goals.	Texas received $3.5 million in fiscal year 2009 for various projects. Comparatively New York received $6 million and California $12 million.
Tiger I Construction Grants	Created under the American Recovery and Reinvestment Act (ARRA). Funds were for transportation "shovel ready" projects not covered by formula funding.	Texas received $43 million for two projects including $23 million for the Dallas Streetcar project and $20 million for the North Texas Tollway. Comparatively California received $129.2 million and New York received $83.0 million.
Tiger II Construction Grants	Continues the program created under ARRA above, but without the "shovel ready" requirement.	Texas received $34 million for the Tower 55 Railway Exchange in Forth Worth. Comparatively California received $59.2 and New York received $27 million.
High Speed Passenger and Intercity Rail (HSPIR)	Assists in financing the capital costs of facilities, infrastructure, and equipment necessary to provide or improve high-speed rail and intercity passenger rail service. Funds are made available pursuant to three authorized programs: Intercity Passenger Rail Service Corridor Capital Assistance, Congestion Grants; and High-Speed Rail Corridor Development. Funds may be used for acquiring, constructing, improving, or inspecting equipment, track and track structures, or a facility for use in or for the primary benefit of high-speed rail and intercity passenger rail service primarily in intercity passenger rail service. Funds may not be used to funding operating expenses, or for commuter rail passenger transportation.	Texas received $4 million in HSIPR ARRA funds to be used for adjusting signal timing over 63 miles of the BNSF Fort Worth Subdivision Comparatively, California received $2.3 billion and Florida received $1.2 billion.

Sources: U.S. Department of Transportation; Texas Department of Transportation.

should anticipate future federal funding opportunities in the event that Congress appropriates funding for special initiatives such as high-speed rail or that federal funding priorities are changed in the reauthorization of SAFETEA-LU. **Figure 4** compares the total amount of federal discretionary funds awarded to the three most–populous U.S. States in fiscal years 2009 and 2010.

FIGURE 4
TOTAL SELECT FEDERAL TRANSPORTATION DISCRETIONARY FUNDS AWARDED TO THE THREE MOST-POPULOUS U.S. STATES
FISCAL YEARS 2009 AND 2010



NOTE: Transportation and Community System Preservation and Highways for Life amounts are from fiscal year 2009. All other categories reflect fiscal year 2010 data.
SOURCE: U.S. Department of Transportation.

SCENIC BYWAYS PROGRAM

The Scenic Byways Program is a discretionary funding sub-category of the federal Highway Planning and Construction Program. The program focuses on integrating transportation, housing, and pedestrian projects that create "livable communities." The program aims to improve biking and walking infrastructure; safety; or other rural, suburban, and urban enhancements that benefit travelers and communities. Projects must be on a highway or local road designated as a scenic, historic, or backcountry byway. Examples of eligible projects include developing and implementing a corridor management plan; safety improvements resulting from scenic byway designation; pedestrian/bicyclist facilities, rest areas, turnouts, highway shoulder improvements, passing lanes, overlooks, and interpretive facilities; protecting scenic, historic, recreational, cultural, natural, and archaeological resources; and developing and providing tourist information. While TxDOT has worked with communities to implement new livable communities projects, according to FHWA grant records the agency has not received Scenic Byways federal discretionary funding since 1995. According to FHWA, at that time TxDOT received $160,000 to "plan, design and develop a state scenic byway program: conduct a nationwide search of byway programs to identify successful programs, their policies, procedures, and organization; conduct Statewide hearings to obtain input and support from the public to determine criteria; establish designation criteria; codify program and designation criteria into State law; designate statewide system."

Although most projects eligible for this source of federal funding would be implemented at the local or district level, the projects must be authorized and included in the state's transportation plans and meet federal guidelines. According to grant guidance, projects may be eligible for up to $1 million per year, resulting in a potential loss of up to $18 million for Texas during the past 18 years. In addition, the program allows exceptions to the requirement that non-federal sources be used to meet the 20 percent state match requirement. For instance, transportation enhancement project funds, federal land management agency funds, rail-highway crossing funds, and transportation infrastructure finance and innovation program loans may be used as a match; meaning some of these types of projects in Texas could have been 100 percent federally funded during the past 18 years.

To date, TxDOT has not authorized any Scenic Byway project applications. To qualify for funding under the federal Scenic Byways Program, TxDOT must have the authority to remove billboards. TxDOT reports that under current state statutes it does not have this authority. However, TxDOT does use limited authority to move or repair billboards under the federally funded Transportation Enhancement Program. Also, the Texas Transportation Code, Chapter 391, may sufficiently empower TxDOT and municipalities to manage outdoor advertising within the federally required guidelines. In addition the Sunset Advisory Staff Report published in November 2010, states that TxDOT has centralized its outdoor advertising program to effectively control outdoor advertising along federal-aid primary roads such as interstates and U.S. highways. The report also states that several of the Sunset Commission's prior recommendations may require statutory changes for TxDOT to improve enforcement and licensing authority of the

agency for outdoor advertising along the states roads and highways.

In March 2010, the Texas Transportation Commission authorized the establishment of a Rulemaking Advisory Committee to provide advice on specific issues concerning current rules regarding the outdoor advertising program for both primary and rural road systems. The Rulemaking Advisory Committee will assist TxDOT in addressing issues in current rules regarding the primary and rural road outdoor advertising programs. The committee will be discussing issues such as: a new fee structure; permit application and renewal process; maintenance and repair of existing billboards; limitations on nonconforming billboards; what qualifies as an un-zoned commercial or industrial area; what qualifies as a business activity; and relocation provisions. Recommendation 2 directs TxDOT to coordinate with local entities to identify projects that would be eligible for Scenic Byways federal funding.

COMMERCIAL VEHICLE ENFORCEMENT

Commercial vehicle enforcement is carried out by DPS. DPS troopers enforce size and weight statutes, registration statutes, motor carrier safety regulations, hazardous materials transportation regulation, commercial vehicle operating authority and financial responsibility requirements, commercial driver licensing requirements, fuel permit requirements, and traffic laws and criminal statutes. The agency's Commercial Vehicle Enforcement Department also provides educational information to the industry and supports counterterrorism and homeland security activities. The number of staff dedicated to commercial vehicle enforcement increased by 83 percent between fiscal years 2004 and 2010. During the 2010–11 biennium Federal Funds financed approximately 52 percent of commercial vehicle enforcement activities at DPS. Major issues in Texas affecting commercial vehicle enforcement include commercial vehicle border crossings, the transportation of hazardous materials, and permitting requirements.

According to TxDOT, federal funding related to ports-of-entry (POE) is based on traffic volumes. Commercial vehicle traffic in Texas has increased over time, particularly as commercial traffic between Mexico and the U.S. has increased. There are 13 commercial vehicle POE's at the Texas-Mexico border and vehicles using these entry points are inspected for compliance with state and federal statutes. Wait times at these crossings have been increasing. **Figure 5** shows the average daytime wait at 12 U.S. Surface Border Gateways from calendar years 2003 to 2007. DPS and TxDOT are currently working to build Border Safety Inspection Facilities for these vehicles.

TxDOT reports that the best way to increase the amount of federal funds Texas receives for its ports is to better measure traffic volumes at POE's. The Coordinated Border

FIGURE 5
AVERAGE DAYTIME WAIT TIMES AT SELECTED SURFACE BORDER GATEWAYS
CALENDAR YEARS 2003 TO 2007

	CALENDAR YEAR				
TEXAS BORDER GATEWAYS	2003 (IN MINUTES)	2004 (IN MINUTES)	2005 (IN MINUTES)	2006 (IN MINUTES)	2007 (IN MINUTES)
Laredo-World Trade Bridge	17.2	20.5	24.5	32.9	39.0
Hidalgo/Pharr	7.8	8.8	12.1	18.6	15.6
El Paso-Ysleta	8.3	11.0	12.4	8.6	14.3
Laredo-Colombia Solidarity	4.9	3.7	6.6	11.9	13.0
Progreso	0.7	0.8	1.9	6.6	11.3
Brownsville-Veterans International	8.8	10.0	7.8	10.2	10.0
El Paso-Bridge of the Americas (BOTA)	6.1	5.9	11.3	13.0	8.4
Del Rio	3.0	2.6	1.9	3.3	5.4
Brownsville-Los Indios	1.5	1.3	1.2	1.9	2.4
Rio Grande City	3.1	2.5	2.5	2.5	1.5
Presidio	1.6	0.5	0.0	0.1	0.3
Eagle Pass-Bridge I	1.6	Unknown	0.0	0.0	0.0

Source: Bureau of Transportation Statistics.

Infrastructure Program is a federal program that provides funding to states to improve the safe movement of motor vehicles at or across the U.S. land borders with Mexico and Canada. Funds are apportioned among the states with international land borders based on the movement of people and goods through land POE's. The formula considers the state's share of incoming commercial trucks, incoming personal motor vehicles and buses, weight of incoming cargo by commercial trucks, and the state's share of POE's. Therefore, it is necessary to capture the number of commercial and passenger vehicles and the weight of incoming cargo at Texas' POE's in the most accurate manner possible to ensure Texas draws down the maximum amount of Federal Funds available for POE's and commercial vehicle enforcement activities.

Currently, the number of trucks crossing at land POE's is collected by the Federal Highway Administration and TxDOT but is only available on a monthly basis. This information is also collected by U.S. Customs and Border Protection (U.S. CBP) and DPS through vehicle security inspections and weigh in motion devices. This collection method is more thorough than the information gathered by TxDOT. According to U.S. CBP and DPS, this information as it is collected cannot be shared with other state agencies due to security concerns. The Texas Transportation Institute has been researching methods to capture real-time data regarding commercial vehicle volumes at Texas' POE's. TTI has been working to secure grant funding to implement this project, which is estimated to cost $42,000. Developing such a system would position Texas to compete for additional federal funding for commercial vehicle enforcement and improvements to our POE's. Additionally, it could reduce the amount of duplicative work that is currently being done to collect this information by FHWA, TxDOT, DPS, and U.S. CBP. Recommendation 3 would include a rider in the 2012–13 General Appropriations Bill that requires TxDOT, DPS, and TTI to work together to develop a system to capture commercial vehicle traffic at Texas' POE's. The agencies would also determine whether this system could replace current efforts that may be duplicative. This rider would be contingent upon TTI receiving grant funds to develop the system.

HAZARDOUS MATERIALS TRANSPORTATION

A hazardous material is any substance designated by the Secretary of Transportation as posing an unreasonable risk to health and safety or property. Some examples include gasoline, poison gas, explosives, radioactive materials, and compressed gas. The U.S. Department of Transportation is the lead agency responsible for hazardous material transportation safety and sets uniform safety standards that apply to shipments of hazardous materials by road, rail, air, and water. States have jurisdiction over local conditions not addressed by national uniform requirements and are responsible for inspection and enforcement activities.

The Uniform State Hazardous Materials Transportation Program (USHMTP) is a state-based system in which a motor carrier of hazardous materials receives credentials in the state where it travels the most miles. The credentials are then considered valid in all participating states. The participating states are known as the Alliance for Uniform Hazmat Transportation Procedures and include: Illinois, Michigan, Nevada, Oklahoma, Ohio, and West Virginia. The program includes registration, permitting, and hazardous or radioactive waste disclosure. A 2009 study by the Battelle Memorial Institute reported that fewer crashes and out-of-service violations occurred with motor carriers operating in participating states than those not participating. It was determined this was a result of requirements that carriers comply with all applicable safety regulations in participating states and the review process was more likely to identify problems. Additionally, participation in USHMTP reduces administrative costs in participating states as they have fewer companies to evaluate. The program does not mandate a fee structure, so states can continue to set their own fees. Once 26 states adopt the program, the Federal Motor Carrier Safety Administration (FMCSA) will be required by federal law to implement federal rules for this program. FMCSA has indicated they may move ahead with rules if fewer than 26 states adopt the program, and a bill is currently in Congress to provide incentives for states to adopt the program.

Texas Transportation Code, Section 645.001, authorizes DMV to participate in a unified carrier registration system or single state registration system established under federal law. Recommendation 4 would amend the Texas Transportation Code, Chapter 645, to require DMV to participate in the USHMTP unless a similar federal program is established. By joining this program, Texas will immediately be eligible for federal incentives. The program will also help reduce the state's administrative costs for registering and permitting hazardous materials transportation, and allow efforts to focus on evaluating trucking companies within Texas.

HIGHWAY SAFETY IMPROVEMENT PROGRAM AND SAFETY PERFORMANCE PLAN

The Highway Safety Improvement Program (HSIP) was established as a core program under SAFETEA-LU. This program is intended to reduce traffic fatalities and serious injuries on public roads and bicycle and pedestrian pathways. Congress provided flexibility to states allowing them to target funds for critical safety needs. Most of HSIP funding is distributed by formula based on each state's lane miles, vehicle miles traveled, and number of fatalities. Approximately $90 million is set aside nationally each year for construction and operational improvements on high-risk rural roads. Congress has continued this level of funding under a number of Continuing Resolutions and appropriation acts since SAFETEA-LU expired. Federal funding is available to cover 90 percent of a project's cost and a state match of 10 percent is required for most projects. Certain safety improvements prioritized by the U.S. Department of Transportation are eligible for federal funding covering 100 percent of project costs.

HSIP requires states to develop and implement a strategic highway safety plan and submit annual reports to the Secretary of Transportation that describe at least 5 percent of their most hazardous locations, progress in implementing highway safety improvement projects, and their effectiveness in reducing fatalities and injuries. Maintenance of the HSIP is critical to maximizing future federal funding. **Figure 6** shows Texas' allocation of Safety Improvement Funding for federal fiscal years 2007 to 2011.

FIGURE 6
TEXAS' ALLOCATION OF HIGHWAY SAFETY IMPROVEMENT FUNDING
FEDERAL FISCAL YEARS 2007 TO 2011

FISCAL YEAR	FEDERAL ALLOTMENT (IN MILLIONS)
2007	$95.5
2008	$96.2
2009	$87.0
2010	$93.5
2011	$93.5

NOTE: Federal fiscal year 2011 is based on fiscal year 2010 allocation.
SOURCE: National Highway Traffic Safety Administration.

Texas joined a number of other states in a new process of administering its traffic safety program during fiscal year 1997. This process combines the Highway Safety Plan and the Performance Plan into the Highway Safety Performance Plan (HSPP), which requires each state to present its performance goals. This is the state's safety planning, management, and grant delivery vehicle, and enables the development of standards and measures for distributing federal safety funds to local entities. Maximizing federal funds in the future will continue to depend on the quality and content of the state's HSPP.

The HSPP is supported by the State and Community Highway Safety Grant, which is distributed by formula. Under SAFETEA-LU, TxDOT receives a formula allocation of $18 million per year from the State and Community Highway Safety formula allocation. States and localities use the funds to support state efforts to reduce traffic accidents and resulting deaths, injuries, and property damage. At least 40 percent of the funds must be distributed to local entities to address local traffic safety problems. The federal state match rate is 80/20.

Discretionary federal safety grants are also available. States cannot always access discretionary safety grants if they have already reached their annual obligation limitation for federal highway funds. The large financial demands of the Texas transportation system at times require TxDOT to adjust its annual federal obligation categories in order to be eligible to access more desirable discretionary grants. More often, however, TxDOT forgoes federal safety discretionary grants with obligation limitation restrictions, thus limiting Texas' ability to maximize its federal rate of return.

Over the past three fiscal years TxDOT has been most successful in drawing down federal discretionary funds for alcohol safety, seat belt programs, information systems, and motorcycle safety. DPS also receives a portion of safety funding, which passes through TxDOT. **Figure 7** shows the amount of discretionary highway safety funding received by Texas from fiscal years 2008 to 2010.

In fiscal year 2010, TxDOT also reported $1.4 million was received for the Public Safety Interoperable Communications Program from the U.S. Department of Homeland Security. DPS reported receiving $38.4 million in Public Safety Interoperable Communications Program funds.

TxDOT reports that no applications have been submitted for grants under Section 1906 of SAFETEA-LU, which is a grant program to prohibit racial profiling. The National Highway Traffic Safety Administration issues these grants to states that have enacted and are enforcing a law prohibiting the use of racial profiling in the enforcement of state laws

FIGURE 7
FEDERAL DISCRETIONARY SAFETY GRANTS RECEIVED BY TEXAS
FISCAL YEARS 2008 TO 2010

SAFETY PROGRAM	2008	2009	2010
Alcohol Traffic Safety and Drunk Driving	$9.1	$7.8	$8.8
Motorcycle Helmets and Safety Belt Incentive Grants	$2.9	$2.5	$2.0
State Traffic Safety Information System Improvement Grants	$1.5	$0.3	$2.9
National Highway Transportation Administration Discretionary Safety Grants	$0.1	$0.1	$0.1
Public Safety Interoperable Communications Program	$0.0	$0.0	$1.4
Incentive Program to Increase Motorcycle Safety	$0.0	$0.3	$0.6

SOURCE: Legislative Budget Board.

regulating the use of federally-funded highways and that maintain and allow public inspection of statistical information for each motor vehicle stop made by law enforcement officers on Federal-aid highways regarding the race and ethnicity of the driver and any passengers.

According to TxDOT, Texas does not have the conforming state laws in place to qualify for this grant. Texas Code of Criminal Procedure, Article 2.132, requires each law enforcement agency in Texas to adopt a written policy that strictly prohibits peace officers from engaging in racial profiling. Additionally, the Texas Code of Criminal Procedure, Article 2.133, requires a peace officer who stops a motor vehicle to report the race or ethnicity of the person operating the motor vehicle, but not that of passengers. DPS publishes this information annually in the Traffic Stop Data Report. Recommendation 5 would amend the Texas Code of Criminal Procedure, Article 2.133, to include a requirement that peace officers report the race or ethnicity of any passengers in the vehicle to make Texas eligible for federal funding under the grant program to prohibit racial profiling. Federal Funds would be available to offset up to 80 percent of the costs the state currently incurs to collect data and produce the Traffic Stop Data Report.

FEDERAL FUNDING FOR TEXAS RAIL PROJECTS

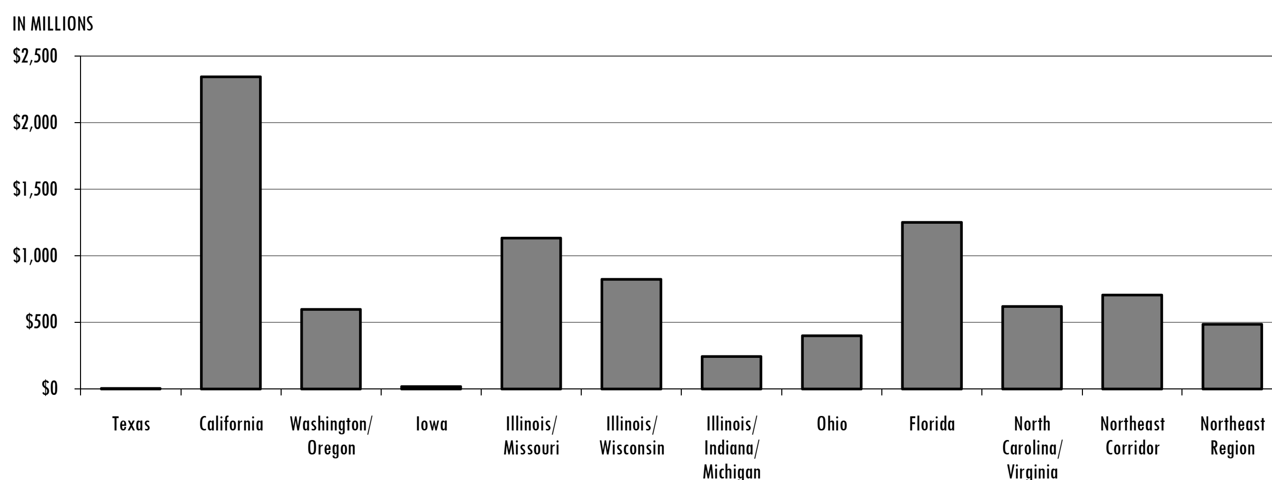
Shifting policy priorities at the federal level mean Texas needs to be more aggressive in seeking funds for modes of transportation other than highways to receive the maximum federal return. In 2009, the U.S. House Committee on Transportation and Infrastructure released its proposal for reauthorizing SAFETEA-LU. This proposal included a shift in funding toward non-highway modes of transportation. The proposal would dedicate 20 percent of federal transportation funding to highways, 20 percent to transit, and 10 percent to high-speed rail. Small amounts of funding are set aside for safety, administration, and research, and all remaining funds would be available for earmarks and flexible funds.

This shift was also evident with the passage of ARRA, in which the federal government appropriated $8 billion nationally for the High Speed Intercity Passenger Rail Grant (HSIPR) Program. TxDOT filed 10 applications for $1.8 billion in rail projects under ARRA. Of these applications, Texas received two awards totaling $4 million. Therefore, Texas lost out on a potential $1.79 billion in Federal Funds because the state did not have a comprehensive state rail plan. An additional $7 million in Federal Railroad Administration discretionary funding was received in fiscal year 2009.

Other states, including California and Florida, received a much larger amount of funding for high-speed rail projects under ARRA. **Figure 8** shows how much funding other states received for HSIPR compared to Texas. U.S. DOT officials stated that these states were more attractive candidates for federal funding because their rail projects were closer to being shovel-ready than projects in Texas. Since the HSIPR grants were awarded, several states have expressed that they may not be able to meet financial requirements to maintain their systems in the future because of their current budget shortfalls. In November 2010, Wisconsin delayed a rail project funded through federal stimulus funds. U.S. Transportation Secretary Ray LaHood stated that if the project was not resumed the federal government would redistribute these funds to other states for high-speed rail projects. TxDOT reports that even if this funding is redistributed, the state is not in position to qualify because Texas continues to lack a reliable source of funding for rail-related construction and maintenance. Both California and Florida had identified sources of funding for their rail projects before receiving HSIPR grants .

Legislation enacted by the Seventy-ninth Legislature, Regular Session, 2005, established the Rail Relocation and Improvement Fund (RRIF) to address public safety, congestion, and economic development issues created by the location of rail lines in densely populated areas of the state. The legislation proposed the fund as a constitutional

FIGURE 8
HIGH SPEED INTERCITY PASSENGER RAIL GRANTS, JANUARY 2010



Sources: Legislative Budget Board; TransportPolitic.

amendment, and on November 2005, Texas voters approved Proposition 1, creating the fund within the state Treasury. The fund was established to finance, in whole or in part, the relocation and improvement of passenger and freight rail lines and facilities to promote mobility and public safety. To date, no revenue sources have been directed to the fund and no appropriations made. As a result, the Texas Transportation Commission has been limited in its ability to issue bonds for the completion of rail improvement and relocation projects.

Recommendation 6 would amend the Texas Tax Code, Sections 162.204 and 162.504, to establish a source of funding for the Rail Relocation and Improvement Fund by eliminating the rail industry exemption from the motor fuels diesel tax and directing subsequent revenue to the Rail Relocation and Improvement Fund. The Rail Relocation and Improvement Fund requires a regular and dedicated revenue stream to effectively secure the bond packages necessary for significant rail development projects. The rail industry is now granted a statutory exemption from the state motor fuels tax on diesel fuel consumed to propel locomotive engines. The state's motor fuels diesel tax is $0.20 for each gallon of fuel purchased. The U.S. Department of Energy reports that the rail industry in Texas consumed 916.8 million gallons of diesel fuel in 2006, resulting in a tax exemption value of $122.5 million. Implementing Recommendation 6 would result in a gain of $223 million in General Revenue Funds during the 2012–13 biennium, and put Texas in a stronger position to draw down either future federal funding made available for rail or any ARRA funding that may be redistributed.

In addition to ARRA funding for high-speed rail, the Federal Railroad Administration has historically managed several grant programs related to rail planning and construction. To date, Texas has not applied for several of these programs, including the Rail Planning Provisions Program. This program was funded in both fiscal years 2008 and 2010 and would have provided the state with funding to prepare and maintain the state rail plan it is currently developing, which will serve as the basis for future federal rail investments. Until recently, rail was not a priority of the state's transportation plan.

TxDOT should continue its efforts to prepare for passenger rail in the state as directed by the Eighty-first Legislature, Regular Session, 2009. These efforts should be targeted to making Texas eligible for any HSIPR grant that may be re-obligated in the future, as well as the increased federal funding for rail expected to become available with the reauthorization of SAFETEA-LU. Additionally, TxDOT should apply for any future federal funding made available for rail planning.

INCREASED COORDINATION OF MAXIMIZATION EFFORTS

The duplicative activities of TxDOT and DPS to collect commercial vehicle volumes at POE's and the lack of efforts to ensure laws surrounding the state's activities to collect information regarding racial profiling among law enforcement comply with federal grant requirements demonstrate the need for increased communication between the agencies. In many instances, as the state's transportation agency, TxDOT

is the only entity eligible to apply for federal grant programs, although the activities funded by these programs may be operated by DPS or DMV at the state level. Therefore, it is important that the three agencies work together to identify opportunities for federal grant funding and develop strong applications for these funds.

The State Grants Team at the Office of the Governor provides technical assistance and serves as a federal liaison for Texas state agencies. Their services include identifying federal grant funding opportunities, coordinating dialogue of the use of grant funds, and providing resources to identify federal grant funding opportunities and assist with the application process.

Recommendation 7 would include a rider in the 2012–13 General Appropriations Bill that requires TxDOT, DPS, and DMV to jointly submit a report to the Governor and the Legislative Budget Board on efforts to identify, coordinate, and implement methods to maximize discretionary sources of federal funding. This report should include a description of efforts to work with the State Grants Team at the Office of the Governor to track and secure federal grant opportunities. This report should be provided by December 1 of each fiscal year.

FISCAL IMPACT OF THE RECOMMENDATIONS

Figure 9 shows the fiscal impact of implementing the recommendations in this report. It is expected that Recommendations 1, 3, and 7 would result in the state receiving additional federal funding but the amount cannot be quantified at this time. Recommendation 4 would result in a reduction in administrative costs to DPS but the amount of savings cannot be determined. Additional federal funding may be received by the state in the future as a result of Recommendation 4; however, it is not possible to quantify what amount this would be at this time so it is not reflected in **Figure 9**. Recommendation 5 would result in an additional $750,000 in Federal Funds deposited to the State Highway Fund during the 2012–13 biennium. Recommendation 6 would generate $223 million during the 2012–13 biennium. This is also expected to increase the amount of federal funding received by the state for rail activities; however, the amount cannot be determined.

FIGURE 9
FIVE-YEAR FISCAL IMPACT OF THE RECOMMENDATIONS FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN/(LOSS) IN FEDERAL FUNDS FOR THE STATE HIGHWAY FUND	PROBABLE GAIN/(LOSS) IN GENERAL REVENUE FUNDS
2012	$375,000	$104,460,224
2013	$375,000	$118,526,838
2014	$375,000	$123,156,933
2015	$375,000	$128,111,580
2016	$375,000	$133,547,629

SOURCE: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes riders implementing Reccomendations 3 and 7. No other changes have been made to the introduced 2012–13 General Appropriations Bill as a result of these recommendations.

RESTRUCTURE THE HIGHWAY MAINTENANCE FEE TO BETTER ALIGN IT WITH THE COST OF ROAD MAINTENANCE AND REPAIRS

Overweight vehicles cause more damage to Texas highways than passenger vehicles, but pay for a smaller share of the damage. According to the Comptroller of Public Accounts, the cost of damage to the state highway system caused by overweight vehicles was $62.8 million per year in fiscal year 1988. Adjusted for inflation, that is equivalent to $115.7 million in damage in 2010 to the Texas highway system.

The highway maintenance fee that the state charges overweight vehicles was implemented in 1991 to offset the costs of additional damage that these vehicles create on roadways. Revenue from the highway maintenance fee is deposited into the State Highway Fund. The fee accounts only for a vehicle's weight and does not reflect the variability in each vehicle's highway use or distance it traveled. Vehicle weight and distance traveled are the two factors most closely associated with roadway damage caused by vehicles.

Restructuring the highway maintenance fee to account for weight and distance, and reevaluating the fee and adjusting it as necessary, would make it more equitable and proportional to the damage caused by overweight vehicles. The restructured fee could result in an estimated revenue gain of $6 million in Other Funds (State Highway Fund) for the 2012–13 biennium.

CONCERNS

- Texas lacks a process to ensure that permit fees for oversized/overweight vehicles are adjusted to reflect changes in the variables that influence road maintenance costs.
- The highway maintenance fee for overweight vehicles does not reflect the variability of each vehicle's actual highway use (distance traveled).

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the 2012–13 General Appropriations Bill requiring the Texas Department of Transportation to evaluate the damage that oversized and overweight vehicles cause on roads including exempt vehicles such as agricultural, garbage collection, grocery, produce, farm produce, concrete, milk, timber and rock vehicles. Based on this evaluation, the Texas Department of Transportation should provide recommendations for permit fee amounts and fee structure adjustments, including the highway maintenance fee to the Governor and the Legislative Budget Board by December 1, 2012.
- **Recommendation 2:** Amend the Texas Transportation Code, Section 623.077, to restructure the highway maintenance fee assessed to overweight vehicles so that it reflects weight and distance traveled.

DISCUSSION

In Texas, an oversized and overweight (OS/OW) vehicle is defined as a vehicle with a gross load that exceeds the statutorily defined maximum legal width, height, length, or weight. Maximum legal limits are shown in **Figure 1**.

FIGURE 1
DEFINING OVERSIZED AND OVERWEIGHT VEHICLES
FISCAL YEAR 2008

MEASUREMENT	MAXIMUM LEGAL LIMIT
Width	8.5 feet
Height	14 feet
Length	65 feet
Weight	80,000 pounds

SOURCE: Texas Department of Transportation.

According to the Arizona Department of Transportation, highway infrastructure protection has been the primary consideration in determining truck size and weight limits.

Legal axle weight is also considered when defining OS/OW vehicle status. The maximum legal axle weight cannot exceed 20,000 pounds for a single axle, 34,000 pounds for a tandem axle, and 42,000 pounds for a triple axle.

There has been an increase in OS/OW vehicle travel on Texas roads and highways as reflected in the increased demand for OS/OW vehicle permits. From fiscal years 2004 to 2009, the number of OS/OW permits issued by TxDOT increased by 19 percent from 444,246 permits to 527,453. By value, OS/OW vehicles transport 75 percent of manufactured goods and raw materials that move through Texas. A 2006 report by the Texas Senate Committee on Transportation and Homeland Security (SCTHS) found that Texas leads the

nation in interstate highway miles traveled and also has the highest truck volume in the nation in proportion to total vehicles miles traveled. The increased operation of OS/OW vehicles on Texas roads results in increased road damage.

As cited in the SCTHS report to the Eightieth Legislature, 2007, a single 80,000-pound truck is equivalent to 9,200 passenger cars relative to pavement stress and road damage. Pavement damage is dependent on a number of factors including but not limited to:

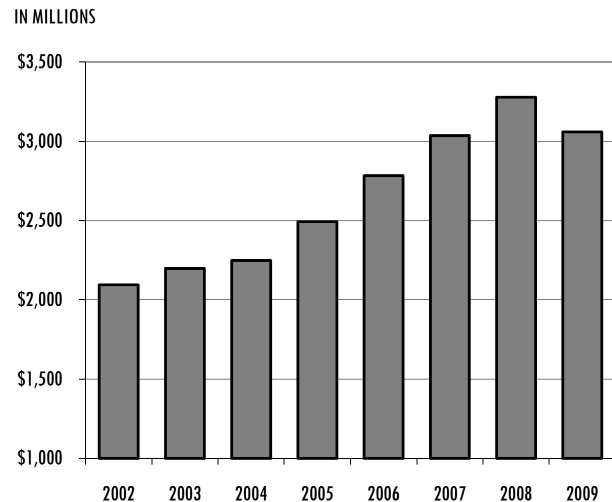
- vehicle weight;
- axle weight, the number of axle loadings, and the spacing within axle groups;
- traffic volume/ distance traveled;
- pavement condition, performance and structural capacity; and
- climate and environmental conditions.

According to the Comptroller of Public Accounts (CPA), vehicle weight and distance traveled are the two factors most closely associated with roadway damage caused by vehicles. A SCTHS report cited a 1988 study by the U.S. Department of Transportation's Federal Highway Administration that found that heavy trucks cause greater damage to roads compared to other vehicles, but pay for a smaller share of the costs required for repairing and maintaining U.S. roads.

Few studies quantify the relationship between vehicle weight and the cost of road damage or maintenance. Results from existing studies vary due to factors such as different environmental conditions and pavement structures. According to the CPA, the Texas Transportation Institute estimated the amount of damage to the state highway system caused by overweight vehicles to be $62.8 million per year in 1988. Adjusted for inflation, that is the equivalent of $115.7 million in damage in 2010. A 2005 report completed by the Arizona Department of Transportation indicated that heavy vehicles account for about $170 million per year in planned state highway expenditures for Arizona.

The cost to maintain Texas roads has steadily increased due to inflation and rising material costs. **Figure 2** shows TxDOT expenditures for road maintenance from fiscal years 2002 to 2009.

FIGURE 2
TEXAS STATE HIGHWAY MAINTENANCE AND PRESERVATION EXPENDITURES, ALL FUNDS
FISCAL YEARS 2002 TO 2009



SOURCE: Texas Department of Transportation.

TEXAS' OVERSIZED AND OVERWEIGHT VEHICLE PERMITS

Prior to 1989, OS/OW vehicle travel on Texas state highways was regulated by both local and state government. Vehicles with a load that exceeded the maximum legal weight limit were prohibited from using certain roads and bridges.

In 1989, legislation enacted by the Seventy-first Legislature established a state permit that allowed vehicles carrying an overweight divisible load to operate at a percentage greater than the legal gross weight by obtaining a state permit. Permit fees were initially intended to offset the disproportionate amount of damage caused by OS/OW loads. There are now 25 different permits issued for the operation of OS/OW vehicles in Texas.

In fiscal year 2009, TxDOT issued more than 527,000 OS/OW permits and collected more than $95 million in OS/OW permit fees. Permit fees in Texas for OS/OW vehicles were increased by legislation enacted by the Eightieth Legislature, 2007. The increase in permit fees was not intended to cover maintenance and repair costs, but rather to support enforcement efforts against violators of motor vehicle size and weight laws, and address administrative issues of untimely issuance of permits. This legislation changed the structure or increased the fees for various OS/OW permits and fees. **Figure 3** shows the changes that were made to various OS/OW permits as a result of the legislation.

FIGURE 3
CHANGES MADE TO OVERSIZED/OVERWEIGHT PERMITS AND FEES EFFECTIVE FISCAL YEAR 2009

PERMIT/FEE TYPE	CHANGES MADE TO PERMIT/FEE AS A RESULT OF HB 2093
Weight Tolerance Permit	The structure and variable fees (dependent on the number of counties a vehicle operates in) were changed. The range of variable fees changed to $175 to $2000 from $125 to $2000.
General Single-Trip Permit	The base fee was doubled to $60 from $30.
Highway Maintenance Fee	The range of fees was tripled to $150 to $375 from $50 to $125.
Multiple-day Permit	The range of fees was doubled to $120 to $240 from $60 to $120.
Annual Permit-implement of husbandry	The fee increased to $270 from $135.
Annual permit-super-heavy or oversize equipment	The statutory cap on the fee increased to $7000 from $3500.
Manufactured and industrialized housing	The fee was doubled to $40 from $20.
Annual permit-manufactured homes	The maximum cap on the fee was increased to $3000 from $1500.
Portable building	The fee was doubled to $15 from $7.50.
Annual permit-to move unladen lift equipment	The fee was doubled to $100 from $50.

Source: Legislative Budget Board.

The 2007 legislation also specified the amount of revenue that should be deposited into the General Revenue Fund and the State Highway Fund for certain permits. For example, 50 percent of amounts collected from the general single trip permit are deposited to the General Revenue Fund and the other 50 percent is deposited to the State Highway Fund. Appropriations were provided to add additional TxDOT staff to improve OS/OW permitting. Prior to 2007, the permit fees for OS/OW vehicles had not been increased since 1991. The time between fee increases demonstrates that Texas lacks a process to ensure that OS/OW vehicle permit fees are adjusted to reflect changes in the variables that influence road maintenance costs. To account for changes in the variables that affect highway maintenance costs, such as inflation and rising material costs, the highway maintenance fee and other permit fees for OS/OW vehicles should be evaluated on a regular basis. Recommendation 1 would include a rider in the introduced 2012–13 General Appropriations Bill requiring TxDOT to evaluate the damage that oversized/overweight vehicles cause on roads including exempt vehicles such as agricultural, garbage collection, grocery produce, farm produce, concrete, milk, timber and rock vehicles. Based on this evaluation, TxDOT should provide recommendations for permit fee amounts and fee structure adjustments, including the highway maintenance fee, to the Governor and the Legislative Budget Board by December 1, 2012.

TEXAS' GENERAL SINGLE-TRIP PERMIT AND THE HIGHWAY MAINTENANCE FEE

The most commonly issued permit for an OS/OW vehicle is the general single-trip permit. General single-trip permits are valid for one trip, from a specific point of origin to a specific destination. This permit is issued to interstate and intrastate traveling vehicles carrying loads that exceed either legal width, height, or length limits. Carriers must be registered by the TxDOT Motor Carrier Division or by the International Registration Plan (IRP) before obtaining a permit. According to the IRP website, the IRP is a registration reciprocity agreement among states of the United States, the District of Columbia and provinces of Canada providing for payment of apportioned fees on the basis of total distance operated in all jurisdictions. Certain types of vehicles, such as farm vehicles, are exempt from having to pay a permit fee since they do not have to register as a motor carrier. The general single-trip permit application can be submitted online, by telephone, by fax, or in person. Applicants must specify their origin and destination for travel on the application and the vehicle's number of axles, axle spacing, and axle weight. Weight and size measurements are typically verified when a vehicle is stopped and inspected by law enforcement, except in the case of vehicles with super-heavy loads. Vehicles with super-heavy loads have a gross weight exceeding 254,301 pounds, or exceeding 200,000 pounds with less than 95 feet of axle spacing. Either the Texas Department of Public Safety or an appropriate law enforcement agency verifies the weights of these vehicles before a permit is issued. Once an application is submitted, permit officers at the TxDOT Motor Carrier

Division review the application for completeness and provide the safest, optimum route using the specified origin and destination of travel. The agency completes the routing process manually by using various tools including but not limited to map books, map software, and a database that contains an updated list of new roadways and structures. The Texas Permit Routing Optimization System (TxPROS) is a web-based application that will automate and integrate many of the current permitting and routing tasks now done manually. The system will be capable of calculating the exact mileage for a detailed route taken by a vehicle, and will also provide an interface for permit application, automated routing and permit issuance, restrictions, and map data management. According to TxDOT, complete implementation of the TxPROS system is expected in May 2011.

For the general single-trip permit, a base permit fee of $60 is assessed and 50 percent of the fees collected are deposited into the General Revenue Fund and the other 50 percent are deposited to the State Highway Fund. In fiscal year 2009, there were 327,863 general single-trip permits issued ($60 each), generating revenue of $19.6 million.

In addition to the $60 base fee, loads with a gross weight of 80,000 pounds or greater must pay a highway maintenance fee. This fee was established in 1991 to assess an additional charge in relationship to vehicle weight to offset the costs of additional damage to roadways. **Figure 4** shows the structure of the current highway maintenance fee for overweight vehicles.

In fiscal year 2009, TxDOT assessed 144,506 highway maintenance fees and collected $30.8 million in revenue. Revenue from the fee is distributed to the State Highway Fund.

OVERSIZED AND OVERWEIGHT HIGHWAY-USE FEES IN OTHER STATES

Other states also require vehicle owners or operators of OS/OW vehicles to purchase a permit to travel on state roads. Kentucky, New Mexico, New York, and Oregon assess a weight-distance tax for heavy vehicles. The weight at which a vehicle must pay the weight-distance tax varies in each state but the tax is applied to heavier vehicles because they cause more damage to roads. In each state certain types of vehicles, such as farm vehicles, are exempt from a weight-distance tax.

The weight-distance tax is a type of highway user fee that increases with the weight of the vehicle and distance traveled. It is paid per mile of truck operation in each state, and is used to pay for additional road maintenance. The amount assessed under the weight-mile tax is calculated by multiplying a weight-graduated tax rate by the number of miles a truck is driven in the state. Compared to a flat fee or a fee based solely on weight, the weight-distance tax more accurately reflects the cost of road wear. Oregon's weight-distance tax includes an axle incentive that offers tax reductions for vehicles with a gross weight of 80,000 pounds or greater that operate with more than the required number of axles for the weight they carry. According to the Oregon Department of Transportation, engineers nationwide agree that any effects on road wear and damage are mitigated by the number of axles employed by heavy trucks. **Figure 5** shows the details of the weight-distance tax in Kentucky, New Mexico, New York, and Oregon.

The states use revenue derived from the tax to pay for road construction, repairs, and maintenance. Motor carriers are required to report the distance traveled and pay the tax on either a monthly, quarterly or annual basis in each state. Oregon offers motor carriers the option to report their miles-traveled electronically, and New Mexico is looking into electronic submission in the future.

FIGURE 4
HIGHWAY MAINTENANCE FEE FOR OVERWEIGHT VEHICLES, FISCAL YEAR 2010

GROSS WEIGHT IN POUNDS	HIGHWAY MAINTENANCE FEE	PERMIT FEE	TOTAL FEE
80,001 to 120,000	$150	$60	$210
120,001 to 160,000	$225	$60	$285
160,001 to 200,000	$300	$60	$360
200,001 or greater*	$375	$60	$435

NOTE: In addition to the permit fee and highway maintenance fee, vehicles with super heavy loads must pay a vehicle supervision fee.
SOURCE: Texas Department of Transportation.

FIGURE 5
SUMMARY OF THE WEIGHT-DISTANCE TAX IN OTHER STATES, FISCAL YEAR 2010

STATE	VEHICLES	ADMINISTRATION	VERIFICATION OF WEIGHT AND DISTANCE	OTHER ROAD USE FEES
Kentucky	Vehicles greater than 60,000 pounds	Mileage is reported quarterly electronically and by mail	N/A	Registration fees, state fuel tax
New Mexico	Vehicles greater than 26,000 pounds	Mileage is reported quarterly on a tax return and is sent by mail	Occurs through law enforcement at port of entry and audits	Registration fees, state fuel tax
New York	Vehicles greater than 18,000 pounds	Mileage is reported quarterly on a tax return and is sent by mail	Occurs through law enforcement during roadside check points, and through audits	Registration fees, state fuel tax
Oregon	Vehicles greater than 26,000 pounds	Mileage is reported online, monthly, quarterly, or annually.	Occurs through motor carrier enforcement officers at weight stations and weigh-in motion systems, and through audits	Registration fee, vehicles that pay the weight-distance tax do not have to pay the state fuel tax.

Source: Legislative Budget Board.

RESTUCTURING THE TEXAS HIGHWAY MAINTENANCE FEE

The current structure of the highway maintenance fee for overweight vehicles in Texas does not reflect the variability of each vehicle's actual highway use (distance traveled). Recommendation 2 would amend the Texas Transportation Code, Section 623.077, to restructure the highway maintenance fee assessed to overweight vehicles so that it reflects weight and distance traveled. The new rate could be structured so the revenue generated would be similar to projected revenue collections under the current fee structure, or could be established to generate an increase in revenue collections.

The highway maintenance fee would be restructured so that the fee would increase with the weight of the vehicle and distance traveled. Under the current structure of the highway maintenance fee, a vehicle weighing 120,000 pounds traveling five miles pays the same fee as a vehicle of identical weight traveling 500 miles would pay. Restructuring the highway maintenance fee to include both weight and distance traveled would make the fee more equitable and proportional to road damage. **Figure 6** shows an example of the revenue neutral restructured highway maintenance fee for vehicles with a gross weight from 80,000 pounds to 260,001 pounds and greater.

The rates in **Figure 6** are calculated to generate the same revenue realized from the fiscal year 2006 highway maintenance fee and are based on a random sample of vehicles that paid the fee in fiscal year 2006. **Figure 7** shows

FIGURE 6
RESTRUCTURED HIGHWAY MAINTENANCE FEE-REVENUE NEUTRAL, FISCAL YEAR 2012

WEIGHT CATEGORY IN POUNDS	RATE PER MILE
80,000 to 90,000	0.6100
90,001 to 100,000	0.67349
100,001 to 110,000	0.74842
110,001 to 120,000	0.82504
120,001 to 130,000	0.87298
130,001 to 140,000	0.94822
140,001 to 150,000	1.02540
150,001 to 160,000	1.10545
160,001 to 170,000	1.15833
170,001 to 180,000	1.24151
180,001 to 190,000	1.31363
190,001 to 200,000	1.39450
200,001 to 210,000	1.43880
210,001 to 220,000	1.52325
220,001 to 230,000	1.60347
230,001 to 240,000	1.67031
240,001 to 250,000	1.72365
250,001 to 260,000	1.80528
260,001 and greater	2.97959

Source: Legislative Budget Board.

FIGURE 7
RESTRUCTURED HIGHWAY MAINTENANCE FEE-10 PERCENT REVENUE GAIN, FISCAL YEAR 2012

WEIGHT CATEGORY IN POUNDS	RATE PER MILE
80,000 to 90,000	0.6700
90,001 to 100,000	0.73974
100,001 to 110,000	0.82203
110,001 to 120,000	0.90619
120,001 to 130,000	0.95885
130,001 to 140,000	1.04148
140,001 to 150,000	1.12626
150,001 to 160,000	1.21418
160,001 to 170,000	1.27226
170,001 to 180,000	1.36363
180,001 to 190,000	1.44284
190,001 to 200,000	1.53166
200,001 to 210,000	1.58032
210,001 to 220,000	1.67308
220,001 to 230,000	1.76119
230,001 to 240,000	1.83460
240,001 to 250,000	1.89319
250,001 to 260,000	1.98285
260,001 and greater	3.27266

Source: Legislative Budget Board.

an example of the restructured highway maintenance fee established to generate a 10 percent gain in revenue.

The revenue generated by increasing the rate of the highway maintenance fee could be dedicated for road maintenance and repair costs. The highway maintenance fee for each vehicle would be calculated by multiplying the rate based on the vehicle's weight category by the miles traveled. TxDOT would need to develop a methodology to establish rates per mile for all weight categories.

Vehicle owners or operators of vehicles with a gross weight of 80,000 pounds or greater that apply for the general single-trip permit would still pay the $60 base fee for the general single-trip permit and the highway maintenance fee in the same way that it is paid now. The general single-trip permit application could still be submitted online, by telephone, by fax, or in person; applicants could continue to specify their origin and destination for travel. Permit officers at the TxDOT Motor Carrier Division would continue to review applications for completeness and provide the safest, optimum route, in addition to the estimated miles to be traveled based on the information provided in the application. As opposed to assessing a fee based solely on weight, the highway maintenance fee would be calculated based on the vehicle's gross weight and distance traveled. The implementation of TxPROS and existing tools would allow permit officers to track the number of miles traveled by vehicles that must pay the highway maintenance fee, and there would be no change in enforcement.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 2 would require TxDOT to revise the rate structure for the highway maintenance fee so that it accounts for both weight and distance traveled. The per mile rates could be established such that the revenue generated would be similar to projected revenue collections under the current fee structure, or it could be established to result in a 10 percent revenue gain to the State Highway Fund. In fiscal year 2009, the highway maintenance fee generated $30.8 million in revenue. Establishing the highway maintenance fee to generate an additional 10 percent in revenue, would result in an estimated revenue gain of $6 million in State Highway Funds for the 2012–13 biennium. The introduced 2012–13 General Appropriations Bill includes a rider that implements Recommendation 1.

IMPROVE THE EFFECTIVENESS OF MOTOR VEHICLE THEFT PREVENTION PROGRAMS IN TEXAS

Texas is ranked second nationwide for total vehicle thefts and ninth for vehicles stolen per 100,000 residents. Two state entities are involved in preventing motor vehicle theft and recovering stolen vehicles: the Automobile Burglary and Theft Prevention Authority at the Texas Department of Motor Vehicles and the Texas Department of Public Safety.

Since these programs began the rate of motor vehicle theft in Texas has decreased, although sufficient information is not available to determine how much of this decline can be attributed to the efforts of state programs. Additionally, the percentage of stolen vehicles recovered, motor vehicle thefts cleared, and number of persons arrested for motor vehicle theft has decreased, rather than increased, since 1999. Statutory changes would enable the state to assess the effectiveness of its motor vehicle theft and recovery programs and ascertain whether alternative methods would be more beneficial.

FACTS AND FINDINGS

- Grantees receiving funding from the Automobile Burglary and Theft Prevention Authority determine their own goals and self-report their progress toward meeting these goals.
- The amount of grant funding dispersed across the state by the Automobile Burglary and Theft Prevention Authority does not correspond with the percentage of vehicles stolen or the motor vehicle theft rate of an area.
- Since 1999, the number of vehicles stolen and recovered in Texas has decreased by 10 percent, the number of vehicle thefts cleared has decreased by 3 percent, and the number of persons arrested for motor vehicle theft has decreased by almost one-third in Texas.

CONCERNS

- Administration of the Automobile Burglary and Theft Prevention Authority grant program does not account for standardized performance measurements for grantees, funding based on the scope of the problem in an area, or result in positive results for all five program categories.
- No correlation exists between appropriations to the Automobile Burglary and Theft Prevention Authority and the rate of motor vehicle theft in Texas. Texas appropriates twice as much for auto theft prevention authority activities as any other state; however, in 2009, Texas' auto theft ranking was ninth nationwide.
- The enrollment size of the Help End Auto Theft Program prevents it from effectively reducing motor vehicle theft. Additionally, neither this nor the Texas Recovery and Identification Program can report how many stolen vehicles are recovered as a result of their activities.
- The Border Auto Theft Information Center has led to the recovery of vehicles from 44 states, Washington D.C., Canada, and Puerto Rico. However, Texas is the only state that funds the Border Auto Theft Information Center, and no additional sources of funding or federal grants have been sought.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Vernon's Civil Statutes, Article 4413(37), to require the Automobile Burglary and Theft Prevention Authority to include standard measures for all grants; allocate grant funds across all program categories; and ensure grants are used to help increase the recovery rate of stolen motor vehicles, the clearance rate of motor vehicle thefts, and the number of persons arrested from motor vehicle theft.
- **Recommendation 2:** Amend the Texas Vernon's Civil Statutes, Article 4413(37), to require the Automobile Burglary and Theft Prevention Authority to distribute funds in a manner that is reflective of the motor vehicle theft rate of areas of the state rather than geographic distribution.
- **Recommendation 3:** Amend the Texas Vernon's Civil Statutes, Article 4413(37), to require the Automobile Burglary and Theft Prevention Authority to update their plan of operation biannually and provide it to the Texas Legislature no later than December 1 of each even numbered year.

- **Recommendation 4:** Amend the Texas Vernon's Civil Statutes, Article 4413(37), to authorize, rather than require, the Automobile Burglary and Theft Prevention Authority and the Department of Public Safety to establish, fund, and operate the Help End Auto Theft Program.
- **Recommendation 5:** Include a rider in the introduced 2012–13 General Appropriations Bill to require the Department of Public Safety to apply for federal funding to support administration of the Border Auto Theft Information Center.

DISCUSSION

The Texas Automobile Theft Prevention Authority was established in 1991 by the Seventy-second Legislature as a seven-person board. In 1995, the Texas Department of Transportation (TxDOT) took over administrative responsibility for the authority. The Eightieth Legislature, Regular Session, 2007, renamed the authority the Texas Automobile Burglary and Theft Prevention Authority (ABTPA) and expanded the authority's objectives to include automobile burglary. ABTPA remained under the purview of TxDOT until the Texas Department of Motor Vehicles was formed on September 1, 2009, and ABTPA became administratively attached to the new agency.

ABTPA is the lead entity in a statewide network of law enforcement, prosecutors, the insurance industry, tax assessor-collectors, community organizations, and citizen groups working to stop automobile theft. ABTPA's primary activity is to allocate grants; more than 90 percent of ABTPA appropriations are allocated through a grant program. ABTPA also works with authorities in Mexico to reduce the number of stolen vehicles crossing the border through the Border Partners Program and the Border Auto Theft Information Center (BATIC), and maintains public awareness campaigns. ABTPA reports that vehicle theft rates in Texas have decreased by 66 percent since it was established.

The Motor Vehicle Theft Prevention Services (MVTS) at the Texas Department of Public Safety (DPS) has been located in the Criminal Law Enforcement division since 1972. According to DPS, the primary mission of MVTS is to impede commercial auto theft rings in Texas. MVTS employees work with law enforcement at the local and federal level to identify all types of vehicle equipment (including boats and tractors) that are stolen or targets for vehicle theft and offers officer training in this area. MVTS has implemented several programs related to motor vehicle theft. The Help End Auto Theft (H.E.A.T.) Program and Texas Recovery and Identification Program (T.R.I.P.) allow companies and individuals to register motor vehicles and farm equipment with DPS, aiding officers in the recovery of these vehicles if stolen. MVTS also founded BATIC, which links Mexican and U.S. officials so they may share information regarding stolen vehicles.

Since 2005, MVTS employees have been involved in apprehending fugitives and investigating pari-mutuel wagering violations. In recent years the number of full-time-equivalent (FTE) positions dedicated to motor vehicle theft activities at DPS has decreased, and employees have been reassigned to work on other areas of crime related to terrorism.

MEASURING THE EFFECTIVENESS OF ABTPA PROGRAMS

ABTPA provides grants to organizations involved in activities relating to motor vehicle theft prevention and recovery across Texas. Since its inception, ABTPA has funded 542 grants worth more than $225 million. Of the 34 entities that have received grants over the past six fiscal years, 25 grantees received grants for all six fiscal years. An additional four grantees received grants for the past five consecutive fiscal years.

Administration of the grant program contains no standard criteria upon which grant performance is measured. Instead, each grantee determines their own goals and objectives and self-reports grant performance and accomplishments to ABTPA on a quarterly basis. A review of grant applications found that the goals and objectives chosen by grantees do not always measure improvements in reducing automobile burglary and theft in Texas. For instance, one grantee set a goal to reduce auto theft by 20 percent when compared to the number of vehicles stolen in calendar year 1991. In 1991, 118 vehicles were stolen from this grantee's jurisdiction; while 82 vehicles were stolen in calendar year 2008 and 51 vehicles were stolen in calendar year 2009. A 20 percent decrease compared to 1991 levels would result in 94 vehicles being stolen during 2010, which would be an increase of 84 percent over calendar year 2009. Another grant application for a regional task force included a goal to contact 30 million residents in efforts to make the public aware of motor vehicle theft. This number is much larger than the population of the area the task force serves and the state as a whole, which has an estimated 24.8 million residents as of 2009.

ABTPA rules regarding grant awards include five categories for which grants are provided: (1) law enforcement, detection,

and apprehension; (2) prosecution, adjudication and conviction; (3) prevention, anti-theft devices, and automobile registration; (4) reduction of the sale of stolen vehicles or parts; and (5) public awareness, crime prevention, and education. While the rate of motor vehicle theft in Texas has decreased since 1991 when ABTPA was established, other indicators of these five categories have not shown improvement, as shown in **Figure 1**. These statistics show that ABTPA grants are not achieving success in all categories, particularly law enforcement, detection, and apprehension and prosecution, adjudication, and conviction.

FIGURE 1
INDICATORS OF MOTOR VEHICLE THEFT IN TEXAS
CALENDAR YEARS 1999 AND 2009

INDICATORS	1999	2009
Percentage of Stolen Motor Vehicles Recovered	75	66
Percentage of Motor Vehicle Thefts Cleared*	16	12
Number of Persons Arrested for Motor Vehicle Theft	9,320	5,372

*A theft is considered cleared when an offender has been identified, charges have been pressed, and a subject is taken into custody.
Source: Legislative Budget Board.

Recommendation 1 would require ABTPA to create standard performance measurements for each of these categories. The lack of any uniform measures makes it unclear whether a grantee's performance is on par with its peers. Additionally, ABTPA rules state that past performance will be considered when evaluating applications for a continuation grant. Uniform measures help determine the effectiveness of grants as they are being evaluated for continuation, as well as determining the effectiveness of state funding on reducing motor vehicle thefts. Recommendation 1 also requires ABTPA to ensure grant funding is provided to all five program categories and is used to increase the recovery rate of stolen motor vehicles, the clearance rate of motor vehicle thefts, and the number of persons arrested from motor vehicle theft.

Since fiscal year 2004, ABTPA has been required by rider to prioritize grant funding based on a geographic distribution across the state. This has resulted in a disproportionate distribution of funds in comparison to the scope of the problem across the state. For instance, approximately 30 percent of all vehicle thefts during calendar year 2009 occurred in the Houston metropolitan area. However, this area received 19 percent of all grant funding provided by ABTPA. Alternatively, approximately 10 percent of vehicle thefts in calendar year 2009 occurred in areas along the Texas-Mexico border, but this area received 23 percent of ABTPA grant funding. The discrepancy is also apparent when considering motor vehicle theft rates. The Dallas-Fort Worth metropolitan area has a motor vehicle theft rate of 249 vehicles stolen per 100,000 residents. However, the Dallas-Fort Worth area receives approximately $2.28 per resident in grant funding while the border area receives approximately $5.19 per resident. While the rate of motor vehicle theft along the border is approximately 32 percent greater than that of the Dallas-Fort Worth area, border areas receive 127 percent more funding per resident.

Recommendation 2 would amend Texas Vernon's Civil Statute, Article 4413(37), to require that the distribution of grant funding under ABTPA is based on the number of vehicles stolen or motor vehicle theft rates across the state rather than based on geographic distribution. This will ensure that funds are expended in areas of the state that have a significant problem with motor vehicle theft, while continuing to give ABTPA flexibility to distribute funds statewide.

ABTPA is required by statute to develop a plan of operation that includes an assessment of the scope of the problem of motor vehicle theft, an analysis of the methods of combating motor vehicle theft, a proposal for providing financial support to combat motor vehicle theft, and an estimated cost for implementing the operational plan. Statute does not require this plan to be provided to the Legislature or specific intervals for updates. Recommendation 3 would amend Texas Vernon's Civil Statute, Article 4413(37), to require the plan be updated and provided to the Legislature on a biennial basis. The plan should contain additional information including the success of ABTPA grantees in meeting standard performance measures and the rate of motor vehicle theft, recoveries, clearances, and number of persons arrested for motor vehicle theft for a minimum of the preceding two years for which data is available. This report will allow the Legislature to make appropriation decisions for ABTPA based on the success of the program and provide information to determine the need for funding.

Texas appropriates almost twice as much funding as any other state for auto theft prevention authority activities. **Figure 2** shows that of states known to statutorily require and/or fund auto theft prevention activities, Texas had the fourth highest rate of motor vehicle theft in 2009. Therefore,

FIGURE 2
STATE APPROPRIATIONS AND RATES OF AUTO THEFT, 2009

STATE	APPROPRIATIONS (IN MILLIONS)	AUTO THEFT RATE (PER 100,000)
Arizona	$6.0	394.0
Maryland	$2.5	344.2
Washington	$5.8*	355.3
Texas	$13.77	308.9
Michigan	$6.5	294.7
Florida	$0.0	271.1
Louisiana	$0.15	260.8
Colorado	$0.1	247.9
Rhode Island	$0.8	227.2
Illinois	$6.50	206.6
Minnesota	$3.5*	161.8
Virginia	$2.4	144.9
Pennsylvania	$7.4	141.4
New York	$4.9	111.9

*Amount reflects biennial appropriations that include fiscal year 2009.
Source: Legislative Budget Board.

although Texas spent more than any other state on motor vehicle theft prevention activities, 8 of the 13 other states actively engaged in preventing these thefts reported a lower motor vehicle theft rate than Texas. Nationwide, Texas had the 13th highest rate of motor vehicle theft in the country.

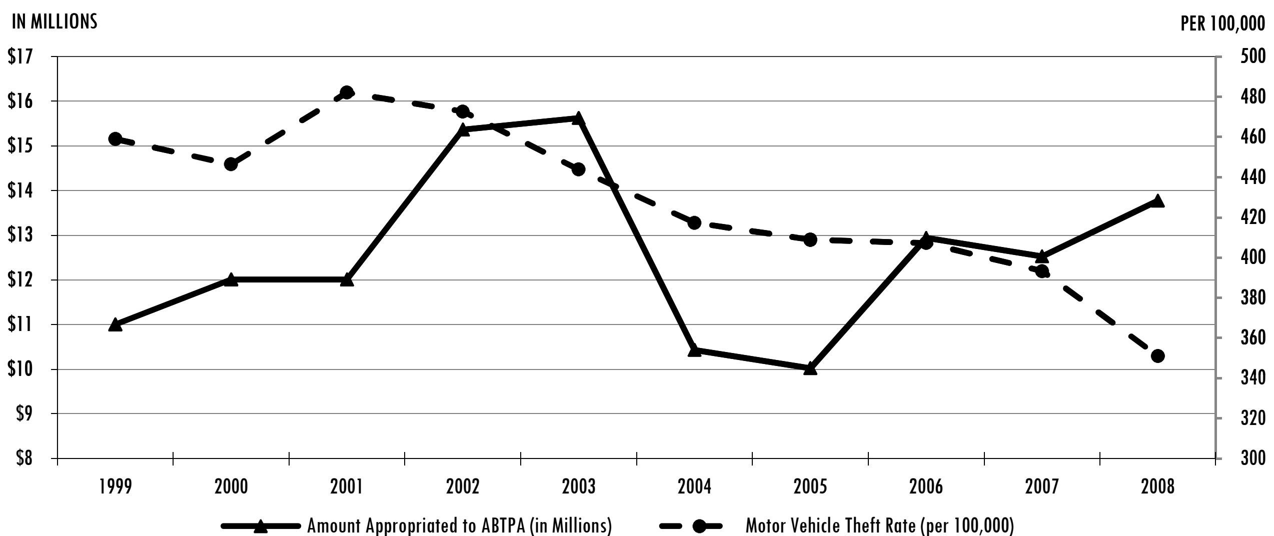
No correlation between appropriations to ABTPA and the rate of motor vehicle thefts in Texas exists, as shown in **Figure 3**. If there was a relationship between the two, the rate of motor vehicle theft would decline as ABTPA appropriations increase. Conversely, as appropriations decreased the rate of motor vehicle theft would increase. Graphically this would result in the line representing the rate of motor vehicle theft traveling in the opposite direction of the line representing ABTPA appropriations. This parallel does not exist during most of the years from 2000 to 2008.

Advancements in technology since the ABTPA was established may also contribute to the decrease in motor vehicle thefts. These advancements include alarms; smart keys; kill switches; locks placed on steering wheels, brakes, wheels, and tires; starter, ignition, and fuel pump disablers; and tracking mechanisms such as Global Positioning Systems and Vehicle Identification Number etching. Performance measures ABTPA uses to administer its grants cannot confirm or deny that the decrease in motor vehicle thefts is attributed to grant activities or to advances in technology.

DPS EFFORTS AT REDUCING MOTOR VEHICLE THEFT

The Help End Auto Theft (H.E.A.T.) and Texas Recovery and Identification Program (T.R.I.P.) are administered by DPS. T.R.I.P. allows companies and individuals to register farm equipment with DPS. This information is then provided to officers to aid in the recovery of stolen farm equipment.

FIGURE 3
ABTPA APPROPRIATIONS AND MOTOR VEHICLE THEFT RATES IN TEXAS 1999 TO 2008



Source: Legislative Budget Board.

The statutorily required H.E.A.T. Program allows companies and individuals to register their vehicles with DPS and the owner places a decal on the vehicle. This decal permits law enforcement officers to pull the vehicle over between 1 AM and 5 AM to verify ownership. Additionally, the owner can choose to place a border decal on their car which allows officials to check the ownership of the vehicle if it is driven across the Texas-Mexico border.

ABTPA has a contract with DPS to provide funding for the H.E.A.T. Program, while DPS has funded T.R.I.P. by using its appropriated funds. The cost of administering these programs is shown in **Figure 4**. No fee is currently required to register in either program; however, the Eighty-first Legislature, Regular Session, 2009, amended statute to require DPS to adopt fees to pay for administering the H.E.A.T. Program. DPS reports that it does not charge a fee under the direction of ABTPA, and a request for removing this requirement from Texas Vernon's Civil Statutes, Article 4413(37), will be made.

