



## LEGISLATIVE BUDGET BOARD

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January 31, 2005

Robert M. Gates  
President, Texas A&M University

Dear Mr. Gates

The attached report reviews the management and performance of Texas A&M University's (A&M) educational, financial, and operational functions.

The report's recommendations will help A&M improve its overall performance as it provides services to students, staff, and the state. The report also highlights commendable practices at A&M.

The staff of the Legislative Budget Board appreciates the cooperation and assistance that your staff and MGT of America, Inc. provided during the preparation of this report.

The report is available on the LBB website at <http://www.lbb.state.tx.us>.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John O'Brien", written over a horizontal line.

John O'Brien  
Deputy Director  
Legislative Budget Board

cc: Bob McTeer, Chancellor, Texas A&M University System  
Lowry Mays, Chairman, Board of Regents, Texas A&M University System  
Erle Nye  
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Wendy Gramm, Ph.D.  
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# ***EXECUTIVE SUMMARY TEXAS A&M UNIVERSITY MANAGEMENT AND PERFORMANCE REVIEW***

Dedicated in 1876 as Texas' first public higher education institution, Texas A&M (A&M) is now one of a few select institutions to have the distinction of being a land grant, sea grant, and space grant institution. The university, originally named the Agricultural and Mechanical College of Texas, is located in College Station, Texas and ranks among the top universities in the country in terms of National Merit Scholars, library collections, ability to house students on campus, and availability of academic extracurricular opportunities.

In January 2004, the Legislative Budget Board directed the Legislative Budget Board (LBB) Higher Education Performance Review Team to conduct a management and performance review of Texas A&M University, College Station. The LBB contracted with MGT of America, Inc. (MGT), a national consulting firm, to conduct the review. MGT began their review in May 2004 to develop findings, commendations, and recommendations with the goal of improving the quality of education by:

- Developing strategies to streamline and improve the efficiency and effectiveness of budget and academic operations;
- Identifying methods to establish and/or maximize the use of off-campus (online, web-based, internet) delivery of academic instruction;
- Identifying opportunities to reduce costs and maximize available resources; and
- Highlighting exemplary programs that can be replicated.

To achieve these objectives, the review team examined the following areas of the university's organization and management: Instruction and Academic Support, Governance, Human Resources, Financial and Asset Management, Instructional Technology, and Plant Operation and Maintenance using suggested audit protocols.

The A&M University performance review identifies commendable practices and makes thirty-four recommendations for improvement. The following is an Executive Summary of the significant accomplishments and findings resulting from the review.

## **SIGNIFICANT ACCOMPLISHMENTS**

- Texas A&M University has established a well-defined strategic planning process, with measurable goals and objectives that involves all components of the A&M community and annually assesses progress toward achieving those goals.
- A&M colleges and departments were effectively empowered to reallocate resources and move the university forward in its achievement of the Faculty Reinvestment Plan goals as articulated in *Vision 2020*.
- Contracts and grant revenues of A&M and its affiliated agencies have increased by approximately 22 percent over the last four years.

- Various A&M colleges and departments have developed exemplary and innovative uses of instructional technology and distance education. A few noted examples include the following:
  - The College of Agriculture and Life Sciences’ “Doc at a Distance” doctoral program in conjunction with Texas Tech University.
  - The College of Education’s “Accelerate: Online” program for teachers across the state.
  - The Mathematics Department in the College of Science’s successful Master’s in Mathematics Program.
  - The Department of Petroleum Engineering’s use of computer simulations for lab experiments in their online Masters program.
- The organizational structure of the A&M Governmental Affairs office is an efficient use of staff resources.

## SIGNIFICANT FINDINGS

- A&M’s instructional costs per credit hour by discipline and by level of instruction are less than those of the University of Texas Austin (UT), but there is no significant difference in total costs per credit hour. This suggests that A&M’s costs for Academic Support and Institutional Support are higher than UT’s.
- A&M average class sizes are larger than those at peer universities, and its student faculty ratio is among the highest of its peers.
- The percentage of lower division credit hours taught by tenured and tenure-track faculty is significantly below the *Vision 2020* goal of 75 percent.
- Classroom and total teaching credit workloads per faculty vary widely across departments.
- According to the A&M Division of Finance, the Comptroller of Public Accounts (CPA) requires paper vouchers with handwritten signatures. This appears contrary to the statute that permits electronic vouchers and electronic signatures.
- A&M has high administrative costs relative to its reported expenditures for the primary programs of instruction, research and public service. This may be due in part to the aggregation of financial data from the eight service agencies.
- Although some university departments have been proactive in recent years in the area of distance education, faculty promotion and salary structures do not reward distance education innovations.

## RECOMMENDATIONS

**Recommendation 2-1: Determine what factors are contributing to higher than average costs for Academic Support and Institutional Support and find methods to reduce those costs.** This analysis will identify factors in the expenditure patterns at A&M that are causing the higher than average costs. An analysis of the cost study data used by the Texas Higher Education

Coordinating Board (THECB) in its 2003–2004 funding formula revisions will be useful in determining the reasons for the differences. The elimination of identified excessive costs could result in a considerable savings for A&M.

**Recommendation 2-2: Evaluate and adjust class sizes to ensure maximum efficiency in operation.** Any adjustments to class size must be evaluated carefully to ensure that A&M can operate effectively while maintaining the quality of its academic programs. A committee or task force should be appointed to evaluate course schedules and class sizes for at least the past two years, to determine which courses could be enlarged, and which merit reduction. The committee would recommend any changes resulting from their review.

**Recommendation 3-5: Review faculty teaching loads in the four colleges that do not meet workload standards – Geosciences, The Bush School of Government and Public Service, Science, and Liberal Arts, to determine which of A&M measurements for faculty workload are appropriate for applying the minimum standard and if faculty teaching loads are adequate.** These four colleges report average classroom teaching credit loads below the minimum workload requirement level of 9 teaching credits. However, in terms of average total teaching credits, each college exceeds this standard. Total teaching credits include efforts dedicated to professional development, research, class related advising, committee assignments, and other assignments directly related to the teaching function. Since A&M uses both formulas, it is important to identify what distinguishes between these two measures and to determine which measurement is appropriate for application of the minimum standard.

**Recommendation 4-1: Examine departmental operating costs included in Instructional expenditures, to identify and reduce areas of possible excessive cost.** Business functions of academic departments should be centralized wherever possible and the remaining business functions of small departments should be consolidated. Decentralization of these functions increases the cost of administration, creates duplication, and increases risk, as well as, the costs of implementing a system of internal controls. The elimination of many decentralized business positions across the campus could save A&M up to \$4.5 million annually.

**Recommendation 4-2: Work with the Comptroller of Public Accounts (CPA) to implement an electronic travel voucher process to include electronic signatures, as is permitted by statute.** The CPA should be encouraged to comply with the statute permitting electronic signatures. Elimination of the hand-written signatures will speed the processing of travel vouchers, as well as reduce costs. A&M would save approximately \$240,000 annually.

**Recommendation 4-3: Consolidate decentralized support units in smaller departments and colleges.** The benefits of decentralized administrative support operations, such as more personalized support for faculty, can be maintained while achieving greater economy of scale and a higher level of expertise in service delivery if the administrative support sections for smaller academic units are consolidated. Reducing the number of support personnel by 40 of the more than 180 identified support FTE positions could save \$1,520,000 per year.

**Recommendation 4-4: Develop additional contractual relationships between A&M and the affiliated agencies for business, finance, and human resource support functions.** The agencies have developed their own systems and procedures tailored to their missions, but there is considerable opportunity for shared administrative services between the agencies and A&M that would lead to reduced administrative expenses at the agencies.

**Recommendation 5-2: Change the reward system for faculty to encourage the development and teaching of distance education courses.** The absence of incentives for faculty members to teach distance education courses means that there are disincentives for taking such action. Unless that hurdle is removed, there will be little improvement in the number of faculty who are willing to teach distance education courses.

## FINANCIAL DATA

Fiscal Year 2004–2005 General Appropriations			
		FY 2004	FY 2005
A.	Goal: Instruction/Operations	\$236,288,530	\$238,707,366
B.	Goal: Infrastructure Support	\$39,459,789	\$39,878,051
C.	Goal: Special Item Support	\$19,356,696	\$18,974,152
	Totals	\$295,105,015	\$297,559,569

## FALL 2003 STUDENT DATA

- 44,813 Student Headcount
- 76.3 percent White
- 8.5 percent Hispanic
- 2.3 percent African American
- 12.8 percent Other

The table below summarizes the fiscal impact of recommendations contained in the report.

## FISCAL IMPACT

	2005	2006	2007	2008	2009	Total 5-Year (Costs) or Savings
<b>Recommendation 4-1</b>	\$500,000	\$1,500,000	\$2,500,000	\$3,500,000	\$4,500,000	\$12,500,000
<b>Recommendation 4-2</b>	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000	\$1,200,000
<b>Recommendation 4-3</b>	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000	\$7,600,000
<b>Recommendation 4-4 *</b>	\$1,900,000	\$6,900,000	\$11,900,000	\$16,900,000	\$21,900,000	\$59,500,000
<b>Recommendation 4-7</b>	\$102,000	\$152,000	\$152,000	\$152,000	\$152,000	\$710,000
<b>Recommendation 4-8</b>	\$59,600	\$59,600	\$59,600	\$59,600	\$59,600	\$298,000
<b>Recommendation 5-3</b>	(\$100,000)	\$22,500	\$75,000	\$105,000	\$105,000	\$207,500
<b>Recommendation 5-4</b>	\$0	(\$58,500)	(\$58,500)	(\$58,500)	(\$117,000)	(\$292,500)
<b>Recommendation 7-1</b>	\$0	\$0	\$0	\$0	(\$200,000)	(\$200,000)
<b>Recommendation 7-4</b>	(\$50,000)	\$0	\$0	\$0	(\$50,000)	(\$100,000)
<b>Recommendation 7-8</b>	\$0	\$0	\$112,241	\$112,241	\$112,241	\$336,723
<b>Recommendation 7-10</b>	(\$852,380)	\$0	\$0	\$0	\$0	(\$852,380)
<b>Recommendation 7-11</b>	\$1,940,167	\$1,940,167	\$1,940,167	\$1,940,167	\$1,940,167	\$9,700,835
<b>Total Savings (Costs)</b>	<b>\$4,859,387</b>	<b>\$11,875,767</b>	<b>\$18,040,508</b>	<b>\$24,070,508</b>	<b>\$29,762,008</b>	<b>\$90,608,178</b>

*Note: Implementation of this recommendation would result in cost savings to the service agencies – not to A&M College Station.*



# ***INTRODUCTION***

Texas A&M is the second largest university in the state and the sixth largest in the nation, serving 44,813 students in fall 2003 at its 5,200-acre campus in College Station. A&M is a land grant, sea grant, and space grant institution, and is centrally located in Texas, approximately equidistant from Houston, Dallas, San Antonio (which are three of the ten largest cities in the United States) and Austin.

A&M was the state's first public institution of higher education, and opened its doors in 1876 as the Agricultural and Mechanical College of Texas. The institution was founded in response to the Morrill Act of 1862, which established the nation's land grant college system. In 1963, the name of the institution was changed to Texas A&M University to reflect changes in the college's roles in teaching, research, and public service. The physical plant at College Station is now valued at over \$1 billion.

## **Structure and Service Agencies**

A&M is one of the component institutions of the Texas A&M University System (A&M System), which enrolls 100,000 students at nine universities and a comprehensive health science center. In addition, the A&M System includes seven agricultural and engineering agencies, each of which has a headquarters located in College Station. These include the following agencies:

- Texas Engineering Experiment Station (TEES)
- Texas Engineering Extension Service (TEEX)
- Texas Transportation Institute (TTI)
- Texas Agricultural Experiment Station (TAES)
- Texas Veterinary Medical Diagnostic Laboratory (TVMDL)
- Texas Forest Service (TFS)
- Texas Cooperative Extension (TCE), including the Texas Wildlife Damage Management Service (TWDMS)

Additional information on the affiliated agencies, the year each was established, and revenues by source are displayed in Chapter 4. The affiliated agencies are a major factor in the size and complexity of A&M's presence and account for nearly half of total annual revenues. The agencies were all originally established as part of the A&M System and are not included as part of A&M College Station for purposes of state budgeting. Each agency receives separate state appropriations, and each is listed separately in the state budget.

Some of the agencies have numerous joint appointments with A&M, such as agency staff having appointments as faculty members in academic departments. This benefits the university in multiple ways, including the receipt of grant funds. A&M does not have oversight of the revenues and expenditures of the agencies, all of which report to the A&M System Office. However, two of the A&M deans have oversight and revenue and expenditure authority over the agriculture- or engineering-related units, which provide revenues to A&M and expend funds for the benefit of A&M.

All universities are required to report data in a consistent format to the U.S. Department of Education, Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS). That consistent format requires the inclusion of revenues and expenditures for what are called affiliated "agencies" in Texas, including cooperative extension services, experiment stations, research foundations, and transportation institutes. Due to A&M's inclusion of the affiliated agencies in its

reporting to IPEDS, information and data inclusive of the affiliated agencies is also used in most comparisons shown in this report.

A&M administration takes the position that the portion of funding attributable to the service agencies should be excluded when IPEDS data is used for comparison purposes, emphasizing the autonomy of the agencies and lack of financial oversight from A&M College Station. In addition, according to A&M, not all other land grant institutions with service agencies aggregate service agency financial data into their IPEDS reporting. However, this review found that disaggregating the funds associated with research and other functions conducted in conjunction with the service agencies provides a distorted picture of the financial interrelationship between A&M College Station and the service agencies, particularly the agricultural and engineering agencies.

### **A&M Peer Institutions**

Throughout this report, A&M is compared to peer institutions using data from IPEDS. IPEDS is the most widely used national source for longitudinal comparative data on higher education finance, faculty salaries, student enrollments, graduation and degrees, staff employment, library holdings, and other statistics. The great advantage of IPEDS data is that all colleges and universities—public, private, and proprietary—must report data in a consistent format using consistent definitions to be eligible for receipt of federal funds. If an institution does not report data to IPEDS, it is possible for the institution’s students to be ineligible for federal student financial aid.

IPEDS has very specific data definitions, so data from institutions should be comparable. However, every institution, when examined closely enough, is unique. Every institution is organized and managed somewhat differently from every other institution. Because of this uniqueness, institutions often argue that they should not be compared to other institutions on one or another variable.

To ensure that A&M is compared to institutions that are most like it, the review team completed data analyses to identify those major public research universities that are most like A&M, which will be called “peers” or peer institutions throughout this report. The review team developed a methodology for selecting peers that begins with drawing a “sample” of institutions from the list of all public colleges and universities in the U.S. consisting of all institutions that previously were classified by the Carnegie Commission for Higher Education as “Research I” or “Research II” institutions, or which would currently be classified as “Research Extensive” or “Research Intensive.” Data were taken from the most recent and available IPEDS institutional characteristics: fall enrollment, staffing, degrees awarded, and finance surveys. To develop a list of peers, a factor analysis was completed on the combined data set. Factor analysis identifies underlying variables called “factors” that explain the correlation within a set of observed variables. Because there are over 100 variables in the data set, factor analysis permits the reduction of the number of variables to a more manageable set of factors that permit comparisons among universities. The factors identified by the statistical technique explained over 95 percent of the variance or differences among universities in this set.