FIGURE 4
COST OF ADMINISTERING H.E.A.T. AND T.R.I.P. PROGRAMS
FISCAL YEARS 2005 TO 2010

	H.E.A.T.		T.R.I.P.
FISCAL YEAR	ABTPA CONTRACT	DPS	DPS
2010	$100,000	$16,271	$33,098
2009	$100,000	$9,456	$0
2008	$100,000	$1,458	$0
2007	$100,000	$11,707	$0
2006	$100,000	$8,608	$0
2005	$100,000	$7,611	$0

SOURCE: Legislative Budget Board.

The number of vehicles registered in the H.E.A.T. Program has decreased over each of the past six fiscal years, while enrollment in T.R.I.P. has increased by 30 percent. The number of vehicles registered in each program is shown in **Figure 5**.

There is insufficient evidence to determine the effectiveness of these programs. DPS is unable to determine how many vehicles have been recovered as a result of the H.E.A.T. Program or T.R.I.P. During fiscal year 2005, the highest known year of H.E.A.T.'s enrollment, only 48,669 motor vehicles or .002 percent of motor vehicle registrations in Texas, were enrolled in the program. With this enrollment size the program is not an effective tool for reducing motor vehicle theft.

FIGURE 5
NUMBER OF VEHICLES REGISTERED IN H.E.A.T. AND T.R.I.P. PROGRAMS
FISCAL YEARS 2005 TO 2010

FISCAL YEAR	H.E.A.T.	T.R.I.P.
2010	19,942	4,367
2009	21,849	4,091
2008	28,077	3,705
2007	40,004	3,264
2006	45,416	2,808
2005	48,669	3,054

NOTE: Some of the decrease between fiscal years 2007 and 2008 is the result of the purging of records.
SOURCE: Legislative Budget Board.

Recommendation 4 would amend Texas Vernon's Civil Statute, Article 4413(37), to authorize, rather than require, the H.E.A.T. Program. If DPS chooses to continue the program, steps should be taken to increase enrollment in and measure the effectiveness of the program. DPS should collect data regarding theft rates and types of vehicles enrolled in the program, the recovery rate for vehicles enrolled in the program, and the rate of clearance associated with vehicles enrolled in the program. To increase awareness of the programs, information about the H.E.A.T. Program and T.R.I.P. could be included in DMV registration packets. Additionally, information regarding these programs could be distributed by local motor vehicle burglary and theft prevention authorities to organizations such as homeowner's associations, universities, insurance companies, and automobile dealerships.

The Border Auto Theft Information Center (BATIC) is located in El Paso, Texas and provides a communication link between Mexican and U.S. law enforcement. Mexican officials contact the Center through a six-day a week service line when they recover a vehicle they believe to be stolen from the United States. BATIC staff enter vehicle identification numbers into a computer system to identify whether the vehicle is registered in the United States. BATIC was established in 1994, and the number of inquiries it receives annually has increased almost six-fold since 1994. BATIC received an average of 128,968 inquiries annually from 1994 to 2009. From 2004 to 2009, the BATIC system enabled the recovery of vehicles from 44 states, Washington D.C., Canada, and Puerto Rico. During this period, 7,849 vehicles registered in Texas were recovered. This was second

to California, from which 10,041 vehicles were recovered. Of the approximately 51,000 recovered stolen vehicles from Texas in 2009, about 2.8 percent were recovered through BATIC.

Despite national benefits provided by BATIC, no jurisdiction other than Texas contributes funding for the program. The system was begun with a grant from ABTPA, and ABTPA continues to provide grants to fund BATIC's operating expenses. The amounts provided from ABTPA during the past six fiscal years are shown in **Figure 6**. The grant amounts decreased after fiscal year 2007 because BATIC personnel were incorporated into DPS's full-time-equivalent (FTE) cap and funds were appropriated directly to DPS for their salaries and benefits.

FIGURE 6
AUTOMOBILE BURGLARY AND THEFT PREVENTION AUTHORITY GRANTS PROVIDED TO FUND THE BORDER AUTOMOBILE THEFT INFORMATION CENTER
FISCAL YEARS 2005 TO 2010

FISCAL YEAR	AMOUNT
2005	$312,772
2006	$312,772
2007*	$411,348
2008*	$159,660
2009	$187,255
2010	$202,255

*The decrease from 2007 to 2008 is the result of BATIC employees being included in DPS' FTE position cap, therefore, grant funding was no longer needed for these employees.
Sources: Legislative Budget Board; Automobile Burglary and Theft Prevention Authority.

Recommendation 5 requires DPS to apply for Federal Funds to administer BATIC. The system has a nationwide impact on recovering stolen vehicles and law enforcement agencies at the federal, state, and local level access the program. Additionally, the system is international in focus as it connects Mexican and United States law enforcement officers. Therefore, BATIC is eligible for federal grants and efforts should be made to identify additional funding sources to contribute to its costs. To date, DPS has not applied for any federal grants to operate this system.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1, 2, and 3 would have no significant fiscal impact and could be implemented within existing resources by the Department of Motor Vehicles. If DPS were to discontinue operating the H.E.A.T. Program and T.R.I.P., as authorized by the implementation of Recommendation 4, an additional savings of $0.6 million in General Revenue Funds and Other Funds (State Highway Fund) could be realized during the 2012–13 biennium. The amount of federal grant funding that could be received as the result of Recommendation 5 cannot be determined at this time.

The introduced 2012–13 General Appropriations Bill includes a rider implementing Recommendation 5.

INCREASE THE STATE TRAFFIC FINE TO IMPROVE TRAFFIC SAFETY

Although Texas has made progress in improving traffic safety, the rate of traffic fatalities, alcohol impaired driving fatalities, motorcycle fatalities, and numbers of work zone accidents have not decreased consistently with national declines or state-level goals. Legislation enacted in the Seventy-eighth Legislature, Regular Session, 2003, requires a person found guilty of committing a traffic violation to pay a $30 state traffic fine in addition to any other sentence imposed for committing the violation. The intent of the legislation that included this court cost was to encourage responsible driving as well as help fund trauma care in Texas.

The Texas Department of Transportation administers a series of grants through it's Traffic Safety Program to provide for safety education programs and an increased law enforcement presence. The Department of Public Safety as well as local law enforcement entities receive grants through this program to increase patrolling and enforcement during periods of high crash and fatality rates. Increasing the state traffic fine would provide an incentive for persons to drive responsibly, increase public safety, and generate $85 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium to help offset the costs of traffic enforcement, educational programs, and trauma care. Providing $10 million in General Revenue Funds for the 2012–13 biennium to the Texas Department of Transportation would enhance traffic safety and make additional funds available to state and local law enforcement agencies for enforcement during high-risk periods such as weekend and holidays.

FACTS AND FINDINGS

- ♦ The state traffic fine, when coupled with other methods of deterrence, can improve public safety.
- ♦ The Texas Traffic Safety Program, operated by the Texas Department of Transportation, allocates approximately $90 million of federal, state, and local funds each fiscal year to reduce the number and severity of traffic crashes and fatalities.

CONCERNS

- ♦ While traffic fatalities decreased 17 percent nationwide from 1994 to 2009, Texas' fatality rate decreased by 4 percent during this period. Texas also ranked 37th by fatality rate in the nation in 2008.
- ♦ Fatalities from traffic crashes in Texas increase an average of 15 percent during holiday periods and 32 percent on weekends compared with weekdays.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Transportation Code, to increase the state traffic fine from $30 to $45.
- ♦ **Recommendation 2:** Include a contingency rider in the 2012–13 General Appropriations Bill to appropriate collections not to exceed $5 million per fiscal year in General Revenue Funds for the 2012–13 biennium to the Texas Department of Transportation to enhance traffic safety and provide additional grants to the Department of Public Safety and local law enforcement agencies to increase enforcement on weekend and holiday periods.

DISCUSSION

Each year traffic-related accidents in Texas result in over 80,000 serious injuries and are responsible for over 3,000 deaths. Injuries from motor vehicle crashes continue to be the leading cause of death for persons between the ages of 1 and 34. The Texas Department of Transportation (TxDOT) estimates that the average economic loss of motor vehicle crashes in Texas is greater than $20 billion each fiscal year.

Traffic laws are designed to improve public safety, and one enforcement tool is the issuance of tickets. Studies suggest that an increase in citation amounts must be accompanied by an increase in the certainty that a citation will be issued when a violation occurs for the citation to positively affect driver behavior. Increased penalties cannot substitute for increased enforcement, but the revenue received from citations may aid in funding enforcement, educational programs, and road safety improvement projects to reduce crashes.

STATE TRAFFIC FINE

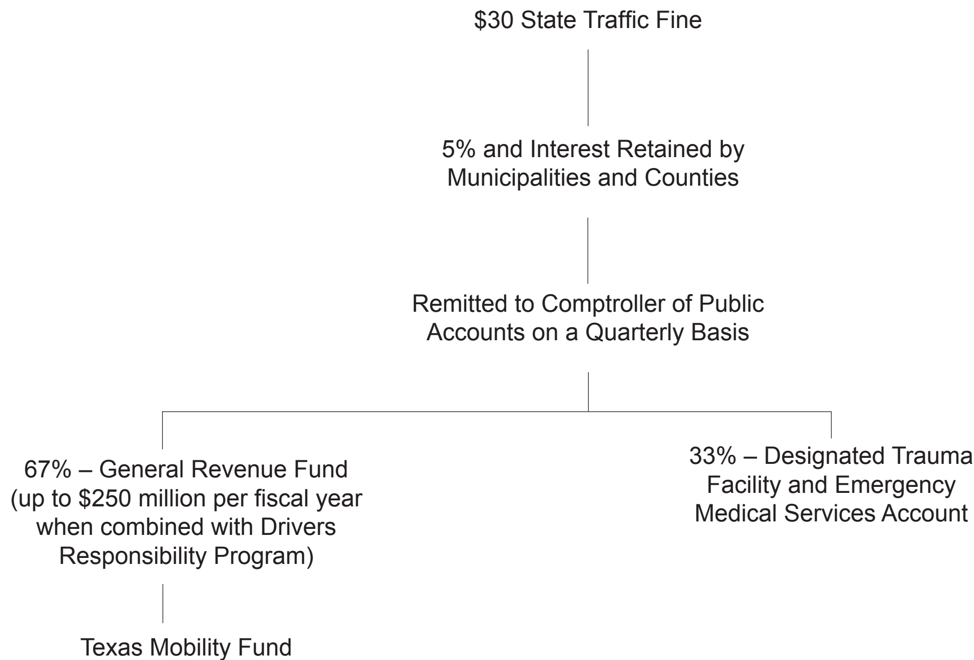
Legislation enacted by the Seventy-eighth Legislature, Regular Session, 2003, added Section 542.4031, Texas Transportation Code, to require a person found guilty of

committing a traffic violation to pay a $30 court cost in addition to any other sentence imposed for committing the violation. The legislation included provisions to encourage responsible driving and support trauma care in the state. This court cost was later re-named the state traffic fine as part of legislation enacted by the Seventy-eighth Legislature, Third Called Session, 2003. The $30 state traffic fine is administered for persons convicted of an offense under Texas Transportation Code, Title 7, Subtitle C, Rules of the Road. The scope of the state traffic fine includes convictions of certain felonies; Class A, B, and C misdemeanors; and municipal ordinances. Recipients of the state traffic fine may also be assessed points under the Driver Responsibility Program. The state traffic fine is also the only state court cost issued for offenses relating to parking and pedestrian offenses found under Rules of the Road, Chapters 541 to 600.

The allocation of revenue from the state traffic fine is shown in **Figure 1**. The municipality or county where the citation is issued retains 5 percent of this court cost and any interest that has accrued while stored in their treasury (as a service fee for the collection of the traffic fine). Each quarter, revenue generated by the state traffic fine is remitted to the Comptroller of Public Accounts (CPA). CPA deposits 67 percent of the revenue to the General Revenue Fund and the remaining 33 percent is deposited to the Designated Trauma Facility and Emergency Medical Services Account. This General Revenue–Dedicated Fund account is administered by the Department of State Health Services for use by trauma centers. Once the amount of revenue deposited to the General Revenue Fund from fees accrued from the Driver Responsibility Program and state traffic fine exceeds $250 million in a fiscal year, the remainder is required to be deposited to the Texas Mobility Fund. As of fiscal year 2010, revenue received in these accounts has not exceeded $250 million.

The Texas Department of Public Safety (DPS) issues approximately one-third of all citations which could result in the issuance of the state traffic fine.The remainder of citations are issued by local, municipal, and county law enforcement agents. The amounts deposited to the General Revenue Fund, Designated Trauma Facility and Emergency Medical Services Account, and retained by local governments from the state traffic fine since fiscal year 2006 are shown in **Figure 2**.

FIGURE 1
ALLOCATION OF REVENUE FROM STATE TRAFFIC FINE, 2010



Source: Legislative Budget Board.

FIGURE 2
STATE TRAFFIC FINE REVENUE, FISCAL YEARS 2006 TO 2010

	NUMBER OF STATE TRAFFIC FINES COLLECTED	GENERAL REVENUE FUNDS (IN MILLIONS)	GENERAL REVENUE–DEDICATED FUNDS* (IN MILLIONS)	LOCAL FUNDS (IN MILLIONS)	TOTAL REVENUE
2006	3,274,256	$62.5	$30.8	$4.9	$98.2
2007	3,371,166	$64.4	$31.7	$5.1	$101.1
2008	3,496,380	$65.6	$34.1	$5.2	$104.9
2009	3,350,910	$64.0	$31.5	$5.0	$100.5
2010	3,388,225	$64.7	$31.9	$5.1	$101.7

*Designated Trauma Facility and Emergency Medical Services Account.
Sources: Legislative Budget Board; Comptroller of Public Accounts.

Nationally, it is estimated that the average cost of a traffic violation including court costs and fees is $150. For violations that include the Texas state traffic fine, some citations cost more than the national average and some cost less when the various state and local court costs and fees are considered. For example, committing a Class C Misdemeanor of passing a stopped school bus in Texas would result in $159.10 in court costs and fees. Committing a Class C Misdemeanor of speeding outside of a school zone would incur $135.10 in court costs and fees.

THE EFFECT OF INCREASING TRAFFIC FINES

It has been shown that a publicized increase in traffic fines can have a deterrent effect on behavior, reducing accident and injury rates. A British medical journal, the Lancet, reports that the risk of an offender previously convicted of a traffic offense being involved in a fatal accident decreases 35 percent in the month post-conviction. While this benefit is not sustained over time, it does provide evidence that the risk of fatal crash involvement can be reduced as a direct result of law enforcement and the issuance of citations. Increases in citation amounts are most effective when coupled with an increase in visible enforcement as well as public awareness of this increased enforcement. Several states have recently increased traffic fine amounts in an effort to increase traffic safety. In 2010, Illinois increased charges for speeding and failure to use a seat belt, increasing the potential amount owed in some cases by the offender up to 60 percent. California has also taken measures in 2010 to double fines on certain roadways.

Increased fines contributed to the increased use of seat belts. In a 2001 study, the Automotive Coalition for Traffic Safety concluded that seat belt use averaged six percentage points higher in states having fines of $30 and above than in states with fines less than $30. A separate study published in 2007 by the National Bureau of Economic Health concluded that mandatory seatbelt laws accompanied by an enforcement penalty significantly reduced traffic fatalities and serious injuries resulting from fatal crashes by up to 9 percent.

Similar measures have been effective in Texas. In the national Click It or Ticket (CIOT) campaign, Texas spent approximately $1.0 million on paid advertising in its 10 largest cities, and law enforcement officers issued 27,260 seat belt violations, a rate of 40 per 10,000 residents. Seat belt use in these cities increased from 80.5 percent before CIOT to 86.4 percent immediately after the campaign. Statewide seat belt use subsequently increased from 76.1 percent in 2001 to 93 percent in 2009.

Recommendation 1 would amend the Texas Transportation Code, Section 542.4031, to increase the state traffic fine from $30 to $45. Increasing the state traffic fine would serve as a behavioral deterrent towards potential traffic law violators. Revenue received from the state traffic fine could be allocated towards further enhancing public safety on the roads through funding educational campaigns, improved roadway construction, and increased enforcement of patrol officers during historically high periods of traffic crashes and fatalities.

TRENDS IN TRAFFIC SAFETY

In the fiscal year 2009 Texas Strategic Highway Safety Plan (SHSP), the Texas Department of Transportation (TxDOT) reported that while some statewide traffic safety goals have been met, goals such as reducing the number of intersection crashes, alcohol impaired driving fatalities, work zone crashes, and accidents involving motorcyclists have not been met. According to the National Highway Traffic Safety Administration (NHTSA), there was a nationwide reduction in fatalities from 2007 to 2008 of 9 percent; Texas showed a zero percent change in fatalities. When observing fatality rate by state, Texas ranked 37th in the nation in 2008.

Additionally, while a 17 percent decrease in traffic-related fatalities from 1994 to 2009 has occurred nationwide, Texas has seen a decrease of 4 percent. When compared to national statistics, Texas still retains higher than average fatality rates when broken down by both vehicle miles traveled as well as per capita. Texas counties with the highest number of fatalities are shown in **Figure 3**.

TRAFFIC SAFETY DURING WEEKEND AND HOLIDAY PERIODS

According to TxDOT Motor Vehicle Crash Statistics reports, weekend and holiday periods experience an increased traffic safety risk when compared with other time periods. In comparing the total number of fatal crashes between 2005 through 2009, there is a 32 percent increase in fatalities on the weekend (Friday through Sunday) compared with weekdays. More than 50 percent of all fatalities occur on weekends. Saturday is the deadliest day of the week, the highest percentage of fatalities occurring between 2:00 AM and 2:59 AM. As the issuance of citations has increased, the number of non-fatal crashes has decreased on weekends by 7.6 percent, as shown in **Figure 4**.

TxDOT maintains information on fatalities that occur during national holiday periods including Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas, and New Year's Day. In comparing fatalities during holiday periods and non-holiday periods from 2005 to 2009, there are on average 9.9 traffic-related fatalities per day, increasing 15 percent to 11.6 daily fatalities during holiday periods.

FIGURE 3
TEXAS COUNTIES RANKED BY NUMBER OF FATALITIES, 2005 TO 2009

		FATALITIES				
COUNTIES BY 2009 RANKING		2005	2006	2007	2008	2009
1	Harris County	388	345	370	363	339
2	Dallas County	234	225	224	246	160
3	Bexar County	169	148	140	161	149
4	Tarrant County	145	165	159	140	134
5	Travis County	94	103	94	92	94
6	Montgomery County	64	74	71	67	74
7	Hidalgo County	92	62	75	75	71
8	El Paso County	65	44	56	64	70
9	Smith County	55	53	41	41	47
10	Collin County	45	38	40	40	43
	PERCENTAGE OF TEXAS TOTAL	**39%**	**36%**	**37%**	**38%**	**38%**
	TOTAL	**1,367**	**1,283**	**1,285**	**1,308**	**1,181**

SOURCE: National Highway Traffic Safety Administration.

FIGURE 4
WEEKEND AND HOLIDAY TRAFFIC AND FATALITY DATA IN TEXAS, FISCAL YEARS 2005 TO 2009

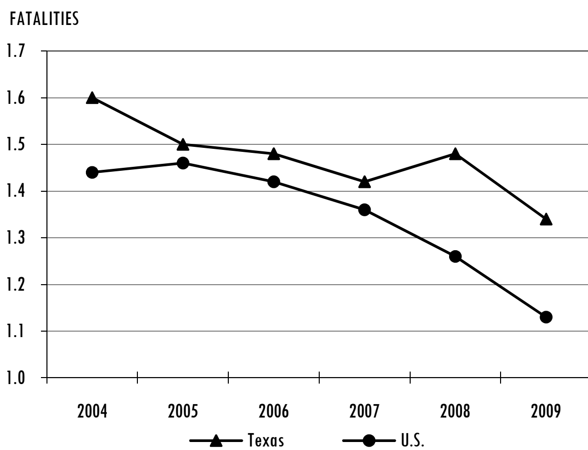
	CITATIONS		CRASHES		FATAL CRASHES	
FISCAL YEAR	WEEKENDS	HOLIDAYS	WEEKENDS	HOLIDAYS	WEEKENDS	HOLIDAYS
2005	1,290,258	202,081	198,745	22,354	1,648	222
2006	1,358,477	181,517	190,555	22,100	1,655	213
2007	1,436,129	190,803	197,883	21,831	1,567	186
2008	1,479,325	212,218	186,107	21,703	1,665	252
2009	1,437,710	207,650	183,621	19,382	1,472	189
2005 to 2009 Percentage Change	11.40%	2.80%	-7.60%	-13.3%	-10.70%	-14.8%

SOURCES: Legislative Budget Board; Texas Department of Public Safety; Texas Department of Transportation.

TRAFFIC FATALITY PERFORMANCE MEASURES

TxDOT measures, monitors, and reports the number of traffic fatalities per 100 million vehicles miles traveled (VMT) on state-maintained roads. For fiscal year 2011 this performance measure targets 1.36 deaths per 100 million VMT, established under the 2010–11 General Appropriations Act. Tracking this measure allows TxDOT to evaluate the state's progress in improving traffic safety. In 2009, TxDOT reported that the number of fatal crashes in Texas decreased by 9.5 percent from 2008, and the overall fatality rate decreased from 1.48 to 1.34 fatalities per 100 million VMT. The degree of traffic fatalities per 100 million VMT in Texas in 2009 is roughly consistent with the 2007 national level, as shown in **Figure 5**. On a national level, the U.S. Department of Transportation has set a performance target of 1.00 fatality per 100 million VMT.

FIGURE 5
TEXAS AND NATIONAL FATALITIES PER 100 MILLION VEHICLE MILES TRAVELED
2004 TO 2009



SOURCES: Legislative Budget Board; Texas Department of Transportation; National Highway Traffic Safety Administration.

TRAFFIC SAFETY PROGRAMS

Recognizing that the most significant increase in traffic related deaths occurs during weekend and holiday's periods, there are several statewide and local programs which attempt to increase public awareness and enforcement during these times. The Texas Traffic Safety Program seeks to reduce the number of traffic crashes, injuries, and fatalities through enforcement, training, and education efforts. For fiscal year 2011, the program is funding 330 traffic safety projects costing approximately $96.5 million. The program provides grants to government entities, educational institutions, and non-profit associations for projects focusing on occupant protection, selective traffic enforcement, and alcohol countermeasures. The Texas Traffic Safety Program is primarily funded through grants from NHTSA. State and local matching funds are also used in the program. For general traffic safety grants, eligible organizations include state and local governments, educational institutions, and non-profit organizations.

The Selective Traffic Enforcement Program (STEP) is a national grant program orchestrated by NHTSA and operated through TxDOT which provides law enforcement agencies within the state funding for additional patrol hours to enforce safety laws relating to speeding, driving while intoxicated, safety belt usage, and intersection traffic control violations. These grants allow Texas law enforcement officers to work overtime during historically higher periods of traffic disturbances. STEP grants are primarily funded through federal traffic safety funds provided by NHTSA. TxDOT receives both an annual review and a three year management review of its management of STEP by NHTSA. DPS receives approximately $1.3 million each fiscal year in STEP grant awards. Eligible organizations include DPS, sheriff's offices, constable's offices, and community police departments.

DPS conducts "Operation Holiday" during holiday periods where all available troopers are assigned additional traffic enforcement patrol duties. DPS also participates in the nationwide Operation CARE (Combined Accident Reduction Effort) effort which attempts to maximize enforcement on major interstate highways during holiday periods. DPS also has safety education function troopers that are responsible for press releases and media contacts for education and awareness information. TxDOT operates its own media campaign to promote safe driving habits and encourage the use of designated drivers via the "Don't Drink and Drive Campaign," marketing efforts conducted through online media, radio, television, and print materials.

Recommendation 2 would include a contingency rider in the 2012–13 General Appropriations Bill to appropriate a portion of state traffic fine collections to TxDOT to enhance traffic safety and provide additional grants to DPS and local law enforcement agencies to increase enforcement on weekend and holiday periods. By appropriating revenue collected by the state traffic fine to TxDOT, eligible organizations such as DPS as well as local law enforcement agencies would be able to apply for additional traffic safety grants such as STEP grants in order to fund the cost of patrolling and enforcement. Recommendations 1 and 2

would enhance traffic safety effectiveness by increasing citation amounts and the visible enforcement component of behavioral deterrence in order to reduce the number of traffic crashes and fatalities.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendation 1 and Recommendation 2 would result in an estimated net revenue gain of $85 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium from increasing the state traffic fine from $30 to $45. The revenue gain for the 2012–13 biennium would be $53.4 million in General Revenue Funds. **Figure 6** shows the five-year fiscal impact of the recommendations. The fiscal impact methodology was based on case activity at the Municipal, County and Justice Court levels, using a projected collection rate of 60 percent as per guidelines set by the Office of Court Administration. An annual growth rate of 0.9 percent was applied, representing the average annual increase in total revenue generated by the state traffic fine. No significant impact on the collection rate is anticipated by increasing the amount of the state traffic fine.

Recommendation 2 would add a contingency rider in the 2012–13 General Appropriations Bill that would appropriate up to $5 million in General Revenue Funds in each year of the biennium from collections to TxDOT to enhance traffic safety and provide additional grants to DPS and local law enforcement agencies to increase enforcement on weekend and holiday periods.

The introduced 2012–13 General Appropriations Bill includes a contingency rider that implements Recommendation 2.

FIGURE 6
FIVE-YEAR IMPACT, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE NET GAIN/(LOSS) IN GENERAL REVENUE FUNDS	PROBABLE NET SAVINGS/(COST) IN GENERAL REVENUE FUNDS	PROBABLE NET GAIN/(LOSS) IN GENERAL REVENUE–DEDICATED FUNDS	PROBABLE NET GAIN/(LOSS) TO LOCAL GOVERNMENTS
2012	$31,536,572	($5,000,000)	$15,768,286	$2,489,729
2013	$31,822,818	($5,000,000)	$15,911,409	$2,512,328
2014	$32,111,663	$0	$16,055,831	$2,535,131
2015	$32,403,129	$0	$16,201,564	$2,558,142
2016	$32,697,241	$0	$16,348,620	$2,581,361

NOTE: Designated Trauma Facility and Emergency Medical Services Account
SOURCE: Legislative Budget Board.

IMPROVE TRAFFIC SAFETY BY BANNING THE USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING

Recent studies have found that drivers using wireless communication devices, such as mobile phones and personal digital assistants, are distracted to a level of impairment equal to intoxicated drivers. By banning the use of wireless communication devices while driving, Texas could save lives, reduce the risk of accidents, reduce traffic congestion, and generate an additional $2.3 million in General Revenue Funds and General Revenue–Dedicated Funds. Revenue from fines and surcharges for the 2012–13 biennium could help fund an education campaign about the dangers of distracted driving.

FACTS AND FINDINGS

- Texas has banned all mobile phone usage for bus drivers when a passenger age 17 or younger is present and for intermediate license holders in the first six months of their licensure. Texas has also required that driver education curriculum include information about the increased risk of accident from distracted driving.

- The Texas cities of Austin, Galveston, El Paso, Stephenville, and Missouri City have banned texting while driving, and some have banned the use of handheld mobile phones or talking on a mobile phone while driving.

- According to the Foundation for Traffic Safety, two in three drivers report they have talked on their cell phone while driving and one in four drivers reported they text or email while driving.

- Six states and the District of Columbia have banned the use of hand-held mobile phones while driving, and 13 states and the District of Columbia have banned text-messaging while driving.

- Efforts to modify driver behavior have typically taken several years and required both criminalization of the risky behavior and an education campaign to inform drivers about the risk.

CONCERNS

- Drivers using mobile phones are four times more likely to have accidents than other drivers, are impaired to a level equal to or greater than intoxicated drivers, cause greater traffic congestion, and contribute to aggression in other drivers.

- Changes in driving laws intended to improve public safety, such as seat belt laws, are ineffective unless there is a strategy to inform the public of the law.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Transportation Code, Chapter 545, to prohibit use of all wireless communication devices while driving, except in cases of emergency use.

- **Recommendation 2:** Amend the Texas Transportation Code, Chapter 545, to require the Texas Department of Public Safety to make violations involving wireless communication devices a surchargeable offense under the Driver Responsibility Program.

- **Recommendation 3:** Include a contingency rider in the 2012–13 General Appropriations Bill to appropriate Driver Responsibility Program collections, not to exceed $500,000 per year, in General Revenue Funds for the biennium to the Texas Department of Transportation to inform drivers of the ban on wireless communication devices.

DISCUSSION

Drivers of motor vehicles who use a mobile phone are four times more likely to have an accident than undistracted drivers, regardless of whether the mobile phone is a hand-held or hands-free model. As mobile phone use has increased, the number of drivers using mobile phones has also increased. Although mobile phone use is not the most dangerous distraction that a driver may face on the road, the prevalence of mobile phone use while driving makes it the most common cause of crashes and near-crashes related to distracted driving.

EVIDENCE OF DRIVER IMPAIRMENT, INCREASED ACCIDENTS, AND INCREASED TRAFFIC CONGESTION

Numerous studies have concluded that use of a wireless communication device while driving impairs drivers and increases the risk of accidents. **Figure 1** shows a listing of recent studies supporting these conclusions.

FIGURE 1
STUDIES ON DRIVER IMPAIRMENT AND RISK FROM THE USE OF A WIRELESS COMMUNICATION DEVICE WHILE DRIVING 2003 TO 2008

RESEARCH ENTITY	DATE	FINDINGS
University of Utah	2003	Mobile phone drivers exhibited greater impairment than intoxicated drivers when controlling for driving difficulty and time on task. Drivers on both hand-held and hands-free mobile phones had sluggish reactions and attempted to compensate by driving slower and increasing the following distance from the vehicle immediately in front of them. There was no significant difference in driving impairment between drivers using hand-held mobile phones and those using hands-free devices.
Insurance Institute for Highway Safety	2005	Drivers in Australia that use mobile phones are four times as likely to be involved in a car crash serious enough to injure themselves or others.
National Highway Traffic Safety Administration (NHTSA) and the Virginia Tech Transportation Institute	2005	Nearly 80 percent of all crashes and 65 percent of all near-crashes involved driver inattention wtihin three seconds of the incident. Other in-car distractions, such as reaching for a falling cup, increase the risk of an accident to a great extent than mobile phone use while driving, but mobile phone use while driving was much more frequent than any other in-car distractions. Because of the frequency of mobile phone use while driving, it was the primary cause of driver inattention associated with crashes and near-crashes.
University of Maryland	2007	Drivers who use a mobile phone tend to engage in more dangerous driving behavior in general than drivers who do not use a mobile phone.
University of Utah	2007	Drivers talking on mobile phones, whether hand-held or hands-free, were less likely to create a durable memory of directly seen objects than other drivers, even other drivers having an in-vehicle conversation with another person. Inattention persisted for objects of both high and low relevance to the driver.
Accident Analysis and Prevention Journal	2008	In a meta-analysis of 33 studies, researchers found that the reaction time of drivers using both hand-held and hands-free mobile phones was greater than the reaction time of other drivers.
Liberty Mutual Research Institute for Safety	2008	Drivers using mobile phones, whether hand-held or hands-free, tend to be unaware of the corresponding decrease in their driving performance. In some cases, drivers tested while using mobile phones estimated their own level of distraction inversely with their performance, meaning that they thought they were least distracted when engaging in the most dangerous behavior.
Center for Cognitive Brain Imaging at Carnegie Mellon University	2008	Listening to any conversation in a car environment decreases mental resources associated with driving attention by 37 percent. Mobile phone conversations are socially different from in-car conversations, in that evidence holds that passengers and drivers will suppress conversation in response to driver demands, while not attending to a cell-phone conversation can be seen as rude and insulting behavior.

Source: Legislative Budget Board.

In addition to the increased risk of accident, studies have found that drivers who use wireless communication devices while driving increase traffic congestion. Studies supporting this finding include:

- A 2007 study from the University of Utah found that drivers using hands-free mobile phones make fewer lane changes, lower the overall traffic speed, and increase travel time in medium- and high-density driving conditions, leading to greater traffic congestion.
- Science magazine reported in January 2008 that drivers talking on a mobile phone have a drive time that is 5 percent to 10 percent greater than undistracted drivers.

- A 2006 study from the University of North Dakota found that drivers who are inconvenienced by a driver on a mobile phone tend to show more aggression than drivers who are inconvenienced by a driver who is not on a mobile phone.

Increases in traffic congestion have an indirect cost to the state in terms of wasted fuel and time and greater vehicle-related emissions. The Texas Transportation Institute's 2007 Urban Mobility Report measured the inefficiencies of congestion in terms of wasted fuel and time, showing a growth in national cost related to congestion from $15 billion in 1982 to $78 billion in 2005 (in constant 2005 dollars). Researchers at the University of California at Riverside have found that start-and-stop traffic and low speeds associated with traffic congestion each lead to a 7 percent to 12 percent increase in carbon dioxide emissions over smoothly flowing, moderate-speed traffic situations.

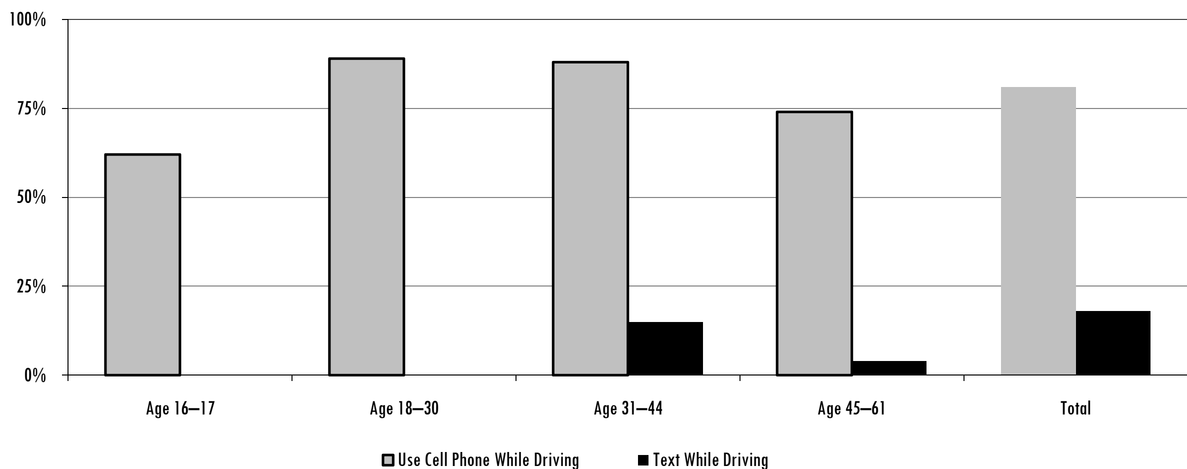
MORE DRIVERS ARE USING WIRELESS COMMUNICATION DEVICES

The number of drivers using mobile phones at any given time has increased since 2000 as mobile phone use has grown more prevalent in the United States. The National Highway Traffic Safety Administration (NHTSA) estimated that 11 percent of drivers were using a mobile phone at any given time during 2008, the most recent year for which data is available. NHTSA also noted that drivers observed manipulating hand-held devices, which includes text messaging, reached 1 percent in 2008. The NHTSA reported that driver distraction was involved in 16 percent of all fatal crashes in 2008, according to data found in the Fatality Analysis Reporting System. This percentage has risen steadily from 12 percent in 2005.

Nationwide Mutual Insurance Company (Nationwide) released the results of a survey in May 2008 that found 81 percent of drivers talk on a mobile phone while driving. Additionally, Nationwide found that 18 percent of all drivers use a wireless communication device to text while driving. As **Figure 2** shows, the survey found that 62 percent of drivers in the age 16 to 17 range talk on a mobile phone while driving. This percentage is less than the average, which is possibly due to the prohibitions in many states on teens talking on hand-held mobile phones while driving. However, 36 percent of drivers in the age 16 to 17 range text while driving. Drivers in the age 18 to 30 range were most likely to talk on the mobile phone (89 percent) and to text while driving (39 percent). Drivers in the lower end of the age 18 to 30 demographic may use wireless communication devices at an even greater rate. A 2007 poll by Zogby International found that 66 percent of drivers from the ages of 18 to 24 admit to texting while driving. Additionally, a 2007 study in the Journal of American College Health found that college students are as much as 50 percent more likely to use mobile phones while driving than in previous estimates, which the researchers argue could increase the possibility of a collision for the college-aged demographic.

Drivers in the age 31 to 44 range were almost as likely as drivers in the age 18 to 30 range to talk on a mobile phone (88 percent), but about one-third as likely to text while

FIGURE 2
USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING BY AGE GROUP, 2008



SOURCE: Nationwide Mutual Insurance Company.

driving (15 percent). Drivers in the age 45 to 61 range were less likely to talk on a mobile phone than the national average, although 74 percent of this group will do so, and rarely text while driving (4 percent).

When asked if they consider themselves to be safe drivers, 98 percent of all drivers surveyed stated that they did, even though 72 percent admitted to multi-tasking while driving. When asked about how to prevent mobile phone use while driving, 42 percent of respondents thought that a law making mobile phone use illegal would be most effective, while 43 percent preferred a technological advance that would prevent mobile phones from working in a vehicle and 13 percent preferred less pressure for constant availability.

The 2010 Traffic Safety Culture Index published by the Foundation for Traffic Safety found that two in three Americans had talked on a cell phone while driving in the past month and one in three do so regularly. Nearly one in four drivers text while driving. It was reported that most people considered texting and emailing while driving dangerous and socially unacceptable. Also, two-thirds of people support restricting the use of hand-held cell phones while driving.

ACTIONS NOW LIMITING WIRELESS COMMUNICATION DEVICES USAGE

Texas law does not prohibit most drivers from using wireless communication devices while driving. Legislation enacted by the Seventy-ninth Legislature, Regular Session, 2005, amended the Texas Transportation Code, Chapter 545, to ban all mobile phone usage for bus drivers when a passenger age 17 or younger is present and for intermediate license holders in the first six months of their licensure. Legislation enacted by the Eighty-first Legislature, Regular Session, 2009, amended the prior bans to allow exception in cases of emergency. This legislation further required driver education and driver safety courses to include information about the risks of distracted driving, including the use of wireless communication devices.

In the absence of a statewide policy against use of a wireless device while driving, various local governments have implemented a variety of bans. Without a statewide policy on the issue, the policies that have been imposed are inconsistent across the state, making it hard for out-of-town motorist to comply with local laws. Austin, Galveston, and Missouri City have banned texting while driving and violators are subject to a fine of up to $500. Stephenville banned texting and using a handheld mobile phone while driving, with fines up to $200. El Paso banned texting and talking on mobile phones while driving, with maximum fines of $500.

Figure 3 shows the status of state laws regarding driving while using a wireless communication device in the U.S. No state has instituted a comprehensive ban of driving while using any wireless communication device, whether hand-held or hands-free, for either talking or texting. However, 27 other states and the District of Columbia (D.C.) have, like Texas, banned their use for novice drivers. Seventeen other states and D.C. have, like Texas, banned their use for school bus drivers.

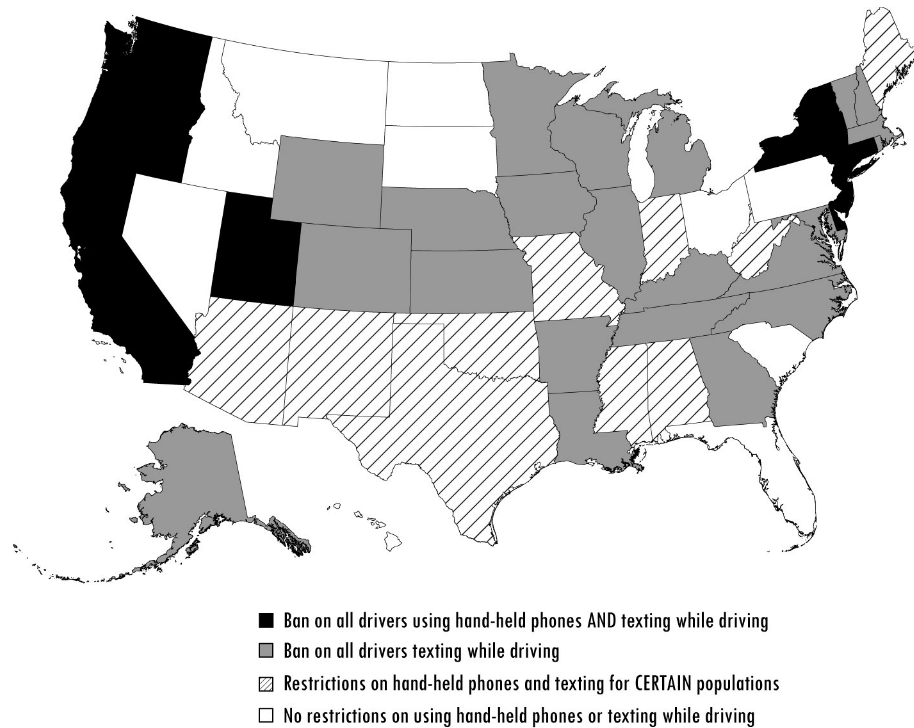
As of July 2010, eight states have instituted an outright ban on driving while talking on a hand-held mobile phone: California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, and Washington. The District of Columbia and the U.S. Virgin Islands have also banned driving while talking on a hand-held mobile phone. These bans, except in Maryland, are designated as primary enforcement, meaning that an officer may ticket a driver for using a hand-held mobile phone without any other traffic offense taking place.

Thirty states, D.C., and Guam have banned texting while driving. In all but four of these states, these bans are designated as primary enforcement. An additional eight states, including Texas, prohibit text-messaging by novice drivers. Two states, including Texas, also ban text-messaging by school bus drivers.

Maine, Utah, and New Hampshire treat mobile phone use as a larger distracted driving issue. In Maine and New Hampshire, mobile phone use is punishable under a larger distracted driving law. In Utah, mobile phone use is punishable if the driver is committing another moving violation at the same time. Many local governments have banned talking on hand-held mobile phones while driving, text messaging while driving, and other permutations of the above bans. However, six states have prohibited local governments from banning mobile phone use while driving: Florida, Kentucky, Louisiana, Mississippi, Nevada, and Oklahoma.

Internationally, as many as 40 countries, including Australia, most European countries, Brazil, Egypt, Japan, South Korea, and Zimbabwe, restrict or prohibit the use of mobile phones while driving.

FIGURE 3
BANS ON WIRELESS COMMUNICATION DEVICES BY STATE, JULY 2010



- Ban on all drivers using hand-held phones AND texting while driving
- Ban on all drivers texting while driving
- Restrictions on hand-held phones and texting for CERTAIN populations
- No restrictions on using hand-held phones or texting while driving

SOURCE: Governors Highway Safety Association.

EFFECTIVENESS OF CURRENT LAWS

Little research has been completed on the effectiveness of state bans on the use of wireless devices, and the research conducted to date is inconclusive. A January 2010 study by the Highway Loss Data Institute (HLDI), which is part of the Insurance Institute for Highway Safety, compared collision rates in states with bans on hand-held wireless communication devices with those of nearby states with no such ban and found no statistical difference. HLDI surveyed drivers in states with a ban on use of a hand-held wireless communication device while driving and found that these bans have reduced this behavior by up to 50 percent. HLDI found that bans on text-messaging while driving, contrarily, had no effect at all. Overall, HLDI concluded that while mobile phone use while driving has increased in recent years, crash rates have been declining. HLDI speculated that this trend could either indicate that the risk of mobile phone use while driving has been overestimated or that mobile phone use while driving has supplanted other distracted driving that is similarly hazardous. HLDI recommended further research to explain these discrepancies.

The HLDI study did not consider improvements in highway and automobile safety that may contribute to the decline in crash rates and explain the discrepancy it identified. In Texas, the Department of Transportation and Department of Public Safety (DPS) have cited increased seat belt use, public campaigns discouraging drinking and driving, and improvements made to highway safety as factors leading to reduced fatalities in the state. A decline in vehicle miles traveled, new vehicle safety features, and increased enforcements may also contribute to decreases in automobile accidents. The HLDI study found that nationally the percentage of police-reported crashes involving driver distraction declined by 5 percent from 2004 to 2008. The study did not expound on the reason for this but one factor could be a reduction in mobile phone use as a result of bans against using wireless phones while driving, increased enforcement against distracted driving by law enforcement, and safety improvements.

EDUCATION CAMPAIGN

In 1985, Texas became one of the first states to implement a primary enforcement seat belt law. Through extensive

outreach and visible enforcement, Texas reached a seat belt use rate of roughly 75 percent by the mid-1990s, where it remained until 2001. In May 2002, Texas participated in a national Click It or Ticket (CIOT) campaign designed to inform the greater public to use seat belts. In the CIOT campaign, Texas spent approximately $1 million for advertising in its 10 largest cities, and law enforcement officers issued 27,260 seat belt violations, a rate of 40 per 10,000 residents. Seat belt use in these cities increased from 80.5 percent before CIOT to 86.4 percent immediately after the campaign. With about 80 percent of the Texas population residing in these cities, statewide belt use increased from 76.1 percent in 2001 to 81.1 percent in 2002. In 2007, the seat belt use rate in Texas reached 91.8 percent.

As with seat belt laws, changing the high-risk driving behavior of wireless communication device use while driving will take publicity, visible enforcement, and institutional coordination. In a 2007 statement before the Oregon Senate Committee on the Judiciary, the Insurance Institute for Highway Safety (IIHS) cited reports stating that the New York and District of Columbia mobile phone bans were met with initial compliance followed by a gradual return to previous behavior. To increase compliance, the IIHS recommended enforcement that is well-publicized and vigorous.

PROHIBIT USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING

Recommendation 1 would amend Texas Transportation Code, Chapter 545, to prohibit use of any wireless communication devices while driving, except in cases of emergency use. This ban should be enforced by a misdemeanor fine of no more than $200, which would be similar to enforcement fines for other traffic offenses, including child passenger safety seat systems, seat belts, and riding in open-bed trucks, as established in Texas Transportation Code, Sections 545.412, 545.413, and 545.414. As in those statutes, a municipality or county should send to the Comptroller of Public Accounts an amount equal to 50 percent of fines collected for violations of this provision.

Recommendation 2 would amend Texas Transportation Code, Chapter 545, to direct DPS to make use of a wireless communication device while driving a surchargeable offense in the points category under the Driver Responsibility Program (DRP). DRP points are added for a large number of driving violations that range from minor to serious, including failure to use a child passenger safety seat system and allowing a child to ride in the open bed of a truck. This recommendation would add two points for a regular moving violation while using a wireless communication device and three for a violation involving an accident. Under current law, when six points or more are reached in a three-year period, violators must pay a surcharge to the State of Texas for the next three years of $100 per year for the first six points and $25 per year for each point thereafter.

INFORM DRIVERS OF THE WIRELESS COMMUNICATION DEVICE BAN

Recommendation 3 would include a contingency rider in the 2012–13 General Appropriations Bill that would appropriate collections not to exceed $500,000 in General Revenue Funds per year of the 2012–13 biennium to the Texas Department of Transportation (TxDOT) for informing drivers of the ban on wireless communication devices. With better public awareness, drivers will be better informed about the traffic risks they create when using a wireless communication device while driving.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would result in an estimated net revenue gain of $1.9 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium from fines and surcharges paid by individuals using wireless communication devices while driving.

Recommendation 1 would generate $2.3 million in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium. The new fine for driving while using a wireless communication device would result in $1.5 million in General Revenue Funds and General Revenue–Dedicated Funds in the 2012–13 biennium, and increased revenues from the $30 State Traffic Fine would result in the other $0.8 million in General Revenue Funds and General Revenue–Dedicated Funds in the 2012–13 biennium. In other states, the initial year of primary enforcement of drivers using hand-held mobile phones has led to approximately 25 percent as many tickets being issued for violating the ban as tickets issued for seat belt violations. However, as more drivers violate the ban, the number of tickets issued has increased. Based on this trend, it is estimated that state and local revenue gain from the new fine for driving while using a wireless communication device will be 25 percent in the first year of implementation over current fines for drivers who violate the child-passenger-safety-seat system and seat belt laws. This revenue gain is estimated to increase to 50 percent

over current fines for drivers who violate the child-passenger-safety seat system and seat belt laws by the fifth year.

Each ticket issued would also increase revenues from the $30 State Traffic Fine. Local governments keep 5 percent of revenues from this fine. One-third of the remainder is deposited in the Trauma Facility and EMS Account (General Revenue–Dedicated Funds) and the other two-thirds are deposited in the General Revenue Fund.

Recommendation 2 adds mobile phone violations to the list of surchargeable driving offenses in the points category under the DRP and would generate an estimated total of $0.5 million in General Revenue Funds and General Revenue–Dedicated Funds in the 2012–13 biennium. It is estimated that the number of traffic violations leading to six points or more would increase by 5 percent annually. The collection rate of 67 percent would likely remain static, absent other factors. DRP surcharges are deposited to the General Revenue Fund, which receives 51.5 percent, and the Trauma Facility and EMS Account (General Revenue–Dedicated Funds), which receives 49.5 percent.

Recommendation 3 adds a contingency rider in the 2012–13 General Appropriations Bill that would appropriate collections not to exceed $500,000 in General Revenue Funds for each year of the 2012–13 biennium to TxDOT for driver education related to the ban on wireless communication devices. This amount will allow TxDOT to fund one statewide information campaign and plan for future education efforts and costs.

Therefore, the estimated net revenue gain in General Revenue Funds and General Revenue–Dedicated Funds for the 2012–13 biennium from fines and surcharges paid by individuals using wireless communication devices while driving would be $1.9 million. The probable revenue gain of $2.3 million in General Revenue Funds for the 2012–13 biennium includes revenue estimates from the new fine, increased DRP points collections, and the $30 State Traffic Fine. The probable revenue gain of $0.6 million in General Revenue–Dedicated Funds for the 2012–13 biennium Trauma Facility and EMS Account includes revenue from increased DRP points collections and the $30 State Traffic Fine. The probable revenue gain to local governments in the 2012–13 biennium would be $1.5 million, which includes revenue estimates from the new fine and the $30 State Traffic Fine. The probable cost for the 2012–13 biennium would be $1 million, and assumes the implementation of the contingency rider in Recommendation 3. **Figure 4** shows the five-year fiscal impact of the recommendations.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

FIGURE 4
FIVE YEAR FISCAL IMPACT OF THE RECOMMENDATIONS, FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN/(LOSS) IN GENERAL REVENUE FUNDS	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS	PROBABLE GAIN/(LOSS) IN GENERAL REVENUE–DEDICATED FUNDS*	PROBABLE GAIN/(LOSS) TO LOCAL GOVERNMENTS
2012	$1,074,189	($500,000)	$260,603	$697,310
2013	$1,275,163	($500,000)	$299,397	$836,772
2014	$1,402,679	0	$329,337	$920,449
2015	$1,681,408	0	$381,117	$1,115,696
2016	$2,074,080	0	$449,792	$1,394,620

*Trauma Facility and EMS Account.
Source: Legislative Budget Board.

OVERVIEW OF THE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM IN TEXAS

The federal Community Development Block Grant program was established to provide states and units of local government resources to address a wide range of community development needs, particularly focusing on the housing needs of low- and moderate-income individuals. The Community Development Block Grant program allows states and units of local government the flexibility to develop their own housing and funding priorities. Funds may be used for a wide variety of community development projects from housing infrastructure and rehabilitation to community improvement projects. In Texas, the Community Development Block Grant program is administered by the Texas Department of Rural Affairs; however, in recent years the Texas Department of Housing and Community Affairs has shared responsibility for the administration and oversight of the Community Development Block Grant program, particularly with the funds appropriated for disaster recovery. Since fiscal year 2005, Texas has received more than $5.1 billion in Community Development Block Grant funding, including funds for disaster recovery.

This report provides an overview of the Community Development Block Grant program including its uses, restrictions, regulations, and funding information. The report also includes an overview of the federal Community Development Block Grant Disaster Recovery program, which has been a significant source of federal funding for the state's reconstruction efforts after several major hurricanes.

FACTS AND FINDINGS

- ♦ The Community Development Block Grant program is Texas' largest and most flexible source of federal funding for developing, maintaining, and reconstructing affordable housing for individuals and families of low- and moderate-incomes.
- ♦ Since federal fiscal year 2005, Texas has received $5.1 billion in Community Development Block Grant funds, including funds appropriated for disaster recovery after Hurricanes Katrina, Rita, Dolly, and Ike and those appropriated through the American Recovery and Reinvestment Act of 2009.
- ♦ Texas has received $3.5 billion in federal Community Development Block Grant Disaster Recovery funds since federal fiscal year 2005. As of October 2010, the state has obligated 100 percent of the funds released to date and expended 83 percent of funds awarded for Hurricanes Katrina and Rita, and 5 percent of funds awarded for Hurricane Ike.

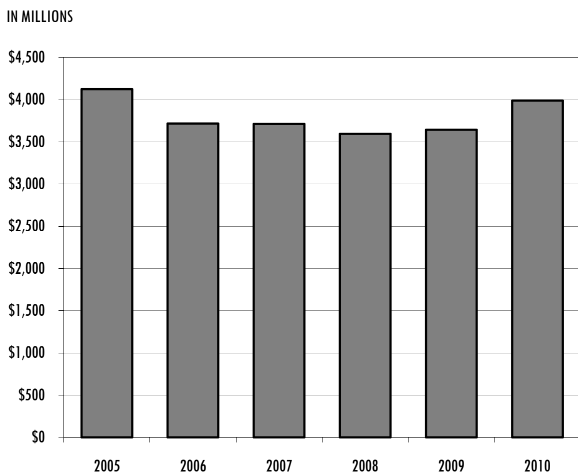
DISCUSSION

The federal Housing and Community Development Act of 1974 established the Community Development Block Grant (CDBG) program, which is administered by the United States Department of Housing and Urban Development (HUD). The CDBG program provides federal resources to states and units of local government to support a wide range of community development needs.

The CDBG program allows states and units of local government the flexibility to develop their own housing and funding priorities. Funds may be used for a variety of projects including, but not limited to, acquisition, rehabilitation or construction of certain public works facilities and improvements such as streets, water and sewer facilities, neighborhood centers, recreation facilities, and other public works; demolition and clearance; rehabilitation of public and private buildings including housing; code enforcement; relocation payments and assistance; economic development; planning activities and; certain public services.

Since federal fiscal year 2005, Congress has appropriated more than $22.8 billion for the CDBG program. **Figure 1** indicates that although federal funding declined during federal fiscal years 2005 to 2008, funding for the program has slowly increased over the past two years. Each year HUD awards grants to states and more than 1,200 units of local governments that are used to provide decent housing, suitable living environments, and expand economic opportunities for individuals and families of low- and moderate-income. Each activity funded through the CDBG program must meet one of three national objectives: (1) benefit low- and moderate-income individuals and families; (2) aid in the prevention or elimination of slums or blight; or (3) meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the

FIGURE 1
FEDERAL COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM FUNDING
FEDERAL FISCAL YEARS 2005 TO 2010



Source: U.S. Department of Housing and Urban Development.

community. CDBG funds are distributed nationally to both entitlement and non-entitlement communities.

ENTITLEMENT DISTRIBUTION

Entitlement communities receive CDBG funding directly from HUD and consist of larger cities and metropolitan areas with populations over 50,000 and qualified urban counties of at least 200,000. HUD determines the amount of each entitlement grant through a statutory formula that considers several measures including community need, poverty, population, housing crowding, and age of housing relative to other metropolitan areas. Entitlement communities have the flexibility to develop their own housing programs and funding priorities as long as they conform to statutory standards, program regulations, and other federal requirements; however, before a grantee can receive their annual grant award, they must develop and submit a consolidated plan to HUD which details the jurisdiction's intended use of funds under the program. The plan must clearly identify the jurisdiction's overall housing goals and make several certifications, including that no less than 70 percent of the CDBG funds will be used for activities that benefit low- and moderate-income persons and affirmatively further fair housing. HUD interprets the objective of furthering fair housing to mean the analysis and elimination of housing discrimination in the area affected; promotion of fair housing choices for all persons; providing inclusive patterns of housing occupancy; and promoting housing that is structurally accessible to all persons, particularly persons with disabilities. Additionally, the plan must include and provide for the participation of citizens, particularly residents of areas in which the grantee proposes to use the funds.

NON-ENTITLEMENT DISTRIBUTION OF FUNDING

Thirty percent of available annual appropriations for the CDBG program are allocated to non-entitlement communities based on a statutory formula which considers population, poverty, incidence of overcrowded housing, and age of housing. Non-entitlement communities include those units of local government which do not receive CDBG funding directly from HUD as part of the entitlement program and whose populations are less than 50,000 in metropolitan areas and less than 200,000 in counties. Forty nine states, including Texas, administer their non-entitlement programs, otherwise known as the state CDBG program. Under the state CDBG program, HUD awards funds to the state administrative agency, which must then distribute CDBG funds to units of local government (towns, cities, counties, etc.) in non-entitlement areas. Units of local government then in turn carry out community development activities funded by the state. Similar to entitlement jurisdictions, states must also develop and submit a consolidated plan describing their housing programs and funding priorities and ensure that at least 70 percent of its CDBG funds will be used for activities that benefit low- and moderate-income persons.

RECIPIENTS OF FUNDING

Both entitlement and non-entitlement programs distribute funds to areas that benefit low- and moderate-income persons. The federal Housing and Community Development Act of 1974 defines "persons of low and moderate income" as families and persons whose incomes do not exceed 80 percent of the median income of the area involved, as determined by the HUD Secretary, with adjustments made for smaller or larger families. Persons of low-income are families and individuals whose incomes do not exceed 50 percent of the median income of the area involved. Persons of moderate-income include families and individuals whose incomes are between 50 percent and 80 percent of the area median income. **Figure 2** shows the federal fiscal year 2010 area median income for select areas of Texas. The Secretary, at their discretion, may establish different percentages of median income for any area. These circumstances may include instances where the median income for a particular area is unusually high or low or during times of emergency.

FIGURE 2
SELECT FEDERAL FISCAL YEAR 2010
AREA MEDIAN INCOME LIMITS

AREA	FAMILY OF 4 MEDIAN INCOME	50 PERCENT OF AREA MEDIAN INCOME	80 PERCENT OF AREA MEDIAN INCOME
Abilene	$51,700	$25,850	$41,360
Austin-Round Rock-San Marcos	$73,800	$36,900	$59,040
Corpus Christi	$51,900	$25,950	$41,520
Dallas	$68,300	$34,150	$54,640
El Paso	$40,900	$20,450	$32,720
Fort Worth-Arlington	$67,400	$33,700	$53,920
Houston-Baytown-Sugarland	$65,100	$32,550	$52,080
Laredo	$38,000	$19,000	$30,400
McAllen-Edinburg-Mission	$33,200	$16,600	$26,560
San Antonio-New Braunfels	$57,800	$28,900	$46,240

SOURCE: U.S. Department of Housing and Urban Development.

ALLOWABLE USES OF FUNDING

While states and units of local governments have the flexibility to tailor their housing programs to meet the particular needs of their region, the use of CDBG funds are limited to those activities which meet one of the three national objectives and whose aggregate use ensures that no less than 70 percent of the funds benefit persons of low and moderate income. These activities include: acquisition, rehabilitation or construction of certain public works facilities, and improvements, such as streets, water and sewer facilities, neighborhood centers, recreation facilities, and other public works; demolition and clearance; rehabilitation of public and private buildings including housing; code enforcement; relocation payments and assistance; economic development; planning activities and; certain public services. With few exceptions such as those granted during disasters, CDBG funds may not be used for certain activities including the construction of buildings and facilities that are used for the general conduct of government and for making housing allowances or other income maintenance-type payments.

CDBG funds may also be used for expenses related to the administration of the program. After an initial allowance of $100,000 with no match requirement, states may take an additional allowance of up to 3 percent of the grant amount; however, the amount must be matched on a dollar for dollar basis. Additionally, each state may also use a portion of its grant, with no matching requirement, to provide technical assistance to local governments and nonprofit program recipients; however, the total the state spends on both administrative and technical assistance expenses may not exceed 3 percent of the state's allocation.

OTHER COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAMS

In addition to the entitlement and non-entitlement programs, HUD distributes CDBG program funds to other federal programs including the Section 108 Loan Guarantee Program, Neighborhood Stabilization Program, Colonia Set-aside Program, and the CDBG Disaster Recovery Assistance Program.

The Section 108 Loan Guarantee Program is the loan guarantee provision of the Community Development Block Grant program. Section 108 loans provide funds to both entitlement and non-entitlement communities for the purpose of financing economic development, housing rehabilitation, public facilities, and large-scale physical development projects. The program allows entities to use a small portion of their CDBG allocation to guarantee low-interest loans up to five times their most recent CDBG award. The loans have a maximum repayment period of 20 years and can be used for all activities eligible under the CDBG program as well as the acquisition and rehabilitation of real property, construction, reconstruction, or installation of public facilities, and public works and site improvements in Colonias.

The Neighborhood Stabilization Program (NSP) was established specifically to address the needs of neighborhoods and communities that have suffered from the effects of

foreclosures and abandonment. The NSP provides resources to stabilize communities through the purchase and redevelopment of foreclosed and abandoned homes and residential properties. HUD provides grants to all states and certain local governments on a formula basis. NSP funding recipients develop their own programs and funding priorities; however, they must guarantee that at least 25 percent of the funds are used to purchase and redevelop abandoned and foreclosed homes and residential properties. Those properties must in turn be used to house individuals and families whose incomes do not exceed 50 percent of the area median income.

The Colonia Set-aside Program was established by the National Affordable Housing Act of 1990. It required that Texas, Arizona, California, and New Mexico set aside up to 10 percent of their state CDBG (non-entitlement) funds for use in Colonias. HUD defines Colonias as any community located within 150 miles of the U.S.-Mexico border, excluding metropolitan areas with populations that exceed 1 million, which meet one or more of HUD's objective criteria. Those criteria include, but are not limited to, the lack of potable water supplies, inadequate sewage systems, and a shortage of decent, safe, and sanitary housing. While funds set aside for the Colonia Program may be used for any CDBG-eligible activity, HUD reports that most Colonia funds are typically used on water and sewer projects, as well as housing assistance.

The CDBG Disaster Recovery Assistance Program provides federal funding to states and units of local government for the purpose of rebuilding critical housing and infrastructure after a disaster. HUD awards the disaster funds on a noncompetitive and nonrecurring basis to areas affected by a presidentially declared disaster. Grant awards and amounts are subject to the availability of federal supplemental appropriations. The grants provide states and units of local government a flexible funding source to help supplement, not supplant, disaster funds distributed by federal programs administered by the Federal Emergency Management Agency, the Small Business Administration, and the U.S. Army Corps of Engineers, as well as HUD's HOME disaster recovery grants.

CDBG Disaster Funds are distributed by HUD to eligible governments affected by disasters. Once HUD notifies eligible recipients of funds availability and award amounts, those entities must develop and submit an action plan detailing the needs, strategies, and proposed uses of the disaster funds. While all CDBG statutory and regulatory requirements apply to disaster funding, the federal Housing and Community Act of 1974 authorizes the HUD Secretary to suspend certain statutory requirements in disaster areas in order to increase the flexibility of the use of funds and expedite the distribution and expenditure of those funds. Requirements that may not be suspended include those related to public notice of funding availability, nondiscrimination, fair housing, labor standards, environmental standards, and requirements that benefit persons of low- and moderate-income.

As **Figure 3** shows, Congress has appropriated more than $26.2 billion in CDBG Disaster Recovery funds to states and units of local governments since federal fiscal year 2005.