For the factor analysis, the statistical package, Statistical Package for the Social Sciences (SPSS) identified 7 factors from the data set:

- size of student population;
- degrees awarded in “land grant” disciplines (agriculture, architecture, home economics, engineering, physical sciences, medical [which includes veterinary medicine], and business);
- total academic disciplines offered;
- type and number of staff, including full-time and part-time;
- graduates by discipline;

- student enrollments across academic disciplines; and
- number of students in each “class” or enrollment level.

The factor analysis develops “factor scores” for each institution for each of the seven factors. The factor scores for each research institution were compared to the factor scores for A&M to get a “distance score.” A “distance score” is defined as the difference between A&M’s score on a particular factor and another institution’s score on that factor. The absolute value of each distance score was taken to eliminate negative numbers, and the distance scores summed to get a total “distance score” for each research university.

All of the research universities were then rank ordered based on their total distance score and arrayed from low to high total distance score. The institution with the smallest total distance score is the research university most like Texas A&M, which in this case is the University of Illinois at Urbana Champaign. That is, based on this set of variables, the University of Illinois at Urbana Champaign most resembled A&M. Both are large land grant institutions located in twin cities away from the state capitol and other major urban areas. Both institutions have strong traditions and strong programs in agriculture, engineering, veterinary medicine, the sciences, business, education, and liberal arts. Both institutions are components of systems in which the System Office performs many functions for the campus. Despite these similarities, there are differences between the institutions in the programs that are offered and in the make-up of the student bodies. For example, the University of Illinois has colleges of law and medicine, whereas A&M has neither college included as part of its College Station campus. A&M is a sea grant and space grant institution, but the University of Illinois is not. Despite these differences, both institutions are required to report data to IPEDS in a format that is consistent, including courses taught by cooperative extension within the instruction program of the IPEDS finance survey.

Because of their similarities on many variables, fifteen institutions were identified as peer institutions for A&M for the purposes of this study. A&M has identified at least three other sets of peer institutions that are used for other purposes, such as faculty salary comparisons. The review team worked with A&M to identify this set of peers, which is used for most comparisons in this study using data reported by the institutions to IPEDS and other national data surveys. The set of peer institutions is displayed in **Exhibit I–1** along with their fiscal year 2002 revenues. Each of the fifteen peer institutions for A&M is part of a system, except Michigan State University and Virginia Polytechnic Institute and State University. All are land grant institutions except the University of Texas at Austin, University of North Carolina Chapel Hill, and the University of California Berkeley. The universities of Florida, Illinois, Nebraska, Michigan State, North Carolina, and Wisconsin have medical schools located on campus. Medical schools spend more per student and have higher per student costs for instruction, all other things being equal.

**Exhibit I–1**  
**A&M Peer Institutions and Fiscal Year 2002 Revenues**

Institution Name	Fiscal Year 2002 Revenues
Texas A&M University	\$1,375,154,129
<b>Peer Average</b>	<b>\$1,155,387,806</b>
University of California Berkeley	\$1,437,039,000
University of Florida	\$1,373,866,000
University of Illinois Urbana-Champaign	\$1,413,577,335
Iowa State University	\$755,193,597
Kansas State University	\$415,531,496
University of Maryland College Park	\$1,175,809,013
Michigan State University	\$1,301,701,287

**Exhibit I-1 (Continued)**  
**A&M Peer Institutions and Fiscal Year 2002 Revenues**

Institution Name	Fiscal Year 2002 Revenues
University of Nebraska	\$581,623,690
University of North Carolina Chapel Hill	\$1,545,099,178
Ohio State University	\$2,174,961,836
Oklahoma State University	\$454,247,363
University of Texas at Austin	\$1,373,432,432
Virginia Polytechnic Institute	\$713,567,769
University of Wisconsin Madison	\$1,565,522,016
Purdue University	\$1,049,645,083

*Source: Integrated Postsecondary Education Data System (IPEDS), Financial Reports, 2002, at <http://nces.ed.gov>.*

### **Faculty, Staff, Students and Public Feedback**

#### ***Public Forum***

As part of the performance review process, the review team gathered feedback from faculty, staff, students, and the public through an open forum held at A&M on June 22, 2004. Participants were invited to offer informal written comments about the eight areas included in the A&M performance review:

- University Governance and Leadership
- Instructional and Academic Support
- Human Resource Management
- Financial and Asset Management
- Academic and Instructional Technology
- University Relations
- Plant Operations and Maintenance

Participant responses included multiple comments, remarks, opinions and suggestions for improvement. A sample of the responses included complimentary remarks to the university president for his strategic planning efforts and campus wide emails, recommendations for technology access, a suggestion for changing the process for developing instruction budgets, and suggestions for improving decentralized campus functions. The overall tone of the responses received appeared to be generally positive.

#### ***Former Students***

Over 400 telephone surveys were also conducted of former A&M students, with assistance from the Association of Former Students of Texas A&M University, to gather input on former students' overall satisfaction with A&M. As expected, respondents were very positive about their experience at A&M. Students attributed their satisfaction to campus life, traditions, school spirit, quality of education and faculty. Nearly 98 percent of respondents felt that A&M has an exceptional or good reputation across the state and students who graduated since 1990, generally felt more positive than those who graduated prior to 1990. Former students were also pleased with the quality of education they received. Even though levels of satisfaction were slightly lower in regard to class size, the distribution of resources among departments, and the ability to enroll in needed classes, respondents still expressed satisfaction with the quality of courses, along with the helpfulness, availability, knowledge and teaching ability of faculty.



# Chapter 1

## Governance

Texas A&M University College Station



*Chapter 1*  
**GOVERNANCE**

This chapter reviews the governance functions of Texas A&M University (A&M) in the following sections:

- A. Management and Organization
  - A&M Organizational Structure
- B. Planning
  - Strategic Planning
  - Graduate Program Review
  - Faculty Reinvestment Plan

Effective governance and leadership in higher education is defined by productive cooperation and interactions between the Board of Regents, the chancellor of the system and his staff, and the president and staff of the university. The board's role is one of policy development and approval, ensuring that goals and objectives are set for the operations of the institutions within the system. The chancellor's and his staff's roles are to implement the board's policies, set operating rules, coordinate the activities of component universities and agencies, and allocate resources for the effective operation of all of the institutions and agencies within the system. The ability of the institutions and agencies within the system to perform their duties effectively is often determined by the manner in which the chancellor carries out his responsibilities for policy implementation and planning for the management and operation of the system.

The president of the university, as the chief executive officer of the institution, administers the program of the institution, determines the organizational structure necessary to implement the purpose and mission, recommends personnel, conducts periodic evaluations, and coordinates all planning and operations of the institution. University managers and staff are responsible for managing the day-to-day implementation of the policies and plans approved by the board and for recommending modifications to ensure that the institution operates efficiently, effectively, and in accordance with its intended purpose.

**A. MANAGEMENT AND ORGANIZATION**

In March 2004, the president of A&M restructured the organization to identify new opportunities to improve efficiency and cost effectiveness. A review of more than 90 separate administrative functions and areas resulted in placing together offices with common or related missions. The current executive leadership of the university consists of the president, the executive vice president and provost, who is the university's chief operating officer, the senior vice president for Finance, the associate executive vice president, the vice provost, and vice presidents for Research, Galveston, Administration, Student Affairs, Development, Governmental Affairs, and Institutional Assessment and Diversity. This executive structure is displayed in **Exhibit 1-1**.

All vice presidents, except the senior vice president for Finance, report to the office of the executive vice president and provost. This organizational structure is shown in **Exhibit 1-2**. Organizational charts for the vice presidential areas before and after the restructuring are shown in **Exhibits 1-3 through 1-8**.

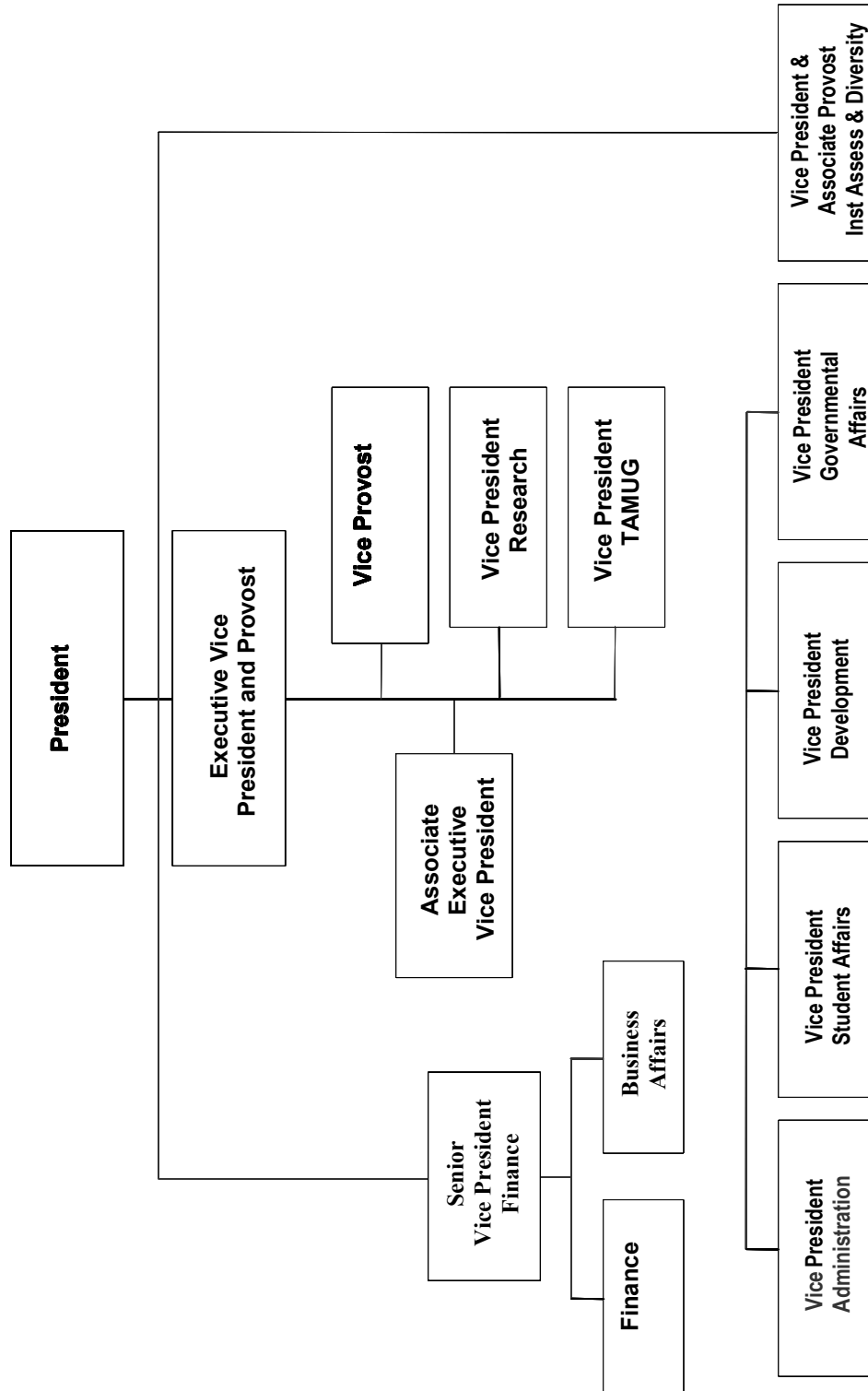
## **A&M Organizational Structure**

A&M's central organizational structure provides logical alignment with adequate expertise and oversight for key functions, and groups together functions that have similarities and are consistent with the university's strategic plan. Each of the peer universities are organized in a similar fashion, with a president or chancellor for the campus, a provost/ chief academic officer, a chief financial officer, various vice presidents or vice provosts, and deans for the colleges. A comparison of the senior management structure of A&M and the peer universities is displayed in **Exhibit 1-9**.

Each of the peer universities has at least as many administrative positions in the central organization structure as A&M. The University of Texas, Purdue University, and Ohio State University have more senior administrative staff than does A&M. Although the other universities have similar structures, A&M's reorganization is unique in that it was completed only after an in-depth study of the prior administrative structure and involvement of the entire university community. Although many new university presidents reorganize the institutional administrative structure, such restructuring does not generally involve a complete study, recommendations from diverse groups, and involvement of a large part of the university's staff.

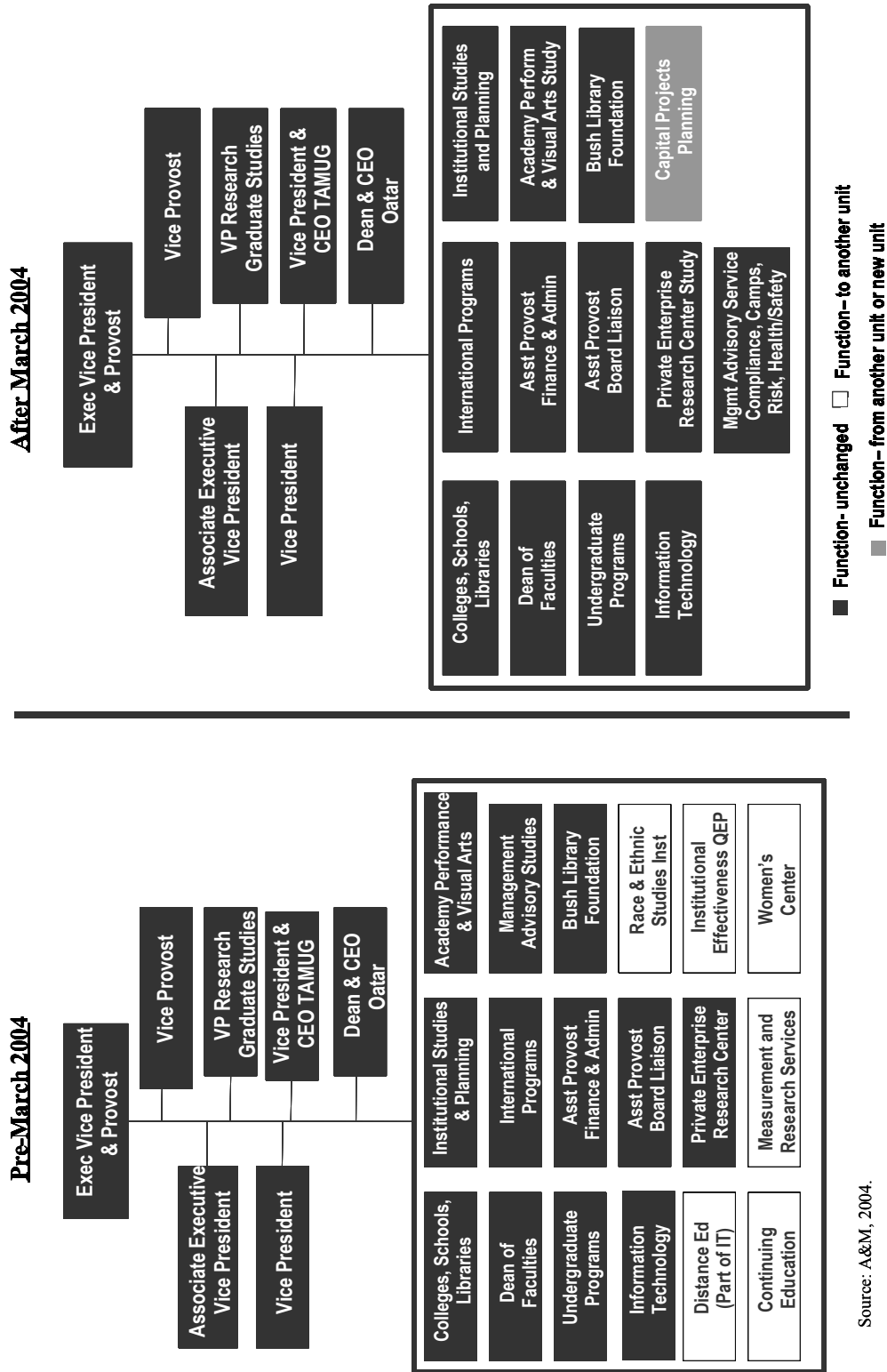


**Exhibit 1-1  
A&M Organizational Structure  
Effective March 2004**



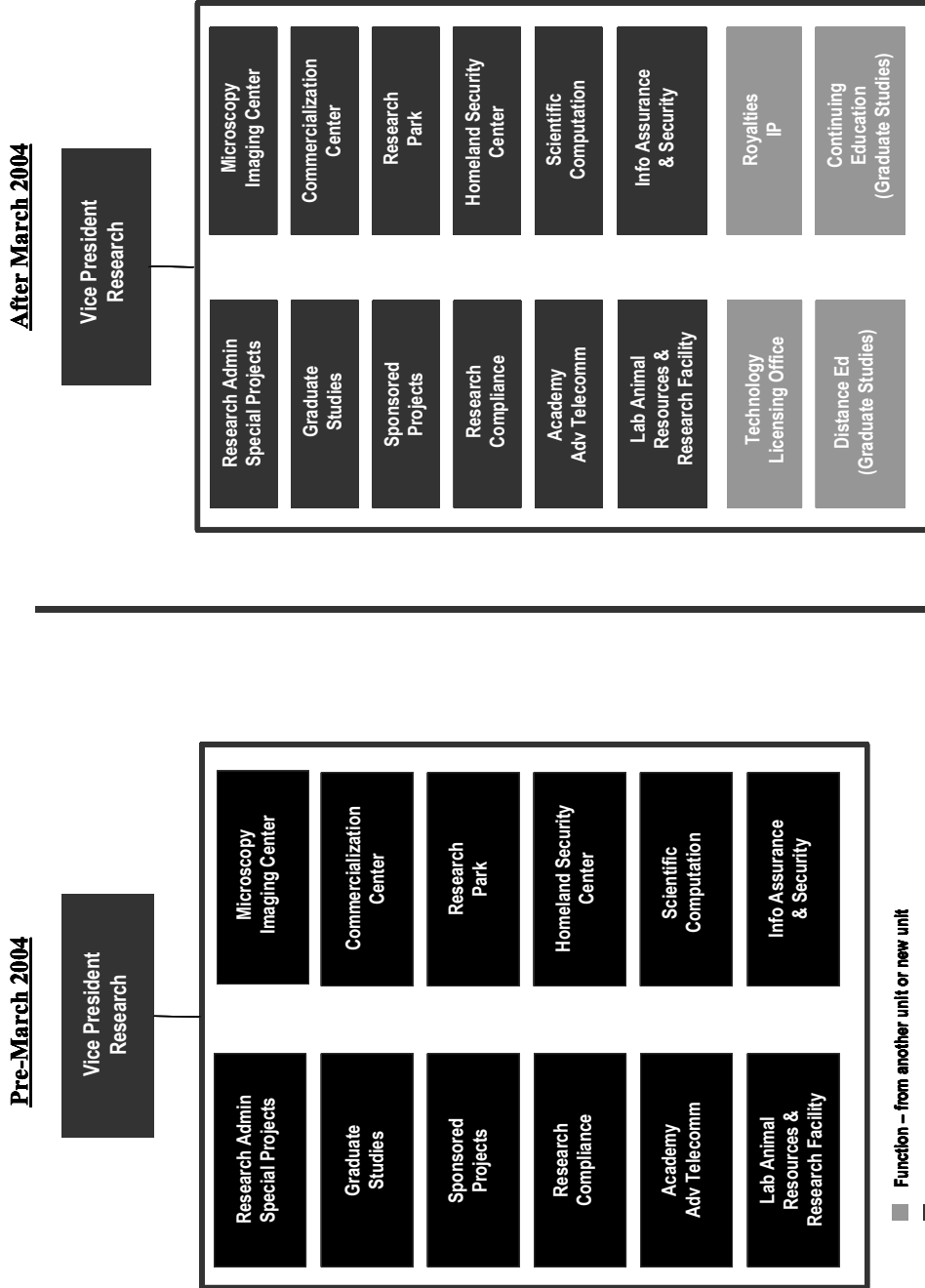
Source: A&M, 2004.

**Exhibit 1 -2**  
**Organizational Structure – Executive VP & Provost**  
**Before and After March 2004**

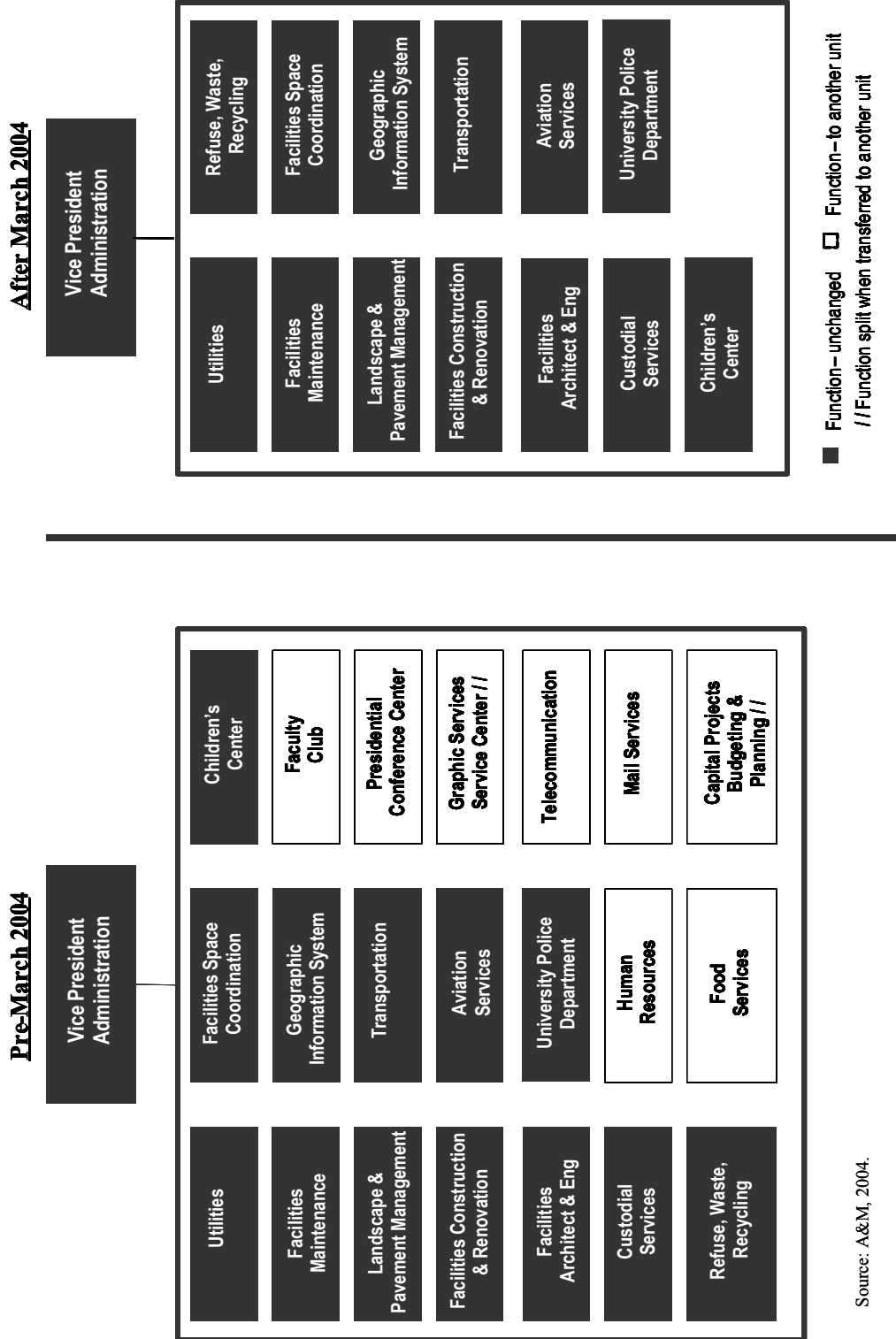


Source: A&M, 2004.

**Exhibit 1-3  
Organizational Structure – VP Research  
Before and After March 2004**

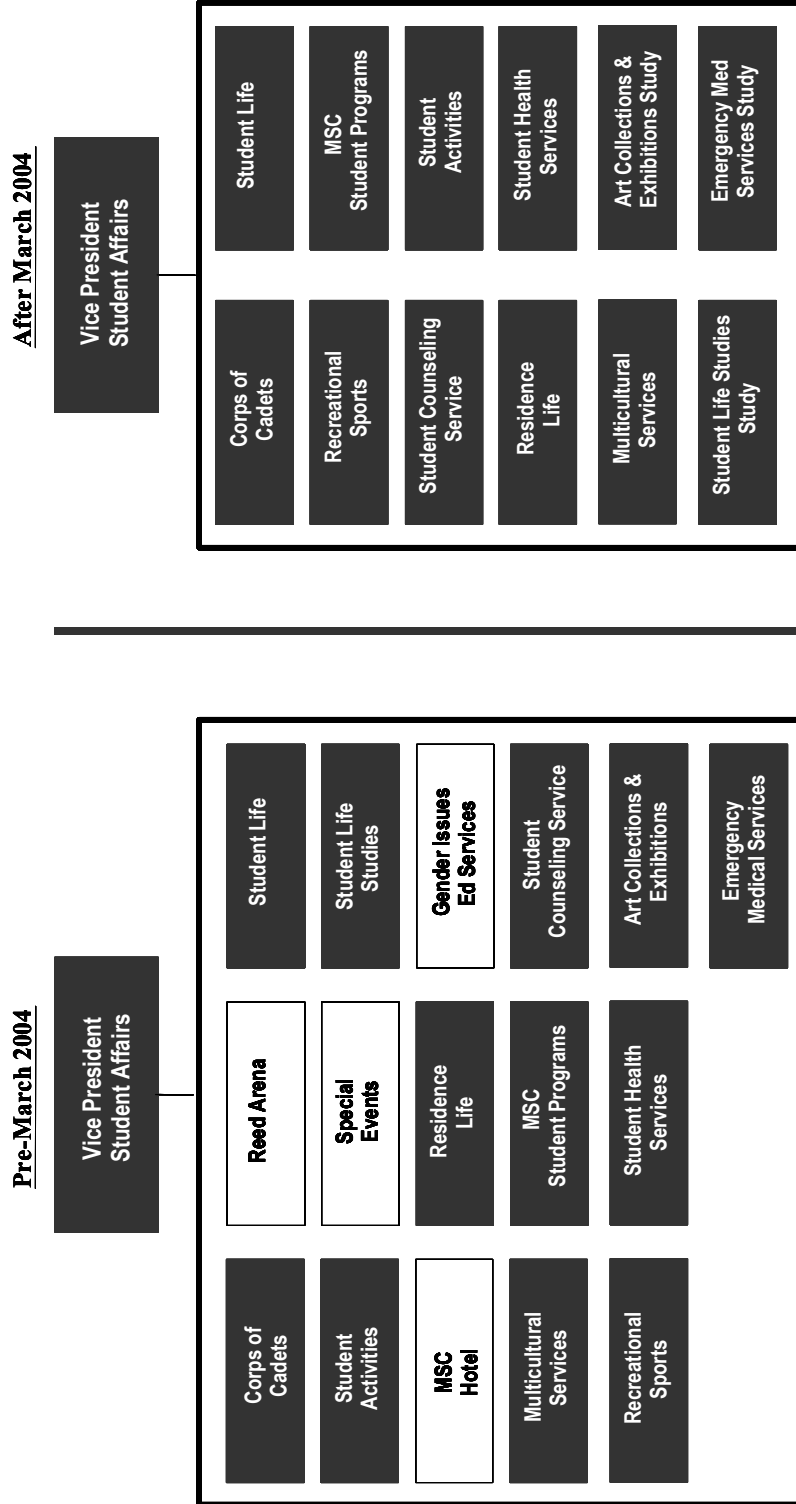


**Exhibit 1-4  
Organizational Structure-VP Administration  
Before and After March 2004**



Source: A&M, 2004.