FIGURE 3
FEDERAL COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER RECOVERY FUNDING
FEDERAL FISCAL YEARS 2005 TO 2008

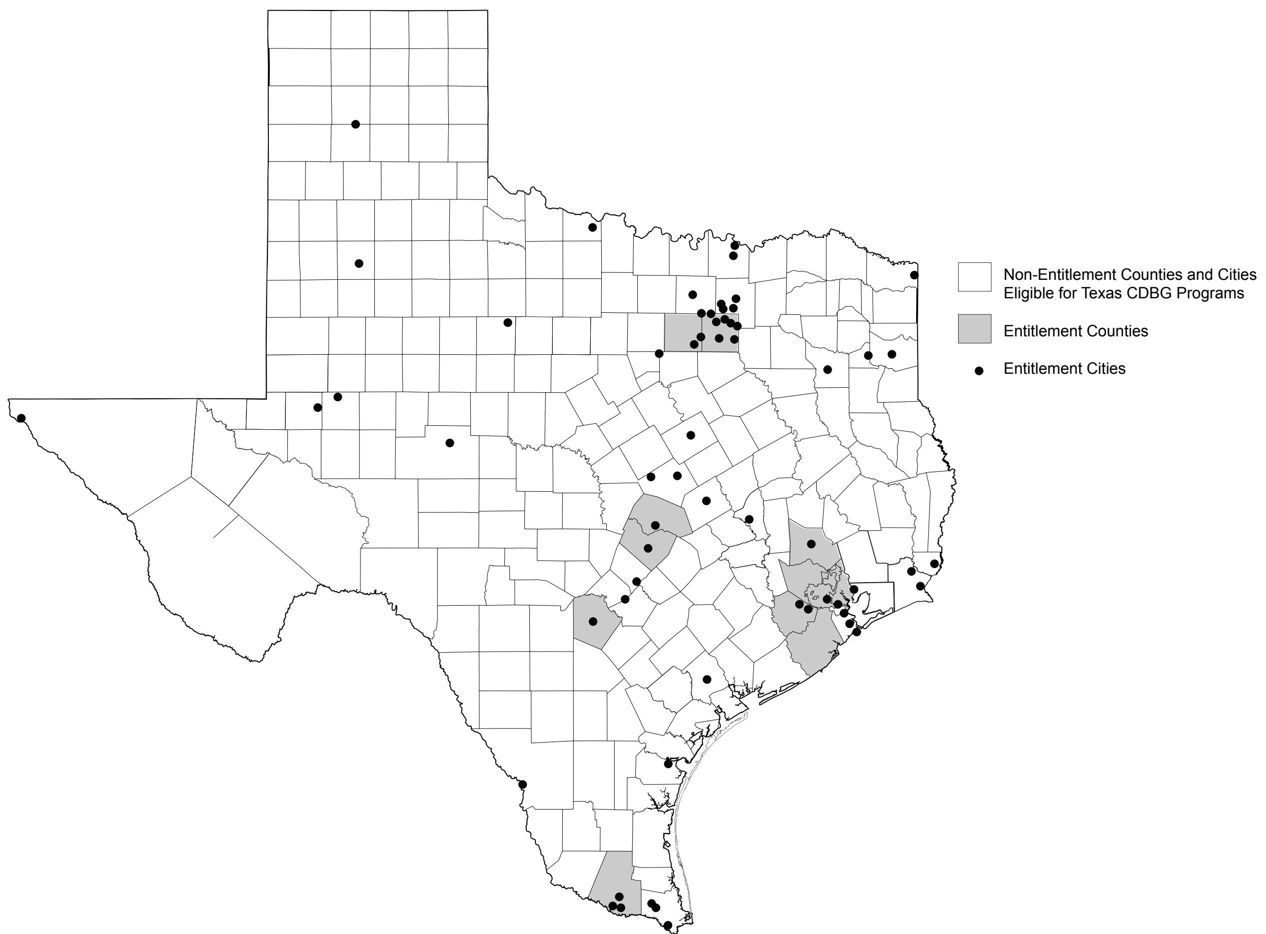
FISCAL YEAR	APPROPRIATION AMOUNT (IN MILLIONS)	DISASTER PURPOSE
2005	$150	Recovery Efforts For Multiple Disasters
2006	$16,700	Recovery Efforts For Hurricanes Katrina, Rita, and Wilma
2007	$3,000	Supplement Louisiana Homeowner Assistance Program
2008	$6,100	Recovery Efforts For All 2008 Disasters
2008	$300	Recovery Efforts For Midwest Floods

Source: U.S. Department of Housing and Urban Development.

STATE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

Texas receives both Entitlement and Non-entitlement CDBG funds. Larger cities like San Antonio, Houston, Dallas, Fort Worth, and Austin receive Entitlement CDBG funds directly from HUD. Non-entitlement or state CDBG funds are awarded to the state for distribution to smaller rural communities. **Figure 4** shows the non-entitlement and entitlement CDBG cities and counties in Texas.

FIGURE 4
TEXAS NON-ENTITLEMENT AND ENTITLEMENT COMMUNITY DEVELOPMENT BLOCK GRANT COUNTIES AND CITIES, 2008



NOTE: The following counties are designated as entitlement counties: Bexar, Brazoria, Dallas, Fort Bend, Harris, Hidalgo, Montgomery, Tarrant, Travis, and Williamson.
SOURCE: Texas Department of Rural Affairs.

The Department of Rural Affairs (TDRA) administers the State CDBG program in accordance with state and federal rules and regulations. **Figure 5** provides a summary of the programs TDRA utilizes to distribute CDBG funds to units of local government throughout the state.

Every year TDRA submits an action plan to HUD detailing the state's plan for distributing and expending state CDBG funds, including amounts that will be distributed among the state's various CDBG programs. Once HUD approves the state's action plan, TDRA makes applications available to eligible entities according to each program's funding cycle. Applications received are then reviewed and scored using program-specific criteria. Once award determinations are made by TDRA, contracts are executed between the agency and the recipients and work on specific projects can begin.

Figure 6 shows how TDRA awarded an estimated $71.5 million in state fiscal year 2009 to units of local government through the state's CDBG sub-programs.

FEDERAL FUNDING TO TEXAS

As shown in **Figure 7**, Texas has received more than $1.6 billion in federal CDBG funding, including $67.8 million from the American Recovery and Reinvestment Act of 2009, since federal fiscal year 2005. Of the $1.6 billion, approximately $1.2 billion, or 71.4 percent, has been awarded directly to entitlement communities throughout the state. The remaining $472.7 million, or 28.6 percent, has been awarded to the state CDBG program for distribution among non-entitlement communities.

FIGURE 5
SUMMARY OF TEXAS COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAMS
FISCAL YEAR 2010

SUB-PROGRAM NAME	PURPOSE
Community Development Fund	Provides funds to the state's 24 planning regions for projects that include water and wastewater infrastructure, street and drainage improvements, as well as other housing-related activities.
Texas Capital Fund	Assists the creation and retention of jobs through four programs: Downtown Revitalization Improvements Program: provides funding to revitalize historic downtown districts Infrastructure Development Program: encourages new business development and expansion of existing business based on community need, jobs, and economic impact Main Street Improvements Program: assists public infrastructure improvements Real Estate Development Program: encourages new business development and expansion that will create or retain permanent jobs, primarily for low- and moderate-income individuals
Planning and Capacity Building Fund	Assists public facility and housing planning activities. Provides grant funding for projects such as land use studies, housing and population surveys, and infrastructure and capital improvement reviews.
Urgent Need Fund	Provides grant funding for applicants to restore water or sewer infrastructure whose sudden failure has resulted in death, illness, injury or poses such threats. Entities must be invited to apply.
Colonia Fund	Provides assistance to Colonias through four programs: Colonia Planning Fund: assistance for the completion of planning activities that prepare Colonia areas for water, sewer and housing improvements Colonia Construction Fund: provides grants for water and wastewater improvement projects, housing rehabilitation, and infrastructure improvements Colonia Economically Distressed Areas Program: provides assistance to complete the connection of water and sewer system improvement projects funded by the Water Development Board's Economically Distressed Areas Program Colonia Self-Help Centers Legislative Set-Aside Program: provides grants to counties for Self-Help Centers which provide assistance to individuals and families in areas such as community development, infrastructure improvements, as well as outreach and education
Small Towns Environment Program Fund	Provides funding to eligible applicants for water and sewer infrastructure improvements which utilize self-help methods showing a cost savings of at least 40 percent. Entities must be invited to apply.
Disaster Relief Fund	Provides assistance during emergency disaster declaration by the president of the United States or the governor of Texas.

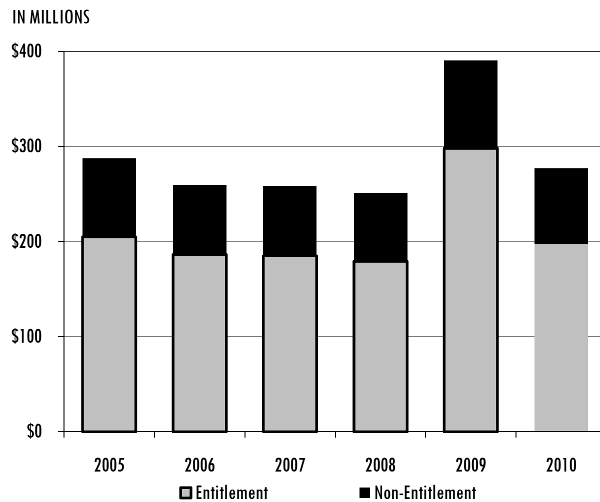
Sources: Legislative Budget Board; Texas Department of Rural Affairs.

FIGURE 6
STATE FISCAL YEAR 2009 AWARDS FOR SELECT STATE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAMS

TEXAS CDBG PROGRAM FUNDS	AWARDS TO LOCALS	ADMINISTRATIVE COSTS
Community Development Fund	$50,943,098	$3,323,307
Texas Capital Fund	7,459,000	646,400
Planning and Capacity Building Fund	916,681	N/A
Urgent Need Fund	202,180	22,000
Colonia Funds	4,517,682	405,595
Small Towns Environment Program Fund	2,431,202	335,350
Disaster Relief Fund	5,064,364	329,581
TOTAL	**$71,534,207**	**$5,062,233**

Note: Disaster Relief Fund expenditures exclude Hurricanes Rita and Ike supplemental appropriations.
Source: Texas Department of Rural Affairs.

FIGURE 7
TEXAS COMMUNITY DEVELOPMENT BLOCK GRANT AWARDS
FEDERAL FISCAL YEARS 2005 TO 2010



NOTE: Fiscal year 2009 total includes amounts awarded to Texas through the American Recovery and Reinvestment Act of 2009.
SOURCE: U.S. Department of Housing and Urban Development.

COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER FUNDING

In addition to the state's regular CDBG awards, Texas has also received CDBG Disaster Recovery funds. During the 2005 and 2008 Atlantic hurricane seasons, the Gulf Coast was impacted by several tropical storms and hurricanes, including Hurricanes Katrina, Rita, Dolly, Gustav, and Ike. As a result, Congress made three separate appropriations totaling $22.8 billion in federal CDBG Disaster Recovery funds to help states with their recovery efforts. **Figure 8** shows the federal legislation, the national appropriation amount, Texas' award and share of the appropriation for each act, and the obligated and expenditure percentages of the appropriation. Of the $22.8 billion appropriated nationally, Texas received $3.5 billion, or 15.1 percent of the CDBG Disaster Recovery funds. Texas has expended 27 percent, or $945.4 million of the Disaster Funds awarded to date, excluding $1.7 billion Round 2 funding appropriated by Public Law 110-329.

Although TDRA is the administrator of the state CDBG program, both TDRA and the TDHCA share responsibility for the administration and oversight of the $3.5 billion in CDBG Disaster Recovery funds the state was awarded for recovery efforts. TDRA oversees the administration of funds for non-housing-related needs (infrastructure), while TDHCA oversees the administration of funds for housing-related needs.

Despite increased disaster funding, distributing and expending the funds has not been without challenges and delays. Both TDRA and TDHCA attribute part of the reconstruction challenges to funding delays by Congress and the U.S. Department of Housing and Urban Development (HUD). Specifically, the time between when a natural disaster occurs and when Congress appropriates funds to the CDBG program, as well as the amount of time the HUD application process takes to finalize a state's award and action plan. Hurricanes Katrina and Rita made landfall in August and September of 2005, respectively. Federal funding legislation was signed in December 2005; however, the HUD application and award process did not finalize the state's award and action plan until nine months after Hurricane Katrina hit, but only one month after it was due. Federal legislation for a second round of funding was passed by Congress in June 2006, nine months after Hurricane Rita

FIGURE 8
SELECT COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER/SUPPLEMENTAL APPROPRIATIONS
FEDERAL FISCAL YEAR 2006 TO 2009

FEDERAL DISASTER LEGISLATION	NATIONAL APPROPRIATION (IN MILLIONS)	TEXAS AWARD (IN MILLIONS)	OBLIGATED* (IN MILLIONS)	EXPENDED* (IN MILLIONS)
Department of Defense Appropriations Act of 2006 (Public Law 109-148)	$11,500.0	$ 74.5	100%	95%
Emergency Supplemental Appropriations Act of 2006 (Public Law 109-234)	$5,200.0	428.7	100%	81%
Consolidated Security, Disaster Assistance, and Continuing Appropriation Act of 2009 (Public Law 110-329)	$6,100.0	1,300.0	100%	5%
		1,700.0	Not Received	Not Received
TOTAL*	**$22,800**	**$3,503.2**		

*Obligated and expenditure percentages are as of October 5, 2010.
SOURCES: Legislative Budget Board; Texas Department of Housing and Community Affairs.

made landfall. HUD awarded Texas an additional $428 million for recovery efforts in October 2006. States' action plans were due to HUD by December 20, 2006, however HUD did not finalize Texas' action plan until May 2007, five months after it was submitted and almost two years after the storms initially hit.

Texas' CDBG Disaster Recovery awards total more than double what the state has received over the past six years under the regular CDBG program for both entitlement and non-entitlement grant awards combined. Although disaster funds follow many of the same regulations of the regular CDBG program, those regulations have slowed recovery efforts and made distribution and expenditures of the funds more difficult. The September 2010 Sunset Advisory Commission Staff Report for the Texas Department of Housing and Community Affairs, includes a finding that these program regulations, while "intended to ensure accountability and prevent fraud, slow down (the) use of funds." The report findings also suggest that, "…local and state partners will likely take more than five years to finish recovery work." This is due to the fact that although "individual home repair and reconstruction may only take one or two months to complete, recovery work continues for several years because of difficulty locating and qualifying applicants." Program regulations that may delay the expenditure and distribution of funds include the following:

- Property ownership verification requirements ensure that the individual or family applying for assistance is in fact the legal owner of the residence; however, obtaining such documentation can be difficult and time consuming. House Bill 2450, Eighty First Legislature, Regular Session, 2009, enabled TDHCA and TDRA to expedite this process by allowing the agency to obtain an affidavit from the applicant assuring that they are the property owner.

- Environmental/historical clearance certifications are required by HUD before funds are released. This process ensures that environmental impact information is available to the public before decisions regarding the expenditure of funds are made. The assessments take into consideration the area affected and other factors including land development, noise, air quality, historical values, urban impact, socioeconomic factors, and community facilities and services.

- Duplication of benefits verification is required to ensure that no CDBG recipient is also receiving funds from another entity for the same purposes. This includes assistance from other HUD programs, the Federal Emergency Management Agency, the Small Business Administration, the Army Corps of Engineers, or private insurance companies.

The Sunset Advisory Commission Report also suggests that inconsistent methods of distributing disaster funds and changing regulations have also contributed to delays and confusion. For each of the four rounds of disaster funding, Texas used a different method of distribution, including administration of funds by state agencies, Councils of Governments (COGs), state-level contractor, and a combination of state agencies, COGs, counties, and cities. The Sunset report also includes a finding that, "Without a clear administrative model, potential local administrators do not know what to expect and cannot prepare accordingly." In addition to the federal requirements, the state has also imposed an additional requirement that all applications be reviewed to ensure that any applicant be current or have a plan to pay any child support payments they may owe.

The CDBG program provides states and units of local government with one of the largest and most flexible sources of funding for developing, maintaining, and reconstructing affordable housing for individuals and families of low- and moderate-incomes, including reconstruction efforts after natural disasters. Texas has received $5.1 billion in CDBG funds over the past five years and utilized more than $3.5 billion of those funds for rebuilding efforts after several major hurricanes, making the CDBG program one of the state's most important housing programs.

DEVELOP AND OPERATE A STATE HEALTH INSURANCE EXCHANGE TO COMPLY WITH FEDERAL STANDARDS

The federal Patient Protection and Affordable Care Act of 2010 requires the development of state health insurance exchanges (exchanges) for individuals and small businesses by January 2014. Exchanges are intended to provide convenient access to health insurance and to facilitate the purchase of health insurance to meet coverage requirements for individuals and small businesses. States may develop and operate one or more exchanges or contract with non-profit entities. However, if a state refuses to or does not meet federal standards, the federal government will develop the exchange in the state. Having a quasi-independent state agency develop and operate the exchange in Texas will allow the state to develop an exchange that best meets the need of Texans, while maintaining control over the insurance market within the state. It would also avoid the conflict inherent in having the Texas Department of Insurance directly contracting with entities that it regulates.

FACTS AND FINDINGS

- ♦ About 6.4 million people in Texas, or about 26 percent of its population, do not have health insurance coverage. While about 2 million of them will qualify for an expanded Medicaid program, many will meet the criteria for purchasing insurance through an exchange.
- ♦ States that operate exchanges can have separate exchanges for individuals and small businesses, or can combine them.
- ♦ States have the option of having statewide or regional exchanges.
- ♦ Almost two-thirds of small employers in Texas did not offer health insurance coverage to their employees in 2009. Cost is often cited as a key reason for not doing so.
- ♦ Exchanges are required to coordinate enrollment with the federal Medicaid program and the Children's Health Insurance Program.
- ♦ States must pay the cost of any state-mandated benefits within an exchange that are beyond those mandated in the federal law.

CONCERNS

- ♦ Leaving development and operation of the exchanges to the federal government could alter the health insurance market in ways that are not optimally beneficial to the state.
- ♦ While Texas is a large state geographically, having more than one exchange poses challenges in coordinating with Medicaid and the Children's Health Insurance Program.
- ♦ Because the Texas Department of Insurance is responsible for regulating insurance providers, it may not be the best entity for operating the exchange, since the Texas Department of Insurance would then be contracting with insurance providers it regulates.
- ♦ A form of adverse selection in healthcare occurs when healthier people leave a health plan, resulting in sicker, more costly participants in the plan. Because plans inside the exchange will be subject to federal requirements, they are likely to be more expensive than plans outside the exchange. Those who can get less expensive insurance outside the exchange will leave, leaving mostly persons with high health costs inside the exchange. Consequently, adverse selection could threaten the financial stability and viability of the exchange over time.
- ♦ Texas would be liable for paying the exchange for state-mandated benefits that exceed the federally mandated benefits. The federally mandated benefits have not yet been defined.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Add a new chapter under subtitle G of Title 8 of the Texas Insurance Code to establish a quasi-independent state agency to act under the supervision of the Texas Department of Insurance, to develop and operate a single health insurance exchange for both individuals and small businesses in Texas.
- ♦ **Recommendation 2:** Add a new subchapter to Chapter 32 of the Texas Insurance Code directing the Texas Department of Insurance to oversee the new

agency to assure that it is implementing its charge with due diligence.

- **Recommendation 3:** Add a new subtitle under Title 3 of the Texas Insurance Code to allow the Texas Department of Insurance to assess a fee on health plans inside and outside the exchange to provide revenues to operate the exchange and to mitigate the effects of adverse selection.
- **Recommendation 4:** Amend the Texas Human Resource Code Section 32.023 to require the Texas Health and Human Services Commission to work with the exchange to assure easy access by consumers to exchange services, Medicaid, or Children's Health Insurance Program through either entry port.
- **Recommendation 5:** In the chapter under subtitle G of Title 8 of the Texas Insurance Code added in Recommendation 1, authorize the exchange to contract eligibility determination for federal subsidy programs to the Texas Health and Human Services Commission, if doing so appears to be cost effective.
- **Recommendation 6:** Add a rider to the introduced 2012–13 General Appropriations Bill directing the Texas Department of Insurance to report to the Legislature before the next legislative session the estimated cost to the state of maintaining any health benefits required by Texas state statute or rule that the state will have to pay for in the exchange.

DISCUSSION

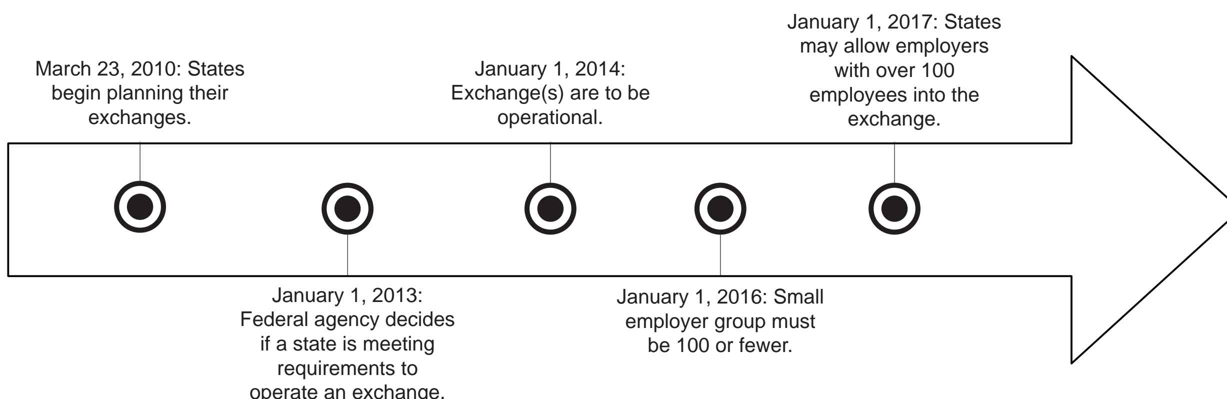
Health insurance exchanges have been compared with on-line travel exchanges such as Travelocity or Expedia, in which consumers can get information about many providers of the service in one place. In addition, individuals and businesses can purchase health insurance coverage through the exchange. About 6.4 million people in Texas, or about 26 percent of its population, do not have health insurance coverage. While about 2 million of them will qualify for an expanded Medicaid program, many will meet the criteria for purchasing insurance through an exchange.

Under the federal Patient Protection and Affordable Care Act of 2010 (ACA), exchanges are required to serve individuals and businesses with up to 100 employees starting January 1, 2014. Until January 2016, states can limit exchange services to employers with up to 50 employees. Beginning in January 2017, states can open the exchanges to businesses with over 100 employees. **Figure 1** is a timeline showing these provisions.

At state option, the individual and small business exchanges can be separate or combined into one exchange. If separate, the state would need to provide for the establishment of a Small Business Health Options Program (SHOP) to assist small employers enroll their employees into a qualified health plan. In addition, there will be at least two federal multistate health insurance plans in an exchange in each state.

Figure 2 lists the main functions required of exchanges.

FIGURE 1
TIMELINE OF HEALTH INSURANCE EXCHANGE PROVISIONS
MARCH 2010 TO JANUARY 2017



Source: Legislative Budget Board.

FIGURE 2
HEALTH INSURANCE EXCHANGE FUNCTIONS, JANUARY 1, 2014

- Certify health plans to be in the exchange and rate them.
- Arrange eligibility determinations for federal premium tax credits and cost-sharing subsidies; certify that an individual is exempt from the requirement to get health insurance coverage based on income; coordinate information and funding between U.S. Department of the Treasury and health plan issuers regarding subsidies and exemptions.
- Screen and refer to, or determine eligibility for Medicaid and Children's Health Insurance Program (CHIP), in coordination with the Texas Health and Human Services Commission (HHSC).
- Coordinate with employers, including payment of "Free Choice" vouchers from employers to health plan issuers.
- Maintain a website and toll-free hotline.
- Establish a "Navigator" program to carry out certain outreach and education duties.
- Gather data and report to the federal government.
- Implement quality activities.
- Develop effective appeals processes.

SOURCE: Legislative Budget Board.

CERTIFY HEALTH PLANS

Minimum benefit levels that health plans must provide to be in an exchange are set in federal law, and the exchange is responsible for making sure that only qualified health plans are in the exchange. The exchange must also assign a quality rating to each plan in the exchange, and must publicize those ratings.

An exchange, however, has latitude in determining which health plans are allowed in the exchange. For example, it can let any plan that meets specific requirements into the exchange. In contrast, it can limit the number of participating plans through a negotiation or bidding process. Limiting the number of plans might make decision-making easier for consumers, but would reduce their choices. However, the bidding process might result in more competition and hence lower the cost of plans in the exchange. Analyses to inform this decision are not currently available. However, the Texas Department of Insurance (TDI) has indicated that it will be hiring a consultant to work through the issue for Texas, and hope to have information for the upcoming legislative session. Insurance industry representatives have indicated that they favor the more open approach. They do not believe limiting choice will result in lower costs because Texas has robust, competitive health insurance markets for individuals and small groups.

DETERMINE ELIGIBILITY FOR FEDERAL SUBSIDIES AND COORDINATE WITH MEDICAID AND CHIP

People in families with incomes between 100 percent and 400 percent of the federal poverty level (FPL) may be eligible for federal subsidies in the form of premium tax credits or cost-sharing subsidies. The current FPL is about $22,000 for a family of four. Only persons who are covered through an exchange can get these subsidies. Exchanges are required to evaluate applicants' eligibility for these subsidies and notify the federal government and insurance providers when a person qualifies for them. In performing this function, exchanges may need to gather information regarding the health insurance offered by the person's employer, who could be assessed a penalty under certain circumstances.

Most persons whose incomes are below 133 percent of FPL will be eligible for Medicaid. The ACA indicates that exchanges must enroll persons in Medicaid or CHIP if the exchange determines they are eligible for these programs. Thus, the exchange must coordinate closely with the state's Medicaid and CHIP office at HHSC. Conversely, the state Medicaid office must refer a qualified person that is not eligible for Medicaid or CHIP to the exchange. The U.S. Department of Health and Human Services (DHHS) has not yet issued guidance on whether persons eligible for Medicaid or CHIP can receive subsidies in the exchange, or what would happen if a state decides not to participate in the Medicaid and CHIP programs.

COORDINATE "FREE CHOICE VOUCHERS"

Free Choice vouchers are payments by employers for certain employees who cannot afford the health insurance offered by the employer. If the employee gets health insurance through an exchange, the employer can avoid a penalty by paying the Free Choice voucher instead. The payments are equal to the amount the employer would have paid for health insurance for their employee. The exchange credits the amount provided by the employer to the monthly premium for health insurance provided for the employee through the exchange. Free Choice voucher amounts in excess of the premium must be paid by the exchange to the employee.

OTHER KEY FUNCTIONS

Exchanges are required to offer services through a website and to operate a toll-free hotline. They must contract with "navigators" to provide outreach and education for consumers, and to facilitate enrollment in health plans. The federal law encourages transparency with the public. There must be activities to promote quality, and there must be

effective appeals processes. Further, processes must exist to gather and report data to the federal government.

DECISION POINTS

Figure 3 identifies key decisions that will need to be made regarding exchanges, including some of the considerations of one option over another. First, the Texas Legislature must decide whether the state will develop and operate an exchange. By early 2013, the federal government will evaluate if states are sufficiently prepared to run state-based exchanges. If not, the federal government will either contract with a non-profit entity to develop and run one, or will do it themselves. While the federal government would take on any liability for running the exchange, Texas would lose control over rules governing the exchange in the state. The state is more knowledgeable about the insurance market, population, and geographic differences across the state, so is more likely to make decisions in the best interest of Texas consumers, businesses, carriers, and others.

If the Legislature decides to have the state develop and operate the exchange, it must decide who will do so, whether there will be separate exchanges for the individual and small group insurance markets, whether there will be one statewide exchange or a number of regional exchanges within the state, and how involved the exchange will be in deciding which insurance plans are allowed in the exchange. There are also decisions to be made regarding whether requirements of plans inside the exchange will be applied to plans outside of the exchange in order to avoid adverse selection. Adverse selection could occur, for example, if plans outside the exchange are less costly because they are not subject to the same requirements as plans inside the exchange. Healthier people could enroll in the less costly plans outside the exchange, leaving sicker, more costly people inside the exchange. The Legislature also must decide whether or not to modify the list of benefits that insurance carriers must offer in the state.

As shown in **Figure 3**, each option has benefits, and it will be up to the Legislature to decide the course of action. A single exchange would minimize complexity and simplify coordination with HHSC. However, since the individual and the small group markets are currently separate, insurance carriers might have problems with these markets being combined into one exchange. At this time, federal guidance has not been issued to clarify if a single exchange would have to combine the individual and small group markets into a single risk pool. If the cost of insurance in the individual and small group markets is significantly different, combining into a single risk pool would result in increased cost for the lower cost pool and lower cost for the higher cost pool.

While an existing state agency has the infrastructure in place to run a program such as this, the exchange functions do not easily fit into any current agency. Recommendation 1 proposes that there be a single exchange for the individual and small group markets, and that the exchange be developed and operated by a quasi-independent state agency acting under the supervision of TDI. A quasi-independent state agency is a public state entity that enjoys a certain amount of autonomy, with certain of its administrative functions performed by a larger state agency. The agency would need to develop a plan to ensure the exchange is operational by January 1, 2014, and is self-sustaining by January 1, 2015. In addition, the agency would need to work with the Health and Human Services Commission to assure easy access by consumers to exchange services, Medicaid, or the Children's Health Insurance Program through either entry port.

Recommendation 2 requires TDI to oversee the new entity to assure that it is implementing its charge with due diligence. The Texas Legislature should consider requiring the Texas Department of Insurance to review and approve the plan developed by the quasi-independent state agency for developing and operating the exchange.

Having the exchange limit plans that are in the exchange might reduce the cost of plans to participants, but is also likely to reduce choice. The Medical Expenditure Panel Survey, conducted annually by the federal Agency for Healthcare Research and Quality, reported that approximately two-thirds of small employers in Texas did not offer health insurance to their employees in 2009. A 2009 survey of small employers in Texas conducted by TDI found that cost was often cited as a key reason for not doing so.

Earlier efforts at establishing an entity similar to a health insurance exchange in Texas failed in large part because rules governing it were less favorable than those outside of it. In 1993, the Texas Legislature enacted legislation requiring TDI to establish a market for small businesses to purchase health insurance. The Texas Insurance Purchasing Alliance (TIPA) was a non-profit entity formed to do this. Carriers were required by law to issue insurance to all applicants who agreed to pay for premiums in TIPA. This was not a requirement for plans outside of TIPA. For various reasons, TIPA became associated with higher-risk enrollees. The market ultimately failed because sicker, more costly

FIGURE 3
DECISIONS REGARDING EXCHANGES IN TEXAS
FISCAL YEARS 2011 TO 2013

State control versus Federal control	**State control:** • Allows the state to maintain control over how the exchange will function and increases consistency with state insurance requirements. • More likely to consider the unique population, geographic, and market differences across the state. **Federal control:** • State would not be liable for the cost of running the exchange and would not have to determine how to make it work.
If the state decides to develop and maintain the exchange:	
Who will be the lead? • Existing state agency? • New state agency? • Independent board? • Quasi-independent state agency? • Private nonprofit?	**Existing state agency:** • Already has the infrastructure to implement a new function, so no cost associated with developing an infrastructure. • Less time to implement the exchange because the infrastructure is in place. • Less increase in the size of government, since the agency is already in place. • May have ties with HHSC, allowing easier coordination with Medicaid and the Children's Health Insurance Program (CHIP). • If TDI directly ran the exchange, it could have conflicts of mission if it both runs the exchange and oversees the carriers inside and outside the exchange. **New state agency:** • All of the functions of an exchange do not easily fit into the mission of any current state agency. • No conflicts of mission. • Has start-up costs to develop the agency. • Requires more time to set up the exchange. **Independent board or quasi-independent state agency:** • Could be integrated under the auspices of a state agency, but maintain independence. This would take advantage of the agency's infrastructure, thus saving some of the cost. • Avoids the conflict of mission since there is some distance between the operation of the exchange and the regulatory agency. • Has some start-up costs to set up the board or quasi-independent state agency. • Requires independent oversight. **Private nonprofit:** • No proven track record. • Requires considerable independent oversight.
Single exchange versus Separate exchanges for individuals and small businesses	**Single exchange:** • Simplifies coordination with HHSC for determining eligibility for Medicaid and CHIP. **Separate exchanges:** • Minimizes disruption in the health insurance market since the individual and small group insurance markets are currently separate. • Does not shift cost, as is possible with a single exchange.

FIGURE 3 (CONTINUED)
DECISIONS REGARDING EXCHANGES IN TEXAS
FISCAL YEARS 2011 TO 2013

One statewide exchange versus Many regional exchanges	**One statewide exchange:** • Simpler for consumers and health insurance suppliers to have a single exchange to deal with. • Simplifies coordination with HHSC for determining eligibility for Medicaid and CHIP. **Many regional exchanges:** • Takes into account regional variations across the state. • Increases the likelihood that small insurers will participate, since smaller markets may be more attractive to smaller carriers.
Clearinghouse versus Limited access	**Clearinghouse**–Allows all plans that meet federal and state requirements into the exchange. • More plans would be in the exchange, resulting in more choice to meet consumer needs. **Limited access**–Could be limited to a certain number of plans, such as through competitive bidding. • Fewer plans would be less confusing to consumers • The bidding process could reduce the cost of plans to consumers.
Size of small group 50 or less versus 100 or less	**50 or less:** • Limiting the number of businesses able to use the exchange could be useful in the early stages of operations, allowing the exchange to focus on smaller businesses. • Lessens the disruption in the entire market (inside or outside the exchange) since a small group is currently defined as 50 or fewer. **100 or less:** • Allows more small businesses to purchase insurance through the exchange.
Requirements of plans Inside the exchange versus Outside the exchange	**Inside the exchange:** • Federal subsidies are only available for plans inside the exchange. • More expensive plans because of federal requirements. • Healthier people would tend to opt for lower cost plans outside the exchange, leading to adverse selection. • Same requirements outside the exchange would reduce adverse selection. **Outside the exchange:** • Not required by federal law. • Likely to be pressure not to expand requirements to plans outside the exchange.
Changes to mandated coverage	• Benefits required by the state but not the federal government are allowed in the exchange. • The state must pay for those benefits for people purchasing health insurance through the exchange.

Source: Legislative Budget Board.

participants remained in the plan, leading to the withdrawal of insurance carriers from TIPA.

Plans inside the new exchange will be subject to federal requirements described in the ACA, which will be further defined by DHHS. Among the requirements are marketing provisions, benefit designs, provider adequacy, and access by low-income individuals. If plans outside the exchange are not subject to these same requirements, the plans outside the exchange will be less expensive. Those who can get insurance outside the exchange will do so, leaving mostly persons with high health cost inside the exchange. This adverse selection could threaten the financial stability and viability of the exchange over time. Recommendation 3 would allow TDI to assess a fee on health plans inside and outside the exchange to provide revenues to operate the exchange and to mitigate the effects of adverse selection. Notwithstanding the decisions made regarding the development and operation of the exchange, TDI will continue to license insurance plans and have other duties relating to health insurance in Texas.

Recommendation 4 would require that HHSC and the exchange work together to assure easy access to exchange services, Medicaid, or CHIP through either entry port. Recommendation 5 would authorize the exchange to contract eligibility determination for federal subsidy programs to HHSC, if doing so appears cost effective.

PARTICIPANT RISK POOLS

Once the exchange is operational, persons who participate in either the state- or federally operated high risk pools will be eligible for healthcare coverage through the exchange. Exchanges must coordinate with the existing risk pools to prevent a lapse in coverage as people transition to the exchange. Conversely, the high risk pools must plan for the dwindling of participants out of their plans and ceasing operations.

EXCHANGE FUNDING

TDI was awarded an initial $1 million federal grant on September 30, 2010 for early planning of exchanges. Additional federal funding for further planning for and establishing exchanges will be available later. The amount will be determined by DHHS, and no grant will be awarded after December 31, 2014. In addition, DHHS issued a notice of proposed rulemaking in early November 2010 to increase the federal share of funding in Medicaid for (among other things) developing information technology to coordinate Medicaid and CHIP functions with the state's exchange. Exchanges must be self-sustaining by January 1, 2015, and states must decide how ongoing operations will be funded. This can be accomplished, for example, by using a portion of premiums and/or fees on insurance carriers.

As mentioned earlier, the federal government will provide subsidies and tax credits to people who purchase health insurance through an exchange and whose incomes are between 100 percent and 400 percent of the FPL. The state will be required to pay for state-mandated benefits that are in excess of those required by the federal government. Recommendation 6 would require TDI to develop an estimate of the cost to the state of maintaining any mandated benefits that the state will have to pay for in the exchange, and report the information to the Legislature before the next legislative session. The report should include any rationale for and future costs to the state of maintaining those mandates.

Figure 4 shows key activities the state needs to do to develop and operate an exchange, by year, in fiscal years 2011 to 2015. Estimated costs are being developed by TDI and HHSC, which they expect to have before the Eighty-second Legislature convenes. Initial analyses are being done with current staff resources and the federal grant.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would not have a direct fiscal impact to the state. Development of the exchange through recommendations 1, 2, 3, and 4 should be achieved with funding from federal grants. Recommendation 5 would be paid for through the funding for the exchanges. Recommendation 6 can be achieved within agency resources.

The introduced 2012–13 General Appropriations Bill includes a rider, but no other adjustments as a result of these recommendations.

FIGURE 4
KEY ACTIVITIES NEEDED TO IMPLEMENT HEALTH INSURANCE EXCHANGES IN TEXAS
FISCAL YEARS 2011 TO 2015

FISCAL YEAR	KEY FUNCTIONS
2011	• Initial planning • Coordinating with HHSC on Medicaid and CHIP • Coordinating with federal and other state partners • Enacting legislation specifying exchange structure and operation
2012	• Planning and developing rules • Developing interfaces with HHSC on Medicaid and CHIP • Coordinating with federal and other state partners
2013	• Planning and developing rules • Carrying out outreach activities • Developing a customer assistance/navigator program • Certifying plans and/or evaluating bids • Setting up internet application and phone systems • Final testing with HHSC on interfaces with Medicaid and CHIP • Coordinating with federal and other state partners
2014	• Developing rules • Carrying out outreach activities • Reviewing plans and/or evaluating bids • Handling complaints • Overseeing operations • Coordinating with federal and other state partners
2015 forward	• Reviewing plans and/or evaluating bids • Handling complaints • Overseeing and refining operations • Gathering data and reporting • Coordinating with federal and other state partners

Source: Legislative Budget Board.

END THE USE OF GENERAL REVENUE FUNDS TO PAY FOR INSURANCE COMPANY EXAMINATIONS

The Texas Department of Insurance conducts periodic examinations of insurance carriers based in the state. The examinations assess the ability of each carrier to meet its financial liabilities and the carrier's compliance with state law. Insurers pay an examination fee to cover the costs of the examination and an assessment to cover the overhead costs. Insurers receive tax credits for examination fees and overhead assessments paid.

Revenue from the fees and assessments is deposited to the Insurance Operating Account, but the credits are taken against the insurance premium tax, which is General Revenue Funds. In effect, General Revenue Funds are being used to pay for insurance company examinations. Repealing the credits would increase the amount of insurance premiums tax received in General Revenue Funds by approximately $10 million each year.

CONCERN

- ♦ Insurance company examinations are, in effect, paid for with General Revenue Funds, costing General Revenue Funds approximately $10 million each year.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Repeal Texas Insurance Code, Sections 221.006, 222.007, 223.009, 401.151(e), and 401.154 to eliminate the credit for examination fees and overhead assessments.
- ♦ **Recommendation 2:** Include a rider in the 2012–13 General Appropriations Bill to appropriate from the General Revenue–Dedicated Texas Department of Insurance Operating Fund to the Comptroller of Public Accounts for deposit to the General Revenue Fund the amount necessary to reimburse the General Revenue Fund for insurance premium tax credits for examination fees and overhead assessments.

DISCUSSION

Insurance premium taxes are imposed on insurers doing business in Texas. The tax rates vary by the line of insurance, as shown in **Figure 1**.

FIGURE 1
TAX RATES FOR INSURANCE PREMIUMS TAX
FISCAL YEAR 2011

INSURANCE LINE	TAX RATE PERCENTAGE OF TAXABLE GROSS PREMIUMS
Property and Casualty	1.60%
Life, Accident, and Health	1.75%
Title	1.35%
Reciprocal or Inter-insurance Exchanges	1.70%
Unauthorized Insurance, Surplus Lines, and Independently Procured	4.85%

Source: Comptroller of Public Accounts.

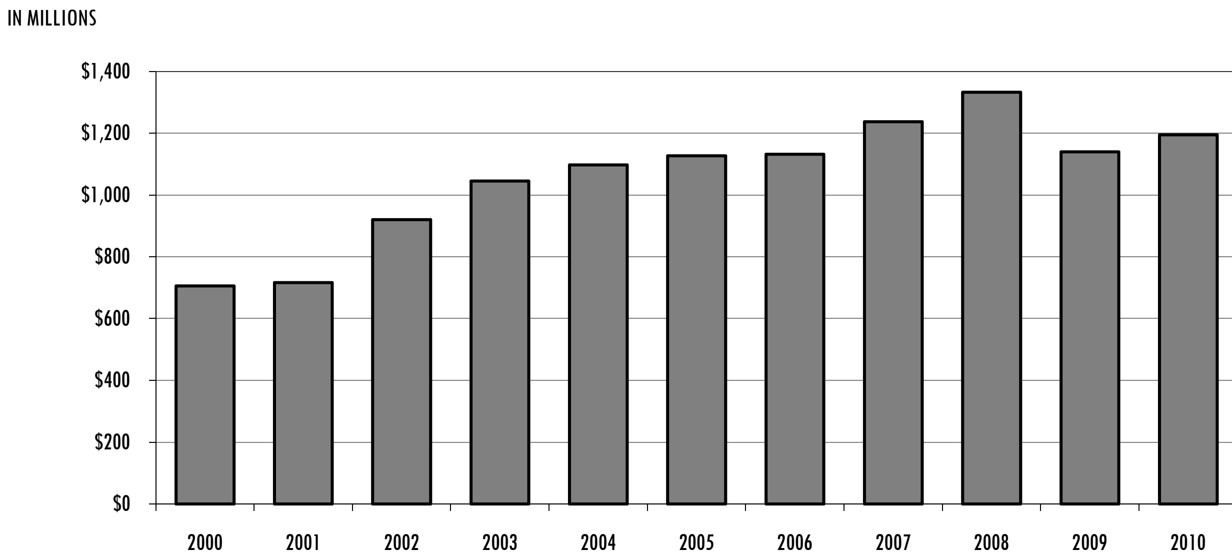
The Comptroller of Public Accounts collects the taxes and deposits them to the General Revenue Fund. One-fourth of the tax is constitutionally dedicated to public education and is transferred to the Foundation School Fund for distribution to school districts. Because each dollar in public school funding from the Foundation School Fund reduces General Revenue Fund spending for public schools by one dollar, essentially, 100 percent of the insurance premium tax is General Revenue Funds.

The state collected almost $1.2 billion in insurance premium taxes in fiscal year 2010. **Figure 2** shows a history of tax collections for the insurance premium tax from fiscal years 2000 to 2010.

EXAMINATIONS, FEES, AND ASSESSMENTS

The Texas Department of Insurance (TDI) conducts periodic examinations of insurance companies domiciled in Texas to evaluate their ability to meet financial obligations and to assess the carrier's compliance with state law. TDI can examine a carrier as often as TDI considers necessary, but not less frequently than once every five years. TDI is also responsible for examining foreign companies doing business in the state, but TDI rules allow the agency to rely on examinations performed by the insurance regulatory agency in each carrier's home state to satisfy this requirement. As a result, TDI examines few foreign carriers, performing no examinations of foreign insurers in 2009 and two in 2010.

FIGURE 2
TAX COLLECTIONS FOR INSURANCE PREMIUM TAX
FISCAL YEARS 2000 TO 2010



Source: Comptroller of Public Accounts.

In addition to financial examinations, TDI conducts quality of care examinations of Health Maintenance Organizations (HMOs) and Workers' Compensation Health Care Networks. The HMO examinations occur at least every three years and evaluate each company's compliance with statute.

In fiscal year 2010, TDI performed 129 examinations of insurance companies at an average cost of $107,864 per examination, which includes direct, indirect, and overhead costs. TDI also examined 16 HMO's and 9 Workers' Compensation Health Care Networks. TDI charges each insurer examined a fee to cover salaries of TDI employees and of third-party examiners hired by TDI, travel, and miscellaneous expenses of examiners. In addition, TDI imposes an overhead assessment on all domestic insurers to cover agency spending related to examinations. The assessments pay for operating expenses of the agency's Examinations Section, including support staff salaries, utilities, rent, office equipment, and supplies. TDI sets the rate of the overhead assessment annually.

In 2010, TDI charged firms an overhead assessment of 0.00283 of 1 percent of assets plus 0.00897 of 1 percent of gross premiums, excluding certain premiums attributable to qualified pension plans. The maximum charge to a single insurer was more than $1 million. **Figure 3** shows the amount of examination fees and overhead assessments billed and collected by TDI in fiscal years 2005 to 2010. Most of the indirect cost of examinations is incurred in the form of the overhead assessment which spreads the cost of examinations over all domestic insurers. Revenue from the fees and assessments is deposited to Insurance Operating Account (General Revenue–Dedicated Funds).

Insurers and HMOs can claim a credit against the insurance premium tax for the examination fees and overhead assessments paid; Workers' Compensation Health Care Networks cannot claim a credit. Texas domiciled companies that maintain their books outside the state cannot claim credits for the travel portion of direct expenses. A company's credit may not exceed its tax liability. Credits cannot be carried forward to future years or back to previous years. As a result, the total amount of credits granted can be less than fees and assessments collected by TDI.

Examination credits totaled $9.6 million in fiscal year 2010, as shown in **Figure 4**.

Recommendation 1 would repeal the insurance premium tax credits for examination fees and overhead assessments. Eliminating the credits would increase the amount of insurance premiums tax received by the state by approximately $10 million in General Revenue Funds per year, excluding the effects of other credits.

FIGURE 3
COLLECTION OF EXAMINATION FEES AND OVERHEAD ASSESSMENTS
FISCAL YEARS 2005 TO 2008 (IN MILLIONS)

FISCAL YEAR	DIRECT EXAMINATION BILLING	OVERHEAD ASSESSMENT	QUALITY OF CARE BILLING	TOTAL BILLED	TOTAL COLLECTED
2005	$2.80	$8.30	$0.07	$11.20	$11.10
2006	$2.70	$11.10	$0.05	$13.90	$11.70
2007	$2.50	$8.20	$0.04	$10.70	$13.00
2008	$2.80	$10.20	$0.05	$13.00	$12.40
2009	$3.00	$9.10	$0.04	$12.10	$12.80
2010	$2.90	$10.90	$0.06	$13.90	$13.80

Source: Texas Department of Insurance.

FIGURE 4
CREDITS FOR EXAMINATION FEES AND OVERHEAD ASSESSMENTS, FISCAL YEAR 2010

INSURANCE LINE	CREDITS (IN MILLIONS)
Property and Casualty	$4.8
Life, Accident, and Health	4.0
Title	0.2
Health Maintenance Organizations	0.6
TOTAL	**$9.6**

Source: Comptroller of Public Accounts.

EFFECT OF OTHER CREDITS

In addition to the credits for examination expenses, companies receive insurance premium tax credits for guaranty fund assessments and certain Texas Windstorm Insurance Association (TWIA) assessments. Companies claim the examination and overhead credits before the guaranty and casualty pool credits because the guaranty and TWIA credits, unlike the examination and overhead credits, do not expire. In some cases, insurers do not have enough premium tax liability to take the full amount of all credits available. For these insurers, repealing the examination and overhead credits would cause them to exhaust their guaranty and windstorm credits faster and resume paying insurance premium taxes sooner. In those instances, the gain to the General Revenue Fund from repealing the credit for examination fees and overhead assessments would be delayed, but not reduced or eliminated.

The effect of TWIA credits will be particularly important for the next several years because of $230 million in tax credits for windstorm assessments related to hurricane damages in 2008. Insurers can take 20 percent of their TWIA credits each year for five years, and an insurer can take credits for more than five years if their tax liability is insufficient to exhaust the credits in five years. Through fiscal year 2010, insurers had taken $90.3 million of the $230 million TWIA credits 2010, leaving $139.7 million in credits to be taken in the next several years.

THE DEPARTMENT OF INSURANCE OPERATING ACCOUNT AND RETALIATORY TAXES

The Department of Insurance Operating Account is a self-leveling account. After considering balances, fees, and other revenue collections in the account, TDI determines the amount of additional revenue necessary to fund expenditures from the account and sets maintenance tax rates to generate the needed revenue. Actual maintenance tax rates vary by line of insurance as shown in **Figure 5.** Insurance maintenance taxes are initially deposited to the General Revenue Fund then transferred to the Insurance Operating Account (General Revenue–Dedicated Funds). Appropriations from the maintenance tax and other insurance fees pay for TDI operations and, to a lesser extent, for programs at the following agencies: the Commission on Fire Protection, the Department of State Health Services, the Texas Forest Service, the Texas Department of Transportation, the Office of the Attorney General, and the Travis County Public Integrity Unit, which investigates allegations of insurance fraud.

Forty-nine states, including Texas, impose retaliatory taxes on insurers domiciled in other states. Retaliatory taxes encourage equal treatment of insurers engaged in interstate commerce. The Texas retaliatory tax applies if the aggregate taxes, fees, and assessments (net of credits) imposed on a

FIGURE 5
MAINTENANCE TAX RATES, CALENDAR YEAR 2010

INSURANCE LINE	TEXAS STATUTE	PERCENTAGE OF PREMIUMS
Fire and Allied Lines	Texas Insurance Code, Chapter 252	0.320%
Casualty and Fidelity	Texas Insurance Code, Chapter 253	0.140%
Motor Vehicle	Texas Insurance Code, Chapter 254	0.061%
Workers' Compensation	Texas Insurance Code, Chapter 255 Texas Labor Code, Section 407A.302	0.096%
Workers' Compensation and Office of Injured Employee Counsel (DWC/OIEC)	Texas Labor Code, Section 403.003, 407A.301	1.455%
Workers' Compensation Research	Texas Labor Code, Section 405.003	0.012%
Accident and Health	Texas Insurance Code, Chapter 257	0.040%
Life and Annuities	Texas Insurance Code, Chapter 257	0.040%
Local Mutual Aid Associations	Texas Insurance. Code, Chapter 257	0.040%
Non-Profit Legal Services Corporations (levied on revenue)	Texas Insurance Code, Chapter 260	0.042%
Title Companies	Texas Insurance Code, Chapter 271	0.266%
Third Party Administrator (levied on fees)	Texas Insurance Code, Chapter 259	0.072%
HEALTH MAINTENANCE ORGANIZATIONS	**TEXAS STATUTE**	**PER ENROLLEE**
Basic Health Care Service	Texas Insurance Code, Chapter 258	$1.32
Single Health Care Service	Texas Insurance Code, Chapter 258	$0.44
Limited Health Care Service	Texas Insurance Code, Chapter 258	$0.44

SOURCE: Texas Department of Insurance.

Texas-based insurer by an insurer's state of incorporation are higher than those assessed on the out-of-state insurer writing insurance in Texas. Texas collected $25.4 million in retaliatory taxes in fiscal year 2010. Retaliatory taxes are included as part of the insurance premium taxes shown in **Figure 1**.

Under certain circumstances, the elimination of a Texas tax credit would reduce retaliatory taxes paid to this state by out-of-state insurers and could increase the amount of retaliatory taxes paid by Texas companies in other states. Since TDI examines few out-of-state insurers, eliminating examination fees would have little impact on retaliatory taxes. Appropriating revenue from the Texas Department of Insurance Operating Fund tax to reimburse the General Revenue Fund for losses from examination fees and overhead assessment would cause TDI to increase maintenance tax rates to replace the lost revenue. Increasing the maintenance tax rates could result in a loss of retaliatory tax revenue.

Recommendation 2 would include a rider in the 2012–13 General Appropriations Bill to appropriate from the General Revenue–Dedicated Texas Department of Insurance Operating Fund Account No. 036 to the Comptroller of Public Accounts for deposit to the General Revenue Fund the amount necessary to reimburse the General Revenue Fund for the revenue loss from insurance premium tax credits

for examination fees and overhead assessments. If the credits for examination fees and overhead assessments are repealed the rider would have no effect because there would be no loss of premium tax revenue.

FISCAL IMPACT OF THE RECOMMENDATIONS

Figure 6 shows the estimated fiscal impact of repealing the insurance premium tax credits for examination fees and overhead assessments. The repeal would result in an increase of $18.5 million in the amount available for certification from the General Revenue Funds in the 2012–13 biennium. The estimate assumes that no credits would be granted in fiscal year 2012 for fiscal year 2011 fees and assessments. The estimate also assumes that TWIA credit would offset a portion of the savings from repeal of the credits for examination and overhead assessments in fiscal years 2012 and 2013. By fiscal year 2014 when most TWIA credits have been exhausted the revenue gain would increase to approximately $12 million. Each year thereafter, the revenue gain would be approximately $10. Seventy-five percent of the gain would go to the General Revenue Fund and 25 percent would go to the Foundation School Fund. If the credits are repealed, the rider in the 2012–13 General Appropriations Act would have no impact. If the credits are not repealed the rider would result in a gain of approximately $18.5 million in General Revenue Fund in the 2012–13 biennium only.

FIGURE 6
FIVE-YEAR FISCAL YEAR IMPACT OF REPEALING INSURANCE TAX CREDITS FOR EXAMINATION FEES AND OVERHEAD ASSESSMENTS
FISCAL YEARS 2012 TO 2016

FISCAL YEAR	PROBABLE GAIN/(LOSS) IN THE GENERAL REVENUE FUND	PROBABLE GAIN/(LOSS) TO THE FOUNDATION SCHOOL FUND
2012	$7,050,000	$2,350,000
2013	$6,850,000	$2,280,000
2014	$9,060,000	$3,020,000
2015	$7,790,000	$2,600,000
2016	$7,790,000	$2,600,000

SOURCE: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes a rider to implement Recommendation 2.

MONITOR OUTCOMES AND LIMIT COURSE OFFERINGS TO ENSURE DUAL CREDIT COURSE QUALITY

Dual credit enrollment is growing rapidly due to recent legislative emphasis. Beginning in fiscal year 2003, state law allows both public school districts and community colleges to obtain state funding for dual credit courses. Legislation enacted in 2005 requires the state P–16 Council to develop a College Readiness and Success Strategic Action Plan to ensure that every Texas student is college-ready when exiting high school and has the skills to successfully compete in a global economy. In addition to the plan, statute requires all school districts to provide students with the opportunity to earn the equivalent of 12 hours of college credit while in high school. From fall 2002 to fall 2009, dual credit enrollment increased more than 200 percent. However, it is not clear whether dual credit courses improve college-readiness for Texas high school graduates.

As the numbers of students enrolled and dual credit courses increase, ensuring the quality of dual credit programs becomes more critical. Colleges are responsible for overseeing the instructional quality of dual enrollment courses. A 2010 State Auditor's Office report found that 10 out of 12 community colleges reviewed needed to improve their monitoring and evaluation of dual credit teachers and courses. Current Texas Higher Education Coordinating Board and Texas Education Agency rules allow high school students to take a wide range of academic and non academic college courses for dual credit. The more limited the number of courses approved for dual credit, the easier it becomes to monitor quality and to provide high school students with appropriate support where needed. Obtaining quality data and limiting state appropriations to non-remedial and non-physical education dual credit courses leading to an industry recognized credential, certificate, or degree, would result in future savings by further achievement of the State's College Readiness goals and potentially reducing a student's time to degree.

FACTS AND FINDINGS

- The 2010–11 General Appropriations Act requires the Texas Higher Education Coordinating Board and Texas Education Agency to provide integrated data on certain topics relating to dual credit. Complete data will not be available until spring 2012.
- At least five states prohibit physical education courses from counting as dual credit.

CONCERNS

- The Texas Education Agency and Texas Higher Education Coordinating Board lack data to measure whether dual credit programs enhance the efficiency of the state's college readiness efforts to increase graduation rates, reduce the number of students in developmental education, or reduce the cost and time to complete a degree program.
- In fiscal year 2009, 1,900 Texas high school students received both high school and college credit for physical education courses. Physical education courses are not included as part of the required 36 semester credit hour state core curriculum for colleges, so not every community college requires them to earn an Associate's degree.

RECOMMENDATIONS

- **Recommendation 1:** Include a rider in the introduced 2012–13 General Appropriations Bill to require the Texas Higher Education Coordinating Board to compile data to analyze the fiscal and instructional impacts on student outcomes for dual credit courses taken on high school campuses and on community college campuses.
- **Recommendation 2:** Amend the Texas Education Code, Section 130.008, to prohibit physical education dual credit courses from being available for dual credit funding purposes.

DISCUSSION

The Texas Education Code defines dual credit as a course offered by a community college and school district for which a high school student may enroll and simultaneously receive both:

- course credit toward the student's high school academic requirements for graduation; and
- course credit as a student of the college, if the student has been admitted to the college or becomes eligible

to enroll in and is subsequently admitted to the college.

Legislation enacted by the Seventy-ninth Legislature, Third Called Session, 2005, has placed an emphasis on dual credit programs. The legislation required the state P–16 Council (a statutory entity including the Texas Education Agency, Texas Higher Education Coordinating Board, and Texas Workforce Commission, mandated to ensure that long-range plans and educational programs for the state, complement the functioning of the entire system of public education) to develop a College Readiness and Success Strategic Action Plan (the Plan) to ensure that every Texas student is college-ready when exiting high school and has the skills to successfully compete in a global economy. Adopted by the council in March 2007, the plan has eight objectives, including providing high school students with increased access to advanced academic opportunities, and coordinating those strategies with persistence and timely graduation.

By ensuring that more high school students are prepared for college level work upon graduation, the plan is also intended to reduce the number of students enrolling in developmental education. The Texas Education Code requires all public independent school districts to provide students with the opportunity to earn the equivalent of 12 hours of college credit while in high school by fall 2008. These requirements may be met by offering dual credit for college courses, advanced technical courses, Advanced Placement (AP) courses, and/or International Baccalaureate courses. On request, public institutions of higher education in this state are required to assist a school district in developing and implementing a dual credit program. However, it is not mandatory for institutions of higher education to offer dual enrollment courses to high school students.

DUAL CREDIT COURSE SELECTION AND FUNDING

Dual credit programs can result in substantial benefits for both high school students and the state. According to the Texas Education Agency (TEA), advantages of these programs include:

- earning college credits while in high school increases the likelihood that a student will complete high school and enroll in and persist in college;
- providing rigorous and meaningful coursework in high school can prepare students for success in college;
- earning college credit hours in high school satisfies Advanced Measures requirements for the Distinguished Achievement Program (DAP);
- reducing college costs due to students already having begun their post-secondary degree; and
- completing college degrees earlier, and leading to earlier entrance into the workforce, which benefits both students and the economy.

To achieve these benefits, school districts are authorized to offer a wide range of academic and non academic dual credit courses to their students. The Texas Administrative Code requires that courses offered for dual credit by public two-year colleges must be identified as college level academic courses in the current edition of the Lower Division Academic Course Guide Manual adopted by the Texas Higher Education Coordinating Board (THECB), or as college-level workforce education courses in the current edition of the Workforce Education Course Manual adopted by THECB.

Dual credit programs are primarily offered at the 50 public community college districts, although public universities and private higher education institutions also offer dual credit opportunities. Texas Administrative Code requires that a dual credit course must be provided by an institution of higher education that is regionally accredited. The course for which credit is awarded must provide advanced academic instruction beyond, or in greater depth than, the essential knowledge and skills for the equivalent high school course. School districts are not required to consider course transferability or degree applicability when selecting dual credit courses.

State law allows both school districts and colleges to obtain state funding for dual credit courses. Public colleges and universities may not offer developmental courses for dual credit. The state funds school districts based on students' average daily attendance and districts can count time spent on dual credit towards student attendance. Colleges and universities receive state formula funding for contact or semester credit hours of instruction, respectively. In fall 2009, estimated formula funding to those institutions for dual credit students totaled $25.4 million as shown in **Figure 1**.

DUAL CREDIT STUDENT AND COURSE OUTCOMES

TEA and THECB lack data to measure whether dual credit programs enhance the efficiency of the state's college readiness efforts by increasing graduation rates, reducing the number

FIGURE 1
NUMBER OF DUAL CREDIT STUDENTS AND SEMESTER CREDIT HOURS AT PUBLIC INSTITUTIONS, FALL 2009

INSTITUTION	NUMBER OF DUAL CREDIT STUDENTS*	DUAL CREDIT SEMESTER CREDIT HOURS	AVERAGE DUAL CREDIT SEMESTER CREDIT HOURS PER DUAL CREDIT STUDENT	ESTIMATED STATE FORMULA FUNDING REIMBURSEMENT FOR 1 SEMESTER CREDIT HOUR	ESTIMATED STATE FORMULA FUNDING COST
Community Colleges	82,757	403,889	4.88	$55.48	$22,402,371.98
Texas State Technical Colleges and Lamars	4,787	19,437	4.06	$55.48	$1,078,105.11
Universities	3,759	17,469	4.65	$62.67	$1,094,713.02
TOTAL ESTIMATED FORMULA FUNDING COST					**$24,575,190.11**

*These figures are unduplicated.
Source: Legislative Budget Board.

of students in developmental education, or reducing the cost and time to a degree. According to a 2009 research report, data collection about dual credit programs is "limited and not well aligned." The report further suggests the possibility of misalignment and inconsistencies in (TEA and THECB) dual credit definitions, policies, and practices, particularly those that relate to crosswalks between high school and college courses, data collection, and types of enrollment.

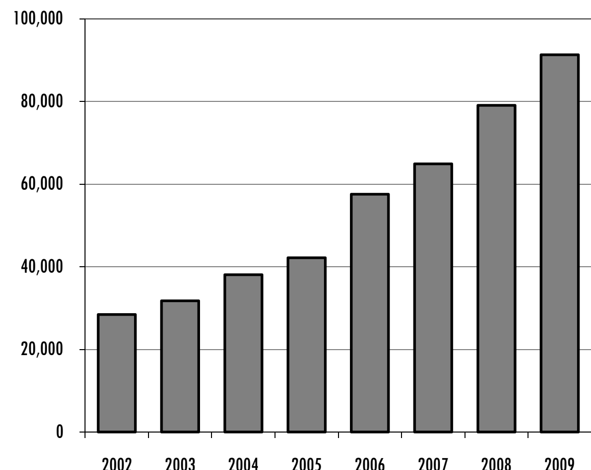
The 2010–11 General Appropriations Act includes a rider that requires THECB and TEA to provide integrated data on certain topics relating to dual credit. In fall 2010, THECB staff published a new report that addresses the need for accurate data on student participation and outcomes. THECB will begin collecting this information in fall 2011, and it should be available spring 2012. An additional study, required by House Bill 3646, as enacted by the Eighty-first Legislature, Regular Session, 2009, will address four general research areas to determine (1) the availability of dual credit college courses to districts, schools, and students; (2) the types of dual credit college course available to districts, schools, and students; (3) the enrollment in dual credit college programs and courses by district and school; and (4) the instructional delivery mechanisms of dual credit college courses by institutions of higher education, districts and schools. The final report is due to the Legislature in January 2011.

Recommendation 1 would include a rider in the 2012–13 General Appropriation Bill to continue the THECB analysis of fiscal and instructional impacts on student outcomes for dual credit that was not completed during the 2010–11 biennium pursuant to the 2010–11 General Appropriations Act. THECB should use new student and course longitudinal and existing data, performance measures, recommendations from House Bill 3646 dual credit research, and survey data to evaluate student outcomes for these courses.

DUAL CREDIT GROWTH IN TEXAS

Dual credit enrollment is growing rapidly. From fall 2002 to fall 2009; dual credit enrollment increased more than 200 percent as shown in **Figure 2**. In fall 2002, students enrolled in dual credit courses represented 2.6 percent of total enrollment in higher education. By fall 2009, dual credit enrollment represented 6.7 percent of total higher education enrollment.

FIGURE 2
DUAL CREDIT ENROLLMENT
FALL 2002 TO 2009*



*Amounts are unduplicated.
Source: Texas Higher Education Coordinating Board.

According to TEA, more than 137,000 dual credit courses were attempted by high school students in fiscal year 2009. Eighty-six percent or 117,000 of those courses were successfully completed.