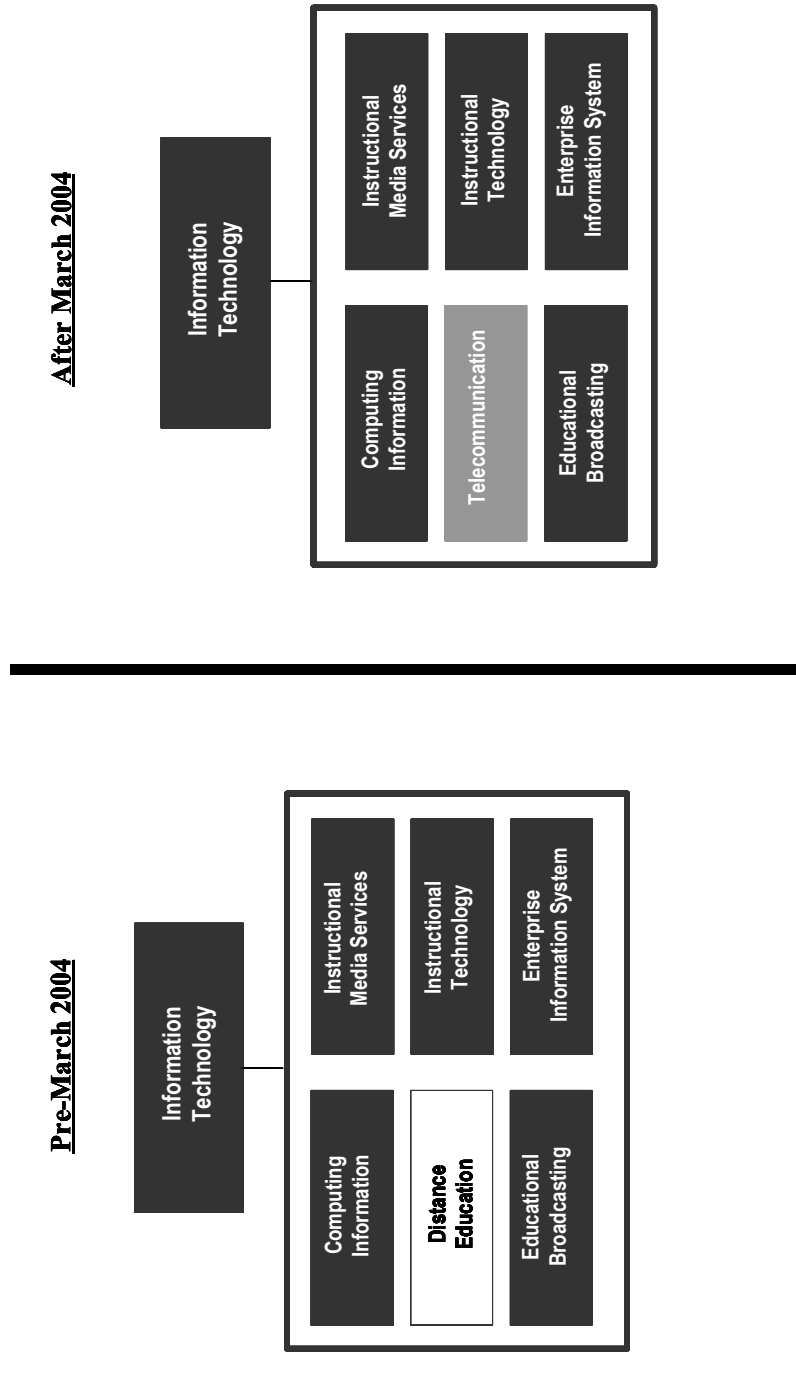
**Exhibit 1-5**  
**Organizational Structure – VP Student Affairs**  
**Before and After March 2004**



■ Function—unchanged    □ Function—to another unit

Source: A&M, 2004.

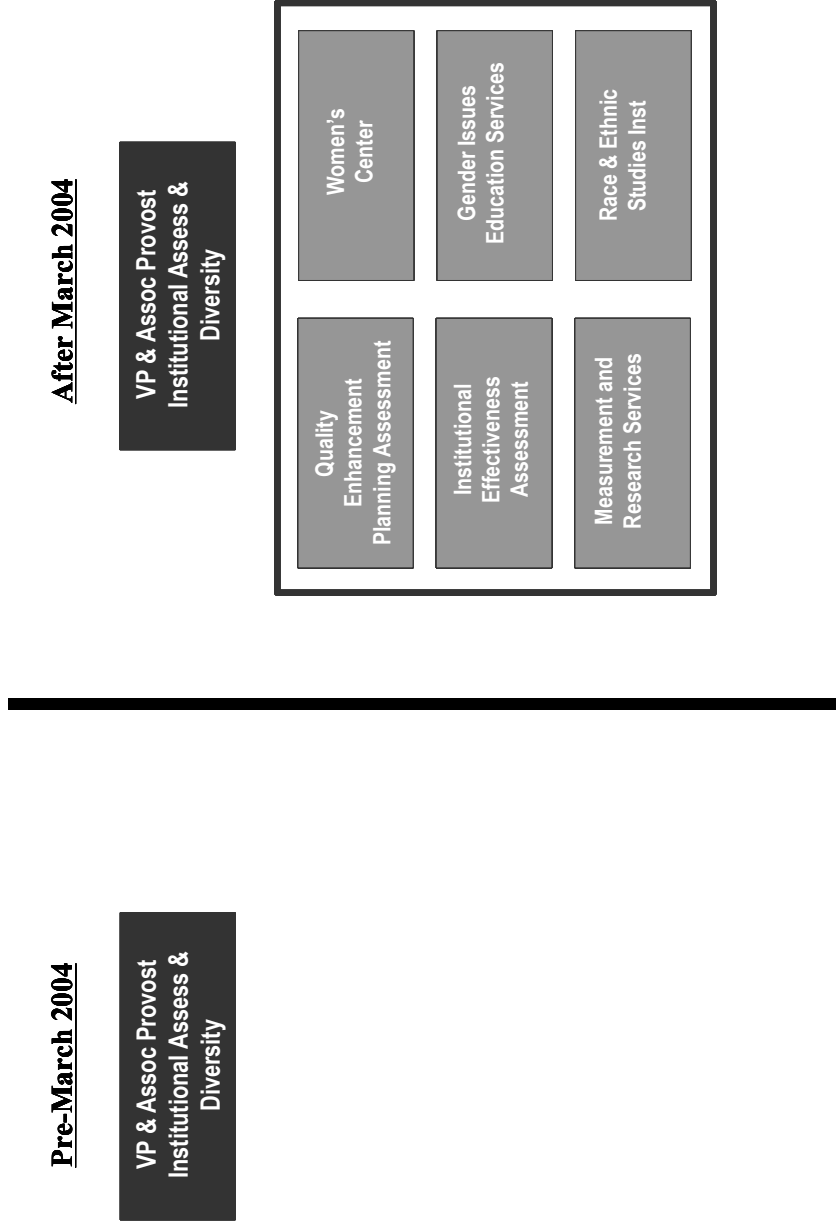
**Exhibit 1-6  
Organizational Structure – Information Technology  
Before and After March 2004**



- Function - unchanged
- Function – to another unit
- Function – from another unit or new unit

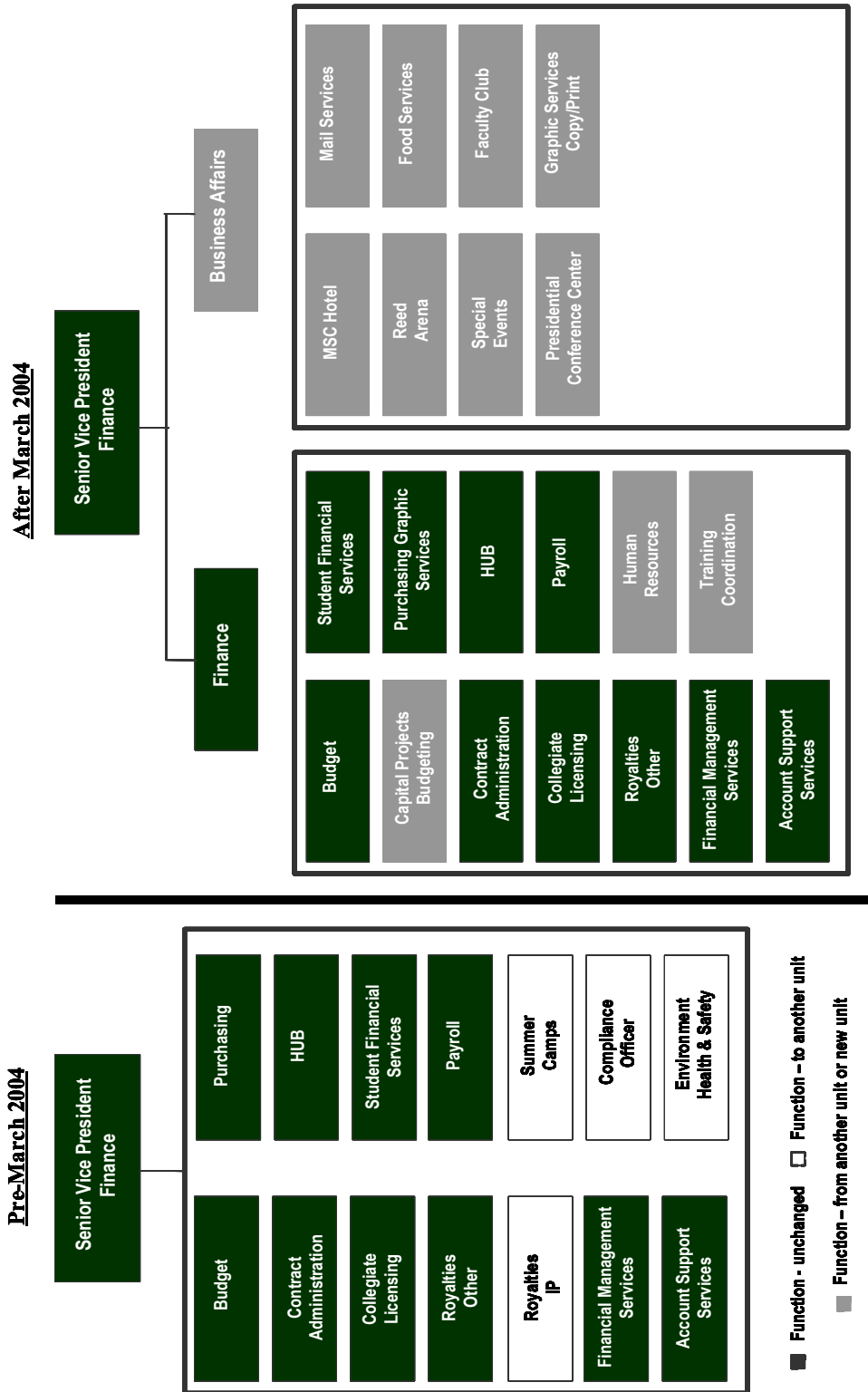
Source: A&M, 2004.

**Exhibit 1-7  
Organizational Structure – VP and Assoc Provost  
Before and After March 2004**



Source: A&M, 2004.

**Exhibit 1-8**  
**Organizational Structure-Senior VP Finance**  
**Before and After March 2004**



Source: A&M, 2004.



Exhibit 1-9  
Senior Executive Structure of A&M and Peer Universities

Institution Name	Chief Executive Officer	Chief Academic Officer	Chief Financial Officer	Chief Student Affairs Officer	Chief Research Officer	Chief Public Affairs Officer	Chief Development Officer	Diversity	Chief Information Officer	Other Chief Officers	Other Officers
Texas A&M University	President	Exec. VP & Provost	Senior VP	Vice President	VP, Head of Research Foundation	VP Government Relations	VP, Head of Foundation	VP & Assoc. Provost	Assoc. Provost for Info Tech	VP Admin, Business Affairs	Finance, VP Legal
University of California Berkeley	Chancellor	Exec. VC & Provost	Vice Chancellor	Vice Chancellor	Vice Chancellor	Vice Chancellor	N/A	N/A	VC & CIO	VC Admin Services; VC Facilities	Asst Chanc. Legal; Chief of Staff
University of Florida	President	Provost & Sr. VP	Senior VP	Vice President	VP & Dean, Grad School	VP Govt. Relations; VP PR	Vice President	N/A	N/A	VP Health; Chief Audit	General Counsel; VP for Ag
University of Illinois Urbana-Champaign	Chancellor	VC & Provost	Asst. VP	Vice Chancellor	Vice Chancellor	VC, Assoc. Chancellor	Assoc. Chancellor	N/A	N/A	Assoc. Chancellor for Alumni	N/A
Iowa State University	President	VP & Provost	Vice President	Vice President	Vice Provost & Dean	Asst to President	Asst to President	Asst to President	Asst to Provost	VP Extension	VP Undergrad Programs
Kansas State University	President	Provost	Vice President	Associate Vice Provost	Vice Provost	Asst Vice President	VP for Inst. Advancement	N/A	Vice Provost	N/A	Asst for Legal
University of Maryland College Park	President	Sr. VP & Provost	VP for Admn.	Vice President	VP & Dean, Grad School	Vice President	Vice President	N/A	Vice President	Human Relations	Legal
Michigan State University	President	Provost & VP Academic Affairs	Vice President	Vice President	Vice President	VP Govt. Relations; VP University Relations	Development	Senior Advisor	N/A	Exec. Asst; Exec. Dir, Alumni	VP & General Counsel
University of Nebraska	Chancellor	Sr. Vice Chancellor	Vice Chancellor	Vice Chancellor	VC & Dean, Grad School	Asst to Chancellor	Assoc. VC	Asst to Chanc	Assoc. VC	VC, Ag.	N/A
University of North Carolina Chapel Hill	Chancellor	Exec. VC & Provost	Vice Chancellor	Vice Chancellor	Vice Chancellor	Vice Chancellor	N/A	N/A	Vice Chancellor	VC, Medical	General Counsel
Ohio State University	President	Exec. VP & Provost	Sr. Vice President	Vice President	Senior VP	Vice President	Vice President	Vice Provost	N/A	VP, Ag; Sr. VP, Medical	General Counsel; Assoc VP
Oklahoma State University	President	Sr. VP & Provost	Vice President	Vice President	Vice President	N/A	N/A	N/A	Vice President	VP Enrollment	Chief of Staff
University of Texas	President	Exec. VP & Provost	Vice President	Vice President	Vice President	Vice President	Vice President	N/A	Vice President	Sr. VP; VP Community	Sr. VP; VP Legal; VP Employees
Virginia Polytechnic Institute	President	Provost & VP Academic Affairs	Executive VP & COO	Vice President	Vice President	VP Alumni, VP Outreach	VP Devel. & University Relations	Vice President	N/A	COO of Foundation, VP Budget	VP Info Tech, VP Ac. Affairs
University of Wisconsin Madison	Chancellor	Provost & VC	Vice Chancellor	Vice Chancellor	Vice Chanc & Dean	Asst to Chancellor	N/A	N/A	N/A	N/A	VC, Legal; VP, Medical
Purdue University	President	Provost	Exec. VP; VP	Vice President	Vice Provost	Vice President	Senior Vice President	Vice President	Vice President	VP Human Relations; VP, Housing	VP, Govt. Relations

Source: Web sites for each university.  
Note: N/A means no similar position.

**Exhibit 1–10** displays the staffing for A&M and the peer universities. Each university reports to the National Center for Education Statistics (NCES) Integrated Postsecondary Education System (IPEDS) information on the number of full-time and part-time faculty, executive/administrative/managerial, other professional, technical and paraprofessional, clerical and secretarial, skilled crafts, and service/maintenance employees. A&M employs significantly fewer faculty and staff than does the average peer university.

The number of full-time student equivalents (FTSE) is determined by taking the number of full-time headcount students and adding one-third of the headcount part-time students. This calculation is used by IPEDS to determine full-time equivalencies. Similarly, the number of full-time equivalent (FTE) staff is determined by adding one-third of the count of part-time staff to the count of full-time staff.

A&M's FTSE to full-time equivalent employee (FTEE) ratio is 167 percent of the peer average FTSE/FTEE ratio (5.62/3.37). This means that A&M is providing services to students with significantly fewer employees than the peer universities.

**Exhibit 1–10**  
**Fall 2003 Staffing at A&M and Peer Universities**

Institution Name	Faculty	Executive/ Administrative & Managerial	Other Profession- als	Technical and Paraprofes- sionals	Clerical and Secretarial	Skilled Crafts	Service/ Mainte- nance	Full-Time Total	FTE Students (FTSE)	FTEE
Texas A&M University	1,906.7	420.3	2,168.7	329.0	1,045.0	447.3	1,098.7	7,415.7	41,649	5.62
<b>Peer Average</b>	<b>2,392.5</b>	<b>492.9</b>	<b>3,063.5</b>	<b>805.0</b>	<b>1,488.2</b>	<b>362.4</b>	<b>875.2</b>	<b>9,479.6</b>	<b>31,918</b>	<b>3.37</b>
University of California Berkeley	1,628.3	550.3	3,808.0	625.0	1,870.0	314.0	830.0	9,625.7	30,519	3.17
University of Florida	3,564.0	442.0	3,011.3	933.3	2,235.3	463.3	912.3	11,561.7	42,592	3.68
University of Illinois Urbana-Champaign	2,573.3	742.3	2,624.3	495.7	1,624.7	559.7	1,424.3	10,044.3	37,064	3.69
Iowa State University	1,476.0	175.7	2,129.7	148.0	1,077.0	298.0	574.3	5,878.7	25,437	4.33
Kansas State University	1,209.7	232.0	1,099.3	311.3	470.7	159.0	208.7	3,690.7	19,553	5.30
University of Maryland College Park	3,145.0	195.3	1,959.7	576.0	910.3	342.7	515.0	7,644.0	30,241	3.96
Michigan State University	2,434.3	265.7	3,953.7	438.7	1,301.3	210.0	1,146.7	9,750.3	39,423	4.04
University of Nebraska	1,602.7	214.7	1,581.7	327.3	944.7	199.0	507.7	5,377.7	20,203	3.76
University of North Carolina Chapel Hill	2,483.3	1,128.0	2,431.3	1,337.7	1,768.7	413.3	668.7	10,231.0	22,862	2.23
Ohio State University	3,121.0	1,081.3	7,626.3	2,700.3	2,914.0	638.7	1,583.0	19,664.7	43,553	2.21
Oklahoma State University	1,197.3	446.0	1,314.0	309.7	858.0	247.3	678.3	5,050.7	19,184	3.80
University of Texas	2,505.3	683.3	4,569.3	1,041.3	3,046.3	565.3	1,040.7	13,451.7	47,154	3.51
Virginia Polytechnic Institute	1,990.3	307.0	1,350.0	1,109.0	549.3	335.0	489.0	6,129.7	26,135	4.26
University of Wisconsin Madison	4,770.0	440.7	6,261.0	696.7	1,442.7	237.0	1,261.0	15,109.0	38,019	2.52
Purdue University	2,186.3	489.3	2,233.0	1,024.7	1,309.3	453.7	1,288.0	8,984.3	36,826	4.10

*Source: Calculated by MGT from IPEDS data using fall 2003 staffing and enrollment reports. Full-time equivalents are calculated by adding one-third of the part-time positions to the number of full-time positions, just as full-time equivalent students are calculated by adding one-third of the part-time students to the number of full-time students.*

**FINDING 1-1**

A&M has not been able to plan for university wide use of facilities and administrative (F&A) cost—also known as indirect cost recovery revenues—to assist in achieving the goals of *Vision 2020* due to the multiple methods used for F&A reimbursement across A&M and its affiliated agencies.

F&A revenues are funds included in research grants that reimburse a university (or other entity) for the overhead costs of conducting research. Overhead costs are costs that are incurred for common or joint objectives and therefore cannot be identified readily and specifically with a particular sponsored project, an instructional activity, or any other institutional activity (<http://sago.tamu/policy/15-01-01.htm>). Examples of F&A costs include the costs of a physical plant, equipment and building use allowances, accounting, payroll, and other business functions of the university, as well as human resource offices, the president and vice presidents' offices, and other administrative functions. F&A funds typically are used by universities to “reward” the researchers getting the grants, build research facilities, seed money for other research, and for graduate student stipends. **Exhibit 1-11** lists the F&A funds that each entity received during fiscal year 2003.

Prior to fiscal year 2004, researchers across A&M were not treated equitably in the distribution of any F&A revenues because F&A that accrued to A&M and the Research Foundation were split between the state and A&M or the Research Foundation. F&A funds that accrued to the separate agencies were not split with the state. Any F&A funds coming to the agencies, Foundation, or A&M were split between the principal researcher, the department or college, and the entity receiving the F&A revenues. Not all faculty could run research grants through the agencies because system and state rules required that grants could only be housed administratively in agencies when there was a direct link to the work and mission of the agency. It would be very unusual for a grant in the humanities to be directly related to one of the engineering or agriculture agencies.

**Exhibit 1-11**  
**Fiscal Year 2003 Facilities and Administrative Cost Revenues**  
**Received by A&M and its Affiliated Agencies**

Name of Entity	F&A Revenues
Texas A&M University	8,856,931
Agricultural Agencies:	
Texas Agricultural Experiment Station (TAES)	8,120,502
Texas Cooperative Extension (TCE)	1,209,955
Texas Wildlife Damage Management Service (TWDMS)	0
Texas Forest Service (TFS)	415,645
Texas Veterinary Medical Diagnostic Laboratory (TVMDL)	0
Engineering Agencies:	
Texas Engineering Experiment Station (TEES)	15,706,330
Texas Engineering Extension Service (TEEX)	6,434,379
Texas Transportation Institute (TTI)	5,983,187
<b>Total Indirect Cost Recovery</b>	<b>46,726,929</b>

*Source: A&M Controller, September 2004*

Because 100 percent of F&A revenues were retained in the agencies instead of being split with the state, there was an advantage for the departments, colleges, and researchers who were able to run their research projects through the agencies. Those that had research through the agencies were generally able to benefit from a greater portion of the F&A funds coming to the researcher or the researcher's college or department. For example, TAES or TCE would retain 5 percent to 10 percent of the funds

to be used only for the College of Agriculture or the College of Engineering instead of the college of the researcher or for general A&M uses. Comments at the public forum and in faculty focus groups indicated that the faculty believed that this was an inequitable method of allocating F&A funds, and that A&M was not receiving the maximum benefit of being able to plan for uses of those funds.

### **RECOMMENDATION 1-1:**

**Review the current methodology of distributing F&A funds and then consolidate all F&A funds into a general university “fund” that may be used for general university purposes, and which treats all researchers/principal investigators equitably.**

In the 78<sup>th</sup> Legislative Session, legislation was passed to allow public universities to retain 100 percent of their F&A Recovery to increase funding for research. To increase the benefit of these funds, a committee that includes all stakeholder groups should be formed under the leadership of the vice president for Research. This committee should review the current methodologies for distributing F&A funds, as well as their current uses across the university, and make recommendations for a smooth transition within the 2004–05 academic year.

### **FISCAL IMPACT**

This recommendation can be accomplished within current revenues. Although there likely will not be savings that result, F&A funds will be used more effectively in accomplishing A&M’s goals and objectives.

### **FINDING 1-2**

The vice president for development is not the executive in charge of either the Development Foundation or the 12<sup>th</sup> Man (Athletic) Foundation. The Texas A&M Foundation was created in 1953 to solicit, receive, invest, and disburse private gifts for A&M. The foundation directs university wide major gift fund-raising activities and provides asset management services to uphold educational excellence at A&M. The foundation is a private, nonprofit corporation that exists solely for the benefit of the university. The 12<sup>th</sup> Man Foundation is also a private corporation that directs fund-raising for A&M’s athletic programs. The foundation operates under the mission of supporting Aggie Athletics by encouraging, receiving, and managing gifts for athletic scholarships and programs of the Athletic Department at A&M and providing recognition and meaningful programs to donors for their support and service to the university. In addition to the two foundations, The Association of Former Students also raises funds for A&M through its annual campaign.

National rankings reported in the “2003 Voluntary Support of Education” survey conducted by the Council for Aid to Education, placed Texas A&M among the top 10 public universities in corporate and alumni donations. The university ranks seventh among U.S. public universities in gifts from corporations and ninth in gifts from alumni. A&M’s standings reflect gifts to the university, Texas A&M Foundation, Association of Former Students, and the 12th Man Foundation. The rankings place A&M sixteenth among public universities for private support received from all sources, including alumni, corporations, foundations, and others.

The 12<sup>th</sup> Man Foundation employs 29 individuals to carry out its mission, while the A&M Foundation employs 65 individuals as well as 17 other persons as college development officers. The Office of the Vice President for Development employs only three persons: the vice president, an administrative assistant, and an administrative secretary.

Among the comments received on the survey by alumni were “complaints” about the lack of coordination of A&M’s fund raising. Alumni indicated that they have received calls from the 12<sup>th</sup> Man Foundation, college development officers, and university development personnel within days of one another.

The university has guidelines related to solicitations of donors, but the guidelines do not apply for solicitations under \$25,000. The executive vice president and provost is the arbiter for multiple requests for solicitations of a prospective donor, with the president making final decisions. In addition, the president has appointed a Development Strategy Group (DSG) to coordinate major gift development strategies and evaluate fund raising initiatives. However, the guidelines and existence of the DSG do not reduce the number of multiple requests for donations from “small” donors. This lack of coordination reportedly negatively impacts prospective donors, as evidenced by the review team survey results.

The majority of the peer universities have a senior executive officer that is responsible for the university’s development programs. This officer may not be called a vice president, but there is one officer with responsibility for coordinating the fund raising function of the university. For example, at the University of Illinois, the executive vice president coordinates all fund raising of the UI Foundation, the Athletic Association, and the Alumni Association. In addition, all of the peers have foundations that are responsible for fund raising, and the University of Texas and the University of Florida also have separate fund raising operations for their athletic programs. However, there is only one executive who coordinates all fund raising activities.

#### **RECOMMENDATION 1–2:**

**Appoint one university official to have oversight over the fund raising operations of the university, the A&M Foundation, the Association of Former Students, and the 12<sup>th</sup> Man Foundation, and task that individual to determine the merits of consolidation of the positions of the vice president for development with the president of the A&M Foundation and the executive director of the 12<sup>th</sup> Man Foundation.**

The appointment of one person with oversight responsibility for all university fund raising activities will result in coordination of fund drives, even for “small” donors. Such coordination is extremely valuable in generating good will with prospective donors and alumni who have indicated that multiple requests for funds generally result in no donations.

Possible consolidation of the three positions will provide for more effective coordination of fund raising campaigns and benefit all of A&M.

#### **FISCAL IMPACT**

This recommendation can be implemented with existing resources, and over time will save resources, increase contributions to the university, and more effectively coordinate fund-raising campaigns.

## B. PLANNING

State law and accrediting bodies such as the Southern Association of Colleges and Schools (SACS) require institutions to ensure that careful planning and evaluation occurs at the departmental, college, and university level. Universities with strategic plans that have received broad-based input from all university constituencies and have well defined, measurable goals will be more able to attain state and SACS standards. Evaluation of current academic programs allows the board and the university's administrators to gauge the success of each program and each area by determining if key objectives and results were obtained and if the benefits merit the costs. Careful planning of new academic programs permits congruence with the goals of the university's strategic plan, and also meets the standards and rules of the Texas Higher Education Coordinating Board (THECB).

### Strategic Planning

Texas A&M University has established a well-defined strategic planning process, with measurable goals and objectives that involves all components of the A&M community and annually assesses progress toward achieving those goals. As a result A&M's strategic plan, *Vision 2020: Creating a Culture of Excellence* was developed through a broad-based process inclusive of all campus stakeholders. *Vision 2020* defines the mission of A&M as:

*"Texas A&M University is a modern, comprehensive public educational institution dedicated to serving society by academic, research, and service excellence . . . teaching excellence . . . ; leadership and citizen development . . . ; and managerial and service excellence."*

The goal of *Vision 2020* is "to continue the academic evolution of Texas A&M University so it is generally considered one of the ten best public universities in America by 2020, while retaining, or even enhancing, many of the unique features that have differentiated the university in the past." (*Vision 2020*, p. 10.) To accomplish this goal, A&M has established twelve imperatives, which are shown in **Exhibit 1–12**.

**Exhibit 1–12**  
**Imperatives of *Vision 2020***

Number	Imperative
1	Elevate our faculty, and their teaching, research and scholarship.
2	Strengthen our graduate programs.
3	Enhance the undergraduate academic experience.
4	Build the letters, arts, and sciences core.
5	Build on the tradition of professional education.
6	Diversify and globalize the A&M community.
7	Increase access to intellectual resources.
8	Enrich our campus.
9	Build community and metropolitan connections.
10	Demand enlightened governance and leadership.
11	Attain resource parity with the best public universities.
12	Meet our commitment to Texas.

Source: *Texas A&M Vision 2020*.

The strategic planning process began in 1997 under President Ray Bowen and has been embraced by President Gates, who has established four areas upon which to focus resources and attention for 2003 through 2005. Those four areas are the following:

- Research – Students should graduate from A&M able to analyze problems, formulate research questions, and progress toward answers to those questions in their field of study.
- Diversity – A&M must create and maintain an environment that promotes an understanding of the importance of diversity in all of its academic endeavors.
- Technology – Students graduating from A&M should be recognized as highly competent in the use of modern technology relevant to their chosen career paths.
- Internationalization – Students graduating from A&M should be able to function effectively in their chosen career fields in an international setting.

A&M began a university wide institutional effectiveness process in 2000 to better monitor and improve academic programs and administrative units. The Quality Enhancement Program (QEP) focuses on the assessment of student learning outcomes from selected academic programs. The QEP results must be submitted to SACS as part of the institutional accreditation process.

Each A&M college and support area has developed its own strategic plan that links to the goals and imperatives of *Vision 2020*. Every year, deans and department heads are evaluated based on goals set during the prior year's evaluation. This planning process provides for continual quality assessment and improvement in a more complete manner than most college or university strategic planning processes. Many universities have strategic planning processes, but the processes do not have the continuous quality assessment component.

To measure progress related to the imperatives, each year data from peer comparison data sets are gathered and analyzed to determine progress toward the goal of becoming one of the ten best public universities in America by 2020. Data are collected from a variety of sources and evaluated against benchmark peer universities. Although this set of peer universities is not the same as the peer set used in this review, the *Vision 2020* peers represent some of the best universities in the nation. (Note: A discussion of the differences between the peer lists can be found in Appendix A.) Data are collected from the U.S. News and World Report lists of best colleges, universities, and academic programs; the Integrated Post Secondary Education Data System (IPEDS); the National Research Council rankings of programs; and the Lombardi Program on Measuring University Performance at the University of Florida.

Information evaluated includes rankings of institutions on total research and federal research funding; private support; numbers of national academy members; doctorates awarded; enrollment; scores of entering freshmen; program rankings; and other input and output measures. Each of the measures is evaluated relative to the imperatives in the *Vision 2020* plan, and any progress toward achieving the goals. (Data on academic programs, class size, faculty salaries, and other variables will be discussed in the following chapters.) This information is made available on the A&M web site ([www.tamu.edu](http://www.tamu.edu)) and includes the raw data so that any person could evaluate progress using their own measurements. The information is also shared with SACS as progress or follow-up reports to the SACS review process.

Each of the peer universities also has a strategic planning process because such processes are now required by all regional accrediting agencies. A&M's process includes annual measures of progress, which over half of the peer universities do not include as a major component to their plans.