As the numbers of students enrolled and dual credit courses increase, ensuring the quality of dual credit programs becomes more critical. Colleges are responsible for overseeing the instructional quality of dual enrollment courses. State mechanisms to ensure dual credit program quality need to be strengthened, as the numbers of students enrolled and number of dual credit courses increase. The Texas Education Code requires dual credit instructors to be employed faculty members of the college or have the same qualifications as staff teaching the course at the college. The college is also responsible for overseeing the instructional quality of dual enrollment courses. A 2010 State Auditor's Office audit of dual credit programs at selected higher education institutions found that 10 of 12 community colleges need improvement in at least one requirement related to monitoring and evaluation of dual credit courses. Specifically, 8 of the 12 community colleges need to improve their reviews of dual credit teacher qualifications, and 10 of 12 community colleges need to improve their reviews of dual credit course content and quality.

Other states have addressed course quality by increasing the collaboration between high schools and colleges to align standards and curriculum locally; requiring classes to use the same syllabi; requiring assignments and end-of-course exams as taught at the college; reviewing student work; and limiting the kind and number of courses offered. THECB is working toward the development of learning outcomes for lower division courses that will provide a robust way to monitor dual enrollment program quality. However, Texas will need to improve quality controls in the interim. Texas does require that dual credit courses be similar to the college course, but does not require college level end-of-course exams, review of student work, and course limitations other than developmental education.

DUAL CREDIT COURSE CONTENT

TEA's Public Education Information Management System (PEIMS) database is the only state database that provides information about the types of courses taken for dual credit, and information about specific course participation (course titles and types). According to TEA guidelines, a dual credit student may "receive high school credit for a college course if there is an existing state high school course with Texas Essential Knowledge and Skills criteria that are met by the college course." The dual credit flag in the TEA PEIMS data system is the mechanism used for identifying specific high school courses for which dual credit is received.

Figure 3 shows the 10 high school courses that represent the majority (58 percent) of total academic and non academic dual credit enrollment (of more than 133,000 passing students), in fiscal year 2009. The most popular high school course for dual credit was English IV.

FIGURE 3
TOP 10 DUAL CREDIT COURSES BASED ON NUMBER OF PASSING STUDENTS
FISCAL YEAR 2009

COURSE NAME	NUMBER OF PASSING STUDENTS
English IV	19,266
United States Government	12,517
United States History Since Reconstruction	11,024
Economics w/Emphasis Free Enterprise	8,983
Business Composition Information Systems I	4,953
English Literature and Composition	4,706
English III	4,243
Precalculus	4,182
United States History	4,109
Business Composition Information Systems I	3,083
TOTAL NUMBER OF STUDENTS	**77,066**

Source: Texas Education Agency.

Two courses, English Literature and Composition and United States History, were AP courses. One course, Business Computer Information Systems I, is a non academic Tech Prep Course, for which students do not receive college credit until after they enroll at an institution of higher education. PEIMS does not include the corresponding college course code in its database. The dual credit partnership agreement between the school district and the college, and the individual student college transcript are two known mechanisms to determine to what college level course these dual credit courses equate.

PHYSICAL EDUCATION DUAL CREDIT COURSES

Overall, very few dual credit courses do not count towards a certificate or degree. In general, all courses except developmental education, basic skills, and noncredit

continuing education courses can count toward a degree or certificate. However, colleges may offer other courses that, while applicable to some degrees, may be of questionable academic value towards college readiness. Several other states including California, Arizona, Colorado, Massachusetts, and New Mexico currently do not allow physical education courses to count for dual credit.

The PEIMS database currently lists about 1,900 students that were enrolled in physical education courses shown in **Figure 4**. These physical education courses included Physical Education Foundations, Physical Education Equivalents, Dance, Adventure/Outdoor Education and Team Sports. According to TEA, these courses can include: Athletics I–IV, Junior Reserve Officer Training Corps, Dance I–IV, Drill Team, Cheerleading, Marching Band, and private or commercially-sponsored physical activity programs conducted on or off campus. Physical education courses are not included as part of the required 36 semester credit hour state core curriculum towards a degree. However, the courses may apply to a degree if selected by an individual higher education institution in addition to the required 36 semester credit hours. Higher education institutions are allowed to claim these contact hours for formula funding when they are taken by regular college students. The state may want to consider limiting funding for these courses under dual credit programs.

FIGURE 4
NUMBER OF PASSING STUDENTS IN PHYSICAL EDUCATION COURSES
FISCAL YEAR 2009

COURSE NAME	NUMBER OF PASSING STUDENTS
Physical Education 1A Foundations Fit	611
Physical Education Equivalent-1	116
Physical Education Equivalent-2	192
Physical Education Equivalent-3	189
Physical Education Equivalent-4	128
Dance I	20
Adventure/Outdoor Education	1
Dance II	7
Aerobic Activities (1st Time)	189
Individual Sports (1st Time)	252
Aerobic Activities (2nd Time)	107
Individual Sports (2nd Time)	49
Aerobic Activities (3rd Time)	1
Individual Sports (3rd Time)	10
Team Sports (1st Time)	14
Team Sports (2nd Time)	4
Team Sports (3rd Time Taken)	14
TOTAL STUDENTS	**1,904**

Source: Texas Education Agency.

Recommendation 2 would amend the Texas Education Code to prohibit physical education dual credit courses from being available for dual credit funding purposes. The smaller the number of courses approved for dual credit, the easier it becomes to monitor quality and to provide high school students with appropriate support where needed. Such a limit would not preclude students from enrolling in and paying for courses outside of those supported by the state.

FISCAL IMPACT OF THE RECOMMENDATIONS

Ensuring course quality, by monitoring student outcomes, and limiting dual credit course offerings will further improve student college readiness and time to a baccalaureate degree, resulting in future savings to the state.

The introduced 2012–13 General Appropriations Bill includes a rider implementing Recommendation 1. The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of Recommendation 2.

STRENGTHEN FINANCIAL OVERSIGHT OF COMMUNITY COLLEGES

In January 2009, the Legislative Budget Board published a report that included recommendations to develop a system of standard ratios to detect changes in the' financial positions of the state's community colleges. Since that time, Legislative Budget Board staff contracted with a consulting firm to review existing higher education financial ratios and develop a set of key financial and non-financial indicators that could be used at the state and community college levels to monitor financial performance. These indicators were developed with input from the Texas Higher Education Coordinating Board and community college presidents, chief financial officers, and board members and focus on the highest risk areas in community colleges' reserves, debt, revenue, and management.

An analysis of annual financial reports from fiscal years 2007 and 2009, using the recommended financial indicators shows six community college districts may have financial concerns. Without additional follow-up of those districts, the cause and materiality of the financial issues cannot be determined. Effective internal audit programs could help the colleges identify and correct financial and operational problems on an ongoing basis. District trustees do not always have the financial or accounting expertise to effectively monitor the fiscal strength of the district. With such a large and decentralized system, strengthened financial accountability, enhanced oversight measures, and improved governing board training would ensure that public resources are being spent efficiently and effectively.

FACTS AND FINDINGS

- ♦ There are more than 743,000 students currently enrolled at 50 locally governed public community college districts across the State.
- ♦ Increases in community college enrollment outpaced increases in total revenue for community college districts for the last three fiscal years. From fiscal years 2007 to 2009, total revenue increased 15 percent, while enrollment increased by 55 percent.
- ♦ Five community college districts had an operating deficit, with total operating expenses exceeding total operating revenues, in fiscal year 2009. Six districts had two or more early warning indicators of potential financial weaknesses including low primary reserves, and declining viability and enrollment ratios.

CONCERNS

- ♦ There is no periodic assessment of community college financial condition, at the state level, to determine if resources are being used efficiently. Community college districts are not subject to the Texas Internal Auditing Act, which helps agencies and institutions of higher education ensure proper internal controls over their finances. Districts must rely on board members and executive staff to mitigate these risks.
- ♦ Site visits identified concerns about community college board members' preparation and ability to understand the financial condition of their institution and fulfill their fiduciary responsibility to oversee their district's financial performance.

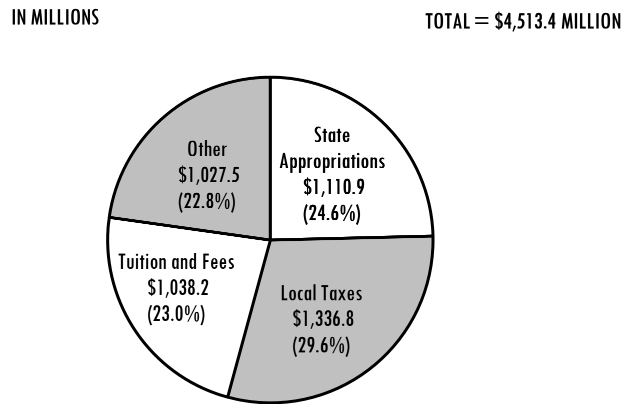
RECOMMENDATIONS

- ♦ **Recommendation 1:** Include a rider in the 2012–13 General Appropriation Bill requiring the Texas Higher Education Coordinating Board to provide an annual report to the Governor and the Legislative Budget Board regarding the fiscal condition of the state's community colleges based on an analysis of financial indicators.
- ♦ **Recommendation 2:** Amend the Texas Internal Auditing Act, to include community college districts. To allow districts time to plan and budget for an internal audit program, the recommendation would establish an implementation date of no later than the end of fiscal year 2014.
- ♦ **Recommendation 3:** Amend the Texas Education Code, Section 61.084, to require the Texas Higher Education Coordinating Board to update its community college board training to include information about best practices in campus financial management, financial ratio analysis, and case studies using financial indicators.

DISCUSSION

Community colleges play an important role in the state by serving more than 743,000 students in 50 locally governed districts. In fiscal year 2009, Texas community college districts reported total revenues of $4.5 billion from federal, state, and local sources. Total revenues increased 15 percent from fiscal years 2007 to 2009. Given such a large and decentralized system, oversight and financial accountability measures are critical for ensuring that public resources are being spent efficiently and effectively. As shown in **Figure 1**, the major sources of community college funding are state appropriations of General Revenue Funds, local taxes, student tuition and fees, federal grants, and other income.

FIGURE 1
TEXAS COMMUNITY COLLEGE DISTRICT REVENUES
FISCAL YEAR 2009



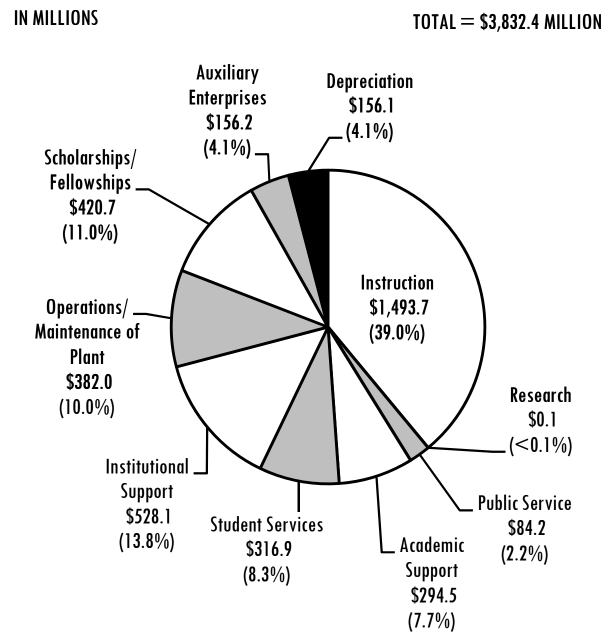
Source: Texas Higher Education Coordinating Board.

State appropriations were $1.1 billion or 25 percent of total district revenues in fiscal year 2009. Local tax revenue for community colleges was $1.3 billion in fiscal year 2009, exceeding state appropriations by 20 percent.

In fiscal year 2009, Texas community college districts reported total operating expenditures of $4 billion. As shown in **Figure 2**, major operating expenses are instruction, institutional support, scholarships and fellowships, operation of plant and maintenance, academic support and student services.

Instruction expenditures were $1.5 billion or 39 percent of total district expenses in fiscal year 2009. Institutional support, a functional expense category that includes day-to-day operational support, was more than $500 million or 14 percent of total district expenses. This category includes:

FIGURE 2
TEXAS COMMUNITY COLLEGE OPERATING EXPENSES
FISCAL YEAR 2009



Source: Texas Higher Education Coordinating Board.

expenditures for general administrative services; central executive-level activities related to management and long-range planning; legal and fiscal operations; space management; employee personnel and records; logistical services such as purchasing and printing; and public relations and development.

Several revenue and cost factors can affect the financial condition of a district, impacting its ability to maintain, improve, or expand facilities and provide for the educational and training needs of the community. Enrollment growth can result in increased state appropriations based on contact hours and student tuition and fees, however, colleges face greater expenses to serve a larger student population. According to the Texas Higher Education Coordinating Board (THECB), community college enrollment increased 55 percent from fiscal years 2001 to 2009.

For local oversight, community colleges contract with certified public accountants for annual financial audits. The community college district annual financial report (AFR) is the primary tool for fiscal accountability at the state level. The Texas Education Code requires community colleges to submit their AFRs to the THECB, Legislative Budget Board (LBB), and State Auditor's Office (SAO).

FINANCIAL RATIO ANALYSIS

In January 2009, the Legislative Budget Board (LBB) published a report that described the statewide financial position of the 50 Texas community college districts using annual financial report data. The report identified several issues including a concern that the THECB lacked formal mechanism to assist community college districts that may have financial difficulties. The LBB report recommended that THECB use standard financial ratios to detect early concerns at Texas public community college districts, and to work with the districts to improve financial conditions and decrease financial risks. As a result, THECB developed an online database, the Community College Annual Reporting and Analysis Tool (CARAT), using community college AFR data and financial ratios developed by KPMG for institutions of higher education. However, the KPMG ratios were based on four-year institutions and do not provide information about the unique components of Texas community college operations and financing.

In 2010, the LBB staff contracted with Grant Thornton, a national accounting and consulting firm, to develop a set of key financial and non-financial indicators for community colleges to be used at the state and community college levels to monitor financial performance, make recommendations regarding an early warning approach, and develop guidelines on the use of these indicators. Based on numerous interviews with subject matter experts, community college site visits, financial data analysis, and industry best practices, the review team developed six primary and three secondary financial indicators that focus on the highest risk areas in community colleges' reserves, debt, revenue, and management, to detect potential financial concerns, as shown in **Figure 3**.

The recommended indicators are divided into primary and secondary categories. The primary indicators can be used for both state and community college oversight. Thresholds identifying acceptable limits were also established. Community college districts' having indicators falling outside these limits would be identified during the annual review. The secondary indicators are intended to provide additional context, if any concerns are identified.

An analysis of fiscal years 2007 to 2009 annual financial reports from fiscal years 2007 to 2009, using the recommended financial indicators in **Figure 4** shows that several districts may have financial problems. Two districts

FIGURE 3
EARLY WARNING FINANCIAL INDICATORS, 2010

PRIMARY INDICATORS	EXPLANATIONS
Diversification of Revenue Sources	This indicator assesses whether there is a disproportionate dependency or reliance on one revenue source to operate a college.
Primary Reserve Ratio	This ratio provides a snapshot of financial strength and flexibility using its expendable reserves without relying on additional revenues generated by operations.
Viability Ratio	This ratio measures the availability of expendable net assets to cover debt should the institution need to settle its obligations as of the balance sheet date.
Equity Ratio	This ratio measures capital resources available, the college's ability to borrow, and overall financial viability. This ratio is used as an alternative to the viability ratio if the institution has no debt.
Net Operating Revenues Ratio	This ratio indicates whether total operating activities resulted in a surplus or deficit, demonstrating whether the institution is living within available resources.
Audit Opinions	This indicator assesses whether there is an adverse or qualified opinion related to the financial statements or single audit.
Community College Leadership	This indicator assesses whether community college leadership is effective or ineffective according to a checklist.
SECONDARY INDICATORS	**EXPLANATIONS**
Bond Ratings	This indicator assesses the financial risk of an institution for potential bond investors and the institution's ability to pay back such investors.
Enrollment Fluctuation Ratio	This ratio demonstrates the potential impact to revenue and/or expenses as a result of rapid changes to the student population.
Revenue-Backed Debt Coverage Ratio	This ratio examines a community college's ability to generate enough revenue to meet its debt payments for which that revenue is pledged.

Source: Legislative Budget Board.

FIGURE 4
FINANCIAL ANALYSIS OF COMMUNITY COLLEGE FINANCIAL DATA
FISCAL YEARS 2007 TO 2009

PRIMARY INDICATORS	THRESHOLD	NUMBER OF DISTRICTS OUTSIDE OF THRESHOLD LIMITS
Diversification of Revenue Sources	Institution receives more than 50 percent of revenue from a single revenue source.	2
Primary Reserve Ratio	The ratio is below 10 percent.	3
Viability Ratio	Three years of decline, with ratios under 100 percent for at least two of those years.	6
Alternate: Equity Ratio	The ratio is below 20 percent.	0
Net Operating Revenues Ratio	The ratio is below 0.	5
Audit Opinions	A qualified or adverse opinion.	Information not available
Community College Leadership	Answering no to any question	2*
Total Indicators		**18**
Total Districts with Two or More Indicators		**6**

*According to site visits by the review team, two colleges had changes in executive management during the past five years.
Source: Legislative Budget Board.

received more than 50 percent of their total revenues from a single revenue source. Any significant fluctuation in those sources could adversely affect district operations. Three districts had less than two months of operating reserves. Six districts had declining net assets to cover their long-term debt, should an issue arise.

Five districts had an operating deficit, with total operating expenses exceeding total operating revenues, in fiscal year 2009. Although none of these districts operated in a deficit for the past three straight years, the number of occurrences has increased from two in 2007, and four in 2008.

The presence of one financial indicator does not necessarily mean that a district is facing financial stress. In **Figure 4**, six districts had two or more indicators outside of the threshold limit. Under this model, this would trigger additional review. **Figure 4** shows that most of the indicators outside expected ranges were viability and operating revenue ratios that are designed to identify an increase or decrease in districts' operations or reserves. A decrease over a three-year period could result from a deliberate spending down of fund balances to supplement operations, or from planned capital project expenditures that used reserves established for that purpose.

Without additional follow-up, the cause and materiality of the financial issues in these districts cannot be determined. Nonetheless, an indicator should prompt further examination by district decision-makers to determine what caused the indicator to fall outside of the expected range. The more indicators outside of range a district has, the more likely it is to be experiencing financial stress. Continued financial stress could cause a district to reduce or eliminate programs and jobs, and may affect the quality of education.

ENHANCE THE COMMUNITY COLLEGE ANNUAL REPORTING AND ANALYSIS TOOL

Shifts in federal, state, and local funding can create financial challenges for districts. Open access to information about the results of financial operations fosters trust and confidence in a district's financial management and viability. Annual financial reports provide extensive detail about a district's financial strategy for use by internal and external stakeholders. However, these reports are not always easy for a lay person to understand community college financial condition and performance.

To facilitate higher education oversight, THECB developed the Higher Education Accountability System for community colleges in fiscal year 2004. However, the system has yet to be used to monitor financial performance and to determine if resources are being used efficiently. An alternative, THECB has begun to develop a new database and reporting tool, the CARAT. This database includes a set of ratios, including a subset of the latest KPMG ratios, drawn from data provided in community college annual financial reports from fiscal year 2003 forward. According to THECB, the purpose of CARAT is to "provide community college Chief Financial

Officers (CFOs), Chief Executive Officers (CEOs), other community college management staff and THECB staff the ability to perform analysis and prepare reports on the community college AFRs and Annual Investment Reports (AIRs)." Individual colleges can prepare analyses by comparing peer groups or the entire population of community colleges to assist in the management of their own college.

THECB currently uses CARAT for data analysis and internal and external financial reports, but does not monitor college financial performance due to limited resources. According to THECB staff, these ratios are being reviewed by community college leadership to determine whether or not they will enhance performance monitoring and management of their financial profiles. The database is scheduled to be operational January 2011.

Recommendation 1 would improve state and local oversight of community college financial management by requiring THECB, in consultation with the LBB, to provide an annual report to the Governor and the LBB about the financial condition of the state's community college system using financial indicators.

A stronger set of financial ratios, such as those developed by Grant Thornton, could be added to the CARAT system with limited additional effort by districts. These ratios build on indicators already reviewed by THECB. If implemented through the CARAT database, there would be a single source of data entry for community college districts and a single repository for financial and non-financial indicator review.

An annual report on the financial condition of community college districts would be beneficial for several reasons. The report can assist the Legislature in its oversight function by indicating overall community college performance and effectiveness in carrying out the districts' educational missions. The reports would also inform budgeting and policy decisions by the Legislature and other oversight agencies, and identify issues that require attention. In addition, the reports would allow local residents to hold their local community college governing boards accountable for district performance.

IMPROVE COMMUNITY COLLEGE DISTRICT INTERNAL CONTROLS

The Texas Internal Auditing Act mandates that state agencies include accounting, administrative, Information Technology (IT) and other major systems and controls as part of an on-going internal audit program. The purpose of an internal audit function is to review and appraise the reliability and integrity of internal control systems, evaluate the accuracy and reliability of accounting and reporting systems, and determine the extent to which resources are employed economically and efficiently. Community colleges, however, are not required to comply with this Act.

Several community college districts comply with the Texas Internal Audit Act voluntarily. During the LBB staff and consultant site visits to 10 districts, three of the larger districts had an internal audit function. Site visits found that an internal audit function is the exception rather than the rule. For those districts that do have an internal audit office, they play different roles outside of the internal audit function, and have relationships with their boards that are different than typical internal audit offices.

Recent audits by the SAO indicate districts need to improve internal controls. A May 2009 audit report found that one community college district was minimally compliant, and six community college districts that were substantially or partially compliant with the Public Funds Investment Act. An October 2010 SAO audit of dual credit programs at selected higher education institutions found that 10 of 12 community colleges need improvement in at least one requirement related to monitoring and evaluation of dual credit courses. The audit also identified 8 of 11 colleges reviewed had insufficient general information technology controls over their student information systems to ensure the reliability of student data.

Internal auditing is considered an essential function in government organizations. Internal auditors carry the work of external auditors a step further. While external auditors are primarily concerned with the financial aspects of the organization, internal auditors help management improve the organization's performance through compliance with organizational policies and procedures, evaluation of internal controls, and identification of inefficient, unproductive, and fraudulent processes.

Recommendation 2 would amend the Texas Government Code to include community college districts in the Texas Internal Auditing Act. Effective internal audit programs could help the colleges identify and correct financial and operational problems on an ongoing basis. According to the act, only districts with operating budgets over $10 million, more than 100 full-time-equivalent (FTE) positions, and receives more than $10 million in cash in a fiscal year, would

be required to have an internal audit program. If included in the act, 35 districts or 70 percent would be required to have an internal auditing program. The remaining 15 districts would only be subject to an annual risk assessment process.

To allow those districts time to plan and budget for an internal audit program, the recommendation would establish an implementation date of no later than the end of fiscal year 2014. All community colleges would be required to submit a risk assessment as required by the Act no later than March 31, 2012.

IMPROVE BOARD OVERSIGHT BY REQUIRING FINANCIAL MANAGEMENT TRAINING

Each Texas public community college district has its own governance structure to manage the fiscal resources affecting all aspects of the district. As stewards of the resources entrusted to the district, trustees have the responsibility to ensure that the financial condition and results of operations are presented in the district financial statements in as transparent a manner as possible. Numerous factors can affect the financial condition of a district, impacting the ability to provide for the educational and training needs of the community.

Interviews with several district trustees indicated that many trustees may not understand the institution's financial condition and associated risks because they do not receive reports related to strategic financial risks, the institution's responses to those risks, and key financial metrics and drivers. Trustees are often associated with for-profit companies, which become the context for their point of view. For-profit financial reports are much different than those for higher education. Although for-profit companies' budget approach often starts with a revenue plan, higher education institutions generally start with their level of expenses and capital needed, and then determine the amount of revenue needed to cover those costs.

Texas statutes mandate training for new district trustees regarding the Public Funds Investment Act, the official role and duties of the members of governing boards, budgeting, policy development, and governance. According to statute, training may also include:

1. auditing procedures and recent audits of institutions of higher education;
2. the enabling legislation that creates institutions of higher education;
3. the role of the governing board at institutions of higher education and the relationship between the governing board and an institution's administration, faculty and staff, and students;
4. the mission statements of institutions of higher education;
5. disciplinary and investigative authority of the governing board;
6. the requirements of the open meetings law, Chapter 551, Texas Government Code, and the open records law, Chapter 552, Texas Government Code;
7. the requirements of conflict of interest laws and other laws relating to public officials;
8. any applicable ethics policies adopted by institutions of higher education or the Texas Ethics Commission; and
9. any other topic relating to higher education the board considers important.

Texas community colleges are complex organizations. Even though trustees may not have financial or accounting backgrounds, they provide direction for and monitor the fiscal strength of the district. They must understand basic fiscal concepts, budgets and financial reports, and be able to evaluate internal controls and audits.

Recommendation 3 would amend the Texas Education Code to require THECB to enhance its community college board training. New training would include best practices in campus financial management, financial ratio analysis, and practical case studies. Institutions would be directed to provide board members with ratio information to better manage the finances of their district.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations have no significant fiscal impact on the state. THECB can implement Recommendations 1 and 3 within existing resources. Community colleges should be able to implement Recommendation 2 within existing resources beginning fiscal year 2014.

The introduced 2012–13 General Appropriations Bill includes a rider implementing Recommendation 1. The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of Recommendations 2 and 3.

IMPROVE ACCOUNTABILITY OF TECH PREP CONSORTIA

Tech Prep programs serve as a bridge between high school and postsecondary career and technical education by offering high school courses that also count as college credit. First authorized in 1990 by federal legislation, Tech Prep programs combine secondary career and technical education with a minimum of two years of postsecondary education in a non-duplicative, sequential series of courses. They integrate academic and technical instruction and include work-based learning such as job-shadowing. Tech Prep consortia arrange for public teacher training, facilitate local business input, and manage program relationships between public school districts and public institutions of higher education through articulation agreements.

The Texas Higher Education Coordinating Board allocates funding to and oversees Tech Prep consortia. Program funding comes from a state allocation of federal funding, which provided approximately $8 million in fiscal year 2009. This allocation, and other federal, state, and local funding, allowed 177,688 high school students to participate in Tech Prep in fiscal year 2009.

Although the Texas Higher Education Coordinating Board approves Tech Prep consortia grant applications and monitors their performance, it is not complying with relevant statute and lacks a thorough system for evaluating the consortia. Also, the data reported by school districts and used by the agency to evaluate Tech Prep consortia is based on data definitions and reporting procedures that diminish the accuracy of federally established performance indicators. Amending statute to require Tech Prep evaluation and clarify data reporting requirements would provide the agency and the Texas Legislature with more useful information to gauge Tech Prep programs' contribution to helping high school students earn college credit and prepare to enter the workforce.

CONCERNS

- The Texas Higher Education Coordinating Board does not comply with the state's statutory requirement to provide Tech Prep consortia written evaluation reports each October of even numbered years.
- The value of Tech Prep performance indicators is compromised by the inconsistent identification by public independent school districts of students participating in Tech Prep. This makes it difficult to hold Tech Prep consortia accountable.

RECOMMENDATIONS

- **Recommendation 1:** Amend Texas Education Code to require the Texas Higher Education Coordinating Board to conduct desk evaluations and issue written reports to Tech Prep consortia on an annual basis, for those years when the agency does not conduct a site visit.
- **Recommendation 2:** Amend Texas Education Code to require the Texas Education Agency to establish administrative rules that will dictate a specific and clear definition and process for identifying high school students as Tech Prep participants.
- **Recommendation 3:** The Texas Education Agency should modify its training and assistance to Education Service Centers and public independent school districts to ensure they understand and implement the new rules consistently.

DISCUSSION

Tech Prep programs lead to a postsecondary certificate or degree and potentially to employment in a high skill, high wage, high demand occupation. In a Tech Prep program, students take high school courses that also count as college credit based on articulation agreements. These are agreements between public school districts and colleges that identify which Career and Technology Education (CTE) courses the college will recognize for credit once the student enrolls there. Tech Prep consortia establish and manage the agreements.

Typically based at community colleges, Texas' 26 Tech Prep consortia work to ensure public high school students transition smoothly to postsecondary CTE programs with enough technical competencies to take advanced courses, graduate in less time, and find desired employment. Consortia do this by bringing together high school and college faculty to develop articulation agreements, provide professional development for high school CTE teachers, inform school districts, colleges, and area businesses about Tech Prep program benefits, and generally improve CTE programs. Consortia are governed by a board representing

regional school district, postsecondary, non-profit, and private sector entities.

Tech Prep consortia funding comes from the federal Perkins Title II state allocation, which allocated the Texas Higher Education Coordinating Board (THECB) approximately $8 million in fiscal year 2009. THECB distributes Perkins grant funding to and oversees Tech Prep consortia, and provides them information resources.

STRENGTHEN TECH PREP MONITORING

THECB manages an Internet-based system through which Tech Prep consortia submit annual grant applications and quarterly reports. In addition to monitoring these reports and interacting with consortia staff throughout the year, the agency conducts sites visits at least every four years and prepares evaluation reports documenting its findings and recommendations. Agency staff may also conduct a site visit when they are reviewing a tech prep consortium's host community or technical college. The Texas Education Code, however, requires the agency to evaluate each consortium every two years and to provide each consortium a report containing the results of the evaluations by October 1 of each even-numbered year. THECB's four-year evaluation cycle and interim monitoring does not comply with this statute. Also, the agency does not give consortia written assessments based on its review of the consortia's quarterly reports. Instead, that information is communicated verbally to consortia staff.

To address these problems, Recommendation 1 would amend statute to explicitly require THECB to produce annual desk-based evaluation reports, for those years when agency staff do not conduct a consortium site visit. The reports would assess Tech Prep consortia performance and offer recommendations. This approach would provide consortia written annual feedback, thereby serving as a reference point for future grant applications.

ENSURE THE USEFULNESS OF PERFORMANCE DATA

Accountability for Tech Prep relies on the accuracy of nine performance indicators established by federal legislation. A key component of the indicators is the definition of, and process for, identifying a Tech Prep student. The Texas Education Agency (TEA) defines a Tech Prep student as someone who has enrolled in two CTE courses and has a four-year Tech Prep high school plan of study. TEA requires school districts to collect data for Tech Prep and other Perkins related secondary education indicators. A review of Tech Prep data indicated inconsistencies in stemming from differences in the way school district staff identify students as Tech Prep participants.

An Legislative Budget Board (LBB) staff analysis of Tech Prep student counts by community types, a categorization of school districts by similar characteristics, found large variations in the percentage of CTE students in Tech Prep among school districts within various community types. For over 200 school districts in fiscal year 2010, the percentage of CTE students in Tech Prep programs was substantially different than statewide averages within those community types. This shows that the Tech Prep student identification process varies among school districts.

A Tech Prep student count trend analysis also revealed student count inconsistencies. Annual changes in Tech Prep student participation fluctuated by more than 50 percent for two or more years from fiscal years 2007 to 2009 in 287 public school districts. According to Tech Prep consortia directors, these fluctuations cannot be attributed solely to real Tech Prep student participation.

A (LBB) staff survey of Tech Prep consortia directors indicated they believe high turnover in school district administrative staff and lack of adequate training causes errors in Tech Prep student counts. As a result, it is difficult to hold accountable Tech Prep consortia, and programs administered by school districts and community/technical colleges.

Recommendation 2 would address the inconsistent identification of Tech Prep student by amending statute to require the Texas Education Agency to establish a specific and clear definition and consistent process for identifying high school students as Tech Prep participants. Recommendation 3 proposes that TEA modify its training and assistance for Education Service Center and school district staff to include information about the new definition and procedures for identifying Tech Prep students. These recommendations would help ensure that school districts submit accurate Tech Prep student data, thereby enabling valid research and evaluations.

FISCAL IMPACT OF THE RECOMMENDATIONS

Implementation of the recommendations would result in additional workload for TEA and THECB, but can be completed by using existing resources. No fiscal impact would result from implementation of the recommendations. The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of the recommendations.

IMPROVE THE EFFECTIVENESS OF THE TEXAS COMMON COURSE NUMBERING SYSTEM

Effective state transfer policies are a key component to efficient baccalaureate degree productivity. Prolonging the time to receive a baccalaureate degree reduces the chances that students will complete college. Legislation enacted in 2003 directed the Texas Higher Education Coordinating Board to facilitate the transfer of courses among community colleges and universities by promoting consistency in course designation and identification. In 2004, the agency designated the Texas Common Course Numbering System as the approved common course numbering system for lower-division courses.

The Texas Common Course Numbering System has a limited effect in facilitating course transfer. Institutions that participate in the system are not required to accept transfer credit for all courses that are included in the system. This is true even if the receiving institution offers equivalent courses that are taught by comparable qualified faculty. In addition, because Texas Common Course Numbering System information is only updated biannually, course information may be incorrect. Requiring courses included in the system to be transferable to institutions of higher education would reduce the number of credits lost through transfer and improve a transferring student's success in earning a baccalaureate degree.

FACTS AND FINDINGS

- A 2010 Texas Higher Education Coordinating Board survey found that the average time to degree for transfer student graduates was seven years compared to the average time to degree for non-transfer student graduates of five years.
- In fiscal year 2009, transfer students graduated with an average of 130 semester credit hours to 168 semester credit hours, depending on the institution.

CONCERNS

- The Texas Common Course Numbering System has limited effectiveness in facilitating transfer, because adoption of the system by institutions of higher education is voluntary. As a result, the transfer process is based more on specific university campus requirements, rather than on statewide or system wide goals and objectives.
- Course revisions, additions or deletions in the Academic Course Guide Manual may not be accurately reflected in the Texas Common Course Numbering System. This makes it difficult for institutions and transfer students to make informed decisions about whether or not a course will qualify for transfer credit.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Education Code, Chapter 61.832, to guarantee the transfer of all courses in the Texas Common Course Numbering System if the receiving institution offers the equivalent course. Courses that institutions determine are ineligible for transfer would no longer be included in the system's transfer matrix.
- **Recommendation 2:** Amend the Texas Education Code, Chapter 61.832, to require institutions of higher education to annually provide the Texas Higher Education Coordinating Board with information on courses added or deleted to the institution's inventory, if the course is included in the Texas Common Course Numbering System.

DISCUSSION

According to the Southern Regional Education Board (SREB), college transfer policies are a key component in states' efforts to increase degree completion. National research shows that nearly 60 percent of all students attend more than one postsecondary institution on their way to a postsecondary degree. Students who seek to transfer often find that lack of curricular alignment between institutions requires course repetition, creating layers of complexity for institutions and students alike. The frustration experienced and extra time required can be a hindrance to transfer and successful completion of a baccalaureate degree. Furthermore, a lack of course coordination can discourage students from transferring at all.

As noted in the Legislative Budget Board's 2009 *Government Effectiveness and Efficiency Report*, "Increase the Student Transfer Rate from Two-Year to Four-Year Institutions," existing community college pathways to a possible baccalaureate degree are often disconnected for students.

Generally, community college courses taken in the liberal arts as part of an academic program will be accepted at four-year institutions but transfer rates remain low, approximately only 20 percent. Low transfer rates can be attributed to numerous challenges, such as inadequate transfer policies or enforcement, lack of guaranteed course acceptance, and lack of curricular alignment.

The Texas Legislature has established several policies to facilitate articulation (the ability of students to transfer course credits between institutions) within the state's higher education system. State articulation policies include, but are not limited to, the establishment of a statewide core curriculum, articulation agreements between institutions, the Lower Division Academic Course Guide Manual (ACGM), and the Texas Common Course Numbering System (TCCNS).

The Academic Course Guide Manual (ACGM), developed by the Texas Higher Education Coordinating Board (THECB), serves as the generic academic course inventory for all community and technical colleges in Texas. The ACGM lists the academic courses by disciplines that are funded by the state for public community and technical colleges. Courses in the ACGM may or may not transfer to a public university. All courses listed in the ACGM have been numbered to correspond to course numbers assigned by the TCCNS. The TCCNS lists all lower division courses eligible for transfer from a community college to university.

The TCCNS began as a cooperative effort among junior/community colleges, public and private universities in Texas during mid-1970s, became a regional consortium in the late 1980s, and finally a statewide organization in the early 1990s. The TCCNS was developed to determine both course equivalency and degree applicability of transfer credit for freshman- and sophomore-level general academic coursework between Texas community colleges and universities.

To add a new course to the TCCNS Inventory, an institution must petition the TCCNS' Board. The Board consists of seven members appointed by three organizations from both public and private higher education institutions, two representatives from the THECB, and the TCCNS website manager. Because the purpose of TCCNS is to facilitate transfer among institutions, the requesting institution must provide adequate information so the board can determine the need for the requested course and course equivalents. Information submitted includes justification for the course, recommendations from academic chairs or appropriate administrators at Texas universities offering programs in the disciplined area; and a signature from the institution's Chief Academic Officer. Requesting institutions are also required to research and review current course offerings and transfer practices among Texas institutions.

Adoption of the TCCNS by institutions is voluntary; however, institutions wishing to implement the system must seek membership by completing a T*exas Common Course Numbering System Agreement*. According to the agreement, "membership or participation in the TCCNS in no way guarantees the transferability of courses to other institutions of higher education." Members are required to maintain the TCCNS in accordance with established guidelines.

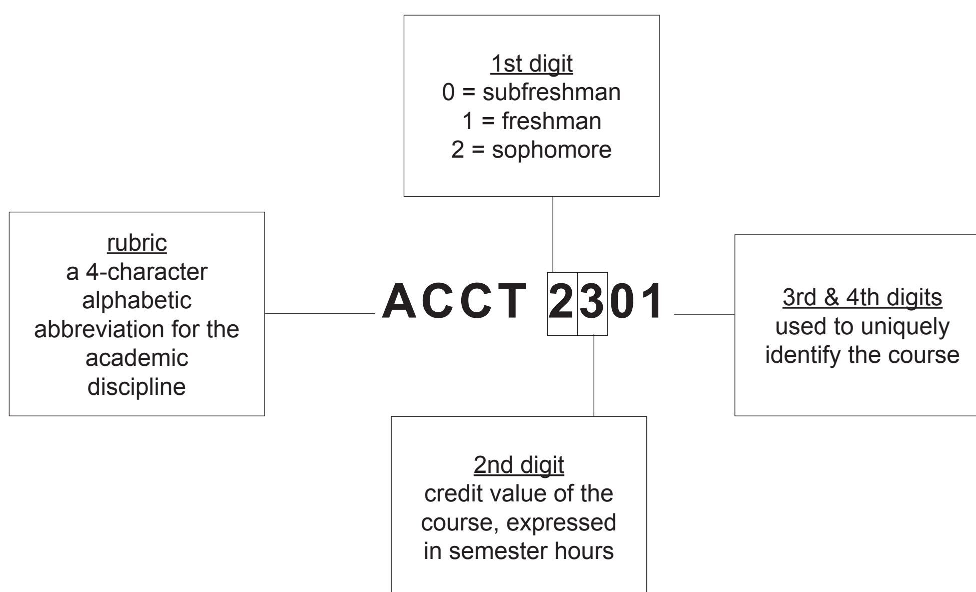
In 2003, the legislation enacted by the Seventy-eighth Legislature, Regular Session, required THECB to "facilitate the transfer of those courses among institutions of higher education by promoting consistency in course designation and identification…already in common use in this state by institutions of higher education." THECB designated the TCCNS as the approved common course numbering system in 2004, which required institutions to use the TCCNS in their printed and electronic catalogs, course listings, and any other appropriate information resources. For those colleges and universities that maintained their own institutional course numbering systems, THECB rules provide guidance on the appropriate display of TCCNS numbers in these materials beginning September 1, 2005.

TEXAS COMMON COURSE NUMBERING SYSTEM FRAMEWORK

The TCCNS provides the framework that allows students to transfer credits between institutions. As shown in **Figure 1**, courses in the system are identified by a four-letter "rubric" and four-digit number. The rubric is always four upper-case alphabetic characters. The four-letter rubric provides the general subject area of the course, such as biological sciences or history, while the four-digit number denotes the course level and content. Transferable equivalent courses (or direct equivalents) have the same rubric and last four digits.

When students transfer between two participating TCCNS institutions, a course taken at the sending institution transfers as the course cross-referenced with the exact same TCCNS designation at the receiving institution. These are direct course equivalents and their transfer is required. However, when students transfer courses that are not cross referenced with the same TCCNS designation, there is no guarantee that these classes will transfer. Students must confirm with

FIGURE 1
TEXAS COMMON COURSE NUMBERING SYSTEM TAXONOMY, 2010



Source: Texas Common Course Numbering System.

the institution to which they wish to transfer that these non-equivalent courses will transfer because receiving institution has discretion about whether or not to accept non-equivalent courses for transfer credit.

All Texas community colleges have adopted TCCNS rubrics/numbers as their internal course numbering system. However, many courses at these institutions are not actually common in content to similar courses in universities and are not generally transferable. For this reason, some courses receive special accommodation and are not listed in the TCCNS matrix (i.e., Academic Co-operative Courses, Applied Music, and Music Ensemble), either because of their nature or the circumstances in which they are offered within the State of Texas. However, these courses are listed on the TCCNS website.

CURRENT TRANSFER PROCESS IS INEFFICIENT

The community college transfer process can be an efficient road to a baccalaureate degree, allowing students to complete lower-division courses at a lower cost to both students and the state. Under ideal circumstances, a student completes 60 semester credits at a community college, including all lower-division core curriculum requirements and prerequisite courses for a major, and then completes an additional 60 credits of upper-division coursework at a university for the typical baccalaureate degree requiring a total of 120 credits. However, few community college students follow this ideal transfer path to a baccalaureate degree.

A recent THECB survey showed that more than 7,700 transfer students graduated in fiscal year 2009 with an average of 147 semester credit hours (SCH) as shown in **Figure 2**. The number of SCH ranges among institutions from 130 SCH to 168 SCH. The excess SCH resulted from course-taking actions at both community college and university campuses.

Both native (students beginning at a four-year institution) and transfer students attempted more than 120 SCH during their career, with a statewide average of 144 SCH attempted per native student. The average SCH difference between native and transfer students of 3 SCH indicates inefficiency in the current system at a potential cost to the state of $2.2 million (3 SCH X $96.13 per SCH based on THECB calculation for average undergraduate appropriations 2010–11 X 7,700 transfer student graduates). The actual time to degree, measured in the number of years between the first semester a student enrolls through the semester is different, with transfer students needing two more years than native students (seven years to five years respectively) to graduate. Excess SCH increase the cost of a degree to both students and the state, and limit access because students are

FIGURE 2
TIME TO DEGREE FOR FALL 2005 GRADUATE COHORT

	TOTAL GRADUATES (NATIVES)				TOTAL GRADUATES (TRANSFERS)			
INSTITUTION	TOTAL GRADUATES	AVERAGE TIME TO DEGREE	AVERAGE NO OF SCH ATTEMPTED	AVERAGE NO OF SEMESTERS	TOTAL GRADUATES	AVERAGE TIME TO DEGREE	AVERAGE NO OF SCH ATTEMPTED	AVERAGE NO OF SEMESTERS
Sul Ross State University Rio Grande College	N/A	N/A	N/A	N/A	41	7	149	12
Angelo State University	427	6	151	10	44	7	153	11
Texas A&M University-Commerce	273	5	144	10	222	8	142	11
Lamar University	516	6	147	10	48	7	148	11
Midwestern State University	333	6	149	11	62	8	140	11
University of North Texas	1,656	5	146	10	624	7	147	11
The University of Texas-Pan American	1,100	6	159	11	226	7	154	12
Sam Houston State University	805	5	145	10	305	7	152	11
Texas State University-San Marcos	1,769	5	143	10	531	7	150	11
Stephen F. Austin State University	1,097	5	150	10	164	7	151	11
Sul Ross State University	81	6	152	10	11	9	156	11
Prairie View A&M University	495	5	153	10	45	8	144	11
Tarleton State University	511	5	149	10	216	8	143	11
Texas A&M University	5,845	5	142	10	352	6	149	10
Texas A&M University-Kingsville	321	6	158	11	112	8	151	12
Texas Southern University	318	6	163	11	21	8	162	12
Texas Tech University	2,739	5	144	10	216	6	150	11
Texas Woman's University	287	5	146	10	150	8	141	11
University of Houston	1,637	6	148	11	457	7	147	11
The University of Texas at Arlington	986	5	146	10	522	7	145	11
The University of Texas at Austin	5,285	5	132	9	182	6	139	10
The University of Texas at El Paso	972	6	148	11	224	8	145	12

FIGURE 2 (CONTINUED)
TIME TO DEGREE FOR FALL 2005 GRADUATE COHORT

	TOTAL GRADUATES (NATIVES)				TOTAL GRADUATES (TRANSFERS)			
INSTITUTION	TOTAL GRADUATES	AVERAGE TIME TO DEGREE	AVERAGE NO OF SCH ATTEMPTED	AVERAGE NO OF SEMESTERS	TOTAL GRADUATES	AVERAGE TIME TO DEGREE	AVERAGE NO OF SCH ATTEMPTED	AVERAGE NO OF SEMESTERS
West Texas A&M University	379	6	147	11	729	8	143	11
Texas A&M International University	169	5	143	10	90	8	154	12
The University of Texas at Dallas	810	5	137	9	446	7	142	11
The University of Texas of the Permian Basin	101	6	145	11	65	8	148	12
The University of Texas at San Antonio	1,208	6	146	11	406	8	148	12
Texas A&M University at Galveston	149	5	151	10	16	8	168	12
Texas A&M University-Corpus Christi	497	5	146	10	167	8	152	12
The University of Texas at Tyler	127	5	145	10	214	7	147	11
University of Houston-Clear Lake	N/A	N/A	N/A	N/A	263	7	150	11
University of Houston-Downtown	230	6	149	12	217	7	138	11
University of Houston-Victoria	N/A	N/A	N/A	N/A	132	8	139	11
Texas A&M University-Texarkana	N/A	N/A	N/A	N/A	87	8	130	11
The University of Texas at Brownsville	30	6	153	11	102	8	142	11
Statewide Summary for Universities	**31,153**	**5**	**144**	**10**	**7,709**	**7**	**147**	**11**

SOURCE: Texas Higher Education Coordinating Board.

taking up seats in courses that could otherwise be filled with additional students.

Improving the transfer process can contribute greatly to improved efficiency of the entire state postsecondary system. In the short term, with community colleges facing higher enrollment demands and increasing tuition costs at universities, a streamlined transfer process becomes more important than ever. Community college transfer students should move efficiently along a well-defined transfer pathway. Not only would such a process increase college completion rates, but it would free up much needed space in colleges and universities by reducing unnecessary course enrollments.

STRENGTHEN TEXAS COMMON COURSE NUMBERING FRAMEWORK

In August 2010, THECB conducted a survey in fulfillment of the requirement of legislation enacted by the Eighty-first Legislature, Regular Session, 2009, asking each general academic institution to assess existing academic and technical transfer pathways, identify barriers to transfer, and define emerging issues. The survey also asked institutions to describe

actions to serve current and future transfer students through local and regional articulation agreements with faculty collaboration, community college program enhancements, student outreach and advising, website information development, targeted financial aid, university student success programs, and degree program alignment. Several institutions cited difficulties with college advisors giving incorrect or incomplete information to potential transfer students. Specific issues mentioned by institutions included: students taking nontransferable courses; confusing transfer terminology among state institutions; increased need for web-based transferable course information; inconsistent use of common course numbers for receiving institutions; and regular updates for and contact information for TCCNS not readily available.

The course taking patterns of students are influenced by various factors, many of which are beyond an institution's control. However, two factors that institutions control may contribute to problems with student transfer using the TCCNS. First, community colleges offer many courses (including developmental education, unique need and workforce education) that are not directly transferable to the state's public universities. Second, the TCCNS does not clearly identify the transferability of university equivalent courses listed in the TCCNS On-Line Matrix. Eleven universities have not formally adopted the TCCNS taxonomy and require an additional course "crosswalk" to determine transferability of TCCNS courses at those institutions. Consequently, students and advisors may not be able to readily determine which courses to take to ensure a smooth transition to a public university.

The Texas Education Code requires the THECB to adopt the TCCNS system and institutions to adopt the TCCNS taxonomy. There is no requirement in this statue to specify or ensure course transferability. Texas Administrative Code does require that all successfully completed lower-division academic courses in TCCNS, and published in the ACGM shall be fully transferable among public institutions and shall be substituted for the equivalent course at the receiving institution. However, applicability of transferred courses to requirements for specific degree programs is determined by the receiving institution. As a result, students have no guarantee that all of their courses will transfer unless they check in advance with the institution.

For the state's transfer process to work most effectively for students, the requirements must be clear and standardized. Community college students should be able to: (1) easily understand the requirements for transfer and have assurance that these requirements are consistent among the campuses within each segment; (2) readily identify transferable courses; and (3) have confidence that the community college courses they complete will be accepted by university campuses as meeting particular requirements. In recognition of this, THECB has recently developed the Voluntary Statewide Mechanical Engineering Compact, which helps community college students transfer to universities.

Notwithstanding these efforts, the state's transfer process continues to lack standardization. Because the state lacks a comprehensive and integrated approach to transfer policies, students must navigate a complex maze of requirements that vary across campuses (even within a segment). The transfer process currently tends to be based more on specific university campus requirements, rather than "statewide" or system wide goals and objectives.

Recommendation 1 would increase the transparency of the State's existing transfer process by guarantying the transfer of all courses in the TCCNS if the receiving institution offers the equivalent course. Participation by all Texas institutions of higher education in TCCNS is essential to clearly identify course transferability and applicability to a degree, including those in the common core curriculum. Courses that institutions determine are ineligible for transfer would no longer be included in the TCCNS transfer matrix.

REQUIRE CLEAR AND TIMELY COMMUNICATION OF COURSE AND DEGREE PREREQUISITES

Clear and timely communication of changes in courses and degree prerequisites is an issue for both institutions and students. Changes in faculty or program requirements can result in curricular and prerequisites changes at the university and may require significant renegotiation of voluntary articulation agreements with community colleges. To accommodate these possibilities and other changes, the THECB's Academic Course Guide Manual (ACGM) Committee reviews all courses submitted by community colleges twice a year or more if necessary. Course revisions are made in the ACGM after ACGM members meet.

Course revisions, additions or deletions in the ACGM may not be accurately reflected in the TCCNS. As of October 2010, the TCCNS website reflected courses for fiscal year 2009 compared to the ACGM manual on the THECB website dated fall 2010 (fiscal year 2011). Inconsistent information at the sending and receiving institutions makes it difficult for transfer students to make informed decisions.

According to TCCNS' guidelines, "Addition or deleting of courses to an institution's inventory, for which a common number exist, should be indicated on the biennial update document sent to institutions Database Coordinator." Participation in the TCCNS is voluntary; as a result, institutions may not always report these changes in a timely manner.

Recommendation 2 would amend the Texas Education Code to require public institutions of higher education to annually provide THECB with information on courses added or deleted to the institution's inventory, if the course is included in the TCCNS. The THECB will provide this information to TCCNS to ensure consistency with the Academic Course Guide Manual.

To be most effective, the TCCNS must be conceptualized as part of a larger statewide initiative such as the development of transfer associate degrees, a revised common core curriculum, and/or statewide major preparation pathways or areas of emphasis. Going forward, TCCNS staff should work closely with THECB in developing such statewide initiatives, and prioritize the development and approval of common courses at the core of these reforms.

FISCAL IMPACT OF THE RECOMMENDATIONS

These recommendations would have no significant fiscal impact to the state in the 2012–13 biennium.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

NON-TAX REVENUE COLLECTED FROM PUBLIC HIGHER EDUCATION STUDENTS

Annually, the Legislative Budget Board staff publishes the *Non-Tax Collected Revenue Survey*. Public institutions of higher education comprise 42 percent of the content of each report. Legislative Budget Board staff used the survey database to determine responses to the following questions regarding public higher education policies. Have increases in tuition moderated increases in fees? What is the variance among institutions in the ratio of tuition to fees? Have increases in resident tuition outpaced non-resident tuition? What percentage of student revenue is not appropriated and not deposited in the state Treasury? Over time, has collection of tuition and fees kept pace with assessments?

A focus on student revenue is important for the following reasons: it is most of the non-tax revenue collected in higher education; affordability and equity for students are ongoing policy issues; and revenues from students are increasing relative to other sources of revenue for higher education. Responses to the questions above inform policies of transparency and affordability.

FACTS AND FINDINGS

- Non-tax collected revenue was reported within 23 categories grouped into three major types of revenue —student (tuition and all fees), patient, and other.
- During fiscal year 2009, institutions of higher education collected $7.4 billion via 23 million assessments. Sixty-four percent ($4.7 billion) was student revenue, 31 percent ($2.3 billion) was patient revenue collected at health-related institutions, and 5 percent ($369 million) was other revenue.
- From fiscal years 2005 to 2009, student revenue increased $2.1 billion for a 15 percent annual rate of change. Student revenue amounts increased more at universities compared to community, technical, and state colleges but the rate of increase was higher at community, technical, and state colleges compared to universities.
- From fiscal years 2005 to 2009, student revenue increased more than full-time-student-equivalents for all sectors.
- From fiscal years 2005 to 2009, student revenue increased more than appropriations of General Revenue Funds for all sectors.
- Student fee revenue increased at higher rates compared to tuition revenue, except at universities. From fiscal years 2005 to 2009, increases in tuition revenue did not moderate increases in other student fee revenue in higher education.
- From fiscal years 2005 to 2009, resident/in-district tuition revenue increased more than non-resident/out-of-district tuition revenue at universities, but not at community, technical, and state colleges.
- Most tuition, and most increases in tuition, was as institutional funds. Statewide during fiscal year 2009, tuition as institutional funds was 66 percent of tuition revenue, up from 54 percent during fiscal year 2005. From fiscal years 2005 to 2009, university tuition as institutional funds doubled from $707 million to $1,428 million.
- The ratio of tuition revenue to student fee revenue varied by institution. During fiscal year 2009, of $4.7 billion in revenue collected from students, two-thirds was tuition and one-third was student fees. Tuition as a percentage of student revenue varied from 56 percent to 82 percent across universities.
- Most student revenue was outside of the treasury and was not appropriated. During fiscal year 2009, of $4.7 billion of student revenue, $3.7 billion (78 percent) was not deposited into the state Treasury, while $3.6 billion (77 percent) was not appropriated.
- Student revenue not collected increased at lower rates compared to student revenue collected, except for distance education and all student revenue at universities. During fiscal year 2009, $60 million of student revenue was assessed but not collected.

DISCUSSION

Fees for public higher education are authorized by statute. An analysis of growth in user fees to support specific activities of institutions could facilitate several pursuits. Policies, procedures, and operations could optimize user fees along

with other revenue sources (i.e., appropriations and tuition). Policies could be modified regarding affordability for students (capacity and utilization, authority/purpose/type, compulsory versus voluntary, and outcomes important to students and the state). Procedures could be enhanced regarding administration of fees (initial and subsequent amounts, exemptions, defined expenditures, and lapsed balances). Operations could be improved regarding collection of fees (deferred payment, collection of receivables, remissions, and fund accounting).

LEGISLATIVE BUDGET BOARD NON-TAX COLLECTED REVENUE SURVEY

Legislative requirements are stipulated in Reporting of Fees, Fines, and Penalties, Article IX Section 7.07, General Appropriations Act Eighty-first Legislature, Regular Session: (a) Before November 1 of each fiscal year, each state agency and institution of higher education (including a community or junior college) shall report to the Legislative Budget Board in the manner prescribed by the Legislative Budget Board all fees, fines, and penalties assessed and all fees, fines, and penalties assessed but not collected by the agency or institution during the prior fiscal year. (b) Each report made under this section shall detail the effort made by the reporting state agency or institution of higher education to collect fees, fines, and penalties that are more than 90 days past due.

Annually since fiscal year 2005, the Legislative Budget Board publishes the *Non-Tax Collected Revenue Survey* (available at http://www.lbb.state.tx.us). All state agencies and institutions, across all Articles of the General Appropriation Act (GAA), provide the information summarized in these reports. For each fee, fine, penalty, and other collected revenue, the following elements are detailed: agency code and name; statutory reference and effective date; Comptroller Revenue Object Code; fee amount; number assessed; dollars assessed; dollars assessed but not collected; dollars collected; whether the funds are in or outside the Treasury; and whether the funds are appropriated, partially appropriated, not appropriated. Additionally, each agency may include footnotes and a past due collection summary.

The reports to date (fiscal years 2005 to 2009) encompassed 3,273 pages for an average of 655 pages each year. Public higher education comprised 42 percent of the content of each report, totaling 1,367 pages for an average of 273 pages per year. The survey database included 11,266 records (about 2,253 per year) as reported by institutions of higher education.

Legislative Budget Board staff used the survey database to determine responses to the following questions regarding public higher education policies. Have increases in tuition moderated increases in fees? What is the variance among institutions in the ratio of tuition to fees? Have increases in resident tuition outpaced non-resident tuition? What percentage of student revenue is not appropriated and not deposited in the state Treasury? Over time, has collection of tuition and fees kept pace with assessments?

QUALITATIVE DESCRIPTION OF NON-TAX COLLECTED REVENUE SURVEY

Non-tax collected revenue was reported within 23 categories (via fees with various purposes/names). For purposes of this report, the categories were grouped into three major types of revenue: (1) student revenue, primarily from fees paid for academic and related activities of students; (2) patient revenue, from fees paid for individual services provided by health-related institutions; and (3) other revenue, primarily from fees for purposes other than academic/related activities and patient care. Certain fees (i.e., library) were reported in multiple types and categories. Such variation could be related to multiple distinct purposes of fees collected by an organizational unit or to anomalies in self-reporting by institutions (which appeared to reconcile when the data were aggregated to the state-level).

Student revenue included the following categories and fee purposes/names:

- Administrative Fees—Academic Support, Admission, Assessment, Change Fee, Child Care, Computer, Field Experience, Finance Fee, General/Building, Graduation, ID, International, Late Fee, Library, Orientation, Other, Program, Property, Registration, and Transcript/Certification.
- Continuing Education (Institutional Funds)—Continuing Education.
- Distance Education (Institutional Funds)—Computer, and Distance Education.
- Lab and Course Fees—Academic Support, Continuing Education, Course, Field Experience, General/Building, International, Laboratory, and Music.
- Student Services, Advising, Technology and Other Fees—Academic Support, Admission, Advising, Assessment, Athletic, Career, Change Fee, Child Care, Computer, Copy/Print, Course, Designated,

Distance Education, Field Experience, Finance Fee, General/Building, Graduation, Health, Housing, ID, International, Late Fee, Library, Music, Orientation, Other, Parking, Program, Publication, Records, Recreation, Registration, Service/Performance, Student Center, Student Services, and Transportation.

- Tuition—Board Authorized, Continuing Education, Designated, Finance Fee, General/Building, and Statutory.

Patient revenue included the following categories and fee purposes/names:

- Hospital Sales and Patient Income—Health.
- Lab Fees (Local)—Patient.

Other revenue included the following categories and fee purposes/names:

- Agriculture Inspection Fees.
- Agriculture Registration Fees—Service/Performance.
- Business Fees/Agriculture.
- Conference, Seminars, and Training Registration Fees —Service/Performance.
- Federal Pass-Through Revenue Non-Operating.
- Federal Receipts/Indirect Cost Recoveries.
- Fees for Administrative Services—Assessment.
- Interest Income.
- Miscellaneous Auxiliary—Assessment, Athletic, Bookstore, Child Care, Copy/Print, Food, General/ Building, Graduation, Health, Housing, Late Fee, Library, Miscellaneous, Other, Property, Publication, Recreation, Service/Performance, and Student Center.
- Oil, Gas, and other Land Related Revenues—Property.
- Other Sales of Goods and Services/Pledged, Operating Revenue—Course, Health, Property, and Service/Performance.
- Parking and Transportation—Housing, Parking, and Transportation.
- Private Educational Institution Fees.
- Public Hunting/Fishing/Other Participation Fees.
- Sales and Services—Academic Support, Assessment, Athletic, Bookstore, Child Care, Computer, Copy/ Print, Course, Field Experience, Food, General/ Building, Graduation, Health, Housing, ID, Laboratory, Late Fee, Library, Mail, Miscellaneous, Orientation, Other, Property, Publication, Recreation, Service/Performance, and Transcript/Certification.

Fees, fines, penalties, and other collected revenue were reported as authorized by numerous laws. The following reported statutory codes are sorted from the largest to smallest amount of dollars collected, and reported Sections are detailed: Texas Education Code (Sections 21, 30, 51, 53, 54, 55, 56, 57, 61, 73, 74, 87, 88, 103, 130, 135, 504); Texas Constitution (Art. 7, Section 18); General Appropriations Act (various riders); Texas Agriculture Code (Section 1); Texas Insurance Code (Section 2154); Texas Administrative Code (Section 54); Texas Occupations Code (Section 223); Texas Business and Commerce Code (Section 3); Texas Government Code (Section 45088).

QUANTITATIVE SUMMARY

During fiscal year 2009, public institutions of higher education collected $7.4 billion via 23 million assessments of fees, fines, penalties, and other collected revenues. Universities collected $3.8 billion via 17 million assessments. Community, technical, and state colleges collected $1.1 billion via 5 million assessments. Health-related/special institutions (including Texas A&M service agencies) collected $2.5 billion via 1 million assessments. As shown in **Figure 1**, 64 percent ($4.7 billion) was student revenue, 31 percent ($2.3 billion) was patient revenue collected at health-related institutions, and 5 percent ($369 million) was other revenue.

As shown in **Figure 2** and **Figure 3**, universities increased $1.5 billion for a 13 percent annual rate of change since fiscal year 2005. Community, technical, and state colleges increased $608 million for a 23 percent annual rate. Health-related institutions reported no patient revenue collected during fiscal year 2005, thus the increase and rate of change were not available.

STUDENT REVENUE

Student revenue amounts collected and not collected, and changes over time were analyzed. Summaries included amounts not deposited in the state Treasury, amounts not appropriated, and various categories for student revenue. The focus was on student revenue for the following reasons: it is most of non-tax collected revenue in higher education;

FIGURE 1
NON-TAX REVENUE COLLECTED BY TYPE BY CATEGORY BY HIGHER EDUCATION SECTOR, FISCAL YEAR 2009
IN MILLIONS OF DOLLARS

TYPE BY CATEGORY	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED/ SPECIAL INSTITUTIONS
Total	$7,372	$3,769	$1,067	$2,536
Student	4,730	3,560	995	176
Tuition	3,174	2,408	649	117
Fees	1,556	1,151	347	59
Student Services, Advising, Technology and Other Fees	1,112	914	180	18
Lab and Course Fees	165	103	28	34
Administrative Fees	199	115	78	5
Continuing Education	59	2	57	-
Distance Education	21	17	4	0
Patient	2,273	-	-	2,273
Other	$369	$210	$71	$88

Source: Legislative Budget Board.

FIGURE 2
NON-TAX REVENUE COLLECTED BY TYPE BY CATEGORY BY HIGHER EDUCATION SECTOR, CHANGE FROM FISCAL YEARS 2005 TO 2009
IN MILLIONS OF DOLLARS

TYPE BY CATEGORY	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED/ SPECIAL INSTITUTIONS
Total	N/A	$1,458	$608	N/A
Student	$2,058	1,388	568	$102
Tuition	1,374	967	342	64
Fees	685	421	226	38
Student Services, Advising, Technology and Other Fees	477	338	127	13
Lab and Course Fees	95	46	16	33
Administrative Fees	70	28	50	(9)
Continuing Education	30	(1)	31	-
Distance Education	13	10	3	0
Patient	N/A	-	-	N/A
Other	$192	$70	$39	$83

Note: Health-related institutions reported no patient revenue collected during fiscal year 2005.
Source: Legislative Budget Board.

affordability and equity for students are ongoing policy issues; and revenues from students are increasing relative to other sources of revenue for higher education.