## Graduate Program Review

A&M has outstanding follow up procedures in its graduate program review process. The dean of graduate studies in the office of the vice president for research oversees a well-developed and articulated evaluation process for doctoral programs. Each program is evaluated at least once every seven years using a process similar to the SACS accreditation process for universities.

First, the department completes a self-study that sets out the strengths and weaknesses and successes and failures of the programs, with supporting data. A team of at least two outside reviewers comes to campus and spends several days reviewing the program. The dean of graduate studies selects outside reviewers from individuals nominated by the department and thoroughly evaluates the credentials of the reviewers as part of the process. Upon completion of the on-site visit, the outside reviewers prepare a report that includes recommendations for improvements, or may include a recommendation to discontinue the program.

One year after the review is completed, the department must prepare a document indicating how the recommendations in the review have been implemented. This implementation document is then sent to the outside reviewers as follow-up to the process.

Although almost all of the peers have adopted some sort of departmental or program review process, the process at A&M is exceptional in the follow-up procedures included. The process, however, is quite costly, and some universities have reduced their program reviews during periods of reductions in state funding. A&M has not reduced programs and is continuing this process to ensure quality and relevance in its graduate programs. A&M's program review process is a best practice that can be emulated by other colleges and universities.

## Faculty Reinvestment Plan

A&M colleges and departments were effectively empowered to reallocate resources and move the university forward in its achievement of the Faculty Reinvestment Plan goals as articulated in Vision 2020. Using its collaborative planning process, A&M reallocated resources to fund 145 of the 447 new faculty positions planned for in the university "Faculty Reinvestment Plan." In addition, each college was allocated faculty lines to recruit outstanding faculty members to A&M, consistent with *Vision 2020* imperatives. **Exhibit 1–13** displays the new faculty allocations to each college.



**Exhibit 1–13**  
**New Faculty Positions Allocated to Each College Under the Faculty Reinvestment Plan**

College	Number of Positions Allocated
Agriculture and Life Sciences	46
Architecture	18
Mays Business School	34
Education and Human Development	32
Dwight Look College of Engineering	112
Geosciences	23
Liberal Arts	64
Library	3
Science	70
Veterinary Medicine	37
Bush School of Government and Public Service	8
<b>TOTAL</b>	<b>447</b>

*Source: Office of the Provost.*

The process used in reallocation of resources was exemplary. A&M first determined which resources would be reallocated by permitting the colleges and nonacademic departments to determine which of their operations were especially critical to achieving their mission. College deans and vice presidents proposed a set of principles to be used to evaluate the proposed “reallocations” and give guidance as to which “reallocations or reductions” would be least detrimental. The resulting reallocation strategies were recommended to the provost and president. All of this was achieved in a very short period of time with minimal disruption in university operations because the stakeholders were involved throughout the process.

**Exhibit 1–14** displays the Reinvestment Plan allocations by year for fiscal years 2004 through 2008.

**Exhibit 1–14**  
**A&M Reinvestment Plan Allocations per Year**

	FY 04	FY 05	FY 06	FY 07	FY 08	TOTAL
<b>Number of New Faculty Positions</b>	44	101	101	101	100	447
<b>Funds Allocated for Salaries</b>	\$3,068,195	\$8,261,609	\$7,842,841	\$8,562,557	\$8,348,873	\$36,084,075

*Source: Office of the Provost.*

In fiscal year 2004, A&M reallocated \$20.4 million in resources (including \$3.1 million from the fiscal year 2004–05 tuition increase) for 44 new faculty positions and 101 new faculty positions in fiscal year 2005. However, A&M will need to continue finding additional resources to achieve the university’s goal of adding over 300 faculty through fiscal year 2008.





# Chapter 2

## Instruction and Academic Support

Texas A&M University College Station



*Chapter 2*  
***INSTRUCTION AND ACADEMIC SUPPORT***

This chapter reviews the Instruction and Academic Support functions of Texas A&M University (A&M) in the following sections:

- A. Organization and Program Management
  - Range of Programs Available
- B. Delivery Systems and Planning
  - Evaluation of Quality Rankings
- C. Student Performance and Achievement
  - Evaluation of Progress Toward Goals
- D. Structural Barriers

Instructional Technology will be addressed in Chapter 5.

Throughout this chapter, A&M will be compared to peer institutions using data from the U.S. Department of Education, Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS). IPEDS is the only national source for longitudinal comparative data on higher education finance, faculty salaries, tuition and fees, student enrollments, graduation and degrees, staff employment, library holdings, and other statistics. The great advantage of IPEDS data is that all colleges and universities – public, private, and proprietary – must report data in a consistent format, using consistent definitions, in order to be eligible for receipt of federal funds. If an institution does not report data to IPEDS, then it is possible for the institution’s students to be ineligible for federal student financial aid. IPEDS has very specific data definitions; therefore, data from institutions should be comparable.

In fall 2003, 44,813 students enrolled at A&M, a 0.6 percent decrease from the 45,083 students enrolled in fall 2002. A&M is the second largest university in the state and the sixth largest in the nation, and in fall 2003 was significantly larger than the average of its peer institutions. The fall 2003 enrollment for A&M and each of its 15 peer institutions is shown in **Exhibit 2–1**. A&M’s student body is less diverse than the student bodies at the peer institutions; A&M’s enrollment for fall 2003 included 23.7 percent minority students, compared to a peer average 30.5 percent. A&M enrolled a greater percentage of undergraduates, 80.5 percent, than did its peers, 74.7 percent.

The Texas Higher Education Coordinating Board (THECB) and the Southern Association of Schools and Colleges (SACS) are the primary regulating and accrediting agencies that oversee university education in Texas. Periodically, A&M is accredited by SACS and reviewed by THECB. Agencies that accredit or approve A&M to offer certain programs include those listed in **Exhibit 2–2**.

**Exhibit 2-1  
Fall 2003 Enrollment, A&M and Peer Universities**

Institution Name	Headcount Students	% White Non-Hispanic	% Black Non-Hispanic	% Hispanic	% Other	Overall% Minority	% Undergraduate	% Graduate	% First Professional
Texas A&M University	44,813	76.3%	2.3%	8.5%	12.8%	23.7%	80.5%	18.4%	1.1%
University of California-Berkeley	33,065	34.7%	3.7%	9.1%	52.4%	65.3%	70.2%	26.3%	3.5%
University of Florida	47,858	67.7%	7.5%	10.5%	14.4%	33.3%	71.0%	21.6%	7.4%
University of Illinois at Urbana-Champaign	40,458	61.4%	6.3%	5.3%	27.0%	38.6%	72.2%	25.1%	2.6%
Iowa State University	27,380	77.6%	2.6%	2.0%	17.7%	22.4%	81.2%	17.3%	1.5%
Kansas State University	23,050	85.4%	2.8%	2.2%	9.5%	14.6%	82.8%	15.3%	1.9%
University of Maryland-College Park	35,329	56.8%	10.9%	4.7%	27.5%	43.2%	72.0%	27.6%	0.3%
Michigan State University	44,542	75.1%	8.1%	2.8%	14.0%	24.9%	78.2%	18.7%	3.1%
University of Nebraska at Lincoln	22,559	82.7%	2.2%	2.1%	12.9%	17.3%	79.1%	19.0%	1.9%
University of North Carolina at Chapel Hill	26,359	74.5%	10.1%	2.2%	13.2%	25.5%	61.2%	29.8%	8.9%
Ohio State University	50,731	73.6%	7.3%	2.1%	16.9%	26.4%	74.1%	19.6%	6.3%
Oklahoma State University	23,844	75.4%	3.4%	1.8%	19.4%	24.6%	79.3%	19.5%	1.2%
The University of Texas at Austin	51,426	59.3%	3.4%	12.7%	24.6%	40.7%	74.6%	22.0%	3.4%
Virginia Polytechnic Institute and State University	27,755	73.6%	5.8%	1.9%	18.7%	26.4%	76.9%	21.8%	1.3%
University of Wisconsin-Madison	40,879	81.3%	2.4%	2.5%	13.7%	18.7%	72.3%	21.8%	5.9%
Purdue University	40,376	77.0%	3.4%	2.3%	17.3%	23.0%	80.2%	17.6%	2.2%
<b>Peer Average</b>	<b>35,707</b>	<b>69.5%</b>	<b>5.5%</b>	<b>4.8%</b>	<b>20.2%</b>	<b>30.5%</b>	<b>74.7%</b>	<b>21.6%</b>	<b>3.7%</b>

Source: Integrated Postsecondary Education Data System (IPEDS), Fall 2003 Enrollment Surveys.

**Exhibit 2-2  
Accrediting Agencies and/or Program Approval Authorization**

National Institutional and Specialized Accrediting Bodies	Program
Accreditation Board for Engineering and Technology (ABET)	Aerospace, Agricultural, Biomedical, Biological Systems, Chemical, Civil, Computer, Electrical, Industrial, Maritime Systems, Mechanical, Nuclear, Ocean, Petroleum, and Radiological Health Engineering ; Computer Science, Electronics Engineering Technology, Manufacturing Engineering Technology, Telecommunications Engineering Technology, and Mechanical Engineering Technology
American Assembly of Collegiate Schools of Business International (AACSB)	Business Baccalaureate, masters, and doctoral programs, Accounting
American Council for Construction Education	Construction Science
American Chemical Society	Chemistry undergraduate program
American Dietetic Association	Dietetics (DIET) – Coordinated undergraduate and graduate programs
American Psychological Association	Clinical Psychology (CLPSY) – Doctoral programs Counseling Psychology (COPSY) – Doctoral programs School Psychology with emphasis in clinical child psychology (SCPSY) – Doctoral programs
American Society of Landscape Architects	Landscape Architecture BLA and MLA
American Veterinary Medical Association	Veterinary Medicine (VET) – Programs leading to a D.V.M. or D.M.V. degree
Association for Assessment and Accreditation of Laboratory Animal Care International	Animal Care and Use
Commission on Accreditation for Dietetics Education (CADE)	Nutritional Sciences Didactic Program in Dietetics (DPD), Combined master’s degree/ dietetic internship
Institute of Food Technologies	Food Science and Industry
National Architecture Accrediting Board	Architecture
National Association of Schools of Public Affairs and Administration	Master of Public Administration
National Council for Accreditation of Teacher Education (NCATE)	Teacher Education (TED) – Baccalaureate and graduate programs for the preparation of teachers and other professional personnel for elementary and secondary schools
National Research and Park Association	Recreation, Park, and Tourism Sciences
Planning Accreditation Board	Urban Planning
Society of American Foresters	Forestry
Society for Range Management	Rangeland Ecology and Management
State Board for Educator Certification	Education preparation programs
Texas Education Agency	Teacher Education

Source: Integrated Postsecondary Education Data System (IPEDS) and A&M Provost Office September 2004.

Instructional expenditures include credit and non-credit courses; academic, vocational, technical, and remedial instruction; and regular, special, and extension sessions. Excluded are expenditures for academic administration when the primary assignment is administration (such as deans). Instruction is the most complex and expensive component of an institution’s expenditures. Not all of the peer institutions report all instructional expenditures in the Instruction program. For example, A&M and the University of Maryland-College Park report the costs of extension sessions, including fire school training, in their instruction program, which follows IPEDS instructions. The University of California-Berkeley also reports all extension and continuing education courses in the Instruction

program; however, the University of Florida does not. Nevertheless, the IPEDS data are the best data available, and, as indicated in the Introduction, all institutions are unique. It is not possible to extract the costs of medical schools from the instruction components of the peer institutions, yet it could be argued that those expenditures should be excluded because the costs of instruction on campuses with medical schools will be higher than on those without medical schools. For this study, data reported to IPEDS did not account for all the myriad of differences between universities. However, these data are the best available for comparison.

Academic support expenditures include funds expended to provide support services for the institution's primary missions of instruction, research, and public service. These areas include libraries, museums, and galleries; demonstration schools; media and technology, including computing support; academic administration, including deans; and separately budgeted course and curriculum development. However, costs associated with the office of the chief academic officer of the campus are included in the institutional support category.

Educational and General (E&G) revenues and expenditures support the primary missions of the university, instruction, research, and public service. E&G expenditures include instruction, research, public service, academic support, student services, student financial aid, institutional support, and operation and maintenance of physical plant programs of a college or university, or affiliated agency. E&G revenues include funds received for any operations of the institution, except auxiliary enterprises such as residence and dining halls, hospitals, and independent operations.

The number of full-time student equivalents (FTSE) is determined by taking the number of full-time headcount students and adding one-third of the headcount part-time students. This is the calculation used by IPEDS to determine full-time equivalencies. Similarly, the number of full-time equivalent (FTEE) staff is determined by adding one-third of the count of part-time staff to the count of full-time staff.

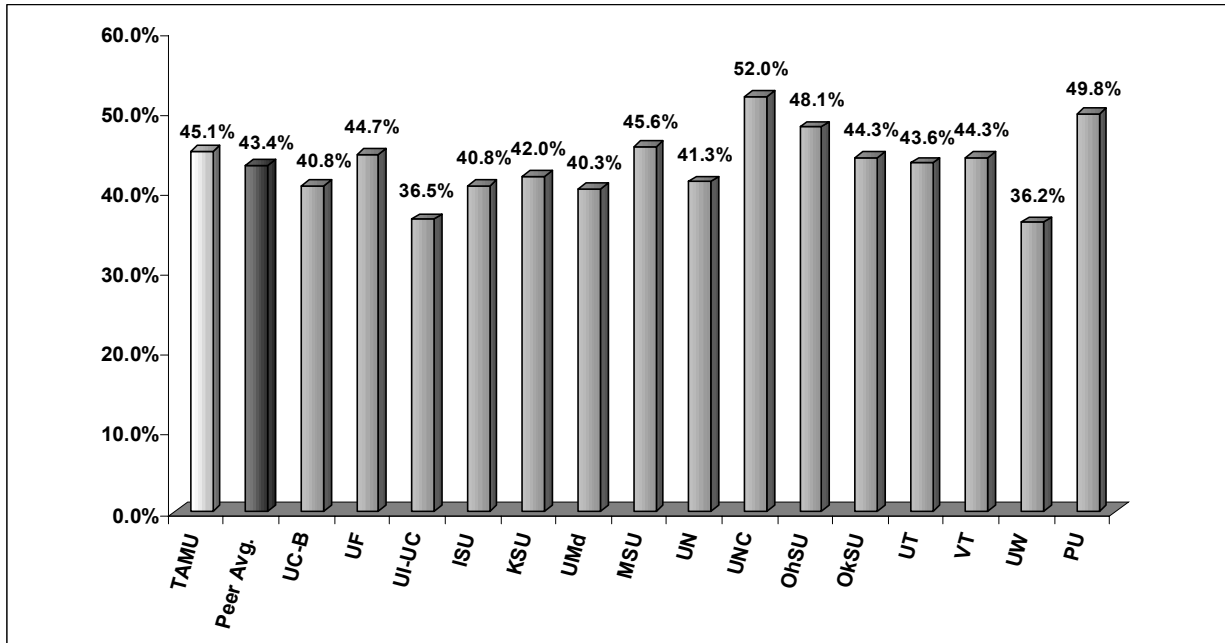
During fiscal year 2002, A&M expended a total of \$412.7 million for Instruction and \$51.4 million for Academic Support functions; A&M per student expenditures for instruction were \$9,909, compared to a peer average of \$9,487. A&M expended \$1,234 per full-time student equivalent (FTSE) on Academic Support, compared to a peer average of \$2,183. A&M expended 40.1 percent of its operating budget for instruction, compared to an average of 35.0 percent at the peer universities. These data are displayed in **Exhibit 2–3** and **Exhibit 2–4**.