STUDENT REVENUE AMOUNTS INCREASED MORE AT UNIVERSITIES COMPARED TO COMMUNITY, TECHNICAL, AND STATE COLLEGES, BUT THE RATE OF INCREASE WAS HIGHER AT COMMUNITY, TECHNICAL, AND STATE COLLEGES COMPARED TO UNIVERSITIES

During fiscal year 2009, $4.7 billion of student revenue was collected. As shown in **Figure 1**, 75 percent ($3.6 billion) of student revenue was collected at universities. Community,

FIGURE 3
NON-TAX REVENUE COLLECTED BY TYPE BY CATEGORY BY HIGHER EDUCATION SECTOR, ANNUAL PERCENTAGE RATE, FISCAL YEARS 2005 TO 2009

TYPE BY CATEGORY	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED/ SPECIAL INSTITUTIONS
Total	N/A	13%	23%	N/A
Student	15%	13	24	24%
Tuition	15	14	21	22
Fees	16	12	30	29
Student Services, Advising, Technology and Other Fees	15	12	35	34
Lab and Course Fees	24	16	23	142
Administrative Fees	11	7	29	(21)
Continuing Education	19	(10)	21	0
Distance Education	28	25	51	21
Patient	N/A	N/A	N/A	N/A
Other	20%	11%	22%	112%

NOTE: Health-related institutions reported no patient revenue collected during fiscal year 2005.
SOURCE: Legislative Budget Board.

technical, and state college student revenue was 21 percent ($1 billion). Health-related/special institution student revenue was 4 percent ($176 million).

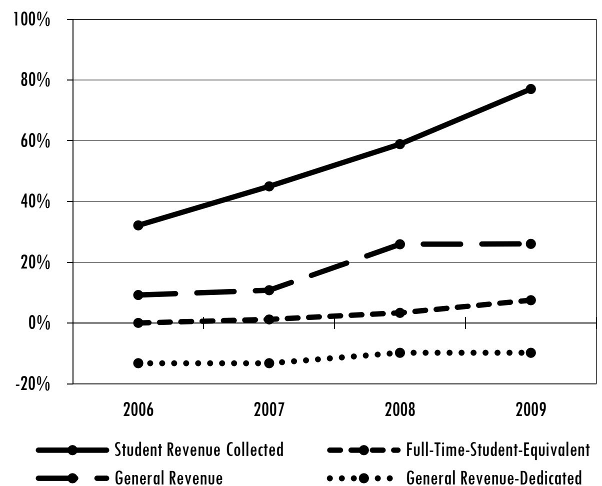
Since 2005, student revenue increased $2.1 billion for a 15 percent annual rate of change. As shown in **Figure 2** and **Figure 3**, increases included: $1.4 billion (13 percent annually) at universities; $568 million (24 percent annually) at community, technical, and state colleges; and $102 million (24 percent annually) at health-related institutions.

STUDENT REVENUE INCREASED MORE THAN FULL-TIME-STUDENT-EQUIVALENTS FOR ALL SECTORS

As shown in **Figure 4**, the observed changes in revenue were primarily related to increased dollars per student, rather than an increased number of students. From fiscal years 2005 to 2009, full-time-student-equivalents (FTSE) increased at an 1.8 annual percentage rate overall, 1.4 percent at universities, 2.2 percent at community, technical, and state colleges, and 4.9 percent at health-related institutions.

Changes in revenue can be related to two factors: increased dollars per student, and/or increased number of students. To interpret the annual percentage rates for revenue, it is necessary to establish the baseline trend for enrollment. FTSE were used for the baseline, since that metric (like tuition and many fees) is sensitive to the course loads of students. An alternate method (revenues per FTSE) was not used for several reasons. Unlike revenues, FTSE could not be assigned to a category (i.e., student services). Also, the calculations would add complexity without revealing

FIGURE 4
STUDENT REVENUE COLLECTED, FULL-TIME-STUDENT-EQUIVALENT, GENERAL REVENUE, AND GENERAL REVENUE–DEDICATED, CUMULATIVE PERCENTAGE CHANGE, FISCAL YEARS 2006 TO 2009



NOTE: The Average Annual Percentage Rate Increase for Student Revenue Collected is 15.3 percent; 6.0 percent for Appropriations of General Revenue Funds; 1.8 percent for Full-time-Student-Equivalent; and -2.5 percent for Appropriations of General Revenue–Dedicated Funds.
SOURCES: Legislative Budget Board; Texas Higher Education Coordinating Board.

additional insights. Finally, revenues unadjusted by FTSE quantify the recent growth in higher education finances.

STUDENT REVENUE INCREASED MORE THAN APPROPRIATIONS OF GENERAL REVENUE FUNDS FOR ALL SECTORS

The observed changes in student revenue (tuition and fees) substantially outpaced appropriations (General Revenue Funds, General Revenue–Dedicated Funds, and Other Funds). The differences were especially large at community colleges. At universities, tuition revenue (statutory, designated, and board authorized) increased 14 percent annually, while General Revenue–Dedicated Funds (primarily statutory tuition) increased 1 percent annually. In fiscal year 2003, the Seventy-eighth Legislature removed limits on designated tuition rates, while statutory tuition rates for residents have not changed. Since fall 1995, THECB has set the rate for non-resident undergraduate tuition at the average of the five most populous states (excluding Texas) per Texas Education Code Section 54.051(d). Before that time, the non-resident undergraduate tuition rate was tied to the cost of instruction or the amount of state appropriations, and apparently, those values were used interchangeably.

From fiscal years 2005 to 2009, appropriations increased at an 8 percent annual rate overall, 5 percent at universities, 4 percent at community colleges, and 13 percent at health-related institutions. As shown in **Figure 4**, appropriations of General Revenue Funds increased 6 percent (6 percent at universities; 4 percent at community colleges; 9 percent at health-related institutions). Appropriations of General Revenue–Dedicated Funds increased a negative 3 percent (1 percent at universities; negative 21 percent at health-related institutions). Other appropriated funds increased 17 percent (8 percent at universities; 18 percent at health-related institutions). Note: for universities and health-related institutions, annual percentage rates were calculated from fiscal year estimates derived from biennial totals divided in half.

STUDENT FEE REVENUE INCREASED AT HIGHER RATES COMPARED TO TUITION REVENUE, EXCEPT AT UNIVERSITIES

Increases in tuition revenue have not moderated increases in other student fee revenue in higher education. The annual rate of increase is 7 to 9 percentage points higher for student fee revenue compared to tuition revenue at community, technical, and state colleges, and at health-related institutions. The annual rate of increase is 2 percentage points lower for student fee revenue compared to tuition revenue at universities. As shown in **Figure 3**, tuition revenue increased 15 percent annually (14 percent at universities; 21 percent at community, technical, and state colleges; 22 percent at health-related institutions). Student fee revenue increased 16 percent annually (12 percent at universities; 30 percent at community, technical, and state colleges; 29 percent at health-related institutions).

RESIDENT/IN-DISTRICT TUITION REVENUE INCREASED MORE THAN NON-RESIDENT/OUT-OF-DISTRICT TUITION REVENUE AT UNIVERSITIES, BUT NOT AT COMMUNITY, TECHNICAL, AND STATE COLLEGES

University resident tuition revenue increased rapidly and constitutes 69 percent of the statewide increase in tuition revenue from fiscal years 2005 to 2009. Over that period, university non-resident tuition revenue increased $14 million ($179 million to $192 million), while resident tuition revenue increased $953 million ($1.3 billion to $2.2 billion). Community, technical, and state college non-resident/out-of-district tuition revenue increased $178 million ($108 million to $286 million), while resident/in-district tuition revenue increased $164 ($198 million to $362 million). Health-related institution non-resident tuition revenue increased $6 million ($2 million to $8 million), while resident tuition revenue increased $58 million ($51 million to $109 million).

During fiscal year 2009, $3.2 billion of tuition revenue was collected, of which $2.4 billion was at universities, $649 million was at community, technical, and state colleges, and $117 million was at health-related institutions (as shown in **Figure 5**).

Resident/in-district tuition was 85 percent ($2.7 billion) of $3.2 billion of tuition revenue statewide. Similar proportions were: 92 percent ($2.2 billion) at universities; 56 percent ($362 million) at community, technical, and state colleges; and 93 percent ($109 million) at health-related institutions. Most (82 percent) of resident/in-district tuition was collected at universities.

Non-resident/out-of-district was 15 percent ($487 million) of $3.2 billion of tuition revenue statewide. Similar proportions were: 8 percent ($192 million) at universities; 44 percent ($286 million) at community, technical, and state colleges; and 7 percent ($8 million) at health-related institutions. Most (59 percent) of non-resident/out-of-district tuition was collected at community, technical, and state colleges.

FIGURE 5
TUITION REVENUE COLLECTED BY RESIDENCY AND REVENUE OBJECT CODE, BY HIGHER EDUCATION SECTOR, FISCAL YEAR 2009
IN MILLIONS OF DOLLARS

RESIDENCY AND REVENUE OBJECT CODE	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Tuition	$3,174	$2,408	$649	$117
Residency				
Resident/In-district	2,687	2,216	362	109
Non-resident/Out-of-district	487	192	286	8
Revenue Object Code				
Non-pledged (Revenue Object Code 3505)	1,023	937	14	72
Pledged (Revenue Object Code 3688)	1	-	1	-
Designated (Revenue Object Code 3526)	45	43	2	-
Institutional Funds	$2,106	$1,428	$632	$45

Source: Legislative Budget Board.

Since 2005, tuition revenue increased $1.4 billion for a 15 percent annual rate of change. As shown in **Figure 6**, **Figure 7**, and **Figure 8**, some of the highest increases included: resident tuition ($953 million, 15 percent annually) at universities; out-of-district tuition ($178 million, 28 percent annually) at community technical, and state colleges; and resident tuition ($58 million, 21 percent annually) at health-related institutions.

MOST TUITION, AND MOST INCREASES IN TUITION, WAS AS INSTITUTIONAL FUNDS

From fiscal years 2005 to 2009, university tuition as institutional funds doubled from $707 million to $1,428 million. Over the same period, community, technical, and state college tuition revenue more than doubled from $306 million to $649 million. Health-related institution tuition revenue more than doubled from $53 million to $117 million.

Institutional funds means all funds collected at the institution that are not "educational and general funds" (Texas Education Code Section 51.009). It includes student fees, housing, food, deposit fees, athletics, publications, student activities, miscellaneous sales, educational activities, and research (Texas Education Code Section 51.002); student health center insurance claims (Texas Education Code Section 51.953); and designated tuition (Texas Education Code Section 54.0513). Accounting, budgeting, and reporting of

FIGURE 6
TUITION REVENUE COLLECTED BY RESIDENCY AND REVENUE OBJECT CODE, BY HIGHER EDUCATION SECTOR, CHANGE FROM FISCAL YEARS 2005 TO 2009
IN MILLIONS OF DOLLARS

RESIDENCY AND REVENUE OBJECT CODE	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Tuition	$1,374	$967	$342	$64
Residency				
Resident/In-district	1,176	953	164	58
Non-resident/Out-of-district	198	14	178	6
Revenue Object Code				
Non-pledged (Revenue Object Code 3505)	198	203	(39)	35
Pledged (Revenue Object Code 3688)	1	-	1	-
Designated (Revenue Object Code 3526)	42	43	1	(1)
Institutional Funds	$1,133	$722	$380	$31

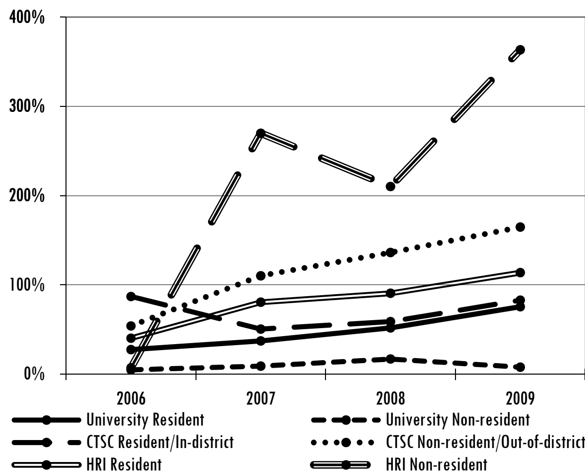
Source: Legislative Budget Board.

FIGURE 7
TUITION REVENUE COLLECTED BY RESIDENCY AND REVENUE OBJECT CODE, BY HIGHER EDUCATION SECTOR, ANNUAL PERCENTAGE RATE, FISCAL YEARS 2005 TO 2009

RESIDENCY AND REVENUE OBJECT CODE	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Tuition	15%	14%	21%	22%
Residency				
Resident/In-district	15	15	16	21
Non-resident/Out-of-district	14	2	28	47
Revenue Object Code				
Non-pledged (Revenue Object Code 3505)	6	6	(29)	18
Pledged (Revenue Object Code 3688)	116	0	116	0
Designated (Revenue Object Code 3526)	108	0	17	(100)
Institutional Funds	21%	19%	26%	34%

SOURCE: Legislative Budget Board.

FIGURE 8
TUITION REVENUE COLLECTED BY RESIDENCY, BY HIGHER EDUCATION SECTOR, CUMULATIVE PERCENTAGE CHANGE, FISCAL YEARS 2006 TO 2009



NOTE: The Average Annual Percentage Rate Increase for the University - Resident category is 15.1 percent; 1.9 percent for University - Non-resident; 16.3 percent for Community, Technical, and State College (CTSC) - Resident/In-district; 27.6 percent for CTSC - Non-resident/Out-of-district; 20.9 percent for Health-Related Institution (HRI) - Resident; and 46.7 percent for HRI - Non-resident.
SOURCE: Legislative Budget Board.

institutional funds are governed by Texas Education Code Sections 51.0032, 51.004, and 51.0051. Institutional funds exclude income from the Public University Fund (Texas Education Code Section 51.002).

Local funds (or educational and general funds) include net tuition, special course fees, lab fees, student teaching fees, organized activity fees, sales of educational and general equipment, and hospital and clinic fees (Texas Education Code Section 51.009). Local funds exclude general revenue funds (Texas Education Code Section 51.009) and institutional funds.

The Non-Tax Collected Revenue Survey was not designed to correspond with the definitions in Texas Education Code Section 51.009. All tuition revenue was reported distinctly from the other categories of student fees. However, rather than report tuition revenue as local funds, it was reported by Revenue Object Code (see Comptroller Manual of Accounts). Thus, statutory tuition and board-authorized tuition was included under one or more of three Revenue Object Codes. Any tuition revenue not reported under a Revenue Object Code was labeled as "institutional funds." Thus, local funds without a Revenue Object Code, as well as institutional funds as defined by Texas Education Code Section 51.009, were reported as institutional funds. Most, but not all, of designated tuition was reported as institutional funds.

During fiscal year 2009, non-pledged tuition (Revenue Object Code 3505, statutory tuition) revenue was 32 percent ($1.0 billion) of $3.2 billion of tuition revenue statewide (as shown in **Figure 5**). Similar proportions were: 39 percent ($937 million) at universities; 2 percent ($14 million) at community, technical, and state colleges; and 62 percent ($72 million) at health-related institutions. Most (92 percent) of non-pledged tuition was collected at universities.

Pledged tuition (Revenue Object Code 3688) revenue was less than 1 percent ($0.7 million) of $3.2 billion of tuition

revenue statewide, and it was all at community, technical, and state colleges.

Designated tuition (Revenue Object Code 3526) revenue was 1 percent ($45 million) of $3.2 billion of tuition revenue statewide. Similar proportions were: 2 percent ($43 million) at universities; and less than 1 percent ($2 million) at community, technical, and state colleges. Most (96 percent) of designated tuition was collected at universities. Designated tuition is defined by statute as institutional funds.

Tuition reported as institutional funds (distinct from other student fees) was 66 percent ($2.1 billion) of $3.2 billion of tuition revenue statewide. Similar proportions were: 59 percent ($1.4 billion) at universities; 98 percent ($632 million) at community, technical, and state colleges; and 38 percent ($45 million) at health-related institutions. Most (68 percent) of institutional funds tuition was collected at universities.

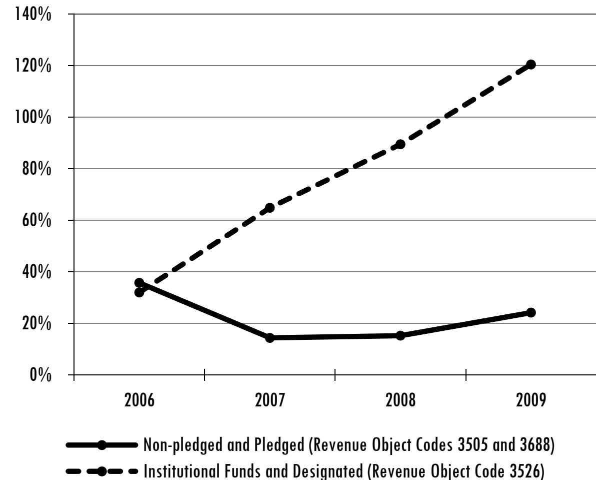
In contrast to fiscal year 2009, of the $1.8 billion of tuition revenue collected during fiscal year 2005, 46 percent ($825 million) was non-pledged, less than 1 percent ($0.03 million) was pledged, less than 1 percent ($2 million) was designated tuition, and 54 percent ($973 million) was institutional funds.

Since fiscal year 2005, tuition revenue increased $1.4 billion for a 15 percent annual rate of change. As shown in **Figure 6**, **Figure 7**, and **Figure 9**, some of the highest increases included: tuition as institutional funds ($722 million, 19 percent) and non-pledged tuition (Revenue Object Code 3505) ($203 million, 6 percent) at universities; and tuition as institutional funds ($380 million, 26 percent) at community, technical, and state colleges.

THE RATIO OF TUITION REVENUE TO STUDENT FEE REVENUE VARIED BY INSTITUTION

During fiscal year 2009, of $4.7 billion in revenue collected from students, two-thirds was tuition and one-third was student fees. As shown in **Figure 10**, the same proportions were observed for all sectors of higher education. However, the proportions varied substantially between institutions. Tuition as a percentage of student revenue varied from 56 percent to 82 percent across universities. The range was 24 percent to 100 percent across community, technical, and state colleges and 0 percent to 95 percent across health-related/special institutions. Conversely, student fees as a percentage of student revenue varied from 18 percent to 44 percent across universities. The range was 0 percent to 76 percent across community, technical, and state colleges and 5 percent to 100 percent across health-related/special institutions.

FIGURE 9
TUITION REVENUE COLLECTED BY REVENUE OBJECT CODE, CUMULATIVE PERCENTAGE CHANGE, FISCAL YEARS 2006 TO 2009



NOTE: The Average Annual Percentage Rate Increase for Object Codes 3505 and 3688 is 5.6 percent and 21.9 percent for Institutional Funds and Object Code 3526.
SOURCE: Legislative Budget Board.

MOST STUDENT REVENUE WAS OUTSIDE OF THE TREASURY AND WAS NOT APPROPRIATED

Deposits to the Treasury include all cash receipts accruing to any college or university under its control that may be derived from all sources with certain exceptions (detailed below as deposits outside the Treasury per Texas Education Code Section 51.008). It includes the Permanent University Fund (Texas Constitution, Article 7, Section 11, and Texas Education Code Section 51.002) and various other funds for gifts, grants, loan repayment, and tuition prepayment plans.

Deposits outside the Treasury include auxiliary enterprises, non-instructional services, agency, designated, and restricted funds, endowment and other gift funds, student loan funds, research overhead cost recovery, proceeds from the issuance of bonds or notes for capital improvement and repair. Examples include: student fees of all kinds; charges for use of rooms and dormitories; receipts from meals, cafes, and cafeterias; fees on deposit refundable to students under certain conditions; receipts from school athletic activities; income from student publications and other student activities; receipts from the sale of publication products and miscellaneous supplies and equipment; students' voluntary

FIGURE 10
PERCENTAGE OF STUDENT REVENUE BY CATEGORY BY INSTITUTION, FISCAL YEAR 2009

INSTITUTION	TUITION	STUDENT SERVICES	LAB AND COURSE	ADMINISTRATIVE	CONTINUING EDUCATION	DISTANCE EDUCATION
Texas A&M University – Texarkana	82%	13%	0%	4%	0%	0%
Texas Southern University	82	17	0	1	0	0
University of Texas – Permian Basin	80	20	0	0	0	0
University of Houston – Clear Lake	75	14	3	6	0	2
Lamar University	75	22	0	1	0	1
University of Houston – Downtown	75	15	1	7	0	3
University of Texas at Arlington	75	25	0	0	0	0
University of Texas – Pan American	74	25	1	0	0	0
University of Texas at El Paso	73	26	1	0	0	0
West Texas A&M University	73	24	0	4	0	0
Texas A&M University – Commerce	72	20	1	2	0	5
Tarleton State University	72	18	3	5	0	1
University of Houston – Victoria	72	28	0	0	0	0
University of Texas at Tyler	72	28	0	0	0	0
Texas A&M University – Kingsville	72	26	2	1	0	0
Texas A&M University at Galveston	71	19	7	3	0	0
University of Texas at Austin	71	21	8	0	0	0
Sam Houston State University	71	26	0	1	0	2
Texas A&M International University	69	28	0	2	0	0
Prairie View A&M University	69	23	5	2	0	0
Texas A&M University – Corpus Christi	68	29	2	1	0	0
University of North Texas	68	27	6	0	0	0
Texas Woman's University	68	25	0	2	1	4
Stephen F. Austin State University	68	29	2	1	0	1
Angelo State University	68	30	2	0	0	0
University of Houston	67	5	0	28	0	0
Texas State University – San Marcos	65	33	0	1	1	0
Midwestern State University	65	24	5	6	0	0
Sul Ross State University	65	31	1	0	0	3
Texas A&M University	62	29	6	2	0	1
University of Texas at Dallas	62	37	0	0	0	1
Texas Tech University	60	35	5	0	0	0
University of Texas at Brownsville	59	41	0	0	0	0
University of Texas at San Antonio	56	43	1	0	0	0
UNIVERSITY STATEWIDE	68%	26%	3%	3%	0%	0%
Tarrant County College District	100%	0%	0%	0%	0%	0%
Western Texas College	100	0	0	0	0	0
Temple College	95%	0%	2%	0%	3%	0%

FIGURE 10 (CONTINUED)
PERCENTAGE OF STUDENT REVENUE BY CATEGORY BY INSTITUTION, FISCAL YEAR 2009

INSTITUTION	TUITION	STUDENT SERVICES	LAB AND COURSE	ADMINISTRATIVE	CONTINUING EDUCATION	DISTANCE EDUCATION
Weatherford College	94%	0%	4%	1%	2%	0%
Navarro College	88	5	3	1	2	0
Central Texas College	85	1	1	13	0	0
Mclennan Community College	84	0	4	12	0	0
Lee College	84	3	7	6	0	0
Ranger College	84	5	1	10	0	0
Howard Co JR College District	83	10	3	0	5	0
College of The Mainland Community	81	3	3	11	0	3
Paris Junior College	78	12	3	4	0	2
North Central Texas College	76	13	2	0	6	3
Brazosport College	76	8	4	12	0	0
Grayson County College	75	6	19	0	1	0
El Paso Community College District	74	16	1	1	8	0
Northeast Texas Community College	73	3	12	0	12	0
Hill College	71	21	4	1	3	0
Austin Community College	71	17	2	2	9	0
Panola College	70	0	12	1	12	5
Alamo Community College District	70	21	1	2	7	0
Dallas Co Community College District	68	13	0	1	18	0
Coastal Bend College	68	0	20	8	0	4
Lamar Institute of Technology	67	33	0	0	0	0
Texas State T. C. Harlingen	66	31	0	0	2	0
South Texas College	66	27	3	0	2	2
Collin Co Community College District	65	18	2	0	15	0
Odessa College	65	13	7	1	13	0
Blinn College	65	30	3	0	2	0
Lamar State College – Orange	64	25	0	0	10	0
Texas State T. C. Waco	64	32	4	0	0	0
Lone Star College System District	62	26	2	0	10	0
Southwest Texas Junior College	62	18	3	8	9	0
Lamar State College – Port Arthur	61	38	0	0	0	0
San Jacinto Community College	61	0	7	20	12	0
Wharton County Junior College	60	30	1	7	0	2
Houston Community College	60	10	3	27	0	0
Vernon College	59	1	16	25	0	0
Kilgore College	58	0	11	8	23	0
Laredo Community College	58	40	1	0	1	0
Midland College	57%	0%	9%	16%	13%	5%

FIGURE 10 (CONTINUED)
PERCENTAGE OF STUDENT REVENUE BY CATEGORY BY INSTITUTION, FISCAL YEAR 2009

INSTITUTION	TUITION	STUDENT SERVICES	LAB AND COURSE	ADMINISTRATIVE	CONTINUING EDUCATION	DISTANCE EDUCATION
Alvin Community College	56%	10%	4%	4%	25%	0%
Victoria College, The	54	0	5	35	0	6
Amarillo College	53	12	3	32	0	0
Galveston College	51	36	4	1	7	0
Trinity Valley Community College	51	37	6	1	4	2
South Plains College District	49	3	5	43	0	0
Cisco College	48	50	1	0	0	0
Frank Phillips College	48	25	3	24	0	0
Texas State T. C. Marshall	46	21	0	0	33	0
Clarendon College	41	44	5	0	0	9
Del Mar College	38	53	4	0	5	0
Texas State T. C. West Texas	35	51	13	0	0	0
Angelina College	35	18	15	4	28	0
Texarkana College	35	10	5	51	0	0
Tyler Junior College	25	27	5	35	8	0
Texas Southmost College	24	76	0	0	0	0
CTSC STATEWIDE	65%	18%	3%	8%	6%	0%
UT Health Science CTR/SA	95%	4%	0%	0%	0%	0%
UT M.D. Anderson Cancer Center	94	5	0	0	0	0
The UT Southwestern Medical Center Dallas	85	14	0	2	0	0
UNT Health Science Center	80	19	0	0	0	0
UT Medical Branch Galveston	79	12	4	1	0	3
TAMU System Health Science Center	78	20	2	0	0	0
UT Health Science Center – Houston	77	5	0	17	0	0
Texas Tech University Health Science Center	76	20	4	0	0	0
TX Engineer Experiment Station	0	0	100	0	0	0
TX Engineer Extension Service	0	0	100	0	0	0
HR/SI STATEWIDE	67%	10%	20%	3%	0%	0%

Source: Legislative Budget Board.

deposits of money for safekeeping; all other fees and local or institutional funds arising out of and by virtue of the educational activities, research, or demonstrations carried on by the institution; and donations and gifts to the institution. These deposits are governed by Texas Education Code Sections 130.007, 145.001, 51.002, 51.003, 51.0031, 51.0032, 51.004, 51.005, 51.0051, 51.007, 51.008, 51.009, and Texas Constitution, Article 7, Section 17.

Estimated appropriations of student revenues include local funds as defined previously (i.e., educational and general funds per Texas Education Code Section 51.009). A significant portion of local funds is defined as "other educational and general income." At universities, it includes statutory tuition, board authorized tuition, and laboratory fees (Texas Education Code Sections 54.051, 54.008, and 54.501). Non-appropriated student revenues include institutional funds as defined previously (i.e., all funds

collected at the institution that are not educational and general funds) and all student revenue at community colleges. Texas Education Code Section 54.0513 defines university designated tuition as an institutional fund (thus non-appropriated).

During fiscal year 2009, of $4.7 billion of student revenue, $3.7 billion (78 percent) was not deposited into the state Treasury. Most (72 percent) of student revenue not deposited into the Treasury was collected at universities. As shown in **Figure 11**, of $3.7 billion of student revenue not deposited into the Treasury, $1.5 billion (41 percent) was university tuition and $912 million (25 percent) was university student services fees. The amounts of student revenue not appropriated very closely paced that outside the Treasury.

Since 2005, student revenue not deposited into the state Treasury increased $1.8 billion for an 18 percent annual rate of change. As shown in **Figure 12** and **Figure 13**, some of the highest increases included: tuition ($779 million, 20 percent) and student services fees ($337 million, 12 percent) at universities; administrative fees ($50 million, 29 percent) at community, technical, and state colleges; and lab and course fees ($33 million, 155 percent) at health-related institutions. The largest amount of change ($1.2 billion) was at universities, while the largest annual rate of change (39 percent) was at health-related institutions. The annual rate of change of student revenue not appropriated very closely paced that outside the state Treasury.

STUDENT REVENUE NOT COLLECTED INCREASED AT LOWER RATES COMPARED TO STUDENT REVENUE COLLECTED, EXCEPT FOR DISTANCE EDUCATION AND ALL STUDENT REVENUE AT UNIVERSITIES

During fiscal year 2009, $60 million of student revenue was assessed but not collected. Most of this amount was tuition, and the major share was at universities as shown in **Figure 14**. (Note that the scope of this analysis does not include the $513 million of patient revenue not collected at health-related institutions.)

FIGURE 11
STUDENT REVENUE COLLECTED BY TREASURY AND APPROPRIATED, BY CATEGORY BY HIGHER EDUCATION SECTOR, FISCAL YEAR 2009
IN MILLIONS OF DOLLARS

TREASURY AND APPROPRIATED	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Student	$4,730	$3,560	$995	$176
Not Deposited in Treasury				
Student	3,684	2,645	932	106
Tuition	2,149	1,501	598	49
Fees	1,535	1,143	334	58
Student Services, Advising, Technology and Other Fees	1,100	912	169	18
Lab and Course Fees	159	99	27	34
Administrative Fees	197	114	78	5
Continuing Education	59	2	56	-
Distance Education	20	16	4	0
Not Appropriated				
Student	3,623	2,613	932	78
Tuition	2,153	1,496	608	49
Fees	1,470	1,116	324	29
Student Services, Advising, Technology and Other Fees	1,062	886	158	18
Lab and Course Fees	132	99	28	5
Administrative Fees	197	114	78	5
Continuing Education	59	2	57	-
Distance Education	$20	$16	$4	$0

Source: Legislative Budget Board.

FIGURE 12
STUDENT REVENUE COLLECTED BY TREASURY AND APPROPRIATED, BY CATEGORY BY HIGHER EDUCATION SECTOR, CHANGE FROM FISCAL YEARS 2005 TO 2009
IN MILLIONS OF DOLLARS

TREASURY AND APPROPRIATED	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Student	$2,058	$1,388	$568	$102
Not Deposited in Treasury				
Student	1,790	1,197	515	78
Tuition	1,113	779	302	32
Fees	677	418	213	46
Student Services, Advising, Technology and Other Fees	465	337	115	13
Lab and Course Fees	93	45	15	33
Administrative Fees	78	28	50	0
Continuing Education	29	(1)	30	-
Distance Education	12	9	3	0
Not Appropriated				
Student	1,736	1,171	515	50
Tuition	1,120	776	312	32
Fees	616	395	204	18
Student Services, Advising, Technology and Other Fees	431	314	104	13
Lab and Course Fees	65	45	15	5
Administrative Fees	77	27	50	0
Continuing Education	30	(1)	31	-
Distance Education	$12	$9	$3	$0

SOURCE: Legislative Budget Board.

FIGURE 13
STUDENT REVENUE COLLECTED BY TREASURY AND APPROPRIATED, BY CATEGORY BY HIGHER EDUCATION SECTOR, ANNUAL PERCENTAGE RATE, FISCAL YEARS 2005 TO 2009

TREASURY AND APPROPRIATED	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED INSTITUTIONS
Student	15%	13%	24%	24%
Not Deposited in Treasury				
Student	18	16	22	39
Tuition	20	20	19	31
Fees	16	12	29	49
Student Services, Advising, Technology and Other Fees	15	12	33	34
Lab and Course Fees	24	17	22	155
Administrative Fees	13	7	29	1
Continuing Education	19	(10)	21	0
Distance Education	27	24	51	21
Not Appropriated				
Student	18	16	22	29
Tuition	20	20	20	31
Fees	15	12	28	26
Student Services, Advising, Technology and Other Fees	14	12	31	34
Lab and Course Fees	19	17	23	62
Administrative Fees	13	7	29	1
Continuing Education	19	(10)	21	0
Distance Education	27%	24%	51%	21%

SOURCE: Legislative Budget Board.

FIGURE 14
NON-TAX REVENUE NOT COLLECTED BY TYPE BY CATEGORY BY HIGHER EDUCATION SECTOR, FISCAL YEAR 2009
IN MILLIONS OF DOLLARS

TYPE BY CATEGORY	TOTAL	UNIVERSITIES	COMMUNITY, TECHNICAL, AND STATE COLLEGES	HEALTH-RELATED/ SPECIAL INSTITUTIONS
Total	$578	$38	$20	$520
Student	60	36	18	6
Tuition	39	22	11	6
Fees	21	14	7	0
Student Services, Advising, Technology and Other Fees	17	12	5	0
Lab and Course Fees	1	0	0	0
Administrative Fees	2	1	1	0
Continuing Education	1	0	1	-
Distance Education	0	0	0	0
Patient	513	-	-	513
Other	$5	$3	$2	$0

Source: Legislative Budget Board.

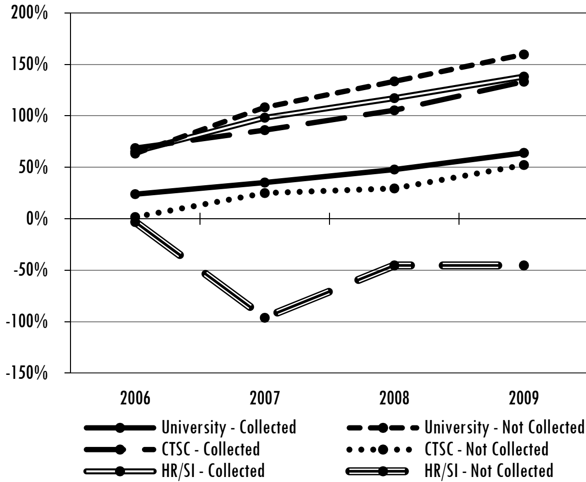
Since 2005, student revenue not collected increased at a 13 percent annual rate, which compared favorably to the 15 percent annual rate for student revenue collected. As shown in **Figure 15** and **Figure 16**, similar comparisons were favorable for community, technical, and state colleges (11 percent versus 24 percent), and health-related institutions (negative 14 percent versus 24 percent). However university revenue not collected increased 27 percent annually compared to a 13 percent annual increase for student revenue collected. The comparison for distance education fees was very unfavorable (122 percent versus 28 percent), but the amounts were relatively small although increasing rapidly.

FIGURE 15
NON-TAX REVENUE COLLECTED COMPARED TO NOT COLLECTED BY TYPE BY CATEGORY BY HIGHER EDUCATION SECTOR, ANNUAL PERCENTAGE RATE, FISCAL YEARS 2005 TO 2009

	TOTAL			UNIVERSITIES			COMMUNITY, TECHNICAL, AND STATE COLLEGES			HEALTH-RELATED/ SPECIAL INSTITUTIONS		
TYPE BY CATEGORY	COL-LECTED	NOT COL-LECTED	DIFFERENCE	COL-LECTED	NOT COL-LECTED	DIFFERENCE	COL-LECTED	NOT COL-LECTED	DIFFERENCE	COL-LECTED	NOT COL-LECTED	DIFFERENCE
Total	N/A	N/A	N/A	13%	24%	(11%)	23%	12%	12%	N/A	N/A	N/A
Student	15%	13%	3%	13	27	(14)	24	11	12	24%	(14%)	38%
Tuition	15	9	6	14	29	(15)	21	6	14	22	(13)	35
Fees	16	21	(5)	12	24	(12)	30	22	8	29	(23)	52
Student Services, Advising, Technology and Other Fees	15	23	(8)	12	25	(13)	35	32	4	34	(27)	61
Lab and Course Fees	24	15	9	16	26	(10)	23	2	21	142	37	106
Administrative Fees	11	8	3	7	11	(4)	29	9	21	(21)	(21)	0
Continuing Education	19	3	16	(10)	0	(10)	21	2	19	0	0	0
Distance Education	28	122	(93)	25	113	(88)	51	220	(169)	21	104	(83)
Patient	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	20%	8%	13%	11%	0%	11%	22%	19%	3%	112%	67%	44%

Note: Health-related institutions reported no patient revenue collected during fiscal year 2005.
Source: Legislative Budget Board.

FIGURE 16
STUDENT REVENUE COLLECTED COMPARED TO NOT COLLECTED, BY HIGHER EDUCATION SECTOR, CUMULATIVE PERCENTAGE CHANGE, FISCAL YEARS 2006 TO 2009



Note: The Average Annual Percentage Rate Increase for the University - Collected category is 13.2 percent; 26.9 percent for University - Not Collected; 23.6 percent for community, technical, and state colleges (CTSC) - Collected; 11.1 percent for CTSC - Not Collected; 24.2 percent for health-related/special institutions (HRI/SI) - Collected; and -14.1 percent for HRI/SI - Not Collected.
Source: Legislative Budget Board.

SUMMARY OF CHANGES IN NON-TAX COLLECTED REVENUE

The increases in revenue from students were not uniform for all types of revenue:

- The increases in student revenue were primarily related to increased dollars per student, rather than an increased number of students.
- The increases in student revenue substantially outpaced appropriations.
- Three-fourths of student revenue was outside the state Treasury and not appropriated.
- During fiscal year 2009, tuition as institutional funds was 66 percent of tuition revenue, up from 54 percent during fiscal year 2005.

In addition, the increases were not uniform for all students:

- Student revenue increased: 13 percent annually at universities; 24 percent annually at community, technical, and state colleges; and 24 percent annually at health-related institutions.
- At universities, non-resident tuition increased 2 percent annually, while resident tuition increased 15 percent annually.
- At community, technical, and state colleges, non-resident/out-of-district tuition increased 28 percent annually, while resident/in-district tuition increased 16 percent annually.
- Increases in tuition revenue did not moderate other student fee revenue, which increased: 12 percent annually at universities; 30 percent annually at community, technical, and state colleges; and 29 percent annually at health-related institutions.
- At universities, tuition as a percentage of student revenue was 68 percent, but varied from 56 percent to 82 percent across universities.
- At universities, student revenue not collected increased 27 percent annually compared to a 13 percent annual increase for student revenue collected.

LIMIT ADVANCED PLACEMENT INCENTIVE PROGRAM EXAM FEE SUBSIDIES AND END CAMPUS AWARDS

The Texas Advanced Placement Incentive Program provides financial incentives to public high school students, teachers, and campuses as a way to increase participation and success on Advanced Placement and International Baccalaureate exams. Incentives provided by the Texas Education Agency include a $30 per test exam fee subsidy for all Advanced Placement and International Baccalaureate exams taken by public school students, professional development subsidies for Advanced Placement and International Baccalaureate teachers, and awards to campuses for students who succeed on these exams. The Texas Legislature appropriated $28.4 million in General Revenue Funds for both the 2008–09 and 2010–11 biennia.

While these incentives have corresponded with increases in the number of students taking Advanced Placement and International Baccalaureate exams, they have not increased the success rate, or the percentage of exams earning a successful score. The success rate of these exams has remained stagnant while the participation rate has increased. Subsidizing exam fees for all eligible public school students and providing financial awards to campuses with successful students are incentives that do not prioritize improving success rates, and these awards represent a costly subsidy to the state. Restructuring Advanced Placement and International Baccalaureate exam fee subsidies from an entitlement to a need-based model and ending appropriations for campus awards would save $18 million in General Revenue Funds for the 2012–13 biennium.

FACTS AND FINDINGS

- The Texas Education Agency's performance goals for the Advanced Placement Incentive Program are to increase the percentage of students taking Advanced Placement and International Baccalaureate exams (participation rate) and to increase the percentage of exams taken which qualify for potential college credit (success rate).
- Texas is one of only a few states to provide exam fee subsidies to all public school students, regardless of a student's financial need or the number of exams taken. In school year 2008–09, more than 70 percent of exams subsidized by the state were taken by students not classified as low-income by the Texas Education Agency.
- Campus awards are paid to campuses based on the number of students earning a score of a three or above on a scale of one to five on an Advanced Placement exam or a four or above on an International Baccalaureate exam on a scale from one to seven. In school year 2008–09, awards were paid to 833 campuses for 73,553 students with successful exam scores.

CONCERNS

- The current exam fee subsidy model is a costly subsidy that may increase participation rates but has not increased the student success rates on Advanced Placement and International Baccalaureate exams.
- Campus awards reward schools for students who are successful on Advanced Placement and International Baccalaureate exams but do not aid schools or students that have low success rates.

RECOMMENDATIONS

- **Recommendation 1:** Amend Texas Education Code, Chapter 28, Subchapter C, to end the exam fee subsidy currently paid on behalf of all eligible students and limit this payment to only low-income students. The limitation should maintain the current subsidy model but limit eligible recipients.
- **Recommendation 2:** Include a contingency rider in the 2012–13 General Appropriations Bill to reduce appropriations to the exam subsidy component of the Advanced Placement Incentive Program allowed under Texas Education Code Section 28.053(a)(2).
- **Recommendation 3:** Eliminate appropriations to the campus award component of the Advanced Placement Incentive Program allowed under Texas Education Code Section 28.053(a)(2).

DISCUSSION

The Advanced Placement (AP) Program and the International Baccalaureate (IB) Diploma Programme are academic

programs that provide public high school students with advanced and rigorous course content and the opportunity to obtain college credit through examination. Both programs are positively regarded, as they include the necessary educational rigor to keep students in the U.S. academically on pace with their international counterparts and help improve the transition between high school and college. To increase student participation and success in AP/IB courses and on AP/IB exams in Texas public schools, the Texas Legislature established the Texas Advanced Placement Incentive Program (AP Incentive Program), which provides financial incentives to students, teachers, and campuses participating on AP/IB exams.

The AP Incentive Program is coordinated by the College Board, and the IB Diploma Programme is coordinated by the International Baccalaureate organization. Both organizations are non-profit non-governmental entities. The AP Incentive Program and IB Diploma Programme both offer courses in several academic areas, but the program structure differs. First, schools that offer AP courses are not required to offer all AP courses designated by the College Board. In addition, students do not have to enroll in an AP course in order to take an AP exam. Conversely, schools that offer the IB Diploma Programme offer a defined sequence of courses and exams so that students may earn the IB Diploma. As a result, students who are not enrolled in an IB course do not take IB exams.

Both programs allow participating students to take exams to earn college credit. Each AP course has a corresponding AP exam, which is scored on a scale of one to five. Likewise, each IB course has a corresponding IB exam, which is scored on a scale of one to seven. An AP exam score of three or above or an IB exam score of four or above is generally considered the baseline "successful score." Many institutions of higher education will award college credit for successful scores on an AP/IB exam. The minimum score considered successful for the purposes of obtaining college credit varies by each institution of higher education and/or subject of the exam.

Participation in AP/IB courses and on AP/IB exams has steadily increased nationally and in Texas. Participation by low-income students, a population that has historically been underrepresented in AP/IB programs, has also increased. For the purposes of AP/IB exams, a low-income student is defined as one who is eligible for free or reduced priced lunches under the federal National School Lunch Act. While student participation has increased on both types of exams, participation on AP exams significantly outnumbers participation on IB exams. For example, in school year 2008–09, 273,055 AP exams were taken by Texas public school students compared to 7,235 IB exams.

While there is no fee for a student to enroll in an AP/IB course, there are fees for the corresponding AP/IB exam. The exam fees in school year 2008–09 were $86 for an AP exam and $88 for an IB exam. Nearly all states, including Texas, provide some form of financial assistance to students to defray exam fee costs. Statutory language allows TEA to enter into agreements with the College Board and International Baccalaureate Programme to pay for all AP/IB exams taken by eligible students. In addition, the College Board offers reduced exam fees to low-income students, and the U.S. Department of Education provides grants to further reduce AP/IB exam fees for low-income students.

THE TEXAS ADVANCED PLACEMENT INCENTIVE PROGRAM

The AP Incentive Program was established by legislation enacted by the Seventy-third Legislature,1993, to recognize and reward students, teachers, and schools that demonstrate success in achieving the state's educational goals. Texas Education Code Chapter 28, Subchapter C, identifies incentives in the form of financial awards and subsidies for campuses, teachers, and students that may be funded under the program. The level of state funding and the type of incentive has varied since the inception of the AP Incentive Program.

In the 2008–09 and 2010–11 biennia, three of seven possible incentives allowed under Texas Education Code Section 28.054 were funded by the Legislature:

- campus awards of up to $100 for each student who is successful on AP/IB exams;
- professional development subsidies of up to $450 for AP/IB teachers; and
- exam fee subsidies of $30 for each AP/IB exam taken by an eligible student.

For the campus awards, a successful student is defined as one who scores a three or better on an AP exam or a four or better on an IB exam. For the exam fee subsidies, an eligible student is defined as one who takes an AP/IB course at a public school or who is recommended by the student's principal or teacher to take the AP/IB test.

Texas Education Code, Chapter 28, Subchapter C also allows campuses to receive a one-time $3,000 equipment grant to support AP/IB courses. This award was last available in the

2002–03 biennium. AP/IB teachers may receive a share of the teacher bonus pool, which is derived from a $50 award for each student who is successful on an AP/IB exam. This award was only available in the 2006–07 biennium. Two awards that are allowed under statute but have never been funded by the Legislature include a one-time $250 award for first year AP/IB teachers and an exam fee reimbursement of up to $65 for students with a successful AP/IB exam score. **Figure 1** shows the AP Incentive Program components that are allowed under statute.

FIGURE 1
AP INCENTIVE PROGRAM COMPONENTS
FISCAL YEARS 2008 TO 2011

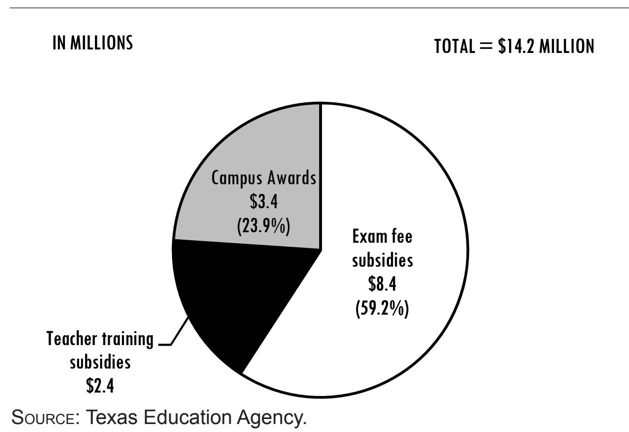
AWARD RECIPIENT	AP INCENTIVES ALLOWED UNDER TEXAS EDUCATION CODE, CHAPTER 28, SUBCHAPTER C
Campus	One-time equipment grant for AP/IB programs.
	Financial award for each student successful on an AP/IB exam.
Teacher	Stipends for AP/IB professional development and training.
	One-time financial award for first-time AP/IB teachers.
	Share of the teacher bonus pool for AP/IB teachers.
Student	Partial exam fee reimbursement for each successful AP/IB exam.
	Partial exam fee subsidy for all AP/IB exams taken by eligible students.

SOURCE: Texas Education Agency.

The Legislature appropriated $14.2 million in General Revenue Funds to the AP Incentive Program in each fiscal year of the 2008–09 and 2010–11 biennia. In school year 2008–09, $3.4 million was spent on campus awards, $2.4 million was spent on AP/IB teacher professional development, and $8.4 million was spent on AP/IB exam fee subsidies. Statutory language requires TEA to prioritize exam fee subsidies when expending incentive program funds. **Figure 2** shows AP Incentive Program expenditures by function in school year 2008–09.

Campus awards were provided to 833 campuses, and the average award per successful AP/IB student was $44. The average campus award per student varies from year-to-year based on funds available. Professional development subsidies were provided to 4,430 AP/IB teachers at an average amount of $443 per teacher. The average amount per teacher also varies from year-to-year based on funds available and the number of applicants, and TEA does not allow AP/IB

FIGURE 2
AP INCENTIVE PROGRAM EXPENDITURES BY FUNCTION
SCHOOL YEAR 2008–09



SOURCE: Texas Education Agency.

teachers to receive this award in consecutive years. Finally, exam fee subsidies were provided for 280,290 AP/IB exams. Under an agreement between TEA and the College Board and International Baccalaureate Programme, the agency pays $30 on behalf of eligible students for each exam taken. In school year 2008–09, the $30 subsidy reduced the student's cost to $56 per AP exam and $58 per IB exam.

Additional financial assistance for AP/IB exam fees is available to a qualifying low-income student as allowed under TEC Section 28.054. For AP/IB exams taken in school year 2008–09, a qualifying low-income student received an additional $18 subsidy paid by TEA from a U.S. Department of Education grant. Additionally, qualifying low–income students taking AP exams received a $22 fee reduction from the College Board, and many AP test centers elected to waive an $8 administrative fee. As a result, the total AP exam fee paid by low-income students was $8 and the total IB exam fee was $40 in school year 2008–09.

AP/IB PARTICIPATION RATES AND SUCCESS RATES

The number of students taking and succeeding on AP/IB exams has increased nationally and in Texas. TEA has two performance measure targets related to AP/IB programs: increase the student participation rate on AP/IB exams and increase the success rate of AP/IB exams. In the 2010–11 biennium, the agency set a target for participation rate, defined as the percentage of eligible students taking AP/IB exams, at 22.7 percent in school year 2010-11 and 23.4 percent in school year 2011–12. The agency also set a target for success rate, defined as the percentage of AP/IB exams taken on which the score qualifies for potential college credit or advanced placement, at 49 percent in school year 2010

and 2011. While the participation rate in Texas has increased, the success rate remains generally unchanged.

To increase access to AP/IB programs and exams for students, nearly all states provide some form of financial assistance to defray the cost of exam fees. The College Board identified more than 40 states as providing exam fee subsidies for AP exams in school year 2009–10, with most of these states providing subsidies exclusively to low-income students. Texas was one of only seven states that provided exam fee subsidies to all students, regardless of a student's financial need or the number of exams taken by a student. Additionally, while exam fee subsidies for all students may be somewhat responsible for growth in the participation rate, growth in participation has also occurred in states that subsidize exam fees for only low-income students.

In Texas, the number of AP/IB exams taken by public school students steadily increased from 251,875 exams in school year 2006–07 to 280,290 exams in school year 2008–09. During this period, state expenditures on AP/IB exam fee subsidies also increased, from $7.5 million to $8.4 million. The number of exams taken by low-income students increased in absolute numbers and as a percentage of all exams taken; however, in school year 2008–09 71 percent of AP/IB exams were taken by students who did not qualify for the free and reduced school lunch program and their exam fee was subsidized by the state. **Figure 3** shows the increase in the number of AP/IB exams taken, the number of exams taken by low-income and non-low-income students, and state expenditures on exam fee subsidies from school years 2006–07 to 2008–09.

Increases in participation on AP/IB exams occurred nationwide and are not limited to Texas. According to the College Board, student participation on AP exams from school years 2007–08 to 2008–09 increased in 43 states, and only seven states reported a decrease. Furthermore, participation rates on AP exams increased in other states, regardless of whether that state provided exam fee subsidies to all students or only provided subsidies to low-income students. For example, California, Illinois, Pennsylvania, and New York—states which pay AP exam fee subsidies for only low-income students—experienced growth in both absolute numbers and in student participation rates on AP exams from school years 2007–08 to 2008–09. This indicates that while AP/IB exam fee subsidies provided to all students have some effect on student participation, limiting exam fee subsidies to only low-income students may not decrease participation rates.

Additionally, the increase in student participation on AP/IB exams has not corresponded with growth in the success rate on the exams. In Texas and several other states, as the number of students participating on AP/IB exams has increased, the percentage of exams earning a successful score has remained flat. In Texas, from school years 2004–05 to 2008–09, the student participation rate on AP/IB exams increased from 18.4 percent to 21.2 percent; the exam success rate remained at 47.4 percent; and the examinee success rate—the percentage of students with at least one successful AP/IB exam—decreased from 51.7 percent to 51.2 percent. **Figure 4** shows the percentage point change in the AP/IB exam participation rate, the exam success rate, and the student success rate from school years 2004–05 to 2008–09.

In addition, when compared to other states, Texas ranks high in AP exam participation rates (eleventh) but low in success rates (forty-third).

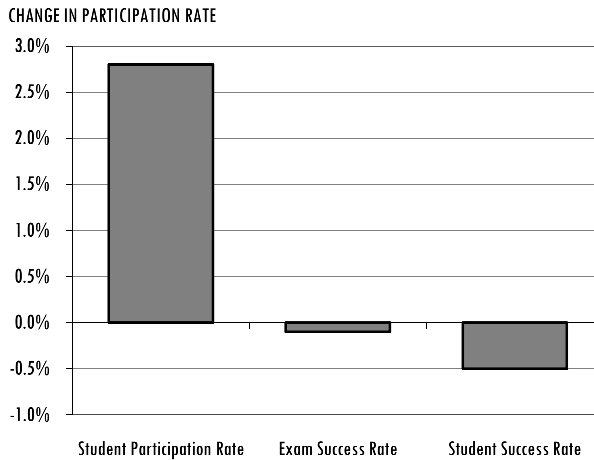
Recent research suggests that focusing only on increasing the participation rate on AP exams by providing incentives or exam fee subsidies to students may cause more students, who may not be academically prepared to succeed with the AP curriculum, to register for AP courses and exams. Research also suggests that providing a fee subsidy to all students may

FIGURE 3
AP/IB EXAM FEE SUBSIDY EXPENDITURES
SCHOOL YEARS 2006–07 TO 2008–09

	EXAMS TAKEN BY LOW-INCOME STUDENTS		EXAMS TAKEN BY NON-LOW-INCOME STUDENTS			
SCHOOL YEAR	COUNT	PERCENTAGE	COUNT	PERCENTAGE	TOTAL NUMBER OF EXAMS	STATE EXPENDITURES ON EXAM FEE SUBSIDIES
2006–07	63,846	25%	188,029	75%	251,875	$7,556,250
2007–08	69,977	27%	192,607	73%	262,584	$7,877,520
2008–09	81,788	29%	198,502	71%	280,290	$8,408,700

Source: Texas Education Agency.

FIGURE 4
PERCENTAGE POINT CHANGE IN PARTICIPATION RATE AND SUCCESS RATES ON AP/IB EXAMS
SCHOOL YEARS 2004–05 TO 2008–09



SOURCE: Texas Education Agency.

not be the best policy if the goal is to increase the success rate on AP/IB exams and/or maximize the number of college credits achieved. Other efforts, such as improving the rigor of curriculum in earlier grades, providing differentiated instruction for students with different backgrounds, and improving the quality of AP/IB teachers and access to training may prove more successful in improving exam success rates.

With no clear impact on exam success rates, subsidizing exam fees for all AP/IB exams taken is a costly subsidy to the state. Recommendation 1 would amend the statutory language governing the AP Incentive Program to end the exam fee subsidy paid on behalf of all eligible students for each AP/IB exam, and to pay the $30 exam fee subsidy only for low-income students. This policy would maintain TEA's goal of providing access to AP/IB exams for students who need assistance with exam fees. This policy would also be consistent with existing federal and College Board subsidies targeting low-income students. Recommendation 2 would reduce appropriations to the exam subsidy component of the AP Incentive Program.

In addition, providing financial awards to campuses with students who earn a successful score on an AP/IB exam does not address the issue of low success rates. This incentive rewards only those campuses with students already succeeding on AP/IB exams, not campuses with teachers and/or students needing additional assistance or training. As such, campus awards are also a costly state expenditure.

Recommendation 3 would eliminate appropriations to the campus award component of the AP Incentive Program allowed under Texas Education Code Section 28.053(a)(2) .

For a more focused effort on increasing AP/IB exam success rates, the savings achieved from these recommendations could be redirected to provide grants to campuses with low success rates on AP/IB exams. TEA could determine eligibility criteria for these grants and monies could be used to identify and support campuses with new AP/IB teachers, campuses with AP/IB teachers needing more professional development opportunities, and/or campuses with large numbers of students who are unsuccessful on AP/IB exams.

FISCAL IMPACT OF THE RECOMMENDATIONS

Implementing these recommendations would save $18 million in General Revenue Funds for the 2012–13 biennium. Recommendation 1 would end AP/IB exam fee subsidies paid on behalf of all students and limit subsidy recipients to low-income students, which would save $6.1 million in General Revenue Funds for fiscal year 2012 and $6.2 million in General Revenue Funds for fiscal year 2013.

Probable savings from limiting exam fee subsidies were calculated by determining what the costs would be if no changes were made to student eligibility and each AP/IB exam continued to be subsidized at $30, and then subtracting the cost of subsidizing only exams taken by low-income students. This method estimates savings based on continued growth in AP/IB exam participation, and assumes a 4 percent increase in the total number of AP/IB exams taken that would be eligible for a subsidy and a 9 percent increase in the number of AP/IB exams taken by low-income students that would be eligible for a subsidy each school year. Projected increases are based on historical data and growth in participation provided by TEA.

Recommendation 3 would eliminate appropriations to the campus award component of the AP Incentive Program, which would save $2.8 million in General Revenue Funds for each fiscal year of the 2012–13 biennium. Projected savings are based on past actual expenditures for campus awards. **Figure 5** shows the five-year fiscal impact of Recommendations 1 and 3.

FIGURE 5
FIVE-YEAR FISCAL IMPACT TABLE
FISCAL YEARS 2010 TO 2016

FISCAL YEARS	PROBABLE SAVINGS/(COST) IN GENERAL REVENUE FUNDS
2012	$8,889,718
2013	$8,984,849
2014	$9,070,244
2015	$9,144,295
2016	$9,205,220

Source: Legislative Budget Board.

The introduced 2012–13 General Appropriations Bill includes an appropriations reduction related to Recommendation 3.

PUBLIC SCHOOL CAREER AND TECHNICAL EDUCATION LABOR MARKET RELEVANCE AND COURSE VARIETY

Public school district Career and Technical Education programs are some of the first opportunities Texas students have to gain knowledge and skills that directly relate to a particular industry or occupation. School districts have relatively wide discretion over which courses are offered in these programs, especially when compared to more prescriptive academic course requirements. These course options are organized into 16 different broad occupational categories. Students can choose to have a stronger focus on Career and Technical Education while in high school by developing a four-year academic plan that includes taking two or more Career and Technical Education courses within a particular occupational focus.

School district Career and Technical Education program administrators must consider a variety of factors when deciding which courses the program will offer. Increasing course variation to give students the opportunity to gain knowledge and skills across a greater range of occupational categories can conflict with another significant programmatic component—ensuring the courses offered relate to current and emerging occupations for which there is, or there is projected to be, a regional labor market need. While schools districts residing closer to or within major metropolitan areas and which have greater student enrollment can offer more course opportunities in a greater variety of broad occupational categories, they do so at the risk of reducing the number of courses that have regional labor market relevance. Conversely, more rural school districts offer fewer occupational options for students, but have a greater share of their total Career and Technical Education courses offered within careers for which there is regional labor market demand.

FACTS AND FINDINGS

- Career and Technical Education concentrators are students that choose to take a coherent sequence of two or more program courses. In school year 2009–10, these students made up 65 percent of the state's secondary student Career and Technical Education course enrollment.
- Approximately 73 percent of Career and Technical Education courses delivered in school year 2009–10 related to a regional labor market need by broad occupational similarities.
- School districts closer to a major metropolitan area deliver a wider variety of Career and Technical Education courses, while more rural school districts offer fewer courses, but have a greater share of their CTE courses aligned to regional labor market needs.
- Career and Technical Education courses related to information technology, human services, and agriculture, food, and natural resources had the largest share of student Career and Technical Education course enrollment in school year 2009–10.

DISCUSSION

As a significant component of Texas' workforce development system, school district Career and Technical Education (CTE) programs are the primary means by which a student can obtain career-focused instruction in public education. These programs have a long history in public education dating back to the early 1900s. CTE programs offered through school districts must manage meeting employer demands for current and future jobs, offering courses that engage students' interests, and be of sufficient academic rigor to ensure students exit the program ready for college or the workforce.

Texas Education Code Section 29.181 specifies the goals of CTE as mastery of the basic skills and knowledge necessary for managing the dual roles of family member and wage earner; as well as gaining entry-level employment in a high skill, high-wage job or continuing the student's education at the postsecondary level.

CTE STUDENT CATEGORIES

Students may take CTE courses either individually as an elective or as part of a coherent sequence of CTE courses. Students that choose to take a coherent sequence are referred to as CTE Concentrators. These students are required to create a four-year program of study; a roadmap that details the types of courses that student will take in high school. This plan uses the Recommended High School Program as an academic base and includes completing two or more CTE courses for three or more credits, typically within a particular career or occupational type. These plans are reviewed annually by counselors and teachers with students able to

make changes to their program of study if and when their interests change. Students can include CTE courses within their program of study that provide the opportunity for the student to acquire postsecondary credit. **Figure 1** shows the total secondary student enrollment and total secondary CTE Concentrator enrollment by school district community type. Rural school districts have the largest percentage of their secondary student enrollment categorized as CTE Concentrators.

CTE COURSE ORGANIZATION

Texas adopted the federal organization of CTE courses in 2005. This framework reorganized all CTE courses into "career clusters," 16 groupings of occupations and broad industries based on similarities such as common knowledge and skills. The organizational method encompasses a broad swath of careers and organizes CTE courses around common occupational themes such as finance, marketing, or human services.

This course reorganization corresponded with a revision of the CTE curriculum managed by the Texas Education Agency that resulted in a remapping of the CTE course landscape, reducing the total number of CTE courses eligible for state funding from approximately 600 to 190. Approved in June 2009 by the State Board of Education, these courses were developed to meet college readiness standards and have appropriate technical skill attainment measures. Each was placed within a career cluster and had a corresponding program of study aligned to postsecondary education. These courses comprise approximately 34 percent of secondary courses (grades 9–12) offered statewide.

In addition to these courses, school districts also have the option to create CTE-specific "innovative courses." These are courses developed by the school district that relate to certain careers or occupations that do not have state-approved curriculum. School districts may apply to the State Board of Education to seek approval to offer these courses. Following approval, any school district may offer these courses. As of October 2010, there have been 24 approved innovative courses. Examples include Disaster Response and Video Game Design.

School districts may also offer Tech Prep and Advanced Technical Credit courses. Tech prep courses are CTE courses that have a corresponding college-level equivalent and for which a student may accrue college credit held in escrow with the community or technical college partnering with the school district to offer these courses. These partnerships are governed by local articulation agreements between the school district and community or technical college. School districts may also offer Advanced Technical Credit courses which are statewide articulated courses accepted at participating Texas community and technical colleges.

In contrast to prescriptive academic course offering regulations, school districts have relatively wide discretion on which CTE courses they offer. Texas Administrative Code Section 74.3 requires school districts to offer CTE courses that fall within, at a minimum, three of the 16 career clusters.

Figure 2 shows the 16 clusters and the number of CTE courses eligible for state funding that fall within the cluster for school year 2010–11. Innovative courses are also included, but do not relate to any one specific cluster.

FIGURE 1
TOTAL SECONDARY STUDENTS AND TOTAL SECONDARY CTE CONCENTRATORS BY SCHOOL DISTRICT COMMUNITY TYPE
SCHOOL YEAR 2009–10

	TOTAL STUDENTS		CTE CONCENTRATORS		
COMMUNITY TYPE	NUMBER	DISTRICT AVERAGE	NUMBER	DISTRICT AVERAGE	PERCENTAGE OF CTE
Major Urban	230,163	23,016	141,082	14,108	61%
Major Suburban	437,650	5,611	258,999	3,321	59%
Independent Town and Central City*	450,671	1,720	302,747	1,156	67%
Rural**	148,137	218	116,706	172	79%
STATE	**1,266,621**	**1,230**	**819,534**	**796**	**65%**

*This Community Type contains school districts within Other Central City, Other Central Suburban, and Independent Town categories.
**This Community Type contains school districts within Non-Metro Fast Growing, Non-Metro Stable and Rural categories.
Sources: Legislative Budget Board; Texas Education Agency.

FIGURE 2
CTE COURSES BY CAREER CLUSTER
SCHOOL YEAR 2010–11

CAREER CLUSTER	TOTAL NUMBER OF STATE FUNDING ELIGIBLE COURSES WITHIN CLUSTER
Science, Technology, Engineering and Mathematics	30
Agriculture, Food and Natural Resources	26
Arts, A/V Technology and Communication	25
Architecture and Construction	24
Human Services	20
Information Technology	17
Transportation, Distribution and Logistics	14
Law, Public Safety, Corrections and Security	13
Business Management and Administration	12
Health Science	12
Hospitality and Tourism	11
Government and Public Administration	10
Manufacturing	10
Finance	8
Marketing	8
Education and Training	5
Innovative Courses	24

Source: Texas Education Agency.

LABOR MARKET RELEVANCY

CTE programs provide students with opportunities to acquire knowledge and skills that will prepare them for specific career paths relating to current and emerging occupations. This critical purpose has long standing priority within national and statewide CTE policy. In 1987, the State Board of Education created the Master Plan for Vocational Education. One of that plan's goals was the development of an educational and training delivery system that would be more responsive to the needs of employers and trends in local labor markets.