**Exhibit 2–3**  
**Fiscal Year 2002 Instruction and Academic Support Expenditures, A&M and Peers**

Institution Name	Instruction	Academic Support	Instruction per FTSE	Academic Support per FTSE	Instruction + Ac. Support per FTSE	Instruction as % of E&G	Instruction + Ac. Support as % of E&G
Texas A&M University	\$412,697,105	\$51,374,782	\$9,909	\$1,234	\$11,142	40.1%	45.1%
Peer Average	\$304,176,445	\$70,196,989	\$9,487	\$2,183	\$11,670	35.0%	43.4%
University of California Berkeley	\$408,410,000	\$71,777,000	\$13,382	\$2,352	\$15,734	34.7%	40.8%
University of Florida	\$415,906,000	\$84,312,000	\$9,765	\$1,980	\$11,744	37.2%	44.7%
University of Illinois Urbana-Champaign	\$268,998,545	\$108,046,302	\$7,258	\$2,915	\$10,173	26.1%	36.5%
Iowa State University	\$162,667,388	\$48,510,742	\$6,395	\$1,907	\$8,302	31.4%	40.8%
Kansas State University	\$120,778,476	\$27,365,689	\$6,177	\$1,400	\$7,577	34.2%	42.0%
University of Nebraska	\$296,611,021	\$89,936,313	\$9,808	\$2,974	\$12,782	31.0%	40.3%
Michigan State University	\$396,841,703	\$60,326,358	\$10,066	\$1,530	\$11,596	39.6%	45.6%
University of Nebraska	\$133,005,549	\$45,394,741	\$6,583	\$2,247	\$8,830	30.8%	41.3%
University of North Carolina Chapel Hill	\$497,770,880	\$67,617,814	\$21,773	\$2,958	\$24,731	45.8%	52.0%
Ohio State University	\$513,900,194	\$78,193,011	\$11,799	\$1,795	\$13,595	41.8%	48.1%
Oklahoma State University	\$112,421,676	\$35,238,726	\$5,860	\$1,837	\$7,697	33.7%	44.3%
University of Texas	\$356,888,538	\$109,685,687	\$7,569	\$2,326	\$9,895	33.4%	43.6%
Virginia Polytechnic Institute	\$207,475,220	\$43,921,899	\$7,939	\$1,681	\$9,619	36.6%	44.3%
University of Wisconsin Madison	\$341,353,878	\$132,956,196	\$8,979	\$3,497	\$12,476	26.1%	36.2%
Purdue University	\$329,617,607	\$49,672,358	\$8,951	\$1,349	\$10,300	43.3%	49.8%

*Source: Integrated Postsecondary Education Data System (IPEDS), Fiscal Year 2002 Finance Surveys.*

**Exhibit 2-4**  
**Fiscal Year 2002 Instruction and Academic Support as a % of E&G Expenditures, A&M and Peers**



Source: Calculated by MGT from IPEDS Fiscal Year 2002, Finance Surveys.

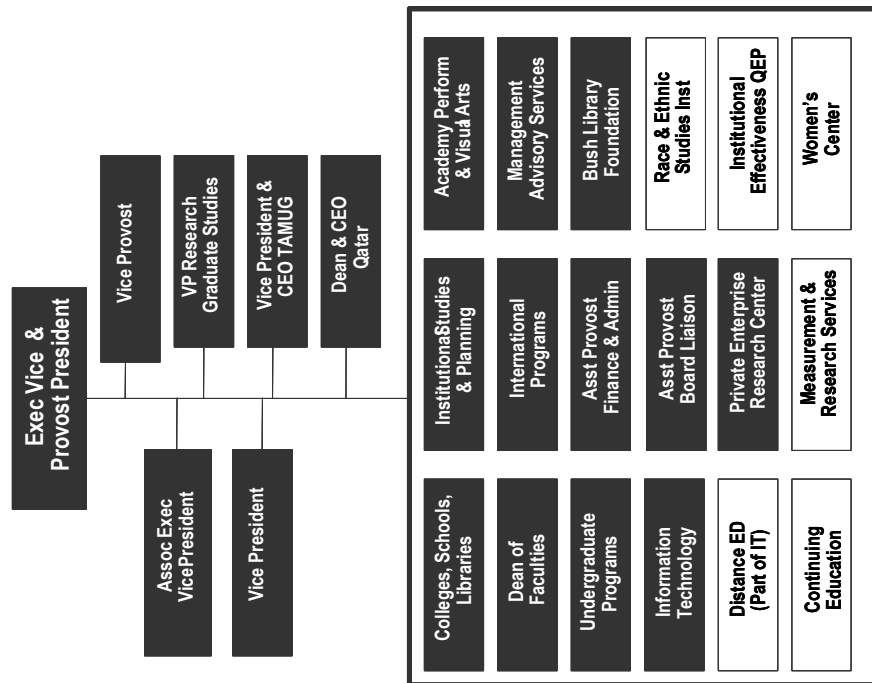
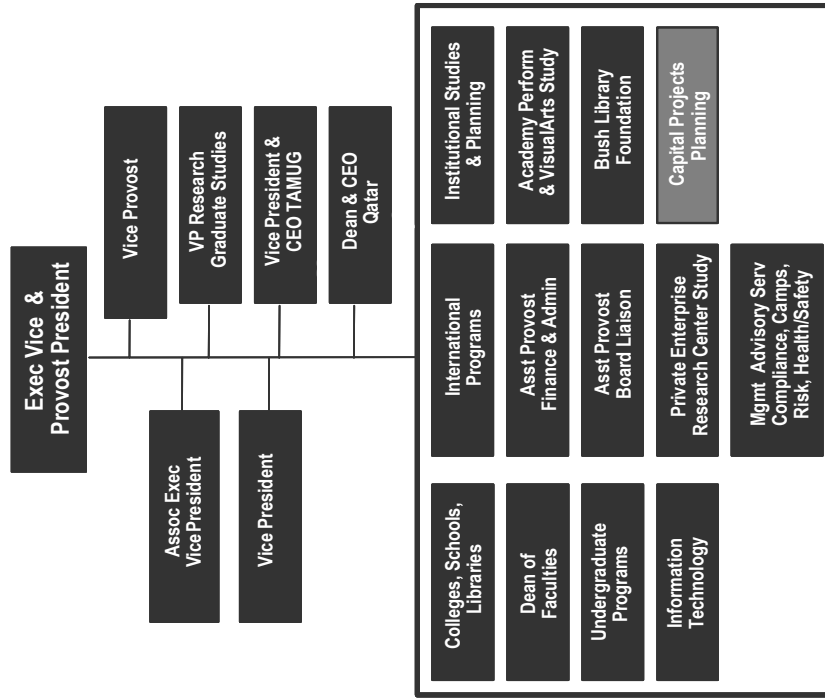
**A. ORGANIZATION AND PROGRAM MANAGEMENT**

The executive vice president and provost (EVP/P) is responsible for instruction and academic support at A&M, and the Texas A&M University System (A&M System Office) Board of Regents and THECB set appropriate policy. The organizational structure of the EVP/P’s Office before and after the March 2004 reorganization is shown in **Exhibit 2-5**. Specific personnel in the EVP/P’s Office manage graduate programs, information technology, international programs, diversity, and institutional assessment.

The EVP/P delegates responsibility for the administration and management of academic programs to the college deans, who then delegate responsibility to department chairs/heads for departmental offerings. There are ten A&M colleges and 70 departments within the colleges, as shown in **Exhibit 2-6**. The dean of Agriculture and the dean of Engineering also act as vice chancellors of the A&M System, and have responsibility for agriculture and engineering programs across the entire A&M System.

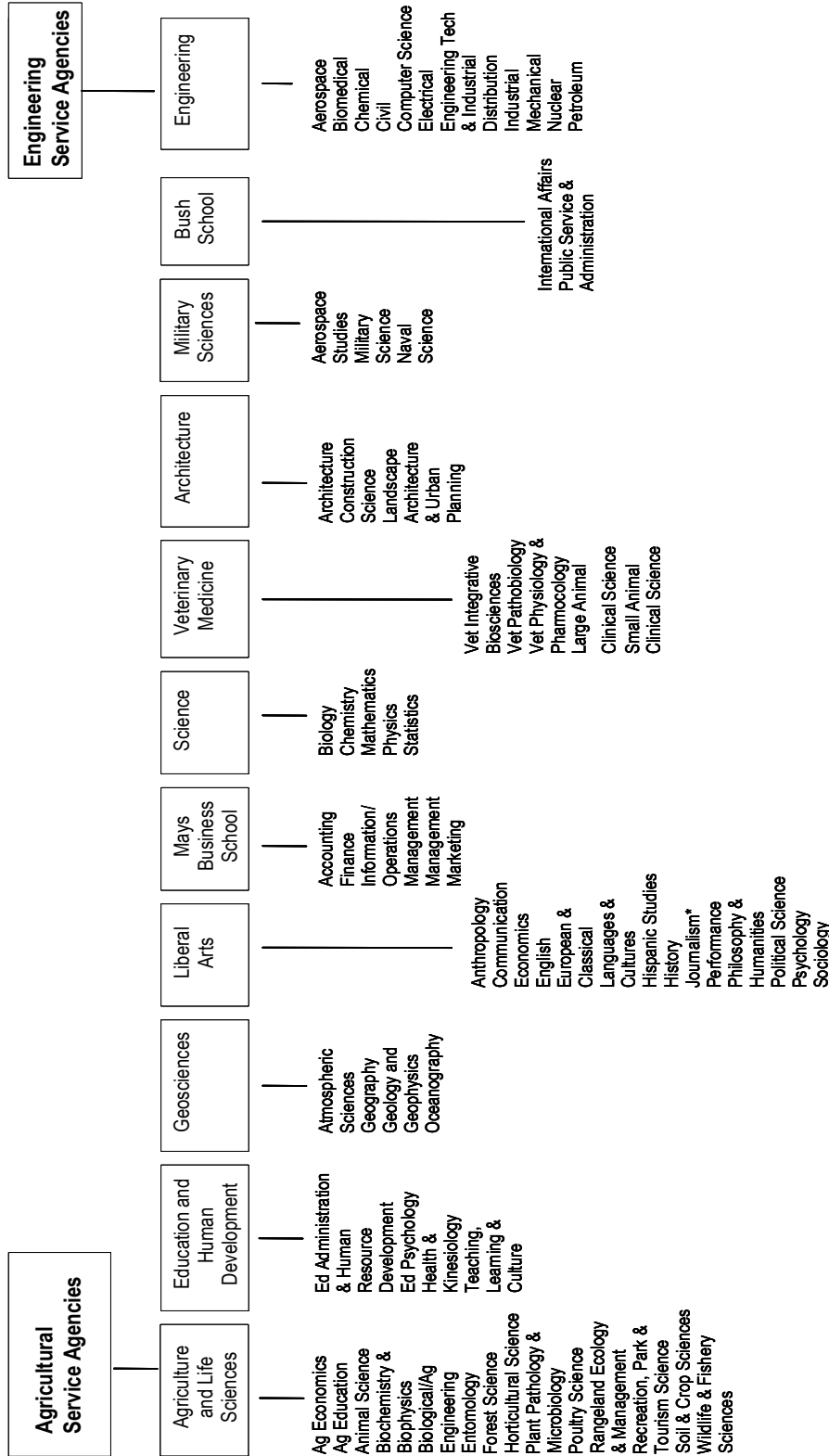


**Exhibit 2-5  
A&M Instruction and Academic Support Organizational Structure – Executive VP & Provost  
Before and After March 2004**



Source: A&M, 2004.

**Exhibit 2-6  
A&M Colleges and Departments**



\* The Journalism Department was eliminated by approval of the Board of Regents. However, the action was still pending before the Texas Higher Education Coordinating Board as of August 2004.

Source: A&M, 2004

## Range of Programs Available

A&M offers a broad range of programs that are consistent with the institution's mission as a land grant, sea grant, and space grant university. In addition to traditional land grant strengths in agriculture and engineering, A&M offers strong programs in business, humanities, and education. Students may earn bachelors, masters, and doctoral degrees, as well as professional degrees. **Exhibit 2-7** displays the academic degrees offered at A&M and **Exhibit 2-8** displays the academic disciplines in which degrees can be earned. All program offerings must be approved by THECB.

**Exhibit 2-7**  
**Fall 2003 A&M Degrees**

Degree	Abbreviation
Bachelor of Arts	B.A.
Bachelor of Business Administration	B.B.A.
Bachelor of Science	B.S.
Bachelor of Environmental Design	B.E.D.
Bachelor of Landscape Architecture	B.L.A.
Master of Science	M.S.
Master of Arts	M.A.
Master of Agribusiness	M.A.B.
Master of Agriculture	M.Agr.
Master of Architecture	M.Arch.
Master of Biotechnology	M.BIOT.
Master of Business Administration	M.B.A.
Master of Computer Science	M.C.S.
Master of Education	M.Ed.
Master of Engineering	M.Eng.
Master of Geoscience	M.Gsc.
Master of Industrial Distribution	M.I.D.
Master of International Affairs	M.I.A.
Master of Land Economics & Real Estate	M.L.E.R.E.
Master of Landscape Architecture	M.L.A.
Master of Marine Resource Management	M.M.R.M.
Master of Public Service & Administration	M.P.S.A.
Master of Urban Planning	M.U.P.
Doctor of Philosophy	Ph.D.
Doctor of Education	Ed.D.
Doctor of Engineering	D. Eng.
Doctor of Veterinary Medicine	D.V.M.

Source: A&M Undergraduate Catalog 2003-2004, A&M Provost Office, August 2004.