A specific focus on regional labor markets originated in the Quality Workforce Planning system that was developed in the early 1990s. This initiative was designed to support regional implementation of statewide CTE efforts outlined in the 1987 Master Plan. One of its objectives was to develop a service delivery plan based on regionally targeted occupations and related programs, services, and activities. School district involvement within this system would be to offer courses related to targeted occupations.

State services and resources are available to assist school districts in making informed choices about which CTE courses to offer. The Texas Workforce Commission's Labor Market Career Information division provides school districts access to extensive regional and statewide labor market data for both current and future labor market needs. Additionally, school districts can obtain regional labor market data through their local Tech Prep Consortia which typically has a representative from the Local Workforce Development Board (LWDB) serving on their governing board or they can contact their own LWDB directly.

LABOR MARKET ALIGNMENT

School districts' CTE courses delivered in school year 2009–10 were compared to regional labor market needs to determine the extent of regional labor market alignment among the CTE courses delivered. Targeted occupation lists developed by the LWDB were used by Legislative Budget Board staff to approximate regional labor market need. These lists are required by the Texas Workforce Commission for a LWDB to justify offering federally funded training for those occupations. These lists contain from 20 to 30 occupations each.

There are 28 Local Workforce Development Boards in Texas providing services to 28 corresponding Workforce Development Areas (WDA). Workforce boards conduct extensive labor market analysis to identify high wage occupations in high demand within their region that require a range of skill from on-the-job training to a bachelor's degree. These occupations are drawn from industries identified as critical to the workforce region. Identifying these occupations is necessary for LWDBs to maximize workforce development resources allocated to that board. The occupations listed are expected to have the highest growth in job and wage opportunities.

Figure 3 shows the alignment of CTE courses taken by all students and just CTE concentrators to regional labor market need (area of need). Statewide, approximately 73 percent of students enrolled in CTE courses in school year 2009–10 were in courses for career clusters identified on a corresponding workforce board's targeted occupation list. There was a marginal increase in the percentage of CTE concentrator enrollment in an area of need the further a school district was from a major metropolitan area.

FIGURE 3
CTE COURSE ENROLLMENT
TOTAL SECONDARY STUDENTS VS. SECONDARY CTE CONCENTRATORS
SCHOOL YEAR 2009–10

	SECONDARY STUDENTS		SECONDARY CTE CONCENTRATORS		
COMMUNITY TYPE	TOTAL ENROLLMENT*	PERCENTAGE OF ENROLLMENT IN AREA OF NEED	TOTAL CTE CONCENTRATOR ENROLLMENT*	PERCENTAGE OF CTE CONCENTRATOR ENROLLMENT IN AREA OF NEED	CTE CONCENTRATOR ENROLLMENT AS PERCENTAGE OF TOTAL ENROLLMENT
Major Urban	233,420	71%	91,778	71%	39%
Major Suburban	446,893	71%	199,872	72%	45%
Independent Town and Central City	549,710	74%	284,911	74%	52%
Rural	239,746	75%	165,062	76%	69%
STATE TOTAL	**1,469,769**	**73%**	**741,623**	**73%**	**50%**

*Includes students enrolled in two or more CTE courses simultaneously.
Sources: Legislative Budget Board; Texas Education Agency.

The most significant difference between school district community types was the share of non-CTE concentrators taking CTE courses. In major urban school districts CTE concentrators made up approximately 39 percent of enrolled students whereas in rural school districts these same students represented 69 percent of enrolled students.

Figure 4 shows the breakdown of course-to-targeted occupation list alignment (area of need) by career cluster. Hospitality and tourism had the least alignment with 6 percent of students enrolled in regions where hospitality and tourism occupations were targeted by the LWDB. The largest misalignment occurred among students taking Human Services courses with 211,506 student courses not aligned to a career cluster appearing on the corresponding workforce board targeted occupation list. Within this cluster, the largest share of courses taken were for food science and technology and personal and family development. Conversely, agriculture, food and natural resources, architecture and construction, business management and administration, health science, and transportation, distribution and logistics all had 100 percent relevancy to regional labor market need due to nearly all of the LWDBs identifying occupations within those career clusters.

CTE PROGRAM CAPACITY

School district CTE programs offer a range of courses related to a variety of careers and occupations. A school district's capacity to offer courses in multiple career clusters provides its students with numerous opportunities for technical education and relevant career preparation across a wide range of occupations. This increases the likelihood that a school district is offering CTE courses for which a student may have a particular interest.

A variety of factors can influence a school district's capacity to offer multiple career clusters beyond the statutorily required minimum, which include:

- sufficient personnel qualified to teach these courses;
- availability of technology and properly equipped facilities;
- extent of CTE courses that can substitute for academic courses; and
- coherent sequences of CTE courses that create additional personnel requirements for a school district to offer each cluster.

FIGURE 4
CTE COURSE ALIGNMENT BY CAREER CLUSTER*
ALL STUDENTS
SCHOOL YEAR 2009–10

CAREER CLUSTER	NUMBER OF WDAS TARGETING	SUM OF ENROLLMENT	ENROLLMENT IN AREA OF NEED	ENROLLMENT NOT IN AREA OF NEED	PERCENTAGE OF ENROLLMENT IN AREA OF NEED
Agriculture, Food and Natural Resources	28	211,838	211,838	0	100%
Architecture and Construction	27	54,730	54,730	0	100%
Business Management and Administration	28	61,533	61,533	0	100%
Health Science	28	111,515	111,515	0	100%
Transportation, Distribution and Logistics	28	26,813	26,813	0	100%
Manufacturing	27	39,585	39,273	312	99%
Arts, A/V Technology and Communication	9	47,133	46,728	405	99%
Science, Technology, Engineering and Mathematics	24	47,515	45,880	1,635	97%
Information Technology	24	403,996	381,170	22,826	94%
Education and Training	22	76,230	54,178	22,052	71%
Marketing	12	53,647	37,069	16,578	69%
Law, Public Safety, Corrections and Security	20	46,386	31,942	14,444	69%
Finance	7	33,917	6,094	27,823	18%
Human Services	7	245,637	34,131	211,506	14%
Hospitality and Tourism	4	16,080	959	15,121	6%
STATE TOTAL		**1,476,555**	**1,143,853**	**332,702**	**77%**

*The Government and Public Administration Cluster is not listed because no students were recorded as enrolled in a course within this cluster for the 2009–10 school year.
Sources: Legislative Budget Board; Texas Education Agency.

Figure 5 shows the average number of career clusters that school districts delivered by community type and the percentage of CTE student enrollment across the highest enrolled clusters. Rural school districts delivered significantly fewer career cluster options when compared to school districts in metropolitan areas, with an average of 6.8 clusters delivered with 73 percent of all CTE courses delivered falling within those three career clusters. Rural school districts also have the highest number of students identified as CTE Concentrators as a percentage of total secondary enrollment.

The information technology career cluster had the largest share of student enrollment among CTE courses delivered within each community type, except rural, in school year 2009–10. These courses made up from 27 percent to 32 percent of the CTE courses delivered. Human services and agriculture, food and natural resources followed close behind with statewide enrollment percentages of 17 percent and 14 percent respectively. A significant difference in course enrollment existed between rural school districts and the rest of the state with the agriculture, food and natural resources cluster making up over one-third of the CTE courses delivered to students.

FIGURE 5
CAREER CLUSTER OFFERINGS BY COMMUNITY TYPE
SCHOOL YEAR 2009–10

COMMUNITY TYPE	AVERAGE NUMBER OF CAREER CLUSTERS DELIVERED	PERCENTAGE OF STUDENT ENROLLMENT WITHIN 3 CLUSTERS	TOP 3 CLUSTERS WITH LARGEST ENROLLMENTS	PERCENTAGE OF CTE COURSE ENROLLMENT BY TOP 3 CLUSTERS
Major Urban	15.2	56%	1. Information Technology	32%
			2. Human Services	15%
			3. Health Science	8%
Major Suburban	12.7	53%	1. Information Technology	27%
			2. Human Services	17%
			3. Agriculture, Food and Natural Resources	9%
Independent Town and Central City	10.9	59%	1. Information Technology	27%
			2. Human Services	16%
			3. Agriculture, Food and Natural Resources	15%
Rural	6.8	73%	1. Agriculture, Food and Natural Resources	34%
			2. Information Technology	22%
			3. Human Services	18%
STATE AVERAGE	**8.5**	**58%**	**1. Information Technology**	**27%**
			2. Human Services	**17%**
			3. Agriculture, Food and Natural Resources	**14%**

Sources: Legislative Budget Board; Texas Education Agency.

OVERVIEW OF THE STATE INFRASTRUCTURE FOR SCHOOL SUPPORT SERVICES

Texas has developed an elaborate infrastructure for school support services which has evolved due to recent compliance streamlining measures aimed at coordinating state and federal technical assistance requirements. State and federal accountability systems require different types of technical assistance and support for campuses that fail to meet established thresholds. A similarity between the requirements of the two systems is that professional service providers, external consultants approved by the Texas Education Agency and external partner organizations, work with campuses that are rated Academically Unacceptable under state accountability or have missed Adequate Yearly Progress under federal accountability.

FACTS AND FINDINGS

- Technical assistance and support requirements for low-performing campuses differ between campuses that are rated Academically Unacceptable under state accountability and those that have missed Adequate Yearly Progress under federal accountability.
- The state infrastructure for school support services is composed of multiple partners including the Texas Education Agency, external partner organizations such as the Texas Comprehensive Center, intermediate organizations including the Texas Center for District and School Support, and professional service providers.
- Several compliance streamlining efforts have emerged due to the Texas Education Agency's focus on coordinating state and federal technical assistance requirements, and delivering intervention initiatives to provide assistance to campuses in need of improvement.

DISCUSSION

Technical assistance is the collection of services and interventions required of campuses that have failed to meet student performance expectations established through both the state and federal accountability systems. State accountability standards, established in 1993 by the Texas Legislature, established the accountability rating system. These standards have evolved over time to hold schools gradually more accountable for student academic performance on increasingly rigorous state assessment exams. Federal accountability is established through the federal No Child Left Behind Act of 2001 (NCLB) which reauthorized the federal Elementary and Secondary Education Act to require states to establish adequate yearly progress measures. Technical assistance was developed to aid low-performing schools in either the state or federal accountability systems through services and support that these campuses are required to utilize.

Figure 1 shows the technical assistance requirements for low-performing campuses as defined by the state and federal accountability systems. Technical assistance requirements differ based on the number of years of low performance; still, both systems require the campus to develop a targeted improvement plan and use the assistance of external professional service providers to help the campus with school improvement efforts. Even as technical assistance is required of all campuses that do not meet state and federal accountability measures, campuses receiving federal Title I, Part A, School Improvement Program (SIP) funds must adhere to additional requirements under federal accountability. The additional requirements for Title I campuses are also shown in **Figure 1.**

FIGURE 1
TECHNICAL ASSISTANCE REQUIREMENTS FOR CAMPUSES RESULTING FROM THE STATE AND FEDERAL ACCOUNTABILITY SYSTEMS SCHOOL YEAR 2010–11

	SERVICES AND INTERVENTIONS	
YEARS OF UNACCEPTABLE PERFORMANCE	**STATE TECHNICAL ASSISTANCE**	**FEDERAL TECHNICAL ASSISTANCE**
ZERO	**Campus Improvement Plan (CIP) Campus** Academically Acceptable(AA) Campus, but would be Academically Unacceptable (AU) based on next year's performance standards Campus-level planning and decision-making committee established to revise and submit campus improvement plan (CIP).	**Not Applicable** - A school is identified for school improvement after it has not made AYP on the same indicator for two consecutive school years
Technical assistance requirements after **ONE** year of low performance	**Year One – Academically Unacceptable (AU) Campus** **Campus Intervention Team (CIT) Assignment** **CIT** assigned to conduct targeted or comprehensive needs assessment, assist in development of targeted school improvement plan (SIP), and monitor implementation of SIP. A school community partnership team (SCPT) may be assigned.	
Technical assistance requirements after **TWO** consecutive years of low performance	**Year Two – AU Campus** **Reconstitution (Planning)** CIT continues until campus is Academically Acceptable (AA) for two year period or AA after one year and commissioner determines the campus will be AA into the future. Continue CIT assignment and SIP implementation. SCPT may be assigned, or a monitor, conservator, management team, or board of managers may be appointed to ensure and/or oversee district-level support and SIP. (Additional technical assistance oversight)	**Year One of School Improvement** Develop or revise a two-year Campus Improvement Plan (CIP). Additional requirements for Title I campuses receiving School Improvement Program (SIP) Grants: • The campus principal must participate in TEA's required external **Campus Administrative Mentor** (CAM) Program. • Must participate in the School Improvement Resource Center (SIRC) Introductory Meeting. • Must participate in the Texas School Improvement (TSI) Conference.
Technical assistance requirements after **THREE** consecutive years of low performance	**Year Three – AU Campus** **Campus opens school year as a reconstituted campus.** Continue CIT assignment and SIP implementation. Additional technical assistance oversight may be assigned.	**Year Two of School Improvement** Revise the two-year CIP. • Additional requirements for Title I campuses receiving SIP Grants: • Campuses in Year Two of School Improvement or above must participate in TEA's required external **Technical Assistance Program** (TAP). • Must participate in SIRC Introductory Meeting. • Must participate in TSI Conference.
Technical assistance requirements after **FOUR** consecutive years of low performance	**Year Four – AU Campus** **Campus continues to operate under reconstitution plan** Continue CIT assignment and SIP implementation. Additional technical assistance oversight may be assigned.	**Year Three of School Improvement – Campus implements Corrective Action** Revise the two-year CIP. Participation in TAP continues until campus exits from School Improvement. A campus identified for school improvement must meet AYP for two consecutive school years in the same area that caused it to enter into school improvement in order to exit the School Improvement Program (2 years in – 2 years out). Continue with additional requirements for Title I campuses.

FIGURE 1 (CONTINUED)
TECHNICAL ASSISTANCE REQUIREMENTS FOR CAMPUSES RESULTING FROM THE STATE AND FEDERAL ACCOUNTABILITY SYSTEMS
SCHOOL YEAR 2010–11

	SERVICES AND INTERVENTIONS	
YEARS OF UNACCEPTABLE PERFORMANCE	STATE TECHNICAL ASSISTANCE	FEDERAL TECHNICAL ASSISTANCE
Technical assistance requirements after **FIVE** consecutive years of low performance	**Year Five – AU Campus** **Campus continues to operate under reconstitution plan** Continue CIT assignment and SIP implementation. Additional technical assistance oversight may be assigned.	**Year Four of School Improvement –** **Campus plans for Restructuring** Revise the two-year CIP. Continue with additional requirements for Title I campuses.
Technical assistance requirements after **SIX** consecutive years of low performance	**Year Six – AU Campus** **Campus undergoes repurposing, closure or alternative management** Continue CIT assignment and SIP implementation. Additional technical assistance oversight may be assigned.	**Year Five of School Improvement –** **Campus implements Alternative Governance** Revise the two-year CIP. Continue with additional requirements for Title I campuses.

Note: Additional activities such as school choice, supplemental educational services and parent notification might be required of the district as a result of state or federal accountability, but are not reflected in this figure as they are not campus-specific technical assistance activities as defined in this report.
Sources: Legislative Budget Board; Texas Education Agency; Texas Association of School Boards.

Figures 2 and 3 show the number and percentage of campuses that have been defined as low-performing by the state and federal accountability systems from school years 2004–05 to 2009–10.

TECHNICAL ASSISTANCE

The state infrastructure for school support services provides structure to the requirements of technical assistance as determined by state and federal accountability measures. Although the actual requirements of technical assistance differ based on the system by which a school is considered low performing, both systems require the assistance of professional service providers to help the campus with school improvement efforts.

FIGURE 2
STATE ACCOUNTABILITY—NUMBER AND PERCENTAGE OF CAMPUSES RATED ACADEMICALLY UNACCEPTABLE
SCHOOL YEARS 2004–05 TO 2009–10

SCHOOL YEAR	TOTAL NUMBER OF CAMPUSES RATED ACADEMICALLY UNACCEPTABLE	PERCENTAGE OF CAMPUSES RATED ACADEMICALLY UNACCEPTABLE
2004–05	264	3.3%
2005–06	286	3.6%
2006–07	276	3.4%
2007–08	202	2.5%
2008–09*	245	2.9%
2009–10*	125	1.5%

*Campus ratings in school years 2008–09 and 2009–10 include the use of the Texas Projection Measure which may be used to elevate campus ratings from Academically Unacceptable to Academically Acceptable.
Note: Campus Numbers include Regular and Charter Campuses.
Source: Texas Education Agency.

FIGURE 3
FEDERAL ACCOUNTABILITY—NUMBER AND PERCENTAGE OF ALL CAMPUSES AND TITLE I CAMPUSES THAT MISSED ADEQUATE YEARLY PROGRESS
SCHOOL YEARS 2004–05 TO 2009–10

SCHOOL YEAR	TOTAL NUMBER OF CAMPUSES THAT MISSED AYP	NUMBER OF TITLE ONE CAMPUSES THAT MISSED AYP	PERCENTAGE OF ALL CAMPUSES THAT MISSED AYP
2004–05	816	620	10.3%
2005–06	541	416	6.8%
2006–07	664	485	8.2%
2007–08	1,109	754	13.5%
2008–09	353	257	4.2%
2009-10*	410	330	4.9%

*School year 2009–10 data is based on the 2010 Preliminary Adequate Yearly Progress (AYP) Status results.
Note: Campus numbers include regular and charter campuses.
In addition, the number of Title One campuses that missed AYP is part of the total number of campuses that missed AYP.
Source: Texas Education Agency.

STATE ACCOUNTABILITY TECHNICAL ASSISTANCE

Texas Education Code, Chapter 39, Subchapter E defines accreditation interventions and sanctions for districts and campuses that fail to meet student performance standards. A campus rated Academically Unacceptable (AU) through the state accountability system enters into five stages of intervention. These interventions define the technical assistance received by the low-performing campus and dictate actions required of them. **Figure 1** shows these intervention stages and summarizes the technical assistance required by the state's accountability system.

In general, the state accountability system uses three base indicators to determine a campus rating: performance on the Texas Assessment of Knowledge and Skills (TAKS), completion rate for the graduating class, and annual dropout rate. These indicators vary based on whether the campus is rated under standard procedures, which apply to most campuses, or alternative education accountability (AEA) procedures, which are used for eligible charters and charter campuses that serve students at risk of dropping out of school. For example, standard procedures use the dropout rate for grades 7 and 8, while AEA procedures use the dropout rate for grades 7–12.

In school year 2009–10, 125 campuses were rated AU. Most of the AU campuses (101) were rated under standard accountability procedures in school year 2009–10. Approximately 44 percent of the AU campuses, rated under standard and AEA procedures, received an AU rating due to poor TAKS performance only, while close to 30 percent received an AU rating due to completion rate. The remaining campuses received an AU rating due to dropout rate only or due to completion and dropout rates.

As shown in **Figure 1,** under state accountability provisions, campuses are required to establish a campus-level planning and decision-making committee if the district or campus is in danger of becoming AU the next school year, or a Campus Intervention Team (CIT) if the district or campus is AU. A CIT is composed of both campus personnel and external members whose responsibility includes development of a school improvement plan to address identified needs and monitoring of the school improvement plan's implementation. According to TEA requirements, a CIT must contain a minimum of two individuals, with at least 50 percent of the CIT membership to be external to the district. A CIT is required to work with a campus until the campus is rated Academically Acceptable (AA) for a two-year period, or the campus is rated AA for a one-year period and the Commissioner of Education determines that the campus is operating and will continue to operate in a manner that improves student achievement.

Beginning with the Eightieth Legislature, 2007, funds have been appropriated for the support infrastructure for campuses that are rated AU. **Figure 4** shows the funding allocations directed to this effort in the 2008–09 and 2010–11 biennia.

As shown in **Figure 4,** state funds have been directed to developing a system of support for AU campuses. TEA has

FIGURE 4
FUNDING FOR STATE TECHNICAL ASSISTANCE EFFORTS, 2008–09 TO 2010–11 BIENNIA

RIDER	DESCRIPTION	FUNDS ALLOCATED
EIGHTIETH LEGISLATURE, 2008–09 GENERAL APPROPRIATIONS ACT		
Rider 80, page III-23 Campus Turnaround Team Support	TEA awarded a discretionary, non-competitive grant to Education Service Center (ESC) XIII to implement support of the regional network of turnaround teams at the 20 ESCs.	$1.5 million in General Revenue Funds $1.5 million in Federal Funds
EIGHTY-FIRST LEGISLATURE, 2010–11 GENERAL APPROPRIATIONS ACT		
Rider 70, page III-23 Campus Turnaround Team Support	TEA awarded a discretionary, non-competitive grant to ESC XIII to implement support of the regional network of turnaround teams at the 20 ESCs.	$1.5 million in General Revenue Funds $1.5 million in Federal Funds
Rider 93, page III-28 Center for the Improvement of Districts and Schools	TEA awarded a discretionary, non-competitive grant to ESC XIII to create the Texas Center for District and School Support.	$4 million in General Revenue Funds

Source: Legislative Budget Board.

awarded funding to Region XIII Education Service Center to support the turnaround teams and create the Texas Center for District and School Support. However, funding of required professional service provider—the external CIT members—remains the responsibility of the campuses in need of those services. As specified in Texas Education Code Section 39.110, the costs of providing a campus intervention team, technical assistance team, monitor, conservator, or service provider must be paid by the school district.

FEDERAL ACCOUNTABILITY TECHNICAL ASSISTANCE

Under NCLB requirements, campuses that fail to meet federal standards (AYP) for two consecutive years enter into a series of interventions designed to aid the campus in meeting AYP the next school year. There are five stages of interventions that a campus traverses the more years they fail to meet AYP. Each stage has corresponding support, sanctions, and requirements of campus staff representing a variety of different strategic approaches to generate school improvement.

Campuses receiving Title I, Part A funds that have failed to meet AYP are also required to receive technical assistance in the form of either a Campus Administrator Mentor (CAM) or Technical Assistance Provider (TAP) dependent on the campus' stage of intervention. CAMs and TAPs are external consultants authorized by the state to provide these services. Similar to the state accountability system, this technical assistance increases in breadth and scope the longer that district or campus fails to meet AYP. **Figure 1** shows the five intervention stages and corresponding technical assistance requirements. In school year 2009–10, 410 campuses missed AYP. Of the total number of campuses that missed AYP, 330 were Title I campuses.

Similar to state accountability, NCLB accountability provisions require all public school campuses to meet AYP criteria on three measures: reading/language arts, mathematics, and either graduation rate (for high schools) or attendance rate (for elementary and middle/junior high schools). Campus performance in reading/language arts and mathematics is measured through student performance on the TAKS. According to 2010 Preliminary AYP results, of the 410 campuses missing AYP in school year 2009–10, 31 percent missed AYP due to performance on mathematics only, 13 percent missed AYP due to performance on reading/language arts only, while 19 percent missed AYP due to performance on both mathematics and reading/language arts. An additional 14 percent of the 410 campuses missing AYP in school year 2009–10 missed AYP due to graduation rate only.

As shown in **Figure 1,** Title I campuses in Year One of School Improvement, campuses receiving Title I, Part A funds that fail to meet AYP for two consecutive years, are required to participate in the CAM program. A CAM's primary role is to provide support specifically to the campus principal in self-selected areas of professional growth that target school improvement.

TAPs work with Title I campuses in Years Two to Five of School Improvement to guide the campus administration and staff through the improvement process. TAPs take a broader school-wide focus than the CAM and spend most of their time facilitating school personnel in completing activities specified through a campus needs assessment. The specific roles of TAPs vary based on the stage of improvement for the campus receiving assistance. This work may include increasing leadership capacity of administrators and building content knowledge of teachers on the campus.

Federal Title I School Improvement Program (SIP) funds support the professional service providers—CAMs and TAPs—required of Title I campuses that have missed AYP. Title I eligible campuses must apply for SIP grant funding through TEA. Once a campus is approved for funding, a

FIGURE 5
FUNDING FOR FEDERAL TECHNICAL ASSISTANCE EFFORTS, SCHOOL YEARS 2007–08 TO 2009–10

(IN MILLIONS) SCHOOL YEAR	AMOUNT OF SCHOOL IMPROVEMENT PROGRAM (SIP) FUNDS DIRECTED FOR CAM AND TAP SERVICES	TOTAL SCHOOL IMPROVEMENT PROGRAM (SIP) AWARD ALLOCATION	PERCENTAGE OF SCHOOL IMPROVEMENT PROGRAM (SIP) FUNDS DIRECTED TO CAM AND TAP SERVICES
2007–08	$3.80	$55.40	7%
2008–09	$4.90	$94.00	5%
2009–10	$4.70	$79.80	6%

Note: Total SIP Award Allocation includes both SIP and SIP Academy for school years 2007–08 and 2008–09.Total SIP Award Allocation includes SIP and SIP American Recovery and Reinvestment Act of 2009 (ARRA) for school year 2009–10.
Source: Texas Education Agency.

portion of the SIP funds are then directed to the School Improvement Resource Center (SIRC) by TEA to pay for the required technical support services received by the campus. **Figure 5** shows the federal funding directed to this effort from school years 2007–08 to 2009–10.

TECHNICAL ASSISTANCE OVERLAP

Although most campuses are classified as low-performing by either the state or the federal accountability system, some campuses are identified as low-performing by both systems. These campuses are commonly referred to as overlap campuses and are required to receive technical assistance from both the state and the federal technical assistance providers. **Figure 6** shows the number of overlap campuses from school years 2004–05 to 2009–10. In school year 2009–10, 85 campuses were identified as AU and missed AYP.

FIGURE 6
NUMBER OF CAMPUSES RATED ACADEMICALLY UNACCEPTABLE AND MISSED ADEQUATE YEARLY PROGRESS, SCHOOL YEARS 2004–05 TO 2009–10

SCHOOL YEAR	NUMBER OF CAMPUSES
2004–05	5
2005–06	43
2006–07	77
2007–08	70
2008–09	53
2009–10	85

Sources: Texas Education Agency; Texas Center for District and School Support.

Overlap campuses are required to work with two professional service providers, an external CIT member and a CAM or TAP, until the campus is no longer considered underperforming. Prior to school year 2010–11, state and federal technical assistance providers operated in isolation due to the distinct requirements of the accountability systems, the support structures in place, and different funding streams. However, recent compliance streamlining efforts have focused on coordinating technical assistance efforts and reducing the duplicity created as a result of two accountability systems.

STATE INFRASTRUCTURE FOR SCHOOL SUPPORT SERVICES

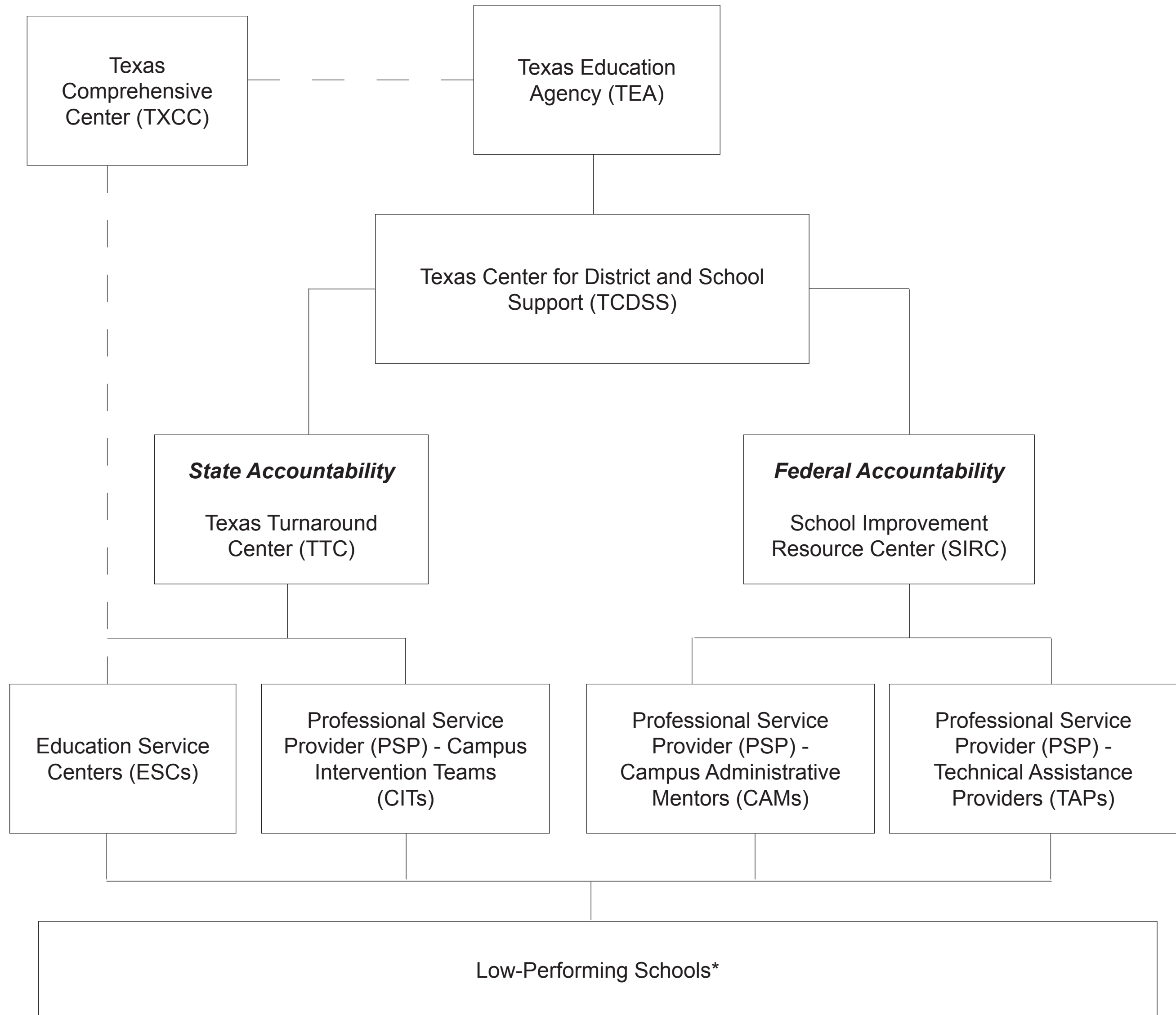
Texas has an elaborate structure of support to address the low performance of students in campuses that are rated AU or that fail to meet AYP. This network of support is composed of multiple partners including the Texas Education Agency (TEA), external partner organizations, intermediate organizations, and professional service providers. In large part, the technical assistance infrastructure has evolved based on the requirements of NCLB and the support components deemed necessary by TEA to meet statutory requirements associated with low-performing status. Furthermore, compliance streamlining initiatives resulting from the Eighty-first Legislature, Regular Session, 2009, have added additional support structures and focused efforts on better coordination of services.

In 2002, NCLB required that each state organize a system of school support services for low-performing campuses. Each state was required to establish a statewide system of intensive and sustained support and improvement for school districts and campuses that receive Title I, Part A, School Improvement Program (SIP) funds. Federal statute defines minimum requirements for the system of support; however, states are given some flexibility regarding the structure for their state. At a minimum, the statewide system must include school support teams composed of persons knowledgeable about scientifically based research and practice on teaching and learning and about successful school-wide projects, school reform, and improving educational opportunities for low-achieving students. The Texas infrastructure for school support services is shown in **Figure 7.**

TEA administers the regulatory structure and externally contracts for services to low-performing campuses. Several divisions within the agency are involved in providing support to low-performing campuses. The Division of Program Monitoring and Interventions at TEA is tasked with developing and implementing interventions and sanctions for campuses rated AU. Data provided by the Division of Performance Reporting is used to identify those campuses requiring intervention due to performance concerns. Additionally, the Division of NCLB Program Coordination is responsible for the state-level administration and implementation of federal education programs under NCLB.

The Texas Comprehensive Center (TXCC), a regional comprehensive center funded by the U.S. Department of Education, provides technical assistance and support to TEA and the statewide system of support to assist school districts and campuses in meeting the goals of NCLB. TXCC focuses its work on the state and regional levels of the Texas system of support. State level work is provided through policy research services, briefing papers related to NCLB and school improvement topics, technical assistance sessions, and work with the Texas Action Group. Composed of representatives

FIGURE 7
TEXAS STATE INFRASTRUCTURE FOR SCHOOL SUPPORT
SCHOOL YEAR 2010–11



*Academically Unacceptable campuses as defined by state accountability and Title I, Part A, Schools in Improvment (Missed Adequate Yearly Progress) as defined by federal accountability.
Sources: Legislative Budget Board; Texas Center for District and School Support; Texas Comprehensive Center.

from the School Improvement Resource Center (SIRC), the Title I Statewide School Support/Parental Involvement Initiative, and two regional ESCs, the goal of the Texas Action Group is to increase collaboration and alignment among entities in the infrastructure for school support services. In addition, TXCC provides assistance by directly supporting school improvement activities at the regional ESCs.

TEA provides funds to ESC XIII (Austin) through a series of non-competitive grants to administer and support the technical assistance required from the state and federal accountability systems. As shown in **Figure 7**, the Texas Center for District and School Support (TCDSS) serves as a single point of contact for the school improvement efforts of both state and federal accountability systems. Authorized under the 2010–11 General Appropriations Act, Rider 93,

page III-28, TCDSS coordinates and leverages statewide technical assistance services to support low-performing school districts and campuses in meeting state and federal accountability standards. TCDSS manages the work of the School Improvement Resource Center (SIRC) and the Texas Turnaround Center (TTC), all three housed at ESC XIII, to build turnaround capacity in the school support system. Specifically, TCDSS provides training and professional development and develops tools and resources for professional service providers (Campus Administrative Mentors, Technical Assistance Providers, and Campus Intervention Teams), turnaround specialists, and district personnel. TCDSS also collaborates with and supports the turnaround work of the 20 regional ESCs through the development of technical assistance tools and resources.

Organized by the TEA in 2003 to implement the requirements of NCLB and provide technical assistance to campuses not meeting AYP, the School Improvement Resource Center (SIRC) provides a support system to campuses that have missed AYP and receive federal funding under Title I, Part A School Improvement Program (SIP). The responsibilities of SIRC have shifted as the technical assistance structure has evolved, incorporating new elements of support for low-performing campuses. For example, initial technical assistance services at SIRC were provided through the Technical Assistance Provider (TAP) program and focused on general campus support in the improvement process. In 2007, the Campus Administrative Mentor (CAM) program was added as a requirement because personnel at SIRC recognized the importance of campus leadership in assisting low-performing campuses in the initial stage of intervention. In addition to the TAP and CAM programs, SIRC provides resources for Supplemental Educational Services, orientation and transition meetings for campus principals, and hosts the Texas School Improvement (TSI) Conference.

The Texas Turnaround Center (TTC) was authorized under the 2008–09 General Appropriations Act, Rider 80, page III-23, to develop and support the capacity of the 20 regional ESCs to support school turnaround and Campus Intervention Teams (CITs). Awarded as a grant to ESC XIII in Austin, the TTC provides training, technical assistance and resources directly to the ESC turnaround teams. This work includes coordinating network and support meetings, facilitating webinars, providing trainer-of-trainer materials, and organizing school improvement resources and tools.

The 20 regional ESCs provide technical assistance support to low-performing campuses through turnaround teams in each region. Established through the 2008–09 General Appropriations Act, Rider 80, page III-23, the goal of the turnaround teams is to provide support services to the lowest performing campuses in the region. Part of this work includes supporting the members of CITs and campus leadership teams. Other responsibilities of the turnaround teams include matching potential external CITs with campuses that are rated AU under the state accountability system.

COMPLIANCE STREAMLINING OF TECHNICAL ASSISTANCE

While the basic tenets of technical assistance between the two systems have remained the same, the state infrastructure and support features have undergone recent changes due to several compliance streamlining measures authorized during the Eightieth and Eighty-First Legislatures. These measures follow priorities established by the Commissioner of Education in TEA's 2011–2015 Strategic Plan. According to the strategic plan, the agency is working to "develop a centralized infrastructure to eliminate, to the extent possible, the duplicative burden of state and federal requirements and interventions."

TEA established the Professional Service Provider (PSP) network in 2010 as part of this general compliance streamlining effort. Historically, two separate systems of support for the state and federal accountability systems had operated in isolation of one another. For example, CAMs and TAPs received training and resources through SIRC, while training and resources for external CIT members was loosely organized through the network of regional ESCs without the specific direction of one organization.

Beginning with the 2010–11 school year, CAMs, TAPs, and external CIT members were merged into the PSP network to ensure that all persons serving in these positions share a common core of knowledge, have a clear understanding of both accountability systems requirements, and have the skills necessary to assist low-performing campuses. Specifically, the goal of the PSP network is to ensure a consistent, coordinated system of support for low-performing campuses and districts regardless of which student performance standard a campus fails to meet. Further, the PSP network intends to provide consistent training to all technical assistance providers.

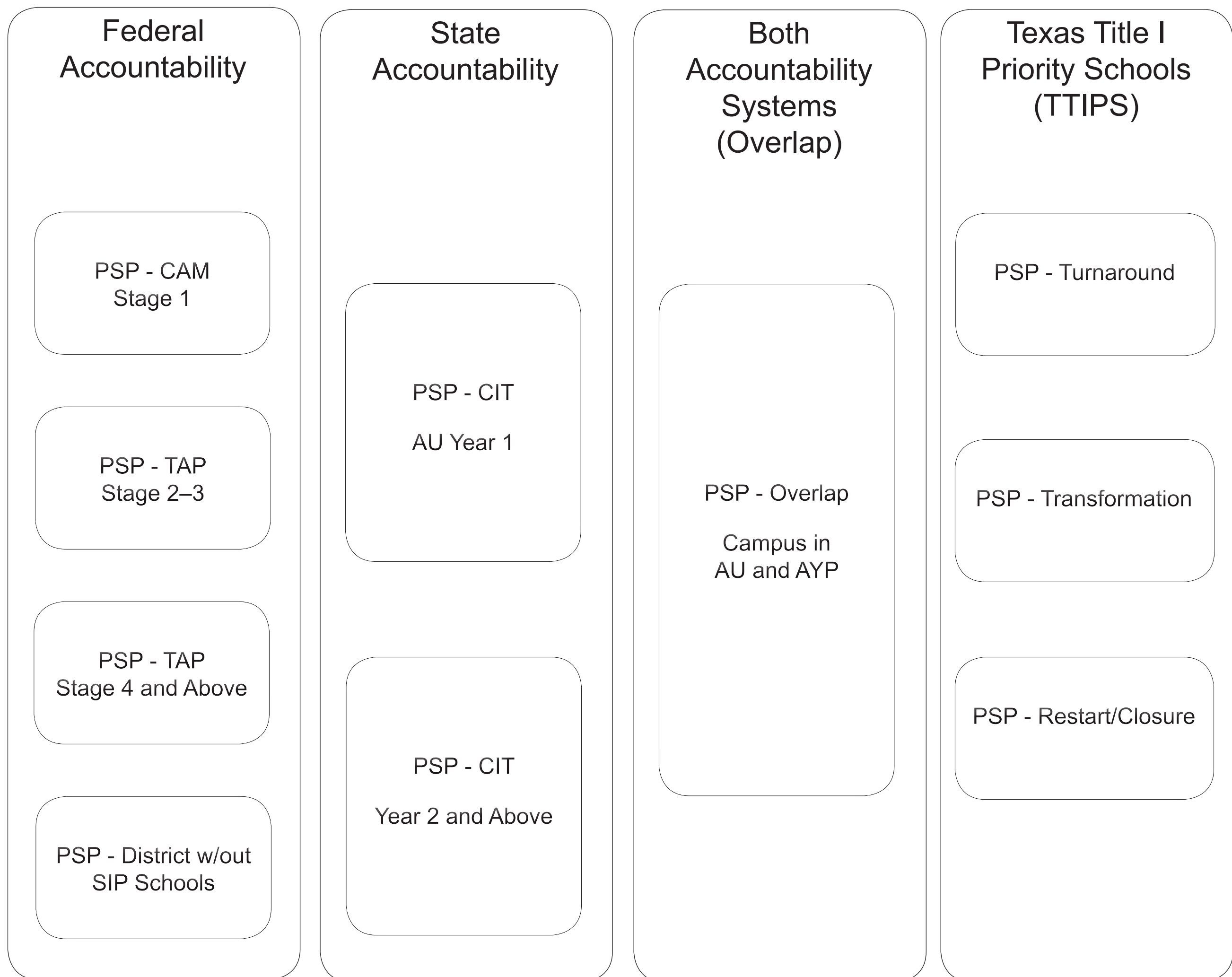
Figure 8 shows the variation of professional service providers within the network dependent on which accountability standards the campus failed to meet. As illustrated, the PSP network also includes professional service providers who will

provide assistance to campuses receiving the Texas Title I Priority Schools (TTIPS) grant. TTIPS grants were awarded to 72 campuses in July 2010 to assist the lowest achieving campuses with school turnaround.

ADDITIONAL SCHOOL IMPROVEMENT EFFORTS

As a result of TEA's efforts to streamline the state and federal technical assistance requirements, overlap campuses—campuses that are rated AU and missed AYP—have received more focus from TEA in recent years. Under Texas Education Code Section 39.103(c), the Commissioner of Education may accept similar intervention measures that comply to state intervention measures "if a campus is subject to state interventions and sanctions and has completed substantially similar federal intervention measures." Given this flexibility, a PSP position has been established to serve overlap campuses, as indicated in **Figure 8**. TEA and the Texas Center for District and School Support are piloting the PSP overlap position in five campuses during school year 2010–11. The goal of the PSP Overlap position is to make the state and federal technical assistance requirements appear seamless to campus personnel. Before school year 2010–11, overlap campuses received assistance through two different professional service providers—one provider for federal accountability and one provider for state accountability.

FIGURE 8
PROFESSIONAL SERVICE PROVIDER NETWORK
SCHOOL YEAR 2010–11



Sources: Legislative Budget Board; Texas Center for District and School Support.

Other school improvement efforts include the agency's participation in an evaluation of the state's infrastructure for school support to determine areas of overlap between the state and federal requirements and areas for improvement with the established infrastructure. Conducted by the Texas Comprehensive Center (TXCC), the regional comprehensive center funded by the U.S. Department of Education, the evaluation looks at four main areas within the system of support: (1) Plan and Design; (2) Resources; (3) Implementation; and (4) School outcomes. Each area contains several key indicators. For instance, Resources includes an examination of staff, funding, and data analysis and storage. The initial evaluation framework was provided through the Center on Innovation and Improvement, a national content center funded by the U.S. Department of Education that supports the work of regional comprehensive centers in campus and school district improvement efforts, restructuring and turnaround, and statewide systems of support. However, the framework has been tailored somewhat to meet Texas' unique system.

ENHANCE THE CAPACITY OF PROFESSIONAL SERVICE PROVIDERS

Public school campuses that fail to meet state or federal student performance standards enter into a series of staged interventions that includes acquiring the services of an experienced professional service provider external to the school district. These providers advise and mentor campus personnel in determining the root causes of the low academic performance, assist in crafting a plan to address these factors, and then help oversee implementation of this plan.

Two factors reduce the ability for these external consultants to fulfill their obligations to the campuses they serve: the lack of prescriptive language describing the amount of their involvement on the campus intervention team in fulfilling the roles and responsibilities of that team; and the lack of central administration personnel involvement in the campus improvement process. Additionally, the Texas Education Agency cannot accurately calculate a return on investment for these services since external campus intervention team members are not required to report the amount of service time they provide to campuses. Greater statutory clarity and increased central administration buy-in of the school improvement process can improve the opportunities these direct technical assistance services have to turn around a low performing campus. More detailed technical assistance service cost reporting allows for improved transparency of technical assistance costs.

FACTS AND FINDINGS

- ♦ The specific roles and responsibilities of professional service providers depend largely on which accountability system, state or federal, the campus failed to meet student academic standards.
- ♦ Time commitments and the degree of professional service provider involvement can vary greatly from campus to campus.

CONCERNS

- ♦ The Texas Education Code lacks specificity on the extent of external campus intervention team member's involvement with Academically Unacceptable campuses that may result in campuses underutilizing the knowledge and skills of that team member due to time restrictions created by the school district.
- ♦ The Texas Education Agency does not require the external campus intervention team member to report the amount of service time allocated to campus assignments which creates difficulty in being able to determine the return on investment related to these services both for the school district and the state.
- ♦ Lack of involvement in earlier stages of intervention by central administrative personnel can result in school district policies or procedures that produce an unintended consequence of impeding efforts by a low performing campus to improve its performance.

RECOMMENDATIONS

- ♦ **Recommendation 1:** Amend the Texas Education Code, Section 39.106, to include language that provides greater clarity on the extent of a campus intervention team's involvement in fulfilling the statutory obligations of the team.
- ♦ **Recommendation 2:** Amend the Texas Education Code, Section 39.106, to require the Texas Education Agency to adopt a rule that campus intervention teams report to the agency the amount of time spent on campus and any miscellaneous charges to the school district for their services.
- ♦ **Recommendation 3:** Amend the Texas Education Code, Section 39.103, to require a representative of the school district's central administration to be a member of the school community partnership team.

DISCUSSION

Texas has developed an elaborate system of support intended to improve the student performance of campuses that fail to meet state and federal accountability standards. At the front lines of this infrastructure are the professional service providers (PSP) who work directly with these campuses to identify the underlying causes driving the low performance and then assist in creating and implementing an action plan designed to address these factors. These service providers have extensive experience and knowledge of public education and research-based practices intended to address low academic performance. Many of them have previous

experience either as a superintendent, principal or other type of school personnel.

Continuing failure by a campus to meet student performance expectations triggers a system of interventions that increase in scope and rigor the longer that campus fails to meet these expectations. This change in intervention has a corresponding change in the PSP's role as they acquire additional responsibilities that more directly impact the campus.

FEDERAL ACCOUNTABILITY TECHNICAL ASSISTANCE

State support for campuses that fail to make Adequate Yearly Progress (AYP) is overseen by the School Improvement Resource Center (SIRC). SIRC has had a formalized structure of training, assigning of PSP to low performing campuses, and detailed work expectations of these PSP for many years. Once identified, each campus receives a list with the names of qualified personnel that SIRC believes best fit the campus' needs. The campus then selects a PSP from this list with whom they wish to work. Funding for these services is provided through the federal Schools in Improvement Program Grant that is administered on behalf of the Texas Education Agency (TEA) by SIRC.

Figure 1 shows the two types of PSPs, Campus Administrator Mentors (CAMS) and Technical Assistance Providers (TAPs), that administer services to campuses failing to meet AYP. In school year 2009–10, there were 90 active CAMs serving 159 campuses and 92 active TAPS serving 189 campuses.

FIGURE 1
PROFESSIONAL SERVICE PROVIDER TYPES, FEDERAL ACCOUNTABILITY SYSTEM, 2010

PROFESSIONAL SERVICE PROVIDER TYPE	FUNCTION
Campus Administrator Mentors	Work with campuses that have failed to make Adequate Yearly Progress and are in Stage One of Improvement. These consultants work closely with the campus principal serving in a mentorship role to encourage and strengthen their individual capacity for leadership.
Technical Assistance Providers	Work with campuses that have failed to make Adequate Yearly Progress and are in Stages Two through Five of Improvement. The Technical Assistance Providers (TAP) has a more school-wide focus than the Campus Administrator Mentor (CAM) and are more directly involved in addressing the campus' low academic performance. This also involves a much longer time commitment with campus assignments.

Source: School Improvement Resource Center.

CAMs and TAPs provide a specific amount of service hours to the campus on a weekly basis. The total time commitments for the year are set by SIRC and gradually increase if the campus progresses into later stages of improvement. **Figure 2** shows the number of service hours that CAMs and TAPs are required to provide to their assigned campus by stage of intervention and campus size.

FIGURE 2
SERVICE HOUR COMMITMENTS OF PSP BY SCHOOL IMPROVEMENT STAGE OF INTERVENTION AND SIZE OF CAMPUS SCHOOL YEAR 2009–10

SERVICE PROVIDER	SCHOOL IMPROVEMENT STAGE	CAMPUS SIZE*	TOTAL NUMBER OF SERVICE HOURS PER SCHOOL YEAR
Campus Administrator Mentor	Stage 1	Small & Large	70
Technical Assistance Provider	Stage 2	Small	120
	Stage 2	Large	150
	Stage 3	Small	150
	Stage 3	Large	180
	Stage 4	Small	180
	Stage 4	Large	210
	Stage 5	Small	210
	Stage 5	Large	240
	Stage 5+	Small	240
	Stage 5+	Large	240

Note: Small campuses have less than 800 students. Large campuses have 800 or more students.
Source: School Improvement Resource Center.

STATE ACCOUNTABILITY TECHNICAL ASSISTANCE

Technical assistance provided to campuses rated Academically Unacceptable (AU) has a less formalized structure than federal technical assistance. The decision on which professional service provider to employ is largely in the hands of local school districts.

Texas Education Code, Section 39.106, requires campuses that are rated AU to appoint a campus intervention team (CIT). Half of this team must be composed of people external to the district, typically an independent consultant referred to as the external CIT member. When implemented, these teams generally consist of two persons.

School districts have generally had broad discretion over who to select as the external CIT member. Beginning with school year 2010–11, campuses must select from an eligible consultant list maintained by TEA. Candidates interested in becoming an external CIT must apply with TEA. This application process includes a review of previous work, submission to a criminal background check, and reference checks. These applications are reviewed and offers extended on an annual basis. There are 302 professional service providers eligible to serve AU-rated campuses for school year 2010–11.

The intervention team is tasked with conducting a campus needs assessment to determine the underlying factors contributing to the campus' poor academic performance. This assessment includes a detailed data analysis of student performance. The intervention team then works with members of a campus leadership team composed of department chairs, guidance counselors, and other staff representatives to create a targeted school improvement plan that addresses these factors. This school improvement plan must be approved by the school board and TEA. Finally, the intervention team assists in the plan's implementation by campus staff. The intervention team's involvement in campus affairs increases substantially if the campus progresses into later intervention stages due to continuing to be rated AU. This team is required to work with the campus until it has been rated Academically Acceptable for two consecutive school years.

Texas Education Code, Section 39.110, requires external CIT costs to be absorbed by the school district. This includes both fees for services and travel expenses. The external CIT's length of time, breadth of service, and any costs associated with additional expenses are negotiated between the district and professional service provider either through a contract or memorandum of understanding. TEA provides a recommended per-hour fee schedule that external CITs can use, but which they do not have to follow. The recommended per hour charge for school year 2009–10 was $75 per hour. External CITs also have the option to provide their services on a pro bono basis.

PROFESSIONAL SERVICE PROVIDER COMPARISON

Though these PSPs have similar goals of raising the campus' student performance, the approach taken by these service providers, the time spent on campus, and their visibility to campus staff differs significantly depending on which technical assistance role they are filling. **Figure 3** compares these differing characteristics.

TIME COMMITMENTS BETWEEN CAMPUS ASSIGNMENTS

Contrary to Texas' federal technical assistance, state statutory language defining the CIT does not set a floor or ceiling on the amount of service time external CITs have to provide to AU-rated campuses. The Texas Education Code also does not stipulate the extent of external CIT participation in fulfilling the intervention team's statutory obligations. This is intended to provide the PSP flexibility to address the variety of potential academic challenges they may encounter at each assignment; with each having differing degrees of severity and requiring varying time commitments and degrees of external CIT involvement to address. However, school districts can also use this flexibility to limit the external CIT's contracted service time to the low performing campus to simply meet minimum legal obligations.

Interviews with external CITs and Texas Turnaround Center staff indicated that the lack of minimum legal expectations for the degree of external CIT involvement can result in school districts severely limiting the external CIT's participation in the campus improvement process. This can create significant variance in both time commitments and the extent of external CIT involvement in fulfilling the intervention team's statutory obligations. The lack of specificity on the extent of external CIT involvement with AU-rated campuses may result in campuses underutilizing the knowledge and skill of the External CIT due to time restrictions created by the school district.

Recommendation 1 would amend the Texas Education Code, Section 39.106, to include language that defines the extent of external CIT involvement in fulfilling the statutory obligations of the CIT. This language would establish an expectation for the minimum level of support external CITs should provide to AU-rated campuses while leaving the time commitments necessary to fulfill these obligations up to agreements made between professional service providers and school districts. Additionally, establishing this definition would give external CITs leverage in negotiating service time obligations with the school district to ensure the low performing campus is receiving a minimum baseline of support, and that the external CIT is provided the service time necessary to be an active member of the team.

FIGURE 3
TECHNICAL ASSISTANCE ROLE COMPARISON OF PROFESSIONAL SERVICE PROVIDERS
SCHOOL YEAR 2010–11

	FEDERAL		STATE
CHARACTERISTIC	TECHNICAL ASSISTANCE PROVIDER	CAMPUS ADMINISTRATOR MENTOR	EXTERNAL CAMPUS INTERVENTION TEAM MEMBER
Focus	School-wide focus	Focus on the principal	School-wide focus
Role	Involved directly in solving school-wide problems; hands-on consultant	Mentors the principal in solving problems for him/herself	Conduct an on-site assessment and make recommendations, assist the campus in development of a focused data analysis and student level review, assist in development of the improvement plan, present the plan to the board for approval in a public hearing, submit the approved plan to the TEA, and monitor progress of plan implementation
Time Use	Majority of time spent completing specific assignments/tasks determined collaboratively with principal	Majority of time spent building relationship with, guiding, and advising principal	Most of the time spent collaboratively with internal CIT and Campus Leadership Team
Visibility	Visible leadership	Limited visibility – encourages principal visibility	Visible leadership
Knowledge	In-depth understanding of campus	In-depth knowledge of principal's perception of campus	In-depth understanding of campus
Hours	120 to 240 hours of campus work	70 hours of campus work	To be determined by district, campus and CIT; hours should reflect the situation on the campus and work to be done.
Expertise	Training/expertise in technical skills of school improvement	Training/expertise in mentoring and leadership development skills	Proven record in producing and maintaining high levels of student performance

Source: Texas Center for District and School Support.

EXTERNAL CIT EXPENDITURE REPORTING

School districts are required to report all expenditures related to external consultant costs, but this is an all encompassing figure that can include more than just contractual expenditure costs associated with the external CIT. Additionally, external CITs are required to report to TEA the per hour amount charged to the school district for their services, but are not required to report the amount of time they charged the district for their services. Due to the wide variance in external CIT time commitments and the extent of their involvement in the school improvement process, reporting total contract-related expenditures alone does not present a complete picture of the return on investment associated with these services.

Recommendation 2 would amend the Texas Education Code, Section 39.106, to require TEA to adopt a rule that external CITs report the amount of time spent on campus and any additional miscellaneous charges by the PSP for travel, emails, phone calls, and any other administrative costs as part of their regular progress reporting. In a time when school district budgets are closely monitored, this key information would help school districts that must decide on which of the available external CITs to contract with for their AU-rated campus.

PROFESSIONAL SERVICE PROVIDER SURVEY

Legislative Budget Board staff conducted a survey of all PSP registered with TEA for school year 2009–10 in spring 2010. This survey was answered by 53 percent of all service providers.

SCHOOL DISTRICT CENTRAL ADMINISTRATION BUY-IN

Interviews with professional service providers and survey responses identified lack of central administration support, specifically in earlier stages of technical assistance, as a significant barrier to school improvement. This lack of support could take many forms, such as the district not prioritizing low performing campuses to a lack of central administration involvement for AU-rated campuses prior to a stage of intervention requiring their involvement (Stage 3). This is significant since the success rate for campuses to

turnaround an AU rating decreases significantly precisely at the stage of intervention when central office administration involvement is first required.

Furthermore, campuses are not required to include recommendations provided by the external CIT in the final campus improvement plan. This lack of authority behind recommendations lends significant weight to the external CIT's ability to engage the campus and central administration and obtain the necessary buy-in for their recommendations.

This view was shared by many respondents to the PSP survey. Interviews with service providers indicated securing district buy-in as one of the most important factors in their work. Despite this, a lack of central administrative involvement in the technical assistance process was an identified barrier experienced by 40 percent of the survey respondents. This is a concern since the lack of involvement by central administrative personnel can result in school district policies or procedures with unintended consequences that could impede or block efforts by a low performing campus to improve its performance.

Texas Education Code, Section 39.103, gives the Commissioner of Education the option to require an AU-rated campus to appoint a school community partnership team. These teams are designed to work within the low performing campuses to help address problems that are contributing to the low performance. These teams consist of members of the campus-level planning and decision-making committee and any additional community representatives as determined appropriate by the commissioner. In that capacity they would interact directly with the CIT to create and implement the strategic plan intended to address those campus problems. Recommendation 3 would amend the Texas Education Code, Section 39.103, to require a representative of the school district's central administration be a member of the school community partnership team. This would provide an opportunity for central administration to become involved in the activities of an AU-rated campus earlier in the school improvement process.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1, 2, and 3 do not have any significant fiscal impact.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

INCREASE EFFECTIVENESS OF DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS

In 1995, the Texas Legislature enacted legislation to address the increasing violence and crimes occurring on public school campuses. The statute cites the offenses that trigger mandatory placements of students to a disciplinary education setting. These settings are for students temporarily removed from their regular classrooms as an alternative to suspension or expulsion. The goal is for students to return to, and succeed in, their regularly assigned classrooms and schools. The Texas Education Agency is responsible for oversight of disciplinary alternative education programs in the state.

Since the inception of these programs, there have been concerns that students are not receiving adequate educational services. Until recently, there were no standards for the programs because they operate outside of the state's accountability system. Legislation enacted by the Eightieth Legislature, 2007, required the Texas Education Agency to adopt standards for disciplinary alternative education programs, but the agency does not monitor or enforce the standards. The agency's monitoring of these programs is limited to examining compliance with statutory requirements regarding suspensions, expulsions and placements. By including indicators that monitor and enforce program standards, the Texas Education Agency would help ensure that disciplinary alternative education programs provide adequate educational services.

FACTS AND FINDINGS

- Texas students whose behavior warrants their removal from a regular classroom for three days or less may be suspended. Students removed from school for more than three days must be sent to either a disciplinary alternative education program or a juvenile justice alternative education program.
- In school year 2008–09, the average length of stay in a disciplinary alternative education program was approximately 34 days.
- In school year 2008–09, school districts spent a total of $232 million on disciplinary alternative education programs.

CONCERN

- Students placed in disciplinary alternative education programs may not receive adequate education services. The Texas Education Agency does not monitor or enforce the statutorily required standards. The current method of monitoring does not include indicators related to the standards.

RECOMMENDATION

- **Recommendation 1:** The Texas Education Agency should use performance indicators (measures) in monitoring and analyzing the effectiveness of disciplinary alternative education programs.

DISCUSSION

Chapter 37 of the Texas Education Code, the Texas Safe Schools Act, was passed by the Seventy-fourth Legislature, 1995, to address the increasing violence and crimes occurring on public school campuses. Chapter 37 cites the offenses that trigger mandatory placements to either a disciplinary alternative education program (DAEP) or a juvenile justice alternative education program (JJAEP). It also allows public independent school districts to make discretionary placements to either program under certain circumstances. School districts can remove or expel students for certain types of misconduct, but the statute does not require them to do so. These actions are referred to as discretionary removals or expulsions.

The Texas Education Agency (TEA) is responsible for oversight of DAEPs whereas the Texas Juvenile Probation Commission (TJPC) is responsible for oversight of JJAEPs. While DAEPs are primarily for disruptive students and JJAEPs are primarily for dangerous students, certain statutory provisions allow either disruptive students or dangerous students to be removed to either setting.

In school year 2008–09, about 93,000 Texas students were removed from public school classrooms and placed in a DAEP. There were 33,000 mandatory removals and about 86,000 discretionary removals. According to TEA data, about 26,000 removals were for students who were placed in a DAEP more than once.

In school year 2008–09, about 5,100 students were expelled to a JJAEP. Of these, approximately 1,900 were mandatory expulsions and 3,200 were discretionary. **Figure 1** shows the mandatory and discretionary removals and expulsions to DAEPs and JJAEPs.

FIGURE 1
MANDATORY AND DISCRETIONARY REMOVALS AND EXPULSIONS IN TEXAS
SCHOOL YEAR 2008–09

	REMOVALS AND EXPULSIONS	PERCENTAGE
Mandatory Removals to DAEP	32,953	28%
Discretionary Removals to DAEP	86,156	72%
TOTAL Removals to DAEP	**119,109**	
Mandatory Expulsions to JJAEP	1,928	38%
Discretionary Expulsions to JJAEP	3,175	62%
TOTAL Expulsions to JJAEP	**5,103**	

SOURCE: Texas Education Agency.

Since 1995, concerns have been expressed in various reports and studies that students in disciplinary alternative education programs are not receiving adequate educational services. Until recently, there were no standards for disciplinary alternative education programs as they operate outside of the state's accountability system. In 2007, the Texas Legislature required TEA to adopt standards for disciplinary alternative education programs, but the agency does not monitor or enforce the standards.

Since school year 1998–99, the TJPC has required that students who are assigned to a JJAEP for 90 days or more be given a pre-test and post-test. Beginning in school year 2004–05, TJPC requires the use of the Iowa Test of Basic Skills for this purpose. The Eightieth Legislature, Regular Session, 2007, enacted legislation requiring DAEP students be given a pre-test and post-test, but TEA did not adopt this rule until August 2010.

MONITORING DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS

TEA is responsible for monitoring and oversight of school districts' DAEPs, but its monitoring activities are limited to reviewing indicators that examine school districts' suspensions, expulsions and placements. Its Division of Performance-Based Monitoring (PBM) conducts two activities related to DAEPs:

- developing and reporting on discipline data validation indicators; and,
- developing the Performance-Based Monitoring Analysis System (PBMAS), an automated data system that reports annually on the performance of school districts and charter schools in selected program areas.

The program areas PBMAS analyzes are bilingual education/English as a second language, career and technical education, special education, and certain title programs under the federal No Child Left Behind Act of 2001. PBMAS does not report on disciplinary alternative education programs. The only indicators related to discipline in PBMAS examine the placement of special education students in disciplinary programs.

Figure 2 shows a comparison of the discipline data validation indicators used as part of the PBM Data Validation System and the performance indicators used in PBMAS.

FIGURE 2
COMPARISON OF DISCIPLINE DATA VALIDATION INDICATORS AND OTHER PERFORMANCE-BASED MONITORING INDICATORS
2009

INDICATOR TYPE	RESULT	PUBLICLY RELEASED	STANDARDS	SCHOOL DISTRICT RESPONSE
Discipline Data Validation	Suggests an anomaly	No	Based on annual review of data to identify anomalous data and trends observed over time	Validate accuracy of data locally and, as necessary, improve local data collection and submission procedures or address program implementation
PBMAS	Yields a definitive result	Yes	Based on standards established in advance	Improve performance or program effectiveness or if identification occurred because of inaccurate data, improve data collection and submission procedures

SOURCE: Texas Education Agency.

DISCIPLINE DATA VALIDATION INDICATORS

TEA developed the indicators (measures) shown in **Figure 3** to comply with the requirement that the agency identify districts that are at high risk of having inaccurate DAEP data or of failing to comply with DAEP requirements regarding placement and referrals. None of the discipline data validation indicators are intended to assess program quality, only whether DAEPs are following statutory requirements related to placement.

FIGURE 3
DISCIPLINE DATA VALIDATION INDICATORS
SCHOOL YEAR 2008–09

1. Length of Student's Out-of-School Suspension
2. Length of Student's In-School Suspension (Report Only)
3. Unauthorized Student Expulsion
4. Unauthorized Expulsion of a Student under Age 10
5. Unauthorized DAEP Placement of a Student under Age 6
6. High Number of Discretionary DAEP Placements
7. African American Discretionary DAEP Placements
8. Hispanic Discretionary DAEP Placements (Report Only)
9. No Mandatory Expellable Incidents Reported for Multiple Years

Source: Texas Education Agency.

PERFORMANCE-BASED MONITORING ANALYSIS SYSTEM

In addition to the nine discipline data validation indicators, TEA has also adopted three PBMAS indicators that relate to disciplinary programs. Disciplinary programs include in school suspension (ISS), out of school suspension (OSS) and DAEPs. All three of the PBMAS indicators related to disciplinary programs are contained in the special education section of PBMAS and relate to the disproportionate referral of special education students to disciplinary programs. There are no indicators in PBMAS related to the adequacy of the education provided by DAEPs or to the standards adopted by TEA to ensure adequate programs. **Figure 4** shows the three PBMAS indicators that relate to disciplinary programs.

Reports prepared by PBM related to the disciplinary program indicators are sent to TEA's Division of Program Monitoring and Interventions for intervention activities. The stages of intervention range from additional data analysis to special on-site program reviews. For example, for the special education program, Stage 1A intervention is focused data analysis, whereas Stage 4 is an onsite review.

FIGURE 4
PERFORMANCE BASED MONITORING ANALYSIS SYSTEM
SCHOOL YEAR 2008–09
SPECIAL EDUCATION

INDICATOR
Special Education Discretionary Disciplinary Alternative Education Program (DAEP) Placements
Special Education Discretionary Placements to In School Suspension (ISS)
Special Education Discretionary Placements to Out of School Suspension (OSS)

Source: Texas Education Agency.

In school year 2009–10, two independent school districts received an on-site monitoring review due to Stage 4 status in the PBM Data Validation System and 16 school districts received on-site reviews due to a special education discipline indicator in the PBMAS. Of the 18 on-site monitoring visits conducted by TEA in 2009–10 to disciplinary alternative education programs, none were to monitor or enforce program standards.

STANDARDS FOR DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS

In 2007, the Eightieth Legislature enacted legislation requiring the TEA to set standards for DAEPs. In December 2008, Chapter 103, Subchapter CC, Commissioner's Rules Concerning Safe Schools were adopted. The rules adopted include the following standards:

- Campus improvement plan objectives for DAEPs must include: (1) student groups served; (2) attendance rates; (3) pre- and post-assessment results; (4) drop-out rates; (5) graduation rates; and (6) recidivism rates.
- Students' graduation plans may not be altered when a student is assigned to a DAEP.
- School day for a DAEP must be at least seven hours but no more than 10 hours in length.
- Students with disabilities must be provided educational services that will support meeting the goals in the student's individualized education program.
- Certified teacher-to-student ratio shall be one teacher for each 15 students.
- Elementary students must be separated from secondary students.

- Training must be provided on health issues and emergencies, education and discipline of students with disabilities, instruction in social skills and problem solving skills and reporting abuse, neglect or exploitation of students.
- Transition procedures must be implemented and updated annually and must include a transition timeline and written and oral communication with the student's home campus on the student's performance and tasks completed.

These standards, if enforced, would help ensure that disciplinary alternative education programs are providing adequate educational services to their students.

DROP-OUT RATES FOR DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS

According to TEA's *2009 Comprehensive Annual Report on Texas Public Schools*, the school year 2007–08 dropout rate for students in grades 7–12 assigned to DAEPs was 4.9 percent, more than double the rate for students statewide. Of the 86,225 students in grades 7–12 assigned to DAEPs that year, 4,239 students dropped out. **Figure 5** shows the dropout rates for DAEPs compared to the state average. All student groups in DAEPs had a significantly higher dropout rate than the state average for that same group.

TEA does not currently examine individual DAEPs' drop-out rates to identify campuses whose rates exceed the state average by a significant amount. While examining referral rates and placement rates for DAEPs is an important activity to ensure compliance with the law, examining indicators of program effectiveness, such as dropout rates, recidivism rates and successful transition back to the home campus is equally important.

FIGURE 5
GRADES 7–12 ANNUAL DROPOUT RATE FOR DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS IN TEXAS SCHOOL YEAR 2007–08

STUDENT GROUP	DISCIPLINARY ALTERNATIVE EDUCATION PROGRAMS	STATE
African American	5.7	3.5
Hispanic	5.3	3.0
White	3.4	1.1
Economically Disadvantaged	4.5	2.3
Special Education	5.2	2.8
Female	3.9	2.1
Male	5.3	2.4
All	4.9	2.2

Source: Texas Education Agency.

The nine discipline data indicators and three special education disciplinary indicators used by TEA's PBM focus on referrals and placements, and do not include any indicators related to the standards set in Chapter 103. Recommendation 1 would require the use of indicators related to the standards, with special consideration to ones that measure program effectiveness, such as dropout, graduation and recidivism rates. TEA should be monitoring and enforcing standards for DAEPs through PBMAS and requiring the lowest performing programs to improve the adequacy of the education they provide.

FISCAL IMPACT OF THE RECOMMENDATION

This recommendation would result in no fiscal impact in the 2012–13 biennium since it can be accomplished by redirecting monitoring activities already conducted by TEA.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of this recommendation.

ENHANCE STATE PROGRAMS TO IMPROVE TEACHER RETENTION

A significant number of Texas public school students who are economically disadvantaged are taught by teachers who have the least experience. Analysis of school district data confirms the general perception that many economically disadvantaged students face significant educational challenges, yet districts with the highest percentage of economically disadvantaged students have the highest percentage of teachers with five or fewer years of experience. Within districts, campuses with a high percentage of economically disadvantaged students are likely to be the most difficult to staff with experienced teachers.

While high teacher turnover in districts and campuses with a high percentage of economically disadvantaged students is recognized as a significant problem by state and national research studies, Texas does not offer any programs that specifically address the teacher retention problem that hard-to-staff campuses are facing. Two programs, the Teach for Texas Loan Repayment Assistance Program administered by the Texas Higher Education Coordinating Board and the District Awards for Teacher Excellence program administered by the Texas Education Agency could be enhanced to provide state assistance for teacher retention at hard-to-staff campuses.

CONCERNS

- Teacher retention in general is a significant challenge for school districts, but teacher retention at campuses with a high percentage of economically disadvantaged students is even more difficult. In spite of this, Texas does not have any state programs that provide incentives for teacher retention in school districts whose students have the highest needs.
- The Teach for Texas Loan Repayment Assistance Program at the Texas Higher Education Coordinating Board provides an incentive for teachers to initially select a hard-to-staff campus, but the incentive is not intended to promote teacher retention.
- The District Awards for Teacher Excellence program at the Texas Education Agency is primarily an educator incentive pay program but participating districts may use up to 40 percent of the funds for other purposes, including stipends for teachers to teach at hard-to-staff campuses. The statute does not give districts the flexibility to participate in the teacher retention component of the program if they do not also participate in the incentive pay component.

RECOMMENDATIONS

- **Recommendation 1:** Amend the Texas Education Code Chapter 56, Subchapter O to require the Texas Higher Education Coordinating Board to give priority for loan repayment assistance to applicants who teach at hard-to-staff campuses.
- **Recommendation 2:** Amend the Texas Education Code Chapter 56, Subchapter O to require the Texas Higher Education Coordinating Board to develop a schedule for loan repayments under the Teach for Texas Loan Repayment Assistance Program that increases the amount of the loan repaid each year that a teacher remains employed at a hard-to-staff campus and remains in the program.
- **Recommendation 3:** Amend the Texas Education Code Chapter 21, Subchapter O to designate an amount of state funding that is specifically targeted for teacher retention at hard-to-staff campuses by allowing school districts to participate in the District Awards for Teacher Excellence program by providing stipends or other incentives to attract and retain effective classroom teachers at high-needs campuses regardless of their participation in the merit pay component of the program; or by using funds currently appropriated to the District Awards for Teacher Excellence program, to provide stipends for teacher retention at hard-to-staff campuses.
- **Recommendation 4:** Amend the Texas Education Code to require that the Teach for Texas Loan Repayment Assistance Program and the District Awards for Teacher Excellence Program be evaluated by the Texas Higher Education Coordinating Board and the Texas Education Agency in terms of their respective effect on teacher retention at hard-to-staff campuses.

DISCUSSION

Texas Education Agency (TEA) data shows that in school year 2008–09, there were approximately 400,000 teachers in early childhood, elementary, middle and high school classrooms in Texas public schools. TEA calculated teacher attrition, defined as teachers leaving the Texas public school teaching force, to be 9.6 percent that year. That percentage has remained about the same for at least the last 10 years. This has resulted in a teaching force that in school year 2008–09 had 7.3 percent beginning teachers (i.e., teachers with no previous teaching experience) and 30.5 percent had between one and five years of experience.

In school year 2008–09, 37.8 percent of Texas public school teachers had five or fewer years of teaching experience. Research has shown that one of the most significant factors affecting the education a student receives is the effectiveness of the teacher and one important determinant of teacher quality, although not the only one, is years of experience. An Association of Texas Professional Educators study, *2008 Study on Teacher Quality and School Improvement in Texas Public Schools*, reported that experienced teachers are more effective in increasing student learning than inexperienced teachers. It went on to point out that research studies show that not only are beginning teachers and novice teachers (those with less than three years of experience) less effective, they are "substantially less effective."

This study also reported:

- High-poverty schools had greater percentages of beginning teachers than low-poverty schools. Across all core courses, 10 percent of teachers in high poverty schools had no prior teaching experience as compared to about 5 percent in low-poverty schools. The greatest difference between the two groups of schools, seven percentage points, was in Science.
- High-poverty schools had more inexperienced teachers while low-poverty schools had greater percentages of teachers with 6 to 20 years of experience.
- The differences in the distribution of teacher quality between high-poverty and low-poverty schools were most acute in the critical areas of mathematics and science.

An examination of Texas school districts by community type shows that the districts with the highest percentage of teachers with five or fewer years of experience for each community type tend to have a much higher percentage of economically disadvantaged students than the district with the lowest percentage of teachers with five or fewer years of experience. **Figure 1** shows the percentages at the highest and lowest ranking school districts for teachers with five or fewer years of experience for each community type and compares it to the percentage of economically disadvantaged students. While there are exceptions, most districts reflect similar patterns.

Within large districts, campuses with high percentages of economically disadvantaged students reflect similar patterns. The higher the percent of disadvantaged students, the more likely the campus is to have a lower percentage of experienced teachers.

The Texas Association of School Boards' (TASB) and the Texas Association of School Administrators' (TASA) joint survey of compensation and benefits practices in Texas public schools found that only 26 districts, or four percent of respondents, pay stipends to teachers who take assignments at hard-to-staff campuses and that the average stipend is $1,778. By contrast, 454 districts, or 75 percent of respondents, pay stipends to teachers for teaching in a shortage subject area, such as mathematics, science or bilingual education. According to the TASB survey, bilingual education had the highest average stipend at $2,513.

FIGURE 1
COMPARISON OF HIGHEST AND LOWEST RANKING SCHOOL DISTRICTS IN PERCENTAGE OF TEACHERS WITH FIVE OR FEWER YEARS OF EXPERIENCE BY COMMUNITY TYPE
SCHOOL YEAR 2008–09

COMMUNITY TYPE	RANK	PERCENTAGE OF TEACHERS WITH FIVE OR FEWER YEARS OF EXPERIENCE	PERCENTAGE OF ECONOMICALLY DISADVANTAGED STUDENTS
Major Suburban	Highest	66.2	75.4
Major Suburban	Lowest	22.4	17.3
Other Central City Suburban	Highest	63.0	94.3
Other Central City Suburban	Lowest	10.8	42.5
Non-Metropolitan Fast Growing	Highest	61.8	76.1
Non-Metropolitan Fast Growing	Lowest	6.4	35.2
Non-Metropolitan Stable	Highest	60.4	96.9
Non-Metropolitan Stable	Lowest	10.2	27.4
Independent Town	Highest	48.7	74.4
Independent Town	Lowest	13.8	44.5
Other Central City	Highest	47.0	50.4
Other Central City	Lowest	19.9	59.8
Rural Districts With 5 Campuses	Highest	42.4	71.3
Rural Districts With 5 Campuses	Lowest	14.6	54.2
Major Urban	Highest	41.3	72.3
Major Urban	Lowest	31.4	54.8

Sources: Legislative Budget Board; Texas Education Agency.

TEACH FOR TEXAS LOAN REPAYMENT ASSISTANCE PROGRAM

For the 2008–09 biennium, the Texas Higher Education Coordinating Board (THECB) was appropriated $4.5 million in General Revenue Funds each year for the Teach for Texas Loan Repayment Assistance Program (TFTLRAP). This program helps teachers repay loans of up to $5,000 a year for up to five years, or $20,000 total, for teachers who teach at either hard-to-staff campuses or in shortage fields such as math or science. Appropriations for the program increased to $5.8 million each year for the 2010–11 biennium. In fiscal year 2009, THECB received more than 4,800 applications while loans were approved for more than 1,100 applicants.

Figure 2 shows the statutory provisions in Chapter 56 of the Texas Education Code for the TFTLRAP as well as the rules adopted by THECB in Chapter 21 Subchapter G to implement the program. Most of the rules adopted by THECB are consistent with statutory requirements but a few exceptions are worth noting. THECB has a requirement that renewal applicants be given priority over first-time applicants. This requirement is not in the current statute. It was a provision that was in the program's predecessor grant program, the Teach for Texas Conditional Grants.

THECB's rule that "the annual repayment is the lesser of $5,000 or the total unpaid balance of the loan and the aggregate amount shall not exceed $20,000" is not in statute. The Texas Education Code does not specify a maximum amount of annual or total repayment. These provisions were also requirements of the Teach for Texas Conditional Grants.

The statutory requirement that priority be given to applicants who demonstrate financial need has resulted in priority being given to teachers with the highest outstanding loan balances. While not a true indicator of financial need, THECB staff have said this was an administratively efficient method of implementing a statutory requirement that the agency would otherwise have difficulty implementing. For this reason, Recommendation 1 would remove the statutory requirement that THECB give priority to applicants with the highest financial need. Recommendation 2 would refine the purpose of the Teach for Texas Loan Repayment Assistance Program to give priority to applicants who teach at hard-to-staff campuses, as defined by the Commissioner of Education.

FIGURE 2
TEACH FOR TEXAS LOAN REPAYMENT ASSISTANCE PROGRAM
2010–11 BIENNIUM

STATUTORY PROVISION, TEXAS EDUCATION CODE SECTION 56.352		TEXAS HIGHER EDUCATION COORDINATING BOARD RULE, CHAPTER 21, SUBCHAPTER G	
		Section 21.173	Applications will be ranked according to the following criteria:
-	No statutory requirement regarding renewal applicants.	Section 21.173 (1)	Renewal applicants shall be given priority over first-time applicants unless a break in service has occurred.
Section 56.353(b)	THECB in awarding repayment assistance shall give priority to applicants who demonstrate financial need.	Section 21.173 (2)	Financial need as evidenced by the total amount of student loan indebtedness.
Section 56.353 (a)	Teach for Texas repayment assistance is available only to a person who applies for assistance and who:	Section 21.173 (3)	Severity of shortage of teachers as described in 21.174 of this title.
Section 56.353.(a)(1)	is certified in a teaching field identified by the Commissioner of Education as experiencing a critical shortage of teachers in this state	Section 21.174 (1)	certified in a teaching field identified by TEA as experiencing a critical shortage of teachers
Section 56.353(a)(2)	teaching in a community identified by the Commissioner of Education as experiencing a critical shortage of teachers	Section 21.174(2)	teaching in a community identified by the Texas Education Agency as having an acute shortage of teachers
Section 56.355	THECB may determine the manner in which the loan repayment assistance is to be paid.	Section 21.176 (1)	the annual repayment shall be in one disbursement
	No statutory provision regarding maximum annual repayment amount or aggregate amount.	Section 21.176(2)	the annual repayment is the lesser of $5,000 or the total unpaid balance of the loan and the aggregate amount shall not exceed $20,000
Section 56.353(d)	A person may not receive loan repayment assistance for more than 5 years.	Section 21.176(3)	the teacher shall not receive loan repayment assistance for more than 5 years.

Source: Legislative Budget Board.

Although addressing critical teacher shortages is referenced in statute as one of the priorities of the program, teacher retention at hard-to-staff campuses is not specified and has been diminished by the requirement that priority be given to financial needs of the participants. To give greater focus and emphasis to teacher retention, the recommendation would also amend the Texas Education Code to require that the amount of loan repaid by the program be increased each year that a teacher remains employed at a hard-to-staff campus. Teachers who have already been accepted into the program could continue to have their loans repaid under a grandfather clause included in the amended statute.

DISTRICT AWARDS FOR TEACHER EXCELLENCE

In June 2006, the Seventy-ninth Legislature, Third Called Session enacted comprehensive public education reform legislation that included the creation of the District Awards for Teacher Excellence (DATE) program, an incentive pay program for teachers to be administered by the Texas Education Agency (TEA). Texas Education Code Chapter 21, Subchapter O directs the Commissioner of Education to adopt program guidelines for districts and charter schools to follow in developing a local incentive awards plan to submit to TEA for approval.

The Eightieth Legislature delayed implementation of DATE until fiscal year 2009 and appropriated $147.8 million in General Revenue Funds to fund the first cycle of grants under the program. In 2009, the Legislature amended the Texas Education Code to allow principals to receive awards and appropriated $197.8 million per year for DATE in the 2010–11 biennium. **Figure 3** shows the number of school districts that have participated and are currently participating in DATE and the funds awarded to them by TEA. All school districts and charter schools are statutorily eligible to participate in the DATE program.

FIGURE 3
DISTRICT AWARDS FOR TEACHER EXCELLENCE
SCHOOL YEARS 2007–08 TO 2010–11

	CYCLE 1		CYCLE 2	
SCHOOL YEAR	NUMBER OF DISTRICTS	FUNDS AWARDED	NUMBER OF DISTRICTS	TOTAL FUNDS AWARDED
2007–08	planning year - not funded			
2008–09	203	$145.9		
2009–10	191	$159.4	planning year - not funded	
2010–11	184	$158.6	112	$26.8

Source: Texas Education Agency.

DATE is primarily an incentive pay program for teachers and principals and requires that at least 60 percent of the grant a district receives must be used for awards to classroom teachers and principals who effectively improve student achievement as determined by meaningful objective measures. At the same time, the program allows participating districts to use up to 40 percent of their grant award for other purposes. One of those purposes is to provide stipends to recruit and retain classroom teachers and principals with proven records of success for improving student performance who are assigned to campuses at which the district has experienced difficulty assigning or retaining teachers.

The only way a district can have access to the 40 percent that can be used for other purposes, including the awarding of stipends for teacher retention, is if the district participates in the incentive pay component of the program. In school year 2010–11, less than one-third of the state's school districts participated in DATE. The reasons school districts have given for not participating have been varied, for example:

- language in the program rules that suggest that districts would have to pay awards with local funds in the future;
- the 15 percent match that school districts are required to provide to receive the grants
- reluctance to have educator awards based on student test scores; and
- most classroom teachers assigned to a participating campus must approve the plan and incentive pay has been a controversial issue among teachers.

The result is that only about 300 school districts have opted to receive state funds from the DATE program. In declining the 60 percent of funds that must be spent on incentive pay, districts also become ineligible to receive the 40 percent that may be used for other purposes, including stipends for teachers to teach at hard-to-staff campuses. In light of the difficulties that certain campuses have in retaining teachers, allowing districts the flexibility to apply for and receive funds for teacher retention, regardless of whether they request funding for incentive pay, is warranted. Recommendation 3 would provide that flexibility by one of two options: re-designing the DATE program to allow districts to participate if they provide stipends or other incentives to attract and retain teachers at high-needs campuses, regardless of their participation in the merit pay component of the program; or establishing a separate program by using a portion of the funds currently appropriated for DATE to provide stipends for teacher retention at hard-to-staff campuses.

Recommendation 4 would amend the Texas Education Code to require that THECB and TEA evaluate the TFTLRP and the DATE program component in terms of their respective effect on teacher retention at hard-to-staff campuses. Both THECB and TEA have program evaluation processes that could be used to complete these evaluations.

FISCAL IMPACT OF THE RECOMMENDATIONS

Recommendations 1 to 4 have no fiscal impact to the state. The long-term fiscal impact of improving teacher retention rates at hard-to-staff campuses is likely to result in savings to public independent school districts.

The introduced 2012–13 General Appropriations Bill does not include any adjustments as a result of these recommendations.

TECHNOLOGY PROGRAMS AND FUNDING IN TEXAS PUBLIC SCHOOLS

According to the National Education Technology Plan, technology is at the core of virtually every aspect of our daily lives and work. Public schools face challenges in applying this advanced technology to our educational system in ways that improve student outcomes. The U.S. Department of Education has a role in identifying effective strategies and implementation practices; encouraging, promoting, and actively supporting innovation in states and districts, but education is primarily a state and local responsibility.

The Texas Education Agency assists school districts and charter schools in various ways to implement technology in their schools. The agency has a technology advisory committee, a long-range state plan, a campus and teacher survey instrument, and an automated planning tool to aid school districts and charter schools with technology planning. The Texas Education Agency administers both state and federal technology grants and programs that provide opportunities for implementing technology, and regional education service centers provide services and support in technology to school districts and charter schools. Funding for technology is provided through the federal No Child Left Behind Act of 2001, the federal E-Rate program, and the state Technology Allotment. All of these components contribute to the level of technology found in Texas schools. Ultimately, the school districts and charter schools must decide what types of technology to implement for their students.

FACTS AND FINDINGS

- ♦ The Texas Education Agency helps public school districts and charter schools plan for technology through their Educational Technology Advisory Committee, the Texas Long Range Plan for Technology 2006–2020, the School Technology and Readiness surveys, and the ePlan automated planning system.
- ♦ The Texas Education Agency administers technology grants and programs to provide public school districts and charter schools with opportunities for implementing technology.
- ♦ Regional education service centers provide technology services and support to public school districts and charter schools.
- ♦ In school year 2008–09, Texas public school districts and charter schools received funding of more than $470 million for implementing technology through the federal No Child Left Behind Act of 2001, the federal E-Rate program that provides more affordable access to advanced telecommunication services, and the state Technology Allotment.
- ♦ Public school districts and charter schools ultimately decide how they will implement technology on their campuses.

DISCUSSION

The Texas Education Agency (TEA) provides many planning tools to help school districts and charter schools implement technology in their classrooms.

EDUCATIONAL TECHNOLOGY ADVISORY COMMITTEE, LONG RANGE PLAN FOR TECHNOLOGY, AND SCHOOL TECHNOLOGY AND READINESS (STAR) CHART

The Educational Technology Advisory Committee (ETAC) is authorized by the Texas Education Code, Section 7.055.11. ETAC members include teachers, principals, directors, and technology staff; TEA and regional education service center staff; higher education members; and other stakeholders from technology organizations in the private sector. The function of the Educational Technology Advisory Committee is to work in an advisory capacity to increase the equity, efficiency, and effectiveness of student learning, instructional management, staff development, and administration. ETAC's duties are to assist in determining new strategies for implementing the recommendations of the state's vision for technology in Texas schools—the Texas Long Range Plan for Technology (LRPT) 2006–2020, and periodically to update the LRPT to incorporate new state and national direction from the National Educational Technology Plan and state and federal legislation.

ETAC also reviews the Texas Campus and Teacher School Technology and Readiness (STaR) Charts to determine if changes in the charts are needed. The Campus STaR Chart is

an online resource tool for self-assessment of campus and district efforts to effectively integrate technology across the curriculum and is intended for use in technology planning, budgeting for resources, and evaluation of progress in local technology projects. The Campus STaR Chart produces a profile of campus status toward reaching the goals of the LRPT and the NCLB Act. The profile indicators place a campus at one of four levels of progress—Early Tech, Developing Tech, Advanced Tech, or Target Tech—in each key area of the LRPT. **Figure 1** shows a statewide summary of the Campus STaR Chart for school year 2009–10. Most of the campuses are in the Developing Tech category for Teaching and Learning (classroom activities) and Educator Preparation (teacher technology training), while the majority are in the Advanced Tech category for Administration and Support (organizational support) and Infrastructure (equipment layout and design).

The Teacher STaR Chart is an online resource tool designed to assist teachers in self-assessment efforts to effectively integrate technology across the curriculum. The Teacher STaR Chart aligns with the LRPT and is used to assist teachers in determining needs and setting goals for the use of technology in the classroom to support student achievement. The Teacher STaR Chart is useful in fulfilling the requirements in NCLB, Title II, Part D that all teachers should be technology literate and integrate technology into content areas across the curriculum.

TECHNOLOGY PLAN SYSTEM

The Texas ePlan system that is provided by TEA assists school districts and charter schools in preparing and submitting their technology plans. Technology plans help districts effectively utilize technology to ensure that students, educators, administrators, and support personnel have the tools necessary to achieve tasks. Technology plans are required in order for districts to receive No Child Left Behind Act of 2001 and E-Rate funding. School districts develop technology plans for one to three years, and the technology plans should support a school district's district improvement plan and be aligned with the LRPT. Technology plans must include components such as district information; a needs assessment; goals, objectives, and strategies; budget data; and an evaluation process in order to be approved by TEA.

For planning purposes, school districts and charter schools submit technology plans to Regional Education Service Center XII (Region 12) beginning in fall, for approval for the successive school year(s). Region 12 uses a peer review process where peer reviewers from other school districts review and approve technology plans, ensuring the plans contain all of the necessary components. After technology plans are approved through the peer review process, the plans are forwarded to TEA for final approval.

GRANT PROCESS

TEA administers both state and federal grants and programs that support a variety of technology programs to benefit public education. Prior to school year 2010–11, the grants funded through NCLB, Title II, Part D, Enhancing Education through Technology were available to school districts and charter schools both through a formula entitlement basis, where almost all school districts and charter schools receive a portion of funding, and through a competitive discretionary basis, where school districts and charter schools were selected to participate in particular programs. In school year 2010–11, TEA began awarding technology grants only on a competitive discretionary basis, due to a reduction in federal NCLB, Title II, Part D funding. TEA conducts a competitive review process in which the

FIGURE 1
CAMPUS STAR CHART SUMMARY
SCHOOL YEAR 2009–10

KEY AREA	TEACHING AND LEARNING	EDUCATOR PREPARATION	ADMINISTRATION AND SUPPORT	INFRASTRUCTURE
Level of Progress	**Percentage of Campuses**	**Percentage of Campuses**	**Percentage of Campuses**	**Percentage of Campuses**
Early Tech	2.1%	3.7%	1.5%	1.1%
Developing Tech	59.3%	68.7%	38.6%	30.4%
Advanced Tech	37.8%	26.8%	55.0%	61.0%
Target Tech	0.9%	0.7%	4.9%	7.6%

NOTE: Percentages may not sum due to rounding.
SOURCE: Texas Education Agency.

highest ranking applications are selected until all funds are exhausted.

TEA announces funding opportunities for competitive discretionary grants through a written announcement letter that briefly describes the program to be funded, the program requirements, the procedures for obtaining a complete copy of the Request for Application, and instructions for the submission of the application. The announcement letter is available to all eligible applicants on the TEA Correspondence website. TEA also publishes a notice in the *Texas Register* announcing all opportunities for discretionary grants through TEA.

There are some grants that are available directly from the federal government and are not administered through TEA. Comprehensive information on federal grants can be found in the Catalogue of Federal Domestic Assistance, published by the U.S. Office of Management and Budget. Additionally, all federal grant opportunities are published in the Federal Register, which is issued every weekday by the National Archives and Records Administration.

EARLIER GRANTS AND PROGRAMS ADMINISTERED BY TEA

TEA has administered many technology grants and programs in recent years that provided opportunities for implementing technology in schools.

TECHNOLOGY IMMERSION PILOT

Legislation enacted by the Seventy-eighth Legislature, Regular Session, 2003 (Texas Education Code Section 32.151-32.157) authorized the Technology Immersion Pilot (TIP), where each student and teacher was provided with a wireless mobile computing device, software, online resources, and other learning technologies to improve student achievement. Teachers now had the technology to teach outside the classroom walls and beyond the school day.

The TIP model provided the six critical components to support the vision of a full immersed school, an environment where teachers and students use technology every day as a natural tool to engage students and support learning. The six components include: technical support, online assessment, digital content, professional development, software, and hardware. The successes and lessons learned from the TIP grant are currently used throughout the state when developing technology programs at the district and state level. Thirty-four school districts were involved in TIP in school years 2004–05 to 2007–08, with total funding of $28.7 million in General Revenue Funds.

TECHNOLOGY LITERACY ASSESSMENT PILOT

Texas students are required by federal law to be technology literate by the end of grade 8. The state defines a "technology literate student" as a student who meets the requirements of the state's Technology Applications Texas Essential Knowledge and Skills (TEKS) for grades 6–8.

The enactment of legislation by the Eightieth Legislature, 2007, added Texas Education Code Section 39.0235. The law required the establishment of a pilot program in which participating school districts measured student technology proficiency using an agency-adopted testing instrument designed to assess an individual student's mastery of the essential knowledge and skills in technology. According to the law, the designated assessment was to be administered by the school districts participating in the pilot program.

No funding was provided to school districts. Instead, the 17 school districts in the pilot received access to the online assessment tool for technology applications as a part of the pilot, and data was collected in spring 2008 and spring 2009. During this period, approximately 60 percent of Texas eighth-grade students met the proficiency standard needed to show proficiency with technology tools and concepts (59.1 percent and 61.5 percent of eighth-grade students met the proficiency standard in spring 2008 and spring 2009, respectively).

To meet the federal requirement to be technology literate by the end of grade 8, school districts assess their eighth graders for technology literacy in one of the following ways:

- a commercial assessment instrument that demonstrates student proficiency;
- a locally developed assessment instrument that demonstrates student proficiency;
- a portfolio assessment aligned with technology applications TEKS;
- successful completion of technology applications course(s); or
- documentation of student proficiency through teacher observation.

ONLINE TUTORING PILOT

The Online Tutoring Pilot was established in accordance with Rider 13 of the Texas Library and Archives Commission (TSLAC) on September 1, 2008. The goal of the online tutoring pilot was to help increase student achievement and

overcome academic obstacles at high school campuses by the use of live tutors through an online tutoring resource.

Regional Education Service Center XX (Region 20) coordinated and managed the pilot with TEA and TSLAC.

No funds were distributed to the 40 school districts and one charter school that participated in the pilot from September 1, 2008 to August 31, 2009. As a part of the pilot, the schools had access to the online tutoring program.

When the resource was made available to students, student response was significant. In school year 2008–09 (November 2008 to August 2009), there were a total of 9,018 tutoring sessions:

- 6,565 sessions were for Mathematics;
- 1,486 were for Science:
- 442 were for Language Arts: and
- 525 were for Social Studies.

Online tutoring may be a valuable resource to support student success, but it is expensive, which might limit the number of campuses and students that could be included in such an effort.

STAR GRANT—PROFESSIONAL DEVELOPMENT FOR SCHOOLS, TEACHERS, ADMINISTRATORS, AND REGIONS

As a result of some of the lessons learned from the Technology Immersion Pilot and other NCLB Title II, Part D grants, the STAR (Schools, Teachers, Administrators, and Regions) Grant was developed to provide additional professional development that integrated educational philosophy with technology to enhance teaching and learning. There was also a focus on leadership training to ensure sustained leadership and meet the needs of teachers by providing integration strategies applicable for each subject area and grade level.

The goal of the STAR Grant was to increase capacity within schools to support and maintain technology integration and literacy through professional development for administrators and teachers. This grant allowed teachers to learn to incorporate technology appropriately to support the curriculum and bring about learning opportunities that would not be possible without the use of technology.

Twenty-three school districts, one charter school, and two regional education service centers participated in this program in school years 2007–08 to 2008–09 with total funding of $11.1 million in Federal Funds.

CURRENT GRANTS AND PROGRAMS ADMINISTERED BY TEA

TEA is currently administering these technology grants and programs for implementing technology in schools.

ELECTRONIC COURSE PROGRAM

Legislation enacted by the Seventy-eighth Legislature, Regular Session, 2003, (Texas Education Code Section 29.909) authorized the Electronic Course Program (eCP). The initial eCP program began in spring 2006, with school districts and charter schools selected to participate providing full-time virtual school options to students in grades 3–12, who were not required to be physically present on campus during instruction. Two hundred students were first served through the eCP in spring 2006.

With the development of the Texas Virtual School Network supplemental online program serving grades 9–12, the eCP focused on serving full-time virtual students in grades 3–8. In school year 2009–10, the program was expanded to include full-time virtual grade 9 students, with the intent to add an additional high school grade each year.

Program participants included Southwest Schools, Houston ISD, and Responsive Education Solutions with total funding of $10.6 million. In September 2010, TEA requested applications for additional school districts and charter schools to participate in the program for school years 2010–11 and 2011–12. The program will serve grades 3–10 in school year 2010–11 and grades 3–11 in school year 2011–12, with funding for students who participate in the eCP being provided from the Foundation School Program upon successful program or course completion. Students attending classes through the eCP are required to complete the Texas Assessment of Knowledge and Skills (TAKS) and/or the appropriate state-administered assessment for the course and grade level.

TEXAS VIRTUAL SCHOOL NETWORK (TXVSN)

Legislation enacted by the Eightieth Legislature, 2007, established a state virtual network to provide supplemental, online courses for Texas students. Legislation enacted by the Eighty-first Legislature, Regular Session, 2009, amended the existing state virtual school network law, repealed Texas Education Code Section 29.909 which established the eCP, and incorporated the eCP as a program under Texas Education Code Chapter 30A (Texas Virtual School Network).

Under the authority of the Commissioner of Education, TEA administers the TxVSN, sets standards for and approves TxVSN courses and professional development for online teachers, and has fiscal responsibility for the network.

Day to day operation of the TxVSN is contracted to Regional Education Service Center X (Region 10), which serves as central operations for the network in collaboration with the Harris County Department of Education. Central operations develops and coordinates the centralized TxVSN registration and student enrollment system, ensures eligibility of TxVSN provider districts, publishes an online catalog of approved courses, and coordinates data needed for state reporting requirements.

TEA contracts with the Regional Education Service Center X (Region 10) to review online courses submitted by potential provider districts. Professional development providers approved by TEA offer the required professional development for teaching online for the TxVSN.

TxVSN provider districts supply the courses offered through the TxVSN and are responsible for instruction. School districts with a state accountability rating of Acceptable or higher and charter schools with a state accountability rating of Recognized or higher; regional education service centers; and Texas public or private institutions of higher education may apply to become a TxVSN provider district. Provider districts submit courses for review that they developed locally or acquired through a third party. Approved courses are added to the TxVSN course catalog and become available to students across the state through the network's centralized student enrollment system.

TxVSN receiving districts approve their students' TxVSN course requests, provide ongoing support to their students enrolled in TxVSN courses, and award credits and diplomas. As of October 2010, there were more than 400 receiving districts and approximately 15 provider districts.

TxVSN began serving grades 9–12 students in January 2009. Course offerings include grades 9–12 courses meeting graduation requirements, such as regular high school foundation and enrichment courses; advanced placement (AP) courses; dual-credit courses; and the classroom portion of driver's education.

In addition to regular high school and AP courses, TxVSN is also conducting a small pilot program for courses earning both high school and college credit (dual credit), which began with school year 2009–10. In school year 2009–10, there were a total of 2,807 course enrollments, consisting of 1,457 high school courses and 1,350 dual-credit courses. If a student successfully completes an online course through TxVSN, TEA will provide $400 per course to the course provider district, and $80 to the district in which that student is enrolled. Approximately $20.3 million in General Revenue Funds and $1.6 million from the Foundation School Program has been budgeted for TxVSN for the 2010–11 biennium.

VISION 2020 (CYCLE 1 AND CYCLE 2) GRANT

The purpose of the Vision 2020 Grant is for school districts to implement programs that meet the intent of NCLB, Title II, Part D, Enhancing Education through Technology and the state's LRPT.

Applicants for the Vision 2020 grant had to identify which of two possible program types they were applying for on the application: (1) technology immersion, or (2) virtual learning. The grant focus for technology immersion is on improving technology literacy and academic skills through immersion in technology, while virtual learning addresses students who have limited access to required courses.

Technology immersion applicants described plans to immerse all students and teachers at a particular grade level on one or more campuses or all students and teachers on an entire campus. Six components of technology immersion defined under the Technology Immersion Pilot were implemented. The six components included a wireless mobile computing device for each educator and student; productivity, communication, and presentation software; online instructional resources; online assessment tools; professional development for teachers; and initial and ongoing technical and educational support.

Virtual learning applicants described plans to build capacity to participate in the state virtual school network—TxVSN—and provide students opportunities to take online courses. Applicants could participate as a TxVSN provider district or receiving district, or a collaborative application might include both provider and receiving districts as well as other eligible entities. As a TxVSN provider district, applicants developed or acquired online courses to be offered through the TxVSN and were responsible for instruction. As a receiving district, applicants provided support services to their students taking online courses and paid course fees not funded by the state.

Legislation enacted by the Seventy-eighth Legislature, Regular Session, 2003, framed the Technology Immersion

Strand of the project. The Virtual Learning Strand focusing on virtual learning and building capacity for the Texas Virtual School Network is supported through additional legislation enacted during the same legislative session.

Twenty-two school districts and three regional education service centers participated in this program in school years 2008–09 to 2009–10 with total funding of $11.3 million in Federal Funds.

Cycle 2 of the Vision 2020 Grant funds 22 additional school districts and three regional education servicecenters in school years 2009–10 to 2010–11 with $11.6 million in Federal Funds to further the goals of the program.

TARGET TECH IN TEXAS (T3) GRANT

The goal of the Target Tech in Texas (T3) Grant is to assist schools in working towards the Target Tech level on the Texas Campus and Teacher School Technology and Readiness (STaR) Charts. Target Tech refers to the highest level of progress that schools should be working toward, as described on the STaR Chart. The STaR Chart provides a measure of how well a teacher or campus has integrated technology into curriculum and instruction, and also measures fundamental aspects of the education process, such as leadership, professional development, and technology infrastructure.

The purpose of the Target Tech in Texas (T3) Grant is to stimulate the use of educational technology to improve teaching and learning and assist school districts in providing Twenty-first Century classrooms as envisioned by the LRPT. The funds made available through the grant provide students with more advanced technologies, educational technology programs and practices, and well-trained teachers that will enable schools to use innovative teaching strategies designed to engage students and promote critical thinking, problem solving, creativity, and college and career readiness.

More than 130 school districts, five charter schools, and 11 regional education service centers are participating in this grant in school years 2009–10 to 2010–11, with total funding of $28.2 million in Federal Funds.

RURAL TECHNOLOGY PILOT

Legislation enacted by the Eightieth Legislature, 2007, (Texas Education Code Section 29.919) established the Rural Technology Pilot. The pilot program helps finance technology-based supplemental instruction to students in grades 6 –12 at campuses located in school districts with enrollment of less than 5,000 students and not located in an area defined by the U.S. Office of Management and Budget as a Standard Metropolitan Statistical Area as of January 2007.

Campuses selected to participate in the pilot receive state grant funds in an amount not to exceed $200 each school year per student in an eligible grade level served through the program. As a condition of receiving grant funds, a campus must contribute additional funding for activities provided at the campus through the program, in an amount equal to at least $100 each school year per student in an eligible grade level served through the program. The grant funds must be used to provide technology-based supplemental instruction for eligible students. A campus participating in the program must provide students with individual access to technology-based supplemental instruction for at least 10 hours per week.

The Rural Technology Pilot, consisting of three cycles, began in May 2008 for all cycles. Sixty-three school districts received $6.5 million in General Revenue Funds under Cycle 1 of the pilot, 19 districts received $1.4 million in General Revenue Funds under Cycle 2, and 28 school districts and two charter schools are to receive $3.7 million in General Revenue Funds under Cycle 3 of the program.

CONNECTIONS GRANT

The Connections Grant was authorized by legislation enacted by the Eighty-first Legislature, 2009 (Texas Education Code Section 32.151). The Connections Grant will be implemented during school years 2010–11 and 2011–12. This grant will develop connections among schools, teachers, and students wherein classrooms and schools can:

- demonstrate the use of technology for improving teaching and learning;
- use digital tools and resources to extend learning opportunities from school to home; and
- exemplify instructional practices and lessons that support academic learning in the classroom and at home.

The Connections Grant is intended to leverage the use of digital content in the classroom, at home, and in the community. Grantees will model the use of technologies that are most frequently used by students and that many already have at home in order to extend learning time from campus to home. Connections Grant participants will incorporate teaching and learning practices that use digital content and innovative media tools; will display teaching and learning

strategies that meet Twenty-first Century competencies; and will demonstrate a high level of student technology literacy skills. Connections grantees must emphasize flexible learning schedules and flexible learning approaches, which may include extended campus learning hours to increase the availability of Internet access and technology for students and parents.

The Connections Grant started in October 2010, with 24 school districts, two charter schools, and one private school participating in the grant. This project is being funded with $8.5 million in Federal Funds under NCLB, Title II, Part D Enhancing Education through Technology, for school years 2010–11 and 2011–12.

EDUCATIONAL SERVICE CENTERS' ROLE IN PROMOTING/IMPLEMENTING TECHNOLOGY

Twenty regional education service centers (ESCs) in Texas provide school districts and charter schools with services to enhance efficiency, effectiveness, and the performance of students, teachers, administrators, and school personnel. ESCs provide technology support that includes:

- providing a regional network for Internet connectivity, distance learning, email, and videoconferencing;
- developing collaboratives and partnerships between districts and/or with vendors;
- providing access to and collaborative pricing of educational resources, both for evaluation and purchase;
- developing and delivering professional staff development to help teachers and administrators learn the skills and strategies necessary to integrate technology into teaching and learning, educator preparation and development, administration and support services, and infrastructure for technology in their schools;
- helping districts utilize the state's educational technology initiatives;
- supporting the Technology Applications Texas Essential Knowledge and Skills (TEKS);
- offering training and certification programs to provide certified teachers for the required Technology Application curriculum;
- helping districts develop technology plans and providing a peer review for these plans;
- assisting districts with the E-Rate program and other technology funding opportunities;
- finding and communicating grant opportunities, developing collaboratives for grants, and implementing grants;
- coordinating and supporting distance learning for equitable and efficient offering of student courses; administrative and teacher staff development, and worldwide education enhancement activities; and
- providing technical assistance through onsite visits, email, and by telephone about educational technology issues.

Beginning in 2010, ESCs received ARRA funding to assist school districts and charter schools with the following activities:

- Understanding ARRA requirements, using existing planning resources, and supporting state and national efforts in providing students with 21st Century classrooms;
- Providing assistance to schools in meeting the ARRA reporting requirements for Title II, Part D;
- Supporting state educational technology initiatives and efforts to meet recommendations in the LRPT, including working toward the Target Tech level in the Teacher and Campus STaR Charts;
- Supporting federal educational technology initiatives and NCLB, Title II, Part D requirements and working with districts to ensure significant progress in educators being technology proficient, grade 8 students being technology literate, and instructional classrooms fully integrating technology into curriculum and instruction;
- Identifying and promoting best practices and innovative strategies to support technology planning and the use of technology to transform teaching and learning;
- Assisting with compiling best practices, documentation of grant processes, lessons learned, and useful resources for planning for and implementing the ARRA grants in their region; and
- Assisting TEA with data collection on the use of ARRA Title II, Part D funds from grant recipients in their region.

FUNDING FOR TECHNOLOGY

Texas schools receive funding for technology from both the state and federal government. Programs like NCLB, ARRA, and the E-Rate program provide federal funding. The state provides assistance for technology through the Technology Allotment.

NO CHILD LEFT BEHIND (NCLB)

Figure 2 shows federal funding for technology from the school years 2005–06 to 2010–11. This funding is provided to Texas school districts and charter schools through NCLB, Title II, Part D. NCLB provides supplemental funds to improve student academic achievement through the use of technology in elementary and secondary schools. The federal government has provided more than $144 million in Federal Funds to Texas schools during this period.

FIGURE 2
NO CHILD LEFT BEHIND, TITLE II, PART D BUDGETED TECHNOLOGY FUNDING TO TEXAS SCHOOLS SCHOOL YEARS 2005–06 TO 2010–11

SCHOOL YEAR	FORMULA FUNDING (IN MILLIONS)	DISCRETIONARY FUNDING (IN MILLIONS)	TOTAL FUNDING (IN MILLIONS)
2005–06	$21.0	$21.8	$42.8
2006–07	$11.4	$12.2	$23.6
2007–08	$11.1	$11.8	$22.9
2008–09	$11.3	$12.0	$23.3
2009–10	$11.5	$12.2	$23.7
2010–11	$0.0	$8.5	$8.5
TOTAL	**$66.3**	**$78.6**	**$144.9**

Note: NCLB, Title II, Part D funds last for a period of 27 months, so some grant money may carry over into the next school year.
Source: Texas Education Agency.

From school years 2005–06 to 2009–10, TEA used federal funding from NCLB, Title II, Part D to provide funding to Texas schools through both formula and discretionary grants. Formula grants were provided to school districts and charter schools for implementing technology and providing professional development in accordance to provisions in NCLB. Discretionary grants were provided to selected school districts and charter schools through a competitive process for particular grants or pilot programs such as TIP, the STAR Grant, and Vision 2020. Starting in school year 2010–11, TEA is distributing all NCLB, Title II, Part D federal funding through competitive discretionary grant programs like the Connections Grant.

Figure 3 shows approximately $57 million in Federal Funds for technology for the 2009–10 school year that is being provided on a one-time basis through ARRA. ARRA was enacted in February 2009, with the intention to save jobs, support states and school districts, and advance reforms and improvements for early learning, K–12, and post secondary education. The primary goal of the ARRA, Title II, Part D, Education Technology funding is to improve academic achievement through the use of technology in public education.

FIGURE 3
AMERICAN RECOVERY AND REINVESTMENT ACT, TITLE II, PART D BUDGETED TECHNOLOGY FUNDING TO TEXAS SCHOOLS, SCHOOL YEAR 2009–10

SCHOOL YEAR	FORMULA FUNDING	DISCRETIONARY FUNDING	TOTAL FUNDING
2009–10	$28,269,988	$29,460,305	$57,730,293

Source: Texas Education Agency.

These ARRA funds were distributed through formula and discretionary grants to school districts, charter schools, and regional education service centers to support technology.

E-RATE PROGRAM

Based on the federal Telecommunications Act of 1996, the Federal Communications Commission established the E-Rate program to provide schools and libraries with affordable access to advanced telecommunications services. The E-Rate program provides discounts ranging from 20 percent to 90 percent on telecommunications services, Internet access, internal connections, and basic maintenance of internal connections to eligible schools and libraries subject to a $2.25 billion annual cap.

To be eligible to receive E-Rate discounts, school districts and charter schools must have a technology plan approved by TEA that assesses and evaluates their current technology; determines areas of need; sets goals, objectives and strategies to meet those needs; and allocates a dollar amount for the cost of achieving those objectives. In order to receive E-Rate discounts, school districts, charter schools, and libraries must competitively bid all eligible services and select the most cost effective proposal. E-Rate discounts are then requested and if approved, they are provided through directly discounted bills or a reimbursement process after services have been provided. **Figure 4**, Texas E-Rate Discounts, shows that Texas schools and libraries have received more than $1.4 billion in discounts from school years 2004–05 to 2008–09.

FIGURE 4
TEXAS E-RATE DISCOUNTS
SCHOOL YEARS 2004–05 TO 2008–09

SCHOOL YEAR	DISCOUNT AMOUNT (IN MILLIONS)
2004–05	$271.8
2005–06	$253.0
2006–07	$288.1
2007–08	$284.4
2008–09	$317.1
TOTAL	**$1,414.3**

Source: Texas Education Agency.

Since the E-Rate program began in 1998, Texas schools and libraries have received approximately $19.5 billion, and the program continues to support schools and libraries throughout the nation.

TECHNOLOGY ALLOTMENT

The Technology Allotment is a key state funding source for implementation and ongoing support of technology use in schools. School districts and charter schools receive a technology allotment for the purchase of technology in support of the goals of the LRPT.

Texas Education Code Section 32.005 states that (a) each school district is entitled to an allotment of $30 for each student in average daily attendance or a different amount for any year provided by appropriation and (b) that the technology allotment can be used only to:

- provide for the purchase by school districts of electronic textbooks or technological equipment that contributes to student learning; and
- pay for training educational personnel directly involved in student learning in the appropriate use of electronic textbooks and for providing for access to technological equipment for instructional use.

Figure 5 shows Technology Allotment funding of more than $617 million in General Revenue Funds provided by the state to school districts and charter schools from school years 2004–05 to 2008–09.

How the funds are distributed in school districts is a local decision, at the district level, provided the school district complies with the rules for use of the funds.

Figure 6 shows a percentage breakdown of Technology Allotment expenditures showing the most-used areas where school districts and charter schools spent their Technology Allotment funding in the 2008–09 school year.

FIGURE 5
TECHNOLOGY ALLOTMENT FUNDING
2004–05 TO 2008–09

SCHOOL YEAR	ALLOTMENT AMOUNT (IN MILLIONS)
2004–05	$118.7
2005–06	$120.5
2006–07	$118.7
2007–08	$129.8
2008–09	$130.0
TOTAL	**$617.7**

Source: Texas Education Agency.

FIGURE 6
TECHNOLOGY ALLOTMENT EXPENDITURES
2008–09

FUNCTION DESCRIPTION	PERCENTAGE USED
Instruction	66.2%
Curriculum and Staff Development	13.0%
Data Processing Services	11.9%
Instructional Resources and Media Services	2.9%
Instructional Leadership	2.8%
Debt Service	2.0%
Facility Maintenance/Operations	0.9%

Source: Texas Education Agency.

In the 2008–09 school year, school districts and charter schools reported using about two-thirds of their Technology Allotment for Instruction, with Curriculum and Staff Development (13 percent) and Data Processing Services (11.9 percent) being the next highest areas of use.

SCHOOL DISTRICTS' ROLE

School districts are fundamentally tasked with making the final decisions about technology in their classrooms. School districts implement technology through the creation of a technology plan. A technology planning committee—usually consisting of technology staff, administrators, teachers, community members, and other stakeholders—is responsible for developing, implementing, and regularly evaluating their school district's technology plan. Technology plans, once approved by TEA, allow districts to receive state and federal funding and E-Rate discounts for technology services and expenses.

Ultimately, it is up to school districts to decide exactly what technology programs to provide and how to pay for any remaining technology costs.

SCHOOL COUNSELORS, LIBRARIANS, AND NURSES IN TEXAS PUBLIC SCHOOLS

School counselors, librarians, and nurses are recognized as valuable personnel in a public school district and in facilitating positive student outcomes. State law provides guidelines for the certification and classification of each position, and each has their own program guide which includes professional standards of practice. Each also has guidelines for determining appropriate staffing levels based on student enrollment as determined by standards of practice. However, Texas school districts are not required to employ a school counselor, librarian, or nurse, and the decision to employ them rests with local school districts.

The provision of these professional support personnel varies between school districts and campuses. Some school districts and campuses meet suggested staffing guidelines, while others fall short of staffing guidelines or do not staff these personnel. In some school districts, disparities in staffing exist between individual campuses and/or paraprofessionals are used in lieu of professional, certified personnel. Recent research and findings from past Texas school performance reviews have noted common impediments that mitigate the effectiveness of these support personnel. Accordingly, this report provides general information about school counselors, librarians, and nurses in Texas public schools, including their roles and responsibilities, common challenges, and analysis of current staffing levels. This report also provides policy options to address opportunities related to school district professional support staff.

FACTS AND FINDINGS

- ♦ Texas law does not require school districts to employ a school counselor, librarian, or nurse—the decision to staff these personnel rests with local school districts. While school districts receive state funding for operations and facilities and may choose to employ professional support personnel, funds are not dedicated specifically for these positions.
- ♦ School counselors, librarians, and nurses each have staffing guidelines based on student enrollment as determined by professional standards of practice. The suggested staffing level for a counselor is one counselor for every 350 students. The suggested staffing level for a librarian varies based on a campus' Average Daily Attendance, but is generally at least one librarian on a campus. The suggested staffing level for a nurse is one nurse for every 750 students.
- ♦ Information about the availability of a school counselor, librarian, and nurse in a school district and on a campus is self-reported by school districts to the Texas Education Agency via the Public Education Information Management System. Information about these personnel and their services includes total full-time-equivalent staff counts and program expenditures.
- ♦ Increases in school counselor staffing and school nurse staffing kept pace with student enrollment growth from school years 2004–05 to 2008–09, while increases in school librarian staffing did not. In school year 2008–09, 77 percent of campuses reported a full-time counselor on staff, 60 percent reported a full-time librarian on staff, and 57 percent reported a full-time nurse on staff.

DISCUSSION

School district professional support personnel include school counselors, librarians, and nurses. These positions are recognized as valuable personnel in school districts and on campuses. Texas Administrative Code states that school counselors and school librarians play a critical role in campus effectiveness and student achievement. The Texas Department of State Health Services (DSHS)' *Texas Guide to School Health Programs (2009)* states that school nursing "advances the well-being, academic success and lifelong achievement of students." In addition, school counselors, librarians, and nurses each have their own program guide which includes standards of practice. Each also has guidelines for determining appropriate staffing levels based on student enrollment. Staffing guidelines are based on standards of practices and are suggested, not required.

School counselors, librarians, and nurses are classified as professional staff and are employed under contract. Like teachers, they are paid according to the state's minimum salary schedule under Texas Education Code Section 21.402. Texas law does not require that school districts employ these personnel and funding for school counselors, librarians, and nurses comes from a school district's operating budget. The

bulk of state aid that flows to school districts goes through the Foundation School Program (FSP) for operations and facilities, and while districts may choose to use funds to employ professional support personnel, this decision is made by local school districts.

Past Texas school performance reviews have often included findings and recommendations to increase staffing levels for each of these personnel. Under Texas Government Code Section 322.016, the Legislative Budget Board is authorized to periodically review the effectiveness and efficiency of school districts. As part of this process, the school review team evaluates school district staffing relative to recommended standards.

Staff information for school districts and campuses is reported to the Texas Education Agency (TEA), at both the district and campus-level, through TEA's Public Education Information Management System (PEIMS). For this report, analysis of school counselor, librarian, and nurse staffing utilized PEIMS data for regular school districts and instructional campuses from school years 2004–05 to 2008–09. Analysis of campus-level data excluded open-enrollment charter schools, Disciplinary Alternative Education Programs (DAEP), Juvenile Justice Alternative Education Programs (JJAEP), and Alternative Education campuses. In addition, this report uses full-time-equivalent (FTE) position counts of personnel reported to PEIMS, which are self-reported by school districts. A FTE value measures the extent to which a person (or responsibility) occupies a full-time position. When a FTE value is less than one, this indicates that an employee is employed on a less than full-time basis. Furthermore, many districts and campuses did not report a FTE value to PEIMS. While this could be because there is not a position employed in the district or on a campus, it could also be a reporting error.

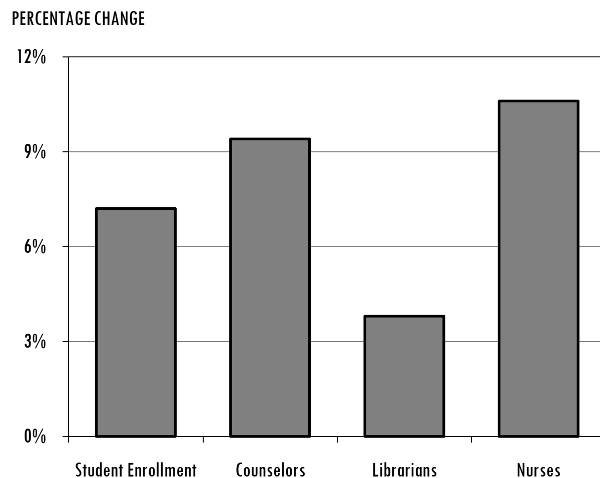
Based on district-level data for school year 2008–09, there were 10,769 school counselors, 5,044 school librarians, and 5,679 school nurses serving 4.6 million students in 1,025 regular school districts. Overall, the number of these personnel increased from school years 2004–05 to 2008–09. While growth in counselor and nurse staffing exceeded growth in student enrollment during this period, growth in school librarian staffing did not keep pace with student enrollment. From school years 2004–05 to 2008–09, student enrollment increased from approximately 4.3 million to 4.6 million students (7 percent increase); 786 counselor FTE positions were added (8 percent increase); 544 nurse FTE positions were added (11 percent increase); and 186 librarian FTE positions were added (4 percent increase) in school districts. As a result, while the number of students per school counselor and school nurse decreased, the number of students per librarian increased. **Figure 1** shows a snapshot of school district staffing of these personnel in school years 2004–05 and 2008–09. **Figure 2** shows growth in staffing compared to growth in student enrollment during this period.

FIGURE 1
PROFESSIONAL SUPPORT PERSONNEL STAFFING IN SCHOOL DISTRICTS
SCHOOL YEARS 2004–05 AND 2008–09

	FTE POSITION COUNT		STUDENTS PER FTE POSITION	
POSITION	2004–05	2008–09	2004–05	2008–09
Counselor	9,983	10,769	432	429
Librarian	4,858	5,044	887	916
Nurse	5,136	5,679	839	813

SOURCES: Legislative Budget Board; Texas Education Agency.

FIGURE 2
GROWTH IN PROFESSIONAL SUPPORT PERSONNEL AND STUDENT ENROLLMENT
SCHOOL YEARS 2004–05 TO 2008–09



SOURCES: Legislative Budget Board; Texas Education Agency.

In addition, 8.5 percent of school districts (87 school districts) did not report either a counselor, librarian, or nurse in school year 2008–09. Nearly all of these districts (98 percent) were rural districts with an average enrollment of 156 students.

Analysis of campus-level data indicates that full-time counselors are more commonly employed on campuses than are full-time librarians or nurses. For example, 77.7 percent

(5,581 campuses) reported a full-time counselor, 60 percent (4,311 campuses) reported a full-time librarian, and 57.3 percent (4,111 campuses) reported a full-time nurse. Moreover, while only 10.4 percent (748 campuses) did not report a counselor, 26.5 percent (1,903 campuses) did not report a librarian and 23.6 percent (1,698 campuses) did not report a nurse. **Figure 3** shows campus staffing of school counselors, librarians, and nurses in school year 2008–09.

FIGURE 3
PROFESSIONAL SUPPORT PERSONNEL ON CAMPUSES
SCHOOL YEAR 2008–09

POSITION	PERCENTAGE OF CAMPUSES WITH AT LEAST 1 FTE	PERCENTAGE OF CAMPUSES WITH LESS THAN 1 FTE	PERCENTAGE OF CAMPUSES NOT REPORTING A FTE
Counselor	77.7%	11.9%	10.4%
Librarian	60.0%	13.5%	26.5%
Nurse	57.3%	19.1%	23.6%

SOURCES: Legislative Budget Board; Texas Education Agency.

Average salaries for school counselors, librarians, and nurses vary by position. In school year 2009–10, counselors and librarians earned, on average, more than teachers, while nurses earned less than teachers. Of the four personnel groups, counselors earned the highest average base pay at $58,795. Librarians earned an average base pay of $55,021, also above the average base pay for teachers and nurses. Teachers at all grade levels earned an average base pay of $48,655, while nurses earned the lowest average base pay at $46,378. **Figure 4** compares the average base pay for school counselors, librarians, nurses, and teachers in school year 2009–10.

FIGURE 4
AVERAGE BASE PAY
SCHOOL YEAR 2009–10

POSITION	AVERAGE BASE PAY 2009–10
Counselor	$58,795
Librarian	$55,021
Teacher (all grade levels)	$48,655
Nurse	$46,378

SOURCE: Texas Education Agency.

In the following sections of this report, district-level analysis based on enrollment divides the 1,025 school districts into deciles, or sorts the districts into 10 equal parts so that each decile represents one-tenth of all school districts. **Figure 5** shows the school district breakdown by decile, the range of district enrollment in each decile, and the number of districts in each decile.

FIGURE 5
DISTRICT ENROLLMENT DECILES
SCHOOL YEAR 2008–09

DECILE	STUDENT ENROLLMENT RANGE	NUMBER OF DISTRICTS
1	16 to 159	102
2	160 to 273	103
3	276 to 450	102
4	453 to 647	103
5	648 to 900	102
6	905 to 1,338	104
7	1,340 to 2,190	102
8	2,202 to 3,807	102
9	3,813 to 9,251	103
10	9,330 to 199,524	102

SOURCES: Legislative Budget Board; Texas Education Agency.

SCHOOL COUNSELORS

School counselors are recognized as critical to facilitating positive student academic and behavioral outcomes in a school setting. Research shows that counselors have a positive influence on students' academic achievement, mitigate student disciplinary problems, positively influence the school climate, develop students' academic and career goals, and facilitate students' educational and personal development.

The Texas Administrative Code, Section 153.1022, defines a school counselor as an educator who provides full-time counseling and guidance services to students. To become a school counselor in Texas, a candidate must successfully complete a school counselor preparation program and an examination, hold a master's degree, and have two years of teaching experience. The role and responsibilities of a Texas public school counselor are specified in statute. The Texas Education Code, Chapter 33, states that the "primary responsibility of a counselor is to counsel students to fully develop each student's academic, career, personal, and social abilities." State law directs counselors to work with school faculty and staff, students, parents, and community members to plan, implement, and evaluate a developmental guidance and counseling program. State law also directs counselors to advise students and their parents during the student's freshman year and senior year regarding the importance of

higher education, appropriate coursework for higher education, and financial aid availability and requirements.

In addition, TEA publishes a *Comprehensive Guidance Program for Texas Public Schools* (Guidance Program). The Guidance Program, published in 1997 and updated in 2004, describes the role of the counselor in each of the four components of a guidance and counseling program specified in the Texas Education Code and the ideal percent of time that a counselor should dedicate to each component. The four components include guidance curriculum, responsive services, individual planning, and system support. As an example of time recommendations, a high school counselor should dedicate 15 percent to 20 percent of the time on system support activities and 25 percent to 35 percent of the time on individual planning with students.

The Guidance Program also provides suggestions for school counselor staffing based on a counselor-to-student ratio, defined as the number of students per counselor. The American School Counselor Association recommends a counselor-to-student ratio of 1:250. Texas educator associations—including the Texas School Counselor Association (TSCA), the Texas Association of Secondary School Principals, and the Texas Elementary Principals and Supervisors Association—recommend a counselor-to-student ratio of 1:350. The Guidance Program does not endorse an official counselor-to-student ratio; rather, it offers recommendations for how to determine legitimate counseling program expectations from a given counselor-to-student ratio. The Guidance Program suggests that a counselor-to-student ratio should be "sufficiently low" to meet the identified, high priority needs of the students and the school community.

SUPPORT FOR SCHOOL COUNSELORS

School counselors receive support and training from several sources, including TEA's School Guidance and Counseling Division, the TSCA, Regional Education Service Centers (ESCs), and the Texas Counselor's Network (TCN). TEA's School Guidance and Counseling Division works closely with the TSCA and the ESCs to provide information and assistance to school counselors. TEA answers questions related to school counseling programs, operates a counselor email listserv to communicate information and professional development opportunities, and provides links to the Guidance Program and other counseling resources on its website.

Individual ESCs and TSCA provide support and training opportunities to school counselors. For example, Regional Education Service Center XX (Region 20) provides professional development for counselors through its Leadership Academy for Counselors (LAC), maintains a counselor listserv, publishes newsletters, and provides links to counselor resources on its website. However, the level and type of support for school counselors varies between ESCs. TSCA hosts several school counselor conferences each year—including a Directors of Guidance conference and an Elementary and Secondary School Counselors Conference.

State funding that flows to school districts is not dedicated specifically for counselor positions or counseling programs. The state previously provided some funding for school counselor FTE positions in the form of competitive grants at elementary schools that served a high number of at-risk students. The Seventy-second Legislature, 1991, amended the Texas Education Code, Section 16.152, and directed the Commissioner of Education to withhold $5 million from the Compensatory Education Allotment each fiscal year for the purpose of adding counselors to elementary school campuses with high concentrations of at-risk students. The Seventy-third Legislature, 1993, added $2.5 million for a total allotment of $7.5 million. Statute directs school districts that receive grants to employ one counselor for every 500 elementary students. Over 200 districts applied for the original competitive grant, and 68 districts were funded—adding approximately 233 counselors at the program's peak. District grants ranged from $31,000 to $602,500, and counselor costs ranged from $30,000 to $38,516 per position. While statutory authority for this program is still in place, funding for the grants has not been renewed since school year 2002–03.

School districts use different accounting function codes to distinguish spending in various areas. School districts report expenditures related to guidance, counseling, and evaluation services to PEIMS in expenditure function code 31. This function includes expenditures for activities such as assessing and testing students' abilities, aptitudes and interests; counseling students with respect to career and educational opportunities; and for helping students establish realistic goals. Examples of actual expenditures include salaries for counselors, psychologists, and diagnosticians, mental health screenings, student placement services, and testing materials. Actual expenditures on guidance, counseling, and evaluation services reported by school districts were $1.4 billion in school year 2008–09. This represents 3.5 percent of total

operating expenditures for school districts, or $303 per student. This is an increase from school year 2004–05, when $1.1 billion was expended, representing 3.5 percent of total operating expenditures or $256 per student.

CHALLENGES FOR SCHOOL COUNSELORS

School counselors face two primary challenges that impede their ability to perform tasks as defined in statute and the Guidance Program: the amount of time spent on "non-counseling" duties and high student case loads. These challenges have been consistently identified by state and national surveys of school counselors, recent research, and past Texas school performance reviews.

A persistent challenge for school counselors is time spent on "non-counseling" duties. Non-counseling duties refer to duties performed that fall outside of a counselor's responsibilities as defined in statute and in the Guidance Program—including test monitoring, test coordination, and other assignments. A 2009 survey conducted by the Texas Mental Health Transformation Working Group, under the direction of Texas DSHS, found that counselors do not have time to provide school-based behavioral health services to students—despite being the primary coordinator for these services—as a result of time spent on non-counseling duties. Additionally, a survey of school counselors by the Comptroller of Public Accounts in 2002 found that counselors spent only about 60 percent of their time on counseling duties. The remaining portion of counselors' time was spent on other administrative tasks, including helping to administer statewide tests. More recently, a survey published in May 2009 by the College Board, the American School Counselor Association, and the National Association of Secondary School Principals found that principals tend to underestimate the amount of time a counselor spends on "non-counseling" duties compared to how significant of an impediment counselors indicated these duties to be.

Another persistent challenge for school counselors is a high counselor-to-student ratio. The Guidance Program states that a counseling program's effectiveness is directly related to the counselor-to-student ratio, as the larger a counselor's student load, the less individual attention students receive. In addition, research suggests that lowering a counselor-to-student ratio can reduce the number of student disciplinary issues. Despite the recommendations for low counselor-to-student ratios, many Texas school districts continue to under-staff counselors in comparison to suggested ratios provided in the Guidance Program. Moreover, ratios vary significantly from district to district and between campuses within the same school district.

SCHOOL COUNSELOR STAFFING LEVELS

The average counselor-to-student ratio for all Texas school districts in school year 2008–09—as reported by school districts to PEIMS—was 1:429. This ratio is slightly lower than the counselor-to-student ratio of 1:432 reported in school year 2004–05, but still exceeds the suggested 1:350 ratio. In school year 2008–09, the number of students per counselor for districts reporting at least one FTE counselor ranged from 104 students to 1,347 students.

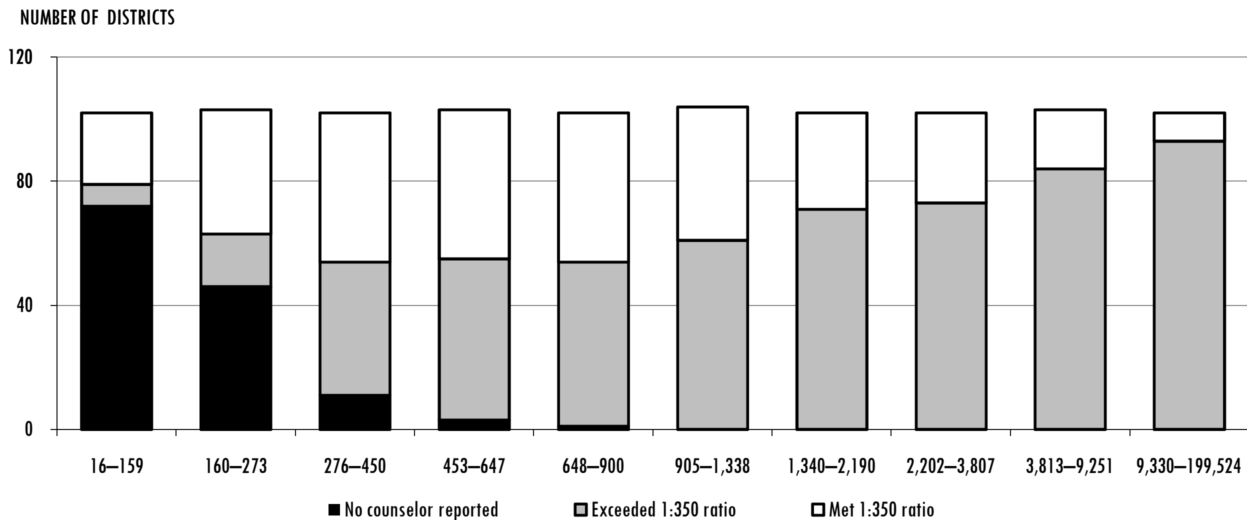
There is a relationship between school district enrollment and school counselor staffing. In school year 2008–09, the smallest school districts most often did not report a school counselor, while the largest school districts most often exceeded the 1:350 ratio. School districts in the bottom two deciles of enrollment, with enrollment ranging from 16 to 273 students, had the highest number of districts not reporting a counselor, while school districts in the top two deciles of enrollment, ranging from 3,813 to 199,524 students, had the highest number of districts that did not meet the suggested 1:350 ratio. Said differently, large school districts provided school counselors but often did not meet suggested staffing levels, while small school districts often did not report a counselor. **Figure 6** shows school district counselor staffing by enrollment deciles for school year 2008–09.

Analysis of counselor staffing on campuses shows that most campuses reported a counselor, but most exceeded the suggested 1:350 ratio. In school year 2008–09, 64 percent (4,602 campuses) exceeded the ratio; 26 percent (1,830 campuses) met the ratio; and 10 percent (748 campuses) did not report a counselor to PEIMS. **Figure 7** shows campus counselor staffing in school year 2008–09.

The number of campuses that meet a suggested ratio is sensitive to changes in the desired ratio, as 20 percent (1,427 campuses) had a counselor-to-student ratio between 1:350 and 1:450. For example, if the suggested ratio is lowered to 1:250—as recommended by the American School Counselor Association—only 8 percent (575 campuses) would meet this standard, and 82 percent (5,857 campuses) would exceed the ratio. Conversely, when the suggested ratio is increased to 1:450, 45 percent (3,257 campuses) would meet the ratio.

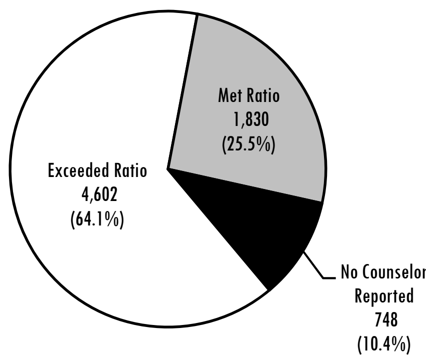
While the number of campuses reporting a counselor increased from school years 2004–05 to 2008–09, many of

FIGURE 6
DISTRICT COUNSELOR STAFFING BY ENROLLMENT DECILES
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

FIGURE 7
CAMPUS COUNSELOR STAFFING COMPARED TO 1:350 RATIO
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

these campuses' staffing levels did not meet the suggested ratio. During this period, the percentage of campuses that met the ratio increased from 23.6 percent to 25.5 percent; the percentage of campuses that exceeded the ratio decreased from 66.1 percent to 64.1 percent; and the percentage of campuses that did not report a counselor increased from 10.2 percent to 10.4 percent. **Figure 8** shows a snapshot of campus counselor staffing in school years 2004–05 and 2008–09.

FIGURE 8
COUNSELOR STAFFING COMPARED TO 1:350 RATIO
SCHOOL YEARS 2004–05 AND 2008–09

CAMPUS COUNSELOR STAFFING	2004–05	2008–09
Campus met 1:350 ratio	23.6%	25.5%
Campus exceeded 1:350 ratio	66.1%	64.1%
No counselor reported	10.2%	10.4%

Sources: Legislative Budget Board; Texas Education Agency.

As shown in **Figure 9**, counselor staffing by campus level shows ratios slightly improved at all campus levels from school years 2004–05 to 2008–09. In school year 2008–09, high schools had the lowest counselor-to-student ratio (1:341) and elementary schools had the highest ratio (1:563). High schools also had the highest percentage of campuses that met the suggested ratio, while elementary schools had the lowest percentage. High schools were the only campus level that met the suggested ratio in both years.

Analysis of campus counselor staffing levels did not indicate a relationship between counselor-to-student ratios and percentage of economically disadvantaged students, at-risk students, or Texas Assessment of Knowledge and Skills (TAKS) passing rates.

FIGURE 9
COUNSELOR STAFFING BY CAMPUS-LEVEL
SCHOOL YEARS 2004–05 AND 2008–09

CAMPUS LEVEL	STUDENTS PER COUNSELOR 2004–05	STUDENTS PER COUNSELOR 2008–09	PERCENTAGE THAT MET 1:350 RATIO 2008–09
Elementary School	565	563	13%
Combined Elementary/ Secondary School	473	447	31%
Middle & Junior High School	415	404	37%
High School	347	341	54%

NOTE: Excludes one instructional campus classified as "Other Grade Group."
SOURCES: Legislative Budget Board; Texas Education Agency.

CAMPUSES WITHOUT SCHOOL COUNSELORS

Some school districts and several campuses do not employ a school counselor or they employ a part-time school counselor. In these districts, other faculty, including teachers and administrators, may assume the role of providing guidance support to students and assist students with course selection and college advisement. On some campuses, specific academic advising or dean positions may play the dual role of counselor and administrator. In smaller and/or rural districts, a Career and Technical Education (CTE) teacher may provide academic advising services.

In addition, organizations such as Communities in Schools (CIS)—a stay-in-school program that uses a case management model to prevent dropouts and provide community resources to students—may provide some counseling services to students. CIS operates in 27 communities throughout the state and was appropriated $32.2 million in General Revenue Funds by the Legislature in the 2010–11 biennium. However, CIS is primarily a dropout prevention program rather than a traditional school guidance and counseling model.

SCHOOL LIBRARIANS

School librarians are also recognized as critical to campus effectiveness and student achievement. Numerous studies have demonstrated a positive relationship between the presence of a highly-qualified school librarian and student achievement. In 2001, a Texas school library study found that schools with librarians demonstrated higher Texas Assessment of Academic Skills (TAAS) performance at all educational levels than schools without librarians.

Texas Administrative Code, Section 153.1022 defines a school librarian as an educator who provides full-time library services to students. To become a school librarian in Texas, a candidate must successfully complete a school librarian program and an examination, hold a master's degree, and have two years of teaching experience. The role of a school librarian is generally to provide information literacy and digital technology literacy to students. School librarians help students develop research skills using books and print materials, the internet, and online databases. They also support student achievement in English language arts and reading, mathematics, social studies, and science, and facilitate the integration of the Texas Essential Knowledge and Skills (TEKS) for students and teachers. The responsibilities of a school librarian are specified in the state's school library standards—School Library Programs: Standards and Guidelines for Texas (Standards). The Texas Education Code Section 33.021 directed the creation of school library standards in 1995. The Texas State Library and Archives Commission (TSLAC), in consultation with the State Board of Education, created and adopted voluntary standards for school library services. School districts are not required to comply with the standards, but should consider the standards in developing, implementing, or expanding library services.

The Standards, updated in 2005, provide six learner-centered standards for school library programs, as designated in the State Board for Educator Certification's Guidelines for Certification of Texas School Librarians. These standards include teaching and learning; program leadership and management; technology and information access; library environment, connections to community; and information science and leadership.

The Standards also provide recommendations for campus-level librarian and library paraprofessional staffing as well as district-level library staffing. Staffing recommendations are based on a campus' Average Daily Attendance (ADA), and school libraries can meet one of four program development ratings: Below Standard, Acceptable, Recognized, and Exemplary. **Figure 10** shows recommended campus librarian staffing levels. While this figure only displays certified librarian staffing guidelines, the Standards also provide staffing guidelines for library aides and district-level library personnel.

Use of the Standards by librarians and district staff varies between districts and campuses. Some librarians regularly use the Standards to internally assess their library programs

FIGURE 10
TEXAS SCHOOL LIBRARY STANDARDS FOR PROFESSIONAL LIBRARIAN STAFFING

	EXEMPLARY	RECOGNIZED	ACCEPTABLE	BELOW STANDARD
Librarian staffing	**At least:**	**At least:**	**At least:**	**Less than:**
0–500 ADA	1.5 Certified Librarians	1.0 Certified Librarians	1.0 Certified Librarians	1.0 Certified Librarians
501–1,000 ADA	2.0 Certified Librarians	1.5 Certified Librarians	1.0 Certified Librarians	1.0 Certified Librarians
1,001–2,000 ADA	3.0 Certified Librarians	2.0 Certified Librarians	1.0 Certified Librarians	1.0 Certified Librarians
2,001+ ADA	3.0 Certified Librarians + 1.0 Certified Librarian for each 700 students	2.0 Certified Librarians + 1.0 Certified Librarian for each 1,000 students	2.0 Certified Librarians	2.0 Certified Librarians

Source: Texas State Library and Archives Commission.

and to provide information about program quality to other librarians, district administrators, school boards, and the general public. Interviews with library program directors in three major suburban school districts indicated that each of these districts use the Standards to annually assess the quality of each campus' library program. Each has a district-level library coordinator and most, if not all of their campuses, have certified school librarians. Towards the end of the school year, each librarian provides information about their libraries, including the number of books checked out, student and classroom visits, and collection size information. This information is then aggregated to produce a district-wide library report. Interviews with other school district librarians indicated that many are aware of the Standards but do not use them regularly for library program self-assessment or planning.

SUPPORT FOR SCHOOL LIBRARIANS

There is not a central, state-level school library contact, so librarians rely on multiple sources for information, guidance, and training related to the development of school library programs. TEA had dedicated state-level school library personnel who provided assistance to school libraries from 1949 to 2003. Library personnel at TEA were eliminated in 2004 and the agency cited funding concerns as the reason. Currently, support for school librarians is provided through a combination of TEA, TSLAC, the ESCs, the Texas Library Association (TLA), and through regional library cooperatives.

TEA provides some guidance to school librarians through its Educational Technology Division. TSLAC, as part of the general support it provides to public libraries and librarians statewide, offers continuing education opportunities and informal consulting to school librarians. TSLAC also provides several tools for school librarians to use to assist in library program development, including sample evaluation instruments and library program planning materials. TLA provides support to librarians in the form of advocacy and professional development opportunities and hosts an annual school librarian conference.

ESC support for school library programs varies from region to region, depending on the expertise of staff at each ESC. Some ESCs host school library conferences, where librarians throughout the region can receive training and collaborate. Additionally, each ESC has a designated contact for the K–12 Databases, which are online resources and academic databases for school districts. The ESC library contacts are a combination of certified school librarians and technology specialists. A few ESCs also coordinate regional library cooperatives, which provide districts with further training opportunities, access to additional educational databases, and purchasing options for library materials. For example, the library cooperative coordinated by Regional Education Service Center VI (Region 6), a region with many small, rural school districts, includes access to certified librarian services. The Region 6 cooperative has four certified librarians on staff who visit member-districts once per month to assist them in using the Standards, analyzing library collection age, removing dated materials, purchasing resources, and using library automation software.

State funding that flows to school districts is not dedicated specifically for school librarian positions. There is some state funding that supports the acquisition of resources for public school libraries. The Legislature set aside $5 million from the technology allotment in the 2010–11 biennium for the purchase of online research and information resources for public school libraries. In addition, the Texas Department of Motor Vehicles administers the "Read to Succeed" specialty license plate program. Proceeds from this program are used exclusively for the purchase of educational materials for public school libraries. Proceeds from this program are relatively small—$90,000 was appropriated to TEA in the 2010–11 biennium.

School districts report expenditures related to libraries, media resources, and resource centers to PEIMS via expenditure function code 12. This function includes expenditures for activities such as establishing and maintaining libraries, resource centers, and other major facilities dealing with educational resources and media. Examples of actual expenditures include salaries for librarians, library aides, and assistants; media or resource center personnel; cataloging and circulating books and printed materials; library planning; creating and presenting educational programs for closed circuit or broadcast television; library books, films, CD and DVD disks, and other media; and upkeep and repairs to media, library, and resource center materials and equipment. Actual expenditures on instructional resources and media services reported by school districts were $614.9 million in school year 2008–09. This represents 1.6 percent of total operating expenditures for school districts, or approximately $133 per student. This is an increase from school year 2004–05, when $548 million was expended, representing 1.8 percent of total operating expenditures or $127 per student.

CHALLENGES FOR SCHOOL LIBRARIANS

The primary challenges school librarians face in implementing a quality school library program are inadequate resources and funding—including below standard staffing levels and limited collection size—and a lack of recognition of the school librarian's importance in the school environment. In December 2008, TSLAC and TEA produced a joint report: The Needs of Texas Public School Libraries Report. The report included findings from a survey administered to public school librarians, and used the Standards to determine what resources school libraries need and provided recommendations for the improvement of school libraries.

In the area of funding and resources, the TEA/TSLAC report recommended that TEA provide leadership in communicating the need for and requesting additional state funding for school libraries. The report also recommended that the Legislature continue to fund and support online research and information resources through the K–12 Databases. The K–12 Databases provide access for all public school communities to online research and information resources. The Legislature appropriated $5 million in General Revenue Funds in the 2008–09 biennium, and $5 million in the 2010–11 biennium to TEA's Technology Allotment to fund the K–12 Databases. The databases provide age appropriate, authoritative, and relevant materials for educational purposes and were cited by TEA and ESC staff as an important equity tool for school districts, particularly those that lack library resources.

The TEA/TSLAC report also found that school librarians need more recognition regarding the value of school librarians and library programs. From this finding, the report recommended that TEA ensure that all campuses have a librarian and that this information be collected in PEIMS; recognize Exemplary library programs, and consider using the Standards as the basis for data collection to document progress in providing quality library programs. The only information collected at the state level about school libraries is librarian staff and program expenditure information.

SCHOOL LIBRARIAN STAFFING LEVELS

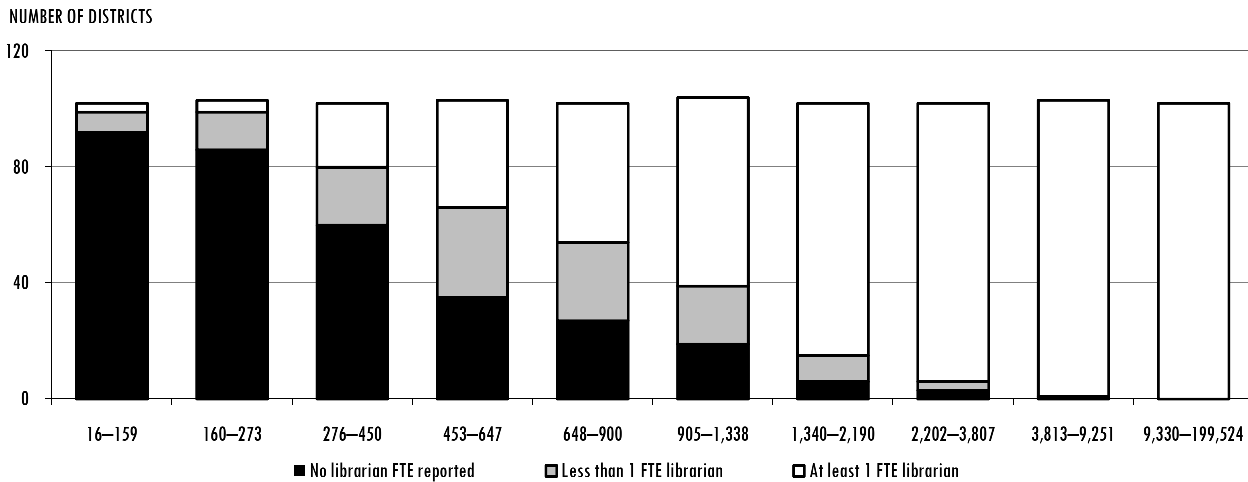
There are disparities in school library staffing between school districts. Some school districts have a certified librarian at every campus, while other school districts lack a certified librarian altogether. There are also disparities in staffing between individual campuses within the same district. For example, past school performance reviews have found that within the same school district, some campuses achieve Exemplary staffing levels—the highest rating—while other campuses have Below Standard staffing levels.

Overall, the number of school librarians in Texas has increased since school year 2004–05. However, data shows that from school years 2004–05 to 2008–09, the number of school districts not reporting a school librarian increased from 277 to 328. The large majority (84 percent) of school districts that did not report a librarian in 2009 were rural with an average enrollment of 389 students.

As shown in **Figure 11**, there is a relationship between school district enrollment and the provision of a librarian. Smaller school districts most often did not report a librarian or reported a part–time librarian, while larger school districts most often reported at least one full-time librarian. In school year 2008–09, most school districts in the bottom three deciles of enrollment—with enrollment ranging from 16 to 450 students—did not report a librarian. Most school districts with an enrollment of at least 905 students reported a full-time librarian.

Analysis of campus librarian staffing shows that generally, a campus either at least met Acceptable librarian staffing levels (based on the Standards) or did not report a librarian. In school year 2008–09, 58.9 percent (4,226 campuses) were Acceptable; 14.6 percent (1,051 campuses) were Below Standard; and 26 percent (1,903 campuses) did not report a

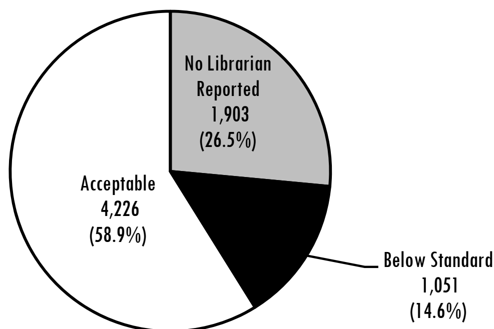
FIGURE 11
DISTRICT LIBRARIAN STAFFING BY ENROLLMENT DECILES
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

librarian. **Figure 12** shows campus librarian staffing in school year 2008–09. It is important to note that unlike suggested staffing levels for counselors and nurses, which are based on a single ratio, suggested librarian staffing is based on four levels of student ADA. As a result, library staffing ratings are less sensitive to changes in enrollment or librarian staffing.

FIGURE 12
CAMPUS LIBRARIAN STAFFING COMPARED TO TSLAC STANDARDS
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

There was little change in campus librarian staffing relative to the Standards from school years 2004–05 to 2008–09. During this period, the percentage of campuses achieving Acceptable librarian staffing decreased from 59.4 percent to 58.9 percent; the percentage of campuses with Below Standard librarian staffing decreased from 16 percent to 14.6 percent; and the percentage of campuses not reporting a librarian increased from 24.6 percent to 26.5 percent. **Figure 13** shows a snapshot of campus librarian staffing in school year 2004–05 and in school year 2008–09.

FIGURE 13
CAMPUS LIBRARIAN STAFFING
SCHOOL YEARS 2004–05 AND 2008–09

CAMPUS LIBRARIAN STAFFING	2004–05	2008–09
Acceptable	59.4%	58.9%
Below Standard	16.0%	14.6%
No librarian reported	24.6%	26.5%

Sources: Legislative Budget Board; Texas Education Agency.

Analysis of librarian staffing by campus-level shows that elementary schools had the highest percentage of campuses with Acceptable librarian staffing at 65.2 percent (2,779 campuses) followed by middle and junior high schools at 56.9 percent (728 campuses). Combined elementary/secondary schools had the lowest percentage with Acceptable librarian staffing at 11.3 percent (23 campuses). High schools had the highest percentage of campuses with Below Standard librarian staffing at 28.2 percent (329 campuses) and combined elementary/secondary schools had the highest percentage of campuses that did not report a librarian at 73.0

percent (149 campuses). **Figure 14** compares librarian staffing by campus-level to the Standards.

FIGURE 14
LIBRARIAN STAFFING BY CAMPUS LEVEL
SCHOOL YEAR 2008–09

CAMPUS LEVEL	ACCEPTABLE	BELOW STANDARD	NO LIBRARIAN REPORTED
Elementary School	65.2%	10.0%	24.8%
Combined Elementary/ Secondary School	11.3%	15.7%	73.0%
Middle and Junior High School	56.9%	17.4%	25.6%
High School	46.7%	28.2%	25.1%

NOTE: Excludes one instructional campus classified as "Other Grade Group."
SOURCES: Legislative Budget Board; Texas Education Agency.

CAMPUSES WITHOUT SCHOOL LIBRARIANS

When a school district or campus does not employ a librarian, the school library may be staffed by a library aide or teacher. Examples of school district staffing library arrangements include having a certified librarian at each campus, having a certified librarian shared between multiple campuses, or having a teacher or other district staff member serve as a part-time librarian. In a few school districts, school library aides serve as the primary librarian, and in some districts, decisions have been made to replace certified librarians with library aides as librarians retire or leave the district.

At schools without a librarian, with a part-time librarian, or uncertified librarian, the library's operating hours may be limited and collaboration with teachers and students is limited or nonexistent. For example, in one school performance review, a school's special education teacher was also the certified librarian. As a result, the library was open only 1.5 periods per day, severely limiting students' and teachers' access to library resources. In another review, the certified librarian was also the district's technology director and a library paraprofessional was the acting librarian; therefore collaboration with teachers and instruction of students was limited. In addition, the lack of a school librarian makes it difficult for a campus to develop a strategic plan to guide library program development and acquisition of appropriate library and media resources.

If a school has a library but no librarian, students and teachers may still have access to instructional resources, including research materials, books, and/or online databases. However, instruction in research methods and reference materials becomes the responsibility of the teacher. For school districts participating in a library cooperative, the co-op librarian can provide library planning and collection analysis services.

SCHOOL NURSES

School nurses are regarded as important to advancing the well-being, academic success, and life-long achievement of students. The National Association of School Nurses states that school nurses "facilitate positive student responses to normal development; promote health and safety; intervene with actual and potential health problems; provide case management services; and actively collaborate with others to build student and family capacity for adaptation, self management, self advocacy and learning."

The Texas Administrative Code, Section 153.1022, defines a school nurse as an educator who provides full-time nursing and health care services and meets all the requirements to practice as a registered nurse (RN). To become a school nurse in Texas, a nurse must meet all the requirements to practice as an RN pursuant to the Nursing Practice Act and the rules and regulations relating to professional nurse education, licensure, and practice, and must hold a license to practice professional nursing in Texas. Texas law does not require school districts to employ a nurse. However, if school districts do employ a nurse, the Texas Education Code, Section 21.003, requires that the nurse hold the appropriate license and credential.

While the Texas Administrative Code defines a school nurse as a RN, both RNs and licensed vocational nurses (LVN) typically practice in Texas public schools. RNs and LVNs have distinctly different scopes of practice and responsibilities. LVNs are educationally prepared to provide direct patient care in structured settings but are not educationally prepared to be independent practitioners of nursing. According to the Texas Board of Nursing (BON)—the licensing agency for professional nurses in Texas—when a LVN provides nursing care to patients in a school setting, the LVN must be under the supervision of a RN. The BON's position is that while school nursing is a professional registered nursing specialty, LVNs with appropriate experience and supervision should not be precluded from fulfilling this role.

The role and responsibilities of a school nurse are guided by the Texas BON and DSHS. The Texas BON regulates the practice of nursing within the state for LVNs and RNs and provides standards of practice, which establish a minimum

acceptable level of nursing practice in any setting. In addition, DSHS produces the Texas Guide to School Health Programs. The guide provides extensive information and resources for nurses, school district administrators, teachers, and other district personnel regarding school health programs and health services. The guide also provides an overview of the role of the school nurse and defines the three essential functions of school health services to include:

- Screening, diagnostic, treatment, and health counseling services;
- Referrals and linkages with other community providers; and
- Health promotion and injury and disease prevention education.

Texas law does not require that schools provide health services to the general student population. There are federal and state requirements for the provision of health services to students with special needs. In addition, the state requires school districts to screen students for vision, hearing, scoliosis, dyslexia, and acanthosis nigricans (a skin disorder). Beyond these requirements, school boards have discretion over which health services are provided in their district and how those services are provided. Basic health services typically provided in Texas public schools include first-aid, the monitoring and care for chronically ill students, and the distribution of medication to students. With the exception of administering medication and minor first aid, school health services should be performed by licensed health personnel. Furthermore, the availability of a school nurse drives the availability and quality of health services provided to students. For example, if a nurse is available on campus, the nurse can diagnose a student and determine if a student should seek further medical treatment, be sent home, or return to class. Therefore, a school nurse can positively impact students' "return-to-class rate"—or the rate at which a student is seen by a school nurse and then returns to class. In school districts without a nurse, students with medical issues may often be sent home, as treatment is typically not provided by non-medical personnel.

Where state law does require the provision of individualized health services to students, a school nurse can serve as a valuable resource. For example, the Texas Health and Safety Code, Section 168.004, requires that a campus with an enrolled student with diabetes ensure that campus employees, who are not health care professionals, receive training to serve as unlicensed diabetes care assistants (UDCA). If a nurse is on campus, only one additional UDCA is required to be trained and assigned to the school, and the nurse may provide the training. If there is no nurse on campus, at least three UDCAs must be trained and assigned to the school, and the designated UDCAs must receive this training externally.

State funding that flows to school districts is not dedicated specifically for school nurse positions. School districts report expenditures related to health services to PEIMS via expenditure function code 33. This function is for expenditures used directly and exclusively for providing physical health services to students, and includes expenditures for activities that provide students with appropriate medical, dental, and nursing services. Examples of actual expenditures include salaries for school nurses and nurses' aides, physicians, dentists, and optometrists; contracted medical services; student inoculations; Medicaid administrative expenditures; and the purchase of vehicles for health services. Actual expenditures on health services reported by school districts in school year 2008–09 were $396.5 million. This represents 1 percent of total operating expenditures for school districts, or approximately $86 per student. This is an increase from school year 2004–05, when $304.9 million was expended, representing 1 percent of total operating expenditures or $71 per student.

The U.S. Department of Health and Human Services (DHHS) recommends a nurse-to-student ratio of 1:750. This suggested ratio was included as an explicit goal for all schools to reach in U.S. DHHS' Healthy People 2010—a national health promotion and disease prevention initiative. U.S. DHHS also suggests improving the ratio where there are many students with special needs. This ratio is also endorsed by the National Association of School Nurses.

SUPPORT FOR SCHOOL NURSES

A common barrier for school nurses is that working in a school setting—as opposed to a hospital setting, for example—can often be more isolating, as the school nurse is often the sole medical practitioner at a school. At the state level, there are resources for school nurses to obtain information, guidance, and assistance when questions arise or additional support is needed.

At DSHS, a School Nurse Consultant (SNC) serves as a central resource for school nurses, district administrators, teachers, and parents. The SNC works cooperatively with the Texas School Nurses Organization, the BON, and other health service related organizations to answer questions,

provide resources and technical support to school nurses, district staff, and parents. Additionally, each ESC employs a School Health Specialist (SHC) who provides information and resources to school district personnel, parents, and community members through training, workshops, and technical assistance. DSHS, through an agreement with each of the 20 ESCs, funds 75 percent of a FTE School Health Specialist at each ESC. While some SHCs are licensed nurses, many are not. SHCs provide professional development and training to school nurses and other district staff. For example, some SHCs provide the required training for UDCAs.

SCHOOL NURSE STAFFING LEVELS

Interviews with DSHS and ESC staff indicate that school districts utilize a variety of LVN/RN staffing arrangements. As examples, both LVNs and RNs may provide nurse coverage to multiple campuses within a school district, effectively splitting their time between each campus; some districts employ only RNs; some districts employ an RN that works with multiple LVNs; some districts employ only LVNs; and some districts do not employ a school nurse.

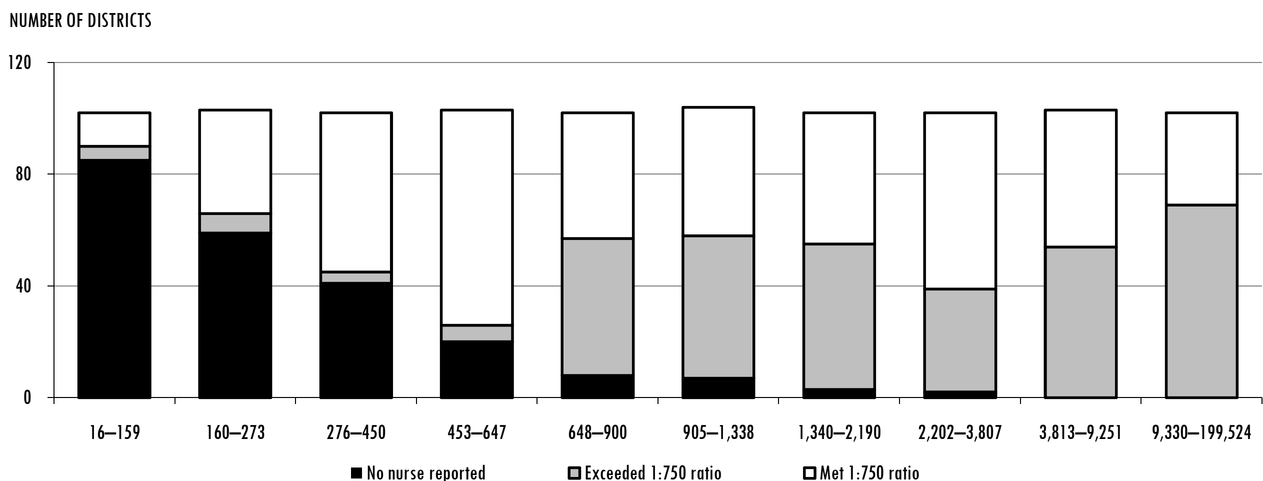
Staff information reported to PEIMS does not distinguish between a RN and LVN, as the PEIMS definition of a school nurse includes both licensure categories. Therefore, it is not possible to determine if a nurse employed in a school district or on a campus is a RN or LVN using PEIMS data, nor is it possible to determine the type of supervisory arrangements between RNs and LVNs. In addition, analysis of nurse staffing for this report includes only nurse FTE positions reported in PEIMS and does not include health services provided by external health professionals via formal or informal partnerships with school districts.

The average nurse-to-student ratio for all Texas school districts was 1:813 in school year 2008–09, a decrease from 1:839 in school year 2004–05. In school year 2008–09, 22 percent (225 districts) did not report a school nurse; this represents a slight improvement from school year 2004–05, when 22.8 percent (234 districts) did not report a school nurse. The large majority (90 percent) of school districts not reporting a school nurse in school year 2008–09 were rural with an average enrollment of 312 students.

As shown in **Figure 15**, there is a relationship between school district enrollment and the provision of a school nurse. In school year 2008–09, smaller school districts most often did not report a school nurse, while larger school districts most often reported at least one school nurse but also most often exceeded a 1:750 ratio. School districts in the bottom two deciles of enrollment, with enrollment ranging from 16 to 273 students, had the highest number of districts not reporting a nurse, while school districts in the top two deciles of enrollment, with enrollment ranging from 3,813 to 199,524 students, had the highest number of districts that exceeded the suggested 1:750 ratio.

Fewer than half of campuses met the suggested 1:750 nurse-to-student ratio in school year 2008–09, as 47.7 percent (3,427 campuses) met the suggested ratio, 28.6 percent (2,055 campuses) exceeded the suggested ratio, and 23.6

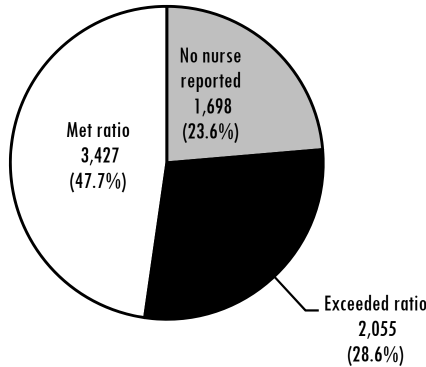
FIGURE 15
DISTRICT NURSE STAFFING BY ENROLLMENT DECILES
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

percent (1,698 campuses) did not report a nurse. **Figure 16** shows campus nurse staffing levels relative to the suggested ratio.

FIGURE 16
CAMPUS NURSE STAFFING COMPARED TO 1:750 RATIO
SCHOOL YEAR 2008–09



Sources: Legislative Budget Board; Texas Education Agency.

Figure 17 shows disparities between nurse staffing at different campus-levels. For example, only elementary schools met the suggested 1:750 ratio in both school years 2004–05 and 2008–09. Combined elementary/secondary schools met the suggested 1:750 ratio in school year 2008–09, while middle and junior high schools and high schools exceeded the ratio in both years. While the nurse-to-student ratio for high schools decreased from 1,534 students per nurse to 1,497 students per nurse during this period, the ratio remains nearly double the suggested ratio of 1:750.

FIGURE 17
NURSE STAFFING BY CAMPUS LEVEL
SCHOOL YEARS 2004–05 AND 2008–09

CAMPUS LEVEL	STUDENTS PER NURSE 2004–05	STUDENTS PER NURSE 2008–09	PERCENTAGE OF CAMPUSES THAT MET 1:750 RATIO 2008–09
Elementary School	724	728	58%
Combined Elementary/ Secondary School	794	721	32%
Middle & Junior High School	944	914	41%
High School	1,534	1,497	23%

Note: Excludes one instructional campus classified as "Other Grade Group."
Sources: Legislative Budget Board; Texas Education Agency.

Analysis of campus nurse staffing levels did not indicate a relationship between nurse-to-student ratios and percentage of economically disadvantaged students, at-risk students, or TAKS passing rates.

CAMPUSES WITHOUT SCHOOL NURSES

School districts or campuses without a nurse on staff may work with parents, recruit community volunteers who are nurses or physicians, and/or train various school staff to provide basic health services. Often, it is the school's office secretary or another staff member who provides services such as taking a student's temperature or administering prescription and/or non-prescription medications. Some school districts participate in school nurse cooperatives, which allow districts to pay a fee for periodic access to a nurse that will visit their district from a few days per week to a few days per month. For example, in Education Service Center Region XII (Region 12), the cooperative nurse visits one school district four days per week and visits another school district two days per month. Nurses in these cooperatives help districts maintain student immunization records, perform required screenings, and provide training to teachers and district staff.

State mandated screenings may be performed by trained non-medical personnel. An ESC School Health Specialist may perform screenings in districts or provide training to district employees who provide the screenings. Compliance with immunization requirements and verification of immunization records may be performed by school office personnel. School district personnel may also provide medications to students compliant with the school district's policies.

In addition, all school districts have access to the Texas School Health Network, a cooperative effort between DSHS, the Texas Cancer Council, and the ESCs. Each school district may utilize the ESC School Health Specialist and the DSHS School Nurse Consultant. Although not every School Health Specialist is a RN, each specialist can provide access to information and additional resources as needed.

Other methods through which school districts provide access to school nurses and health services are partnerships with local hospitals and school-based health centers (SBHC). SBHCs provide comprehensive preventive and primary health care services to students on a school campus. Most SBHCs are located in a facility on a school campus, and are staffed by a multidisciplinary team of health professionals, including nurse practitioners, physicians, clinical social

workers, psychologists, nutritionists, dentists, dental hygienists, and administrators. While the focus is to serve primarily the uninsured and underserved, services vary based on a community's needs. Funding for SBHCs comes from a combination of state and federal funds, private foundations, and third-party revenues. The state, through DSHS, provides grants to support the start-up and expansion of SBHCs. A school nurse is often the linkage between a school and SBHC and may refer students for more advanced services.

POLICY OPTIONS TO ADDRESS OPPORTUNITIES RELATED TO SCHOOL DISTRICT PROFESSIONAL SUPPORT STAFF

Policy options include:

- Providing specific information about the availability of a school counselor, librarian, and nurse on district and campus performance reports;
- Collecting annual data about the characteristics and quality of support services; and
- Recognizing outstanding support services in the state's public school accountability system.

INCLUDE STAFF IN DISTRICT AND CAMPUS PERFORMANCE REPORTS

TEA could include the availability of a school counselor, librarian, and nurse—which is already collected through PEIMS—on campus and district performance reports. Currently, district and campus performance reports produced by TEA, which are intended to provide information about a campus' characteristics and to be used for campus and district-planning, do not indicate whether or not a campus has a counselor, librarian, or nurse.

TEA produces two types of annual performance reports for campuses: the Academic Excellence Indicator System (AEIS) performance report and the School Report Card (SRC). The AEIS report displays information about districts' and campus' performance and characteristics, including student performance, student demographics, and financial, staff, and program information. Information included on the AEIS report is defined in the Texas Education Code Section 39.306 and is intended to be used as "a primary consideration in school district and campus planning." Districts are required to have a hearing for public discussion of the AEIS report, and they must make the report widely available to the public. While the AEIS report includes staff by type of position, the current format aggregates staff into broad personnel categories, including professional staff (teachers, professional support, campus administration, and central administration), educational aides, and auxiliary staff. The AEIS report does not display the FTE counts specifically for school counselors, librarians, and nurses.

TEA also produces an annual campus report card for each campus, called the School Report Card (SRC). According to TAC, the intent of the SRC is to inform each student's parent or guardian about the school's performance and characteristics, and state law requires that schools send a copy of the SRC to the parent or guardian of each student. The Texas Education Code, Section 39.305, defines the content of the SRC, which includes various student achievement indicators, average class size by grade level and subject, administrative and instructional costs per student, and the district's instructional expenditures ratio and instructional employees ratio compared with the state average. Unlike the AEIS report, information about staff type and count is not included on the SRC, and there is no statutory requirement to do so.

A few other states provide information about the availability of a school counselor, librarian, or nurse on their annual campus performance reports. **Figure 18** shows how selected states display professional support staff information on these reports.

FIGURE 18
SUPPORT STAFF INFORMATION ON OTHER STATES' CAMPUS PERFORMANCE REPORTS

STATE	STAFF INFORMATION DISPLAYED
California	Displays FTE counts for "academic counselors" and other support staff, including librarians, library paraprofessionals, and nurses. Also displays the number of students per counselor.
Colorado	Displays the number of school counselors and librarians, with a breakdown by full-time and part-time status.
Connecticut	Displays the number of counselors and librarians on campus, with a comparison of present year and prior year staffing.

SOURCE: Legislative Budget Board.

COLLECT ANNUAL DATA ON SCHOOL SUPPORT SERVICES

TEA could collect annual data on the quality and characteristics of school counseling and library programs. In addition, while TEA already collects data about school health programs through an annual school health survey, the agency could amend its definition of a school nurse in PEIMS to

align with the Texas Administrative Code definition of a school nurse and distinguish between a RN and LVN in school districts.

Data that does exist about school counseling and library services has historically been collected through periodic agency research or as a result of a legislative mandate, providing a snapshot of the quality of these services in schools. For example, two reports on school counselors have been conducted: one in 2002 by the Comptroller of Public Accounts and another in 1994 by TEA. Two reports on school libraries have been conducted: one in 2008 by TEA and TSLAC and one in 2001 that was commissioned by TSLAC. The 2008 TEA/TSLAC report acknowledged that data collection on school libraries would provide information to local and state policymakers and emphasize the importance of these support services and their impact on student achievement. Accordingly, the report recommended that TEA annually collect data and statistics on the quality of school libraries, consider using the state's school library standard as the basis for data collection, and recognize outstanding school library programs. However, these recommendations have not been implemented.

Several states collect annual data on the quality of school libraries. The common mode of data collection is through an annual online survey, either voluntary or mandatory, that school librarians complete at the end of each year. This information is compiled at the state-level to evaluate common themes, challenges, and needs at different schools. In addition, some school districts in Texas provide counseling program data to the Texas School Counselor Association in order to apply for the "Counselors Reinforcing Excellence for Students in Texas" (CREST) award—an annual award that recognizes outstanding school counseling programs. Furthermore, TEA uses its aforementioned school health survey in order to guide how it addresses the various health-related needs of schools and students statewide.

Data collected on the type and quality of school support services at the local level—viewed in concert with student academic and behavioral outcomes—would provide a way to prioritize targeted improvements, funding, and/or professional development for each. Metrics to assess a school counseling and library program already exist within each program's respective state guide.

In addition, while TEA already collects information about comprehensive school health programs from school districts through its annual school health survey, the agency could amend the PEIMS definition of a school nurse to provide a more accurate picture of the professional qualifications of nurses in school districts. The current PEIMS definition of a school nurse differs from the Texas Administrative Code, Section 153.1022, which defines a school nurse as a RN. Moreover, *The Texas Guide to School Health Programs* (Guide) categorizes a LVN as a "staff nurse" and designates RNs and Advance Practice RNs as school nurses. As a result, school nurse FTE positions reported to PEIMS may not be defined as a school nurse under TAC.

RECOGNIZE OUTSTANDING CAMPUS AND DISTRICT SUPPORT SERVICES

TEA could recognize outstanding campus support services by making campus counseling programs, library programs, and health services eligible programs to receive a campus distinction designation under the state's public education accountability system. This could be achieved by creating distinction designations for each support program, by creating a general campus support services distinction designation, or by including counseling and library programs within the existing 21st century workforce development distinction.

Texas' public school accountability system provides the opportunity for campuses to receive a "campus distinction designation" based on student academic performance and/or specific campus programs. Under Texas Education Code, Section 39.203, individual campuses may receive a "campus distinction" designation for academic achievement in English language arts, mathematics, science, or social studies; fine arts; physical education, 21st century workforce development programs; and second language acquisitions programs. A committee of experts will determine what criteria a program must meet to be awarded a campus distinction. TEA is currently in the planning stages for the development of campus distinction designations, with the first of four meetings for each committee to occur between April 2011 and April 2012, collection of data on campus programs beginning in school year 2012–13, determination of campuses that have earned distinction designations in June 2013, and release of distinction designations in August 2013. Distinction designations will be determined by a committee of selected experts.

SUBSTITUTE TEACHERS IN TEXAS PUBLIC SCHOOLS

Each day approximately 4.6 million students in public school districts arrive at a campus expecting to be greeted by their regular classroom teacher. However, many students are taught by a substitute teacher. Texas is one of seven states where the substitute teacher requirements are established by school districts, not the state. Unlike some other states, Texas does not require substitute teachers to be trained or certified.

The development of a substitute teacher certification program could raise the standards and expectations of substitute teachers in the classroom who are expected to assume most of the major duties and responsibilities in a teacher's absence. In addition, requiring that all substitute teachers be trained before receiving their certification and being placed in a classroom would help to ensure that a qualified professional educator provides continuity in a safe and secure learning environment, and is aware of the many needs found in a diverse student population. This report provides general information about substitute teachers nationally and in Texas public schools. The report also provides policy options related to standardized training and professional certification for substitute teachers.

FACTS AND FINDINGS

- ♦ Substitute teachers in Texas, despite being deemed "professional employees" of a school district, offer and provide instructional services in the classroom, but are not required to obtain and maintain a professional certification.
- ♦ Substitute teachers in Texas are not required to undergo standardized training, other than what is offered and required by the local school district(s).

DISCUSSION

During school year 2009–10, approximately 321,000 teachers provided an education to 4.6 million students in 1,025 public school districts across the state.

Substitute teachers are usually hired on a short-term basis, when a teacher is out of the classroom for a brief period; on a long-term basis, when a teacher is out for an extended period (usually 10 days or more); or on a permanent basis when a "highly-qualified" teacher is unavailable for employment by a district.

According to the federal No Child Left Behind (NCLB) Act of 2001, a "highly qualified" teacher must (1) hold a bachelor's degree; (2) hold a certification or licensure to teach in the state of his/her employment; and (3) have proven knowledge of the subject(s) he/she teaches. There are no state statutory provisions requiring that substitute teachers be "highly qualified."

Two recently published studies have demonstrated that teacher absenteeism, which requires the assignment of a substitute teacher, has a negative effect on student achievement. A 2007 Harvard University study found a small but significant impact of teacher absences on student math scores after taking away the effects of school, student, and a teacher's skill and motivation. Furthermore, a 2007 Duke University study showed that teacher absences negatively affected student test scores in elementary schools.

SUBSTITUTE TEACHER REQUIREMENTS

According to the Substitute Teaching Division (STEDI) of the Substitute Teaching Institute (STI) at Utah State University, public school districts nationally vary in their employment requirements for substitute teachers. In the U.S. as of 2010, 14 (28 percent) states require substitute teachers to have a college degree; 8 (16 percent) require at least some college; 21 (42 percent) require a high school diploma or a General Equivalency Diploma (GED); and 7 (14 percent) have requirements set by school districts. Texas is one of seven states where local school districts set the substitute teacher requirements. **Figure 1** shows the varying minimum requirements for substitute teachers nationally as reported by STEDI.

FIGURE 1
MINIMUM EDUCATION REQUIREMENTS FOR SUBSTITUTE TEACHERS ACROSS STATES, 2010

REQUIRE COLLEGE DEGREES		REQUIRE HIGH SCHOOL DIPLOMA OR GED	
• Arizona	• Pennsylvania	• Alabama	• Massachusetts
• California	• Rhode Island	• Alaska	• Mississippi
• Connecticut	• West Virginia	• Arkansas	• Nevada
• Hawaii	• Wisconsin	• Colorado	• New Mexico
• Iowa - teaching certificate required		• Delaware	• New York
• Minnesota		• Florida	• North Carolina
• New Hampshire		• Georgia	• Utah
• North Dakota		• Idaho	• Vermont
• Ohio		• Kentucky	• Virginia
• Oregon		• Maine	• Washington
		• Maryland	
REQUIRE AT LEAST SOME COLLEGE		**REQUIREMENTS ARE SET BY THE DISTRICT**	
• Illinois	• Missouri	• Louisiana	• South Dakota
• Indiana	• Nebraska	• Montana	• Texas
• Kansas	• New Jersey	• Oklahoma	• Tennessee
• Michigan	• Wyoming	• South Carolina	

Source: Utah State University.

SUBSTITUTE TEACHERS IN TEXAS

In Texas, requirements are established by and vary among the districts. Examples of requirements identified during recent school performance reviews include the following:

- a minimum age to substitute teach;
- priority given to certified teachers;
- examples of work experience;
- personal and professional references;
- satisfactory interview with district staff;
- confirmed ineligibility for unemployment benefits; and
- Tuberculosis (TB) skin test, especially in areas where TB is endemic.

SUBSTITUTE TEACHER PAY

Despite the concerns regarding whether or not a substitute teacher has undergone training or has taken a "refresher" training course, substitute teachers' pay in a district is equal to others with similar credentials regardless of their preparation to take control of a classroom. A review of daily pay rates across several districts in the state indicates that compensation is largely based on the supply and demand of substitute teachers (workforce) in that particular area. There is no benchmark or standardized daily pay rate across the state.

Recent school performance reviews, conducted by Legislative Budget Board staff in 2010, identified a variety of education and certification criteria that affect pay rates, including:

- degreed and certified, full-day, with a Texas teaching certificate;
- degreed and certified, full-day, with a non-Texas teaching certificate;
- non-degreed and non-certified, full-day;
- long-term, more than 10 days in the same position and/or for the same teacher; and
- minimum amount of college: 60 to 89 semester hours, or more than 90 semester hours.

The pay rates ranged from $55 to $130 per day, depending on these factors.

Figure 2 shows a 20.1 percent increase in state expenditures for substitute teachers in Texas, over a five-year period, from school years 2005–06 to 2009–10. State expenditures on a per student basis increased an average of 12.1 percent.

FIGURE 2
ANNUAL DISTRICT EXPENDITURES FOR SUBSTITUTE TEACHERS SCHOOL YEARS 2005–06 TO 2009–10

MEASURE	2005–06	2006–07	2007–08	2008–09	2009–10	PERCENTAGE CHANGE 2005–06 TO 2009–10
Statewide Enrollment	4,308,812	4,428,799	4,490,149	4,557,821	4,615,089	7.1%
Annual Substitute Teacher Expenditures	$317,125,897	$331,303,173	$348,359,259	$383,549,586	$380,741,608	20.1%
Average Annual Substitute Teacher Cost Per Student	$73.60	$74.81	$77.58	$84.15	$82.50	12.1%

Sources: Legislative Budget Board; Texas Education Agency.

SUBSTITUTE TEACHER CERTIFICATION

Both the Texas Education Code and the Texas Administrative Code address substitute teachers. Texas Education Code, Section 22.051 defines a substitute teacher as a "professional employee of a school district." The Texas Administrative Code, Title 19, Section 153.1101 defines a substitute teacher as "a teacher who is on call or on a list of approved substitutes to replace a regular teacher and has no regular or guaranteed hours. A substitute teacher may be certified or noncertified."

Despite statutory designation as professional employees, substitute teachers are not required to obtain and maintain certification or undergo professional development or training other than what may be offered at the local level. Some districts that offer training to their substitute teachers strongly encourage their substitute teachers to take a "refresher" training course (session) each year or every two to three years. An official at Regional Education Service Center XII (Region 12 – Waco) who conducts substitute teacher trainings advises that substitute teachers take advantage of this "refresher" training course (session) since it allows them to ask follow-up questions regarding their experience in the classroom plus it provides them with information regarding any new federal and/or state statutory provisions (requirements).

EDUCATIONAL AIDE CERTIFICATION

Since 1980, unlike substitute teachers, educational aides have a multi-level certification designation issued and maintained by the State Board for Educator Certification (SBEC) via the Texas Education Agency (TEA) as outlined in the Texas Education Code, Section 21.003(a) and the Texas Administrative Code, Title 19, Part 7, Chapter 230, Subchapter S. An educational aide is an employee of a local school district who provides instructional support. Unlike professional employees of the district (e.g., superintendent, principal, teacher, counselor, and nurse), and like substitute teachers, educational aides are not required to obtain continuing professional education hours in order to renew their certificate. However, they are encouraged to take advantage of training offered by the district and/or the Regional Education Service Centers (RESCs).

STATE BOARD FOR EDUCATOR CERTIFICATION CERTIFICATES

The Continuing Professional Education (CPE) requirements for each class of license or certificate and the validity period for each type of license or certificate, as of 2010, are shown in **Figure 3**.

FIGURE 3
NUMBER OF CONTINUING PROFESSIONAL EDUCATION HOURS REQUIRED TO RENEW LICENSE OR CERTIFICATE AND VALIDITY PERIOD OF LICENSE OR CERTIFICATE BY PROFESSION, 2010

PROFESSION	REQUIRED CONTINUING PROFESSIONAL EDUCATION HOURS	VALIDITY PERIOD OF LICENSE OR CERTIFICATE (YEARS)
Superintendent	200	5
Principal	200	5
Teacher	150	5
Counselor	200	5
Librarian	200	5
Educational Diagnostician	200	5
Educational Aide I, II, and III	0	5

Source: Texas Administrative Code.

Before renewing their certificate with SBEC, all certified educators, including educational aides must:

- hold a valid Standard Certificate that has not been, nor is in the process of being, sanctioned by SBEC;
- successfully complete a criminal history review;
- not be in default on a student loan or in arrears of child support;
- complete the required number of clock hours of CPE; and
- pay the appropriate renewal fee.

Fees for the renewal of a standard certificate, as of 2010, are shown in **Figure 4**.

FIGURE 4
FEES FOR STANDARD CERTIFICATE RENEWAL, 2010

FEE TYPE	TO RENEW ALL CERTIFICATES FOR INDIVIDUALS WITH ONE OR MORE CERTIFICATES	FOR INDIVIDUALS WITH ONLY AN EDUCATIONAL AIDE CERTIFICATE
One-time Renewal of Standard Certificate	$20	$10
Additional Fee for Late Renewal of Standard Certificate	$10 first 6 months; $20 after 6 months.	$5
Reactivation of Inactive Certificate	$40	$15
Reinstatement Following Restitution of Child Support or Student Loan Repayment	$50	$20

Source: Texas Education Agency.

SUBSTITUTE TEACHER TRAINING

In 2002, according to the National Board for Professional Teaching Standards, the five core propositions for teachers to effectively enhance student learning include:

- teachers are committed to students and their learning;
- teachers know the subjects they teach and how to teach those subjects to students;
- teachers are responsible for managing and monitoring student learning;
- teachers think systematically about their practice and learn from experience; and
- teachers are members of learning communities.

According to researchers from STI at Utah State University, when substitute teachers enter a classroom, they are expected to effectively deliver the lesson plan(s) by providing clear written and oral instructions, and display good judgment involving classroom management and safety. Despite the need for quality substitute teachers, STI at Utah State University reports that 90 percent of districts nationwide spend less than four hours training substitute teachers.

STEDI at STI of the Utah State University reported that 87 percent of school districts nationally do not provide skill or classroom management training for substitute teachers. Furthermore, it was reported that of the districts that do provide skill training a minimal seven percent spend more than two hours training substitute teachers in instruction techniques. Moreover, according to STEDI, only 56 percent of substitute teachers nationally are interviewed prior to employment making it challenging for districts to determine an applicant's professional appearance, communication skills, and on-the-spot problem-solving skills.

In 2003, researchers from STI at Utah State University reported that schools do not consider substitute teachers a priority concern since they are only called upon when needed; therefore, they receive the least amount of attention and support. The researchers also stated that when a substitute is in a classroom, discipline is likely to be more difficult, especially when the regular classroom teacher leaves a poor lesson plan and no seating assignment. This is especially difficult when a substitute teacher may be called to move from school-to-school and class-to-class on a daily basis.

Job descriptions for substitute teaching positions vary by district. Some of the job descriptions are, almost verbatim, the same as the major responsibilities and duties of a full-time regular teacher of record. This can be confusing and misleading to applicants who soon find that perhaps they are not ready to take control of a classroom.

School performance reviews conducted by Legislative Budget Board staff in 2010 identified a variety of duties and responsibilities for substitute teachers in Texas schools, including:

- adhere to established laws, policies, rules, and regulations as outlined in the substitute teacher handbook and district website;
- perform all of the duties of the regular teachers unless the principal releases them from a particular responsibility;

- monitor students' behavior outside the classroom at designated times, between classes, and at assigned duty stations;
- follow the teacher's lesson plans by presenting information and instructions compatible with the school and system-wide curriculum goals;
- monitor and help students learn the subject matter and skills;
- fill-in with additional instructional techniques and activities;
- take the initiative to take control of the classroom by demonstrating self-confidence, resourcefulness, and flexibility while following the teacher's classroom management plans; and
- administer discipline using discipline techniques as cited in district policy.

While job descriptions and local policies address the minimum requirements for substitute teachers, there are currently no administrative rules or statutory provisions requiring that individuals hired as substitute teachers undergo orientation or training. However, there are school districts that offer orientation, usually three to four hours, as part of their practice when hiring new employees. These orientation sessions usually include administrative matters such as: using the automated substitute placement system, if any; payroll and pay dates; dress code; lunch break; filling-out required documentation; how to obtain a photo identification (ID) or required Personal Identification Numbers (PINs); sexual harassment; and the role and responsibilities of substitute teachers.

During school year 2005–06, Northside Independent School District (Bexar County) was recognized by TEA with a best practice award in the field of business/management due to implementing a substitute teacher training program during school year 2003–04. According to the TEA Best Practices Clearinghouse, the district employed approximately 2,000 substitute teachers annually. Approximately 600 (30 percent) of the substitutes did not have school-related training prior to their assignments. Prior to implementation of this program, the district did not require substitute teachers to have training in classroom management. With student disruption and behavioral problems in the classroom being commonplace, the district began to provide orientation, training, and a manual for substitute teachers. The Clearinghouse further mentions that the procedures implemented by the district included the following:

- The district implemented a training program for novice substitutes (those with no training or experience) including six hours of training in classroom management, three hours of classroom strategies, and three hours of administrative issues (calendar, maps, pay schedules).
- District staff also determined that experienced substitutes (those with teaching certificates or prior classroom experience) should participate in a three-hour training program regarding administrative procedures.
- The district also provided a substitute handbook at a cost of $25 per handbook paid for by the district.
- The district's human resources staff developed training and resources for the program based on materials from STI at Utah State University.
- The district's continuing education department provided additional optional training courses for both categories of substitutes, including training in elementary classroom management, secondary classroom management, special needs students, elementary academics, and other topics.
- Human resources staff was developing a model to quantitatively measure the success of the program.

After implementation of the program, reports from district principals and teachers indicated fewer discipline problems reported by substitute teachers, and fewer student referrals to the office from substitutes' classrooms allowing for more classroom time to focus on instruction. District officials credit the training program for reducing discipline problems with students in regular classrooms, but also with students with special needs, and those found in the in-school suspension (ISS) program and the disciplinary alternative education program (DAEP).

RESCs, local community colleges, universities, and staffing companies in the private sector now provide training for substitute teachers. Recent school performance reviews identified examples of the types of training offered, the cost and amount of hours involved, and training topics covered, including:

- face-to-face and online sessions are available;
- sessions were varied from two to 18 hours;

- several programs required three hours of additional in-class observation;
- fees varied from $10 to $150 per person;
- training covers district policies and expectations, classroom management, knowing your students, growth and development, learning styles, effective communication, legal and safety issues, and instruction techniques with some catering to the specific needs of districts;
- additional fees paid for by the substitute teacher applicant ranged from $52 to $117.50, which may include fees for a criminal background check, a drug test, fingerprints, a TB skin test, first aid training, and cardiopulmonary resuscitation (CPR) training; and
- a substitute teacher handbook was usually provided or the option to purchase one was made available.

POLICY OPTIONS TO ADDRESS OPPORTUNITIES RELATED TO SUBSTITUTE TEACHERS

As demonstrated, policies regarding substitute teachers vary widely throughout the state. If Texas were to consider moving forward toward greater support for substitute teachers, a number of alternatives are available.

Policy options include:

- Requiring that a person may not be employed as a substitute teacher by a school district unless the person holds an appropriate certificate or permit issued as provided by Texas Education Code, Section 21, Subchapter B.
- Establishing the training requirements a substitute teacher must accomplish to obtain and maintain a substitute teacher certificate.

ESTABLISH A SUBSTITUTE TEACHER CERTIFICATION PROCESS

Under this option the Texas Education Code, Section 21.003 (a) would be amended to prohibit a person from being employed as a substitute teacher by a school district unless the person holds an appropriate certificate or permit issued as provided by SBEC. Since the current system of issuing standard certificates through SBEC is automated, adapting the same process for issuing substitute teacher certificates would fall within the same system.

Two alternatives are available for developing a substitute teacher certification program requiring a five-year renewable certificate dependent upon having met the criteria previously mentioned as required by SBEC.

Alternative 1 would have SBEC issue a standard five-year renewable certificate without taking into account an applicant's educational background and/or credentials. Alternative 2 would have SBEC take into account an applicant's educational background and/or credentials when issuing a standard five-year renewable certificate; a multi-level system similar to what is currently available for the certification of educational aides. **Figure 5** outlines a multi-level system for the certification of substitute teachers based on educational background and/or credentials.

FIGURE 5
MULTI-LEVEL SYSTEM FOR THE CERTIFICATION OF SUBSTITUTE TEACHERS BASED ON EDUCATIONAL BACKGROUND AND/OR CREDENTIALS

CERTIFICATION	EDUCATION/CREDENTIALS
Substitute Teacher I	High School Diploma/GED;
Substitute Teacher II	1 to 59 College Hours;
Substitute Teacher III:	Associate's Degree or 60 or more College Hours; and
Substitute Teacher IV:	Bachelor's, Master's, or Doctorate Degree (Non-certified).

Source: Legislative Budget Board.

An SBEC issued substitute teacher certificate would be valid in districts across the state only if the substitute teacher had met all the local district requirements.

ESTABLISH MINIMUM REQUIREMENTS FOR SUBSTITUTE TEACHER TRAINING

A standardized training for all substitute teachers with the curriculum being developed by the TEA, perhaps a curriculum that has already been developed and put in place at a RESC, could help protect students and minimize the liability for both districts and substitute teachers. Under this option the Texas Administrative Code, Title 19, Part 7, Chapter 232, Subchapters A, B, and C would be amended to establish the training requirements a substitute teacher must accomplish to obtain and maintain a substitute teacher certificate.

Substitute teachers could continue to submit an application for employment with their local school district with local districts continuing to verify educational attainment and credentials. Once local school districts have verified that their applicant(s) had met all their minimum requirements, including their required training, they would in turn advise

SBEC to issue the substitute teacher certificate. The applicant(s) could then proceed to log on to the SBEC website to complete and submit the required information and pay their fee. Using the automated system currently in place, SBEC could then issue the certificate.