**Exhibit 2-8**  
**2003 A&M Majors and Degree Levels**

Discipline	Bachelors	Masters	Doctoral
Accounting	X	X	
Aerospace Engineering	X	X	X
Agribusiness	X	X	
Agricultural Chemistry		X	
Agricultural Development	X	X	
Agricultural Economics	X	X	X
Agricultural Education		X	X
Agricultural Engineering	X	X	X
Agricultural Science	X		
Agricultural Systems Management	X	X	
Agronomy	X	X	X
Allied Health Teacher Ed. & Admin.		X	
American Studies	X		
Animal Breeding		X	X
Animal Science	X	X	X
Anthropology	X	X	X
Applied Mathematical Sciences	X		
Applied Physics			X
Architecture		X	X

**Exhibit 2–8 (Continued)  
2003 A&M Majors and Degree Levels**

<b>Discipline</b>	<b>Bachelors</b>	<b>Masters</b>	<b>Doctoral</b>
Atmospheric Sciences		X	X
Biochemistry	X	X	X
Bioenvironmental Sciences	X		
Biological Systems Engineering	X		
Biology	X	X	X
Biomedical Engineering	X	X	X
Biomedical Science	X		
Biophysics		X	
Biotechnology		X	
Botany	X	X	X
Business		X	X
Chemical Engineering	X	X	X
Chemistry	X	X	X
Civil Engineering	X	X	X
Comparative Literature and Culture		X	
Computer Engineering	X	X	X
Computer Science	X	X	X
Construction Management		X	
Construction Science	X		
Counseling Psychology			X
Curriculum and Instruction		X	X
Dairy Science	X	X	
Earth Sciences	X		
Economic Entomology		X	
Economics	X	X	X
Educational Administration		X	X
Educational & Human Resource Dev.		X	X
Educational Psychology		X	X
Educational Technology		X	
Electrical Engineering	X	X	X
Engineering		X	X
Engineering Systems Management		X	
Engineering Technology	X		
English	X	X	X
Entomology	X	X	X
Environmental Design	X		
Environmental Geosciences	X		
Environmental Studies	X		
Epidemiology		X	
Finance	X	X	
Fisheries Science		X	
Floriculture	X	X	
Food Science and Technology	X	X	X
Forestry	X	X	X
French	X		
Genetics	X	X	X
Geography	X	X	X
Geology	X	X	X
Geophysics	X	X	X
Geosciences		X	
German	X		
Health	X		
Health Education		X	X
Health Physics		X	
History	X	X	X
Horticulture	X	X	X
Industrial Distribution	X	X	
Industrial Engineering	X	X	X
Industrial Hygiene		X	
Information and Operations Management	X		
Interdisciplinary Engineering		X	X
Interdisciplinary Studies	X		
Interdisciplinary Technology	X		
International Affairs		X	
International Studies	X		

**Exhibit 2-8 (Continued)**  
**2003 A&M Majors and Degree Levels**

<b>Discipline</b>	<b>Bachelors</b>	<b>Masters</b>	<b>Doctoral</b>
Journalism*	X		
Kinesiology	X	X	X
Laboratory Animal Medicine		X	
Land Development		X	
Land Economics & Real Estate		X	
Landscape Architecture	X	X	
Languages	X	X	
Large Animal Medicine and Surgery		X	
Management	X	X	
Management Information Systems		X	
Marketing	X	X	
Mathematics	X	X	X
Mechanical Engineering	X	X	X
Meteorology	X		
Microbiology	X	X	X
Modern Languages		X	
Molecular and Cell Biology	X		
Molecular and Environmental Plant Sciences		X	X
Music	X		
Natural Resources Development		X	
Nuclear Engineering	X	X	X
Nutrition		X	X
Nutritional Sciences	X		
Ocean Engineering	X	X	X
Oceanography		X	X
Petroleum Engineering	X	X	X
Philosophy	X	X	X
Physical Education		X	X
Physics	X	X	X
Physiology of Reproduction		X	X
Plant & Environmental Soil Science	X		
Plant Breeding		X	X
Plant Pathology		X	X
Plant Protection		X	
Plant Sciences		X	
Political Science	X	X	X
Poultry Science	X	X	X
Psychology	X	X	X
Public Service and Administration		X	
Radiological Health Engineering	X		
Rangeland Ecology and Management	X	X	X
Recreation & Resources Development		X	
Recreation, Park and Tourism Sciences	X	X	X
Renewable Natural Resources	X		
Rural Sociology		X	
Russian	X		
Safety Engineering		X	
School Psychology			X
Science & Technology Journalism*		X	
Sociology	X	X	X
Soil Science		X	X
Spanish	X		
Speech Communication	X	X	X
Statistics		X	X
Telecommunications Media Studies*	X		
Theater Arts	X		
Toxicology		X	X
Urban and Regional Planning		X	
Urban and Regional Science			X
Veterinary Anatomy		X	X
Veterinary Medical Sciences		X	
Veterinary Medicine			X
Veterinary Medicine and Surgery		X	
Veterinary Microbiology		X	X
Veterinary Parasitology		X	
Veterinary Pathology		X	X

**Exhibit 2–8 (Continued)**  
**2003 A&M Majors and Degree Levels**

Discipline	Bachelors	Masters	Doctoral
Veterinary Physiology		X	X
Veterinary Public Health		X	
Veterinary Science	X		
Visualization Sciences		X	
Wildlife and Fisheries Sciences	X	X	X
Wildlife Science		X	
Zoology	X	X	X

Source: A&M 2003–04 Undergraduate and Graduate Catalogs.

\* The Board of Regents has approved the elimination of the Journalism Department. However the action was still pending before the Texas Higher Education Coordinating Board as of August 2004.

## **B. DELIVERY SYSTEMS**

The way an institution delivers programs and services to students varies from campus to campus, depending on institutional mission, the location of the campus, the types of students, and the classroom and laboratory space available. In addition, availability of information resources, such as libraries, computers, and access to the Internet, heavily influence delivery of academic programs. In addition, faculty has the largest impact on the quality of programs offered in terms of the training of faculty, the number of courses offered, the average size of classes, and total productivity of the faculty. (Faculty productivity issues are discussed in Chapter 3 and will not be covered here.) Both SACS and THECB require universities to qualitatively and quantitatively demonstrate that they are accomplishing their purposes. SACS requires that institutions be able to document quality and effectiveness using a comprehensive system of planning and evaluation.

There are several methods for measuring the effectiveness of delivery systems: evaluating the cost per credit hour by level and by discipline; evaluating the quality of programs through external measures; evaluating class sizes in regards to pedagogy and economy of operation; and evaluating faculty workload and/or productivity. Universities have shown the ability to improve productivity while class size is increasing without lowering instructional quality.

### **Annual Evaluation of Quality Rankings**

In its strategic planning process, A&M annually evaluates a number of measures relating to the overall quality of the institution and its academic programs. These measure correlate with that used by as reported in well-known national publications (U.S. News and World Report, Lombardi...). **Exhibit 2–9** displays the overall quality rank of A&M, the number of programs ranked at A&M and the peer universities, as well as rankings of specific academic programs according to U.S. News and World Report. In 2005, U.S. News and World Report ranked A&M 27<sup>th</sup> among all public universities that award doctoral degrees. Of the 11 academic programs ranked at A&M, four were in the top ten for public universities.

**Exhibit 2–9**  
**2005 Academic Quality Rankings for Public Universities, A&M and Peer Universities**

Institution	Overall Ranking	# Programs Ranked	# Programs in Top 10	Undergrad Engineering	Graduate Engineering	Undergrad Business	Graduate Business	Graduate Education	Masters Public Affairs	English
Texas A&M University	22	11	4	9	8	19	9	30	25	33
University of California Berkeley	1	23	19	1	1	1	1	2	3	1
University of Florida	16	13	5	23	15	16	26	15		25
University of Illinois Urbana-Champaign	9	22	16	2	2	6	9	17		7
Iowa State University	38	5	1	18	25	50	37	48	69	
Kansas State University	Over 60th	2	0	36		65			54	
University of Maryland College Park	18	10	4	12	10	12	17	12	10	18
Michigan State University	30	9	2	23	31	12	15	7	40	31
University of Nebraska	46	3	1	49		43			18	43
University of North Carolina Chapel Hill	5	8	6		38	3	7	20	5	7
Ohio State University	22	14	6	16	17	10	5	9	30	18
Oklahoma State University	over 60th	2	0	49	42	54		51		
University of Texas	14	22	16	6	6	3	9	8	5	7
Virginia Polytechnic Institute	32	11	1	10	18	23	27		18	
University of Wisconsin Madison	7	21	6	7	8	8	19	2	9	5
Purdue University	22	18	10	5	4	10	12	35		36

**2005 Academic Quality Rankings for Public Institutions, A&M and Peer Universities**

Institution	Chemistry	Applied Math	Biological Science	Political Science	Psychology	Economics	History	Sociology	Math	Physics
Texas A&M University	10	22	32	16	36	18	40	32	22	26
University of California Berkeley	1	1	1	1	4	1	1	1	1	1
University of Florida	19	39	27	31	26	21	18	26	29	19
University of Illinois Urbana-Champaign	2	14	9	10	2	9	10	16	6	2
Iowa State University	19	29	37		36	24			36	26
Kansas State University	63		56			42			54	40
University of Maryland College Park	28	4	21	15	25	8	13	13	6	4
Michigan State University	19	32	21	9	26	13	22	26	18	16
University of Nebraska	59		61	31	35		44	37	39	40
University of North Carolina Chapel Hill	6	22	11	6	7	12	5	4	15	19
Ohio State University	10	22	27	6	13	11	12	11	15	12
Oklahoma State University						50			54	
University of Texas at Austin	5	4	13	10	7	7	10	8	5	4
Virginia Polytechnic Institute	37	18	51		42				31	37
University of Wisconsin Madison	3	6	3	5	6	2	4	1	4	7
Purdue University	7	14	15		25	20	34	32	11	17

*Source: U.S. News and World Report Best Colleges 2005, and U.S. News and World Report Best Graduate Schools 2005.  
Note: Blanks mean the program was not ranked, or the university did not offer that program. Some institutions appear to have "tied" with other institutions, in the rankings due to the methodology used in the report.*

Additional measures of quality for programs and faculty include the number and percentage of graduates employed at graduation, the percentage of faculty that are members of national academies, research funding per faculty member, and rankings of research funding per faculty member. **Exhibit 2–10** displays these data for A&M and the peer universities. A&M ranks first among public universities in research dollars per engineering faculty member, and first in the percentage of business school graduates employed at graduation. It is important to note that the rankings included here are the rankings published in U.S. News and World Report.

**Exhibit 2–10**  
**2005 Academic Quality Rankings, A&M and Peer Universities**

Institution Name	Engineering				Education			Business	
	% Faculty National Academy	Rank, % Academy	Research \$/Faculty	Rank, Research \$/Faculty	Research \$/Faculty	Rank, Research \$/Faculty	Ranking, Vet Med	% Grad Employed	Ranking
Texas A&M University	3.4%	23	\$824.2	1	217.8	41	4	86.5%	1
University of California Berkeley	19.5%	1	\$571.0	8	575.9	7			8
University of Florida	1.5%	32	\$455.6	15	424.7	16	8	34.4%	43
University of Illinois Urbana-Champaign	3.9%	17	\$590.4	6	138.9	50	11		10
Iowa State University	0.5%	43	\$327.9	28	164.9	47	15		3
Kansas State University							18		
University of Maryland College Park	3.9%	18	\$631.5	5	245.3	37			33
Michigan State University	0.0%	46	\$209.3	45	372.9	24	5	63.2%	15
University of Nebraska									
University of North Carolina Chapel Hill	2.7%	25	\$382.1	22	360.8	27		55.0%	26
Ohio State University	2.0%	29	\$429.3	16	291.3	32	5		6
Oklahoma State University	0.8%	40	\$246.9	39	365.4	25			
University of Texas at Austin	9.3%	5	\$468.0	14	635.7	3		50.1%	31
Virginia Polytechnic Institute	1.4%	33	\$251.1	37			12		9
University of Wisconsin Madison	4.6%	14	\$499.7	10	619.4	4	7	62.2%	17
Purdue University	3.8%	19	\$745.3	3	76.9	54	12	64.0%	13

Source: U.S. News and World Report, 2005. Note that some rankings are from prior years, but are reported in the 2005 Edition of U.S. News and World Report Rankings of Graduate Schools.

### FINDING 2-1

A&M's *instructional* expenditures per credit hour by discipline and by level of instruction are less than those of the University of Texas-Austin (UT). **Exhibit 2–11** displays the average instruction expenditures for A&M and UT. **Exhibit 2–12** displays total expenditures by discipline and by level for A&M and UT as well as the state average. Total costs include Academic Support and Institutional Support expenditures.

There is no clear picture regarding total costs in the comparisons of A&M and UT—some disciplines cost less at A&M and some less at UT. In general, the difference between the average *instructional* expenditures by level at A&M is at least \$100 per credit hour, while the difference between the average *total* expenditures by level is not as great. This finding suggests that A&M's expenditures per credit hour for Academic Support and Institutional Support are higher than UT's because that is the only area where expenditures could differ.



**Exhibit 2-11**  
**Instruction Expenditures per Credit Hour by Discipline and Level of Instruction**  
**A&M and UT (in Dollars)**

	Undergraduate Lower Division	Undergraduate Upper Division	Masters	Doctoral
<b>Texas A&amp;M University</b>				
Liberal Arts	116.41	236.30	1,092.25	1,902.58
Science	202.23	346.45	1,335.09	1,802.67
Fine Arts	179.90	240.30	1,161.48	1,161.62
Teacher Education	146.90	185.77	640.56	1,169.12
Agriculture	153.64	271.75	1,090.70	1,597.96
Engineering	150.60	275.00	810.35	1,200.52
Home Economics	91.16	168.22	1,325.97	1,479.92
Physical Training	191.77	281.43		
Health Services	120.22	198.17	2,387.44	2,367.62
Business Administration	87.79	170.09	569.92	2,741.15
Teacher Education- Practice Teaching	132.93	328.44		
Technology	146.62	220.61	687.62	
<b>Totals</b>	<b>144.62</b>	<b>245.28</b>	<b>867.23</b>	<b>1,558.93</b>
<b>University of Texas at Austin</b>				
Liberal Arts	138.44	243.14	790.06	1,247.53
Science	593.95	955.34	2,733.46	4,185.35
Fine Arts	195.98	383.00	875.16	1,023.39
Teacher Education	295.71	382.33	731.64	1,153.98
Engineering	552.59	718.64	2,239.92	3,174.21
Home Economics	120.30	248.46	1,106.57	1,274.50
Social Service	467.13	641.08	720.38	2,410.61
Library Science	121.32	57.22	570.94	1,152.84
Health Services	191.54	182.59	957.03	2,508.14
Pharmacy			2,018.62	3,152.48
Business Administration	104.77	158.80	412.45	3,350.51
Teacher Education- Practice Teaching		114.10		
Nursing	331.27	516.07	1,195.43	2,568.66
<b>Totals</b>	<b>266.29</b>	<b>419.42</b>	<b>1,008.39</b>	<b>2,297.19</b>

*Source: THECB, Texas Public University Cost Study FY2002 and FY2003, December 2004.*

**Exhibit 2-12**  
**Total Expenditures per Credit Hour by Discipline and Level of Instruction**  
**A&M, UT, and the State Average (in Dollars)**

	Undergraduate Lower Division	Undergraduate Upper Division	Masters	Doctoral
<b>Texas A&amp;M University</b>				
Liberal Arts	262.65	514.01	1,633.31	2,732.50
Science	360.95	637.47	1,880.97	2,502.13
Fine Arts	348.46	522.36	1,735.56	1,775.15
Teacher Education	289.59	433.34	1,010.79	1,722.49
Agriculture	297.52	539.84	1,562.27	2,236.41
Engineering	308.02	571.62	1,296.56	1,862.51
Home Economics	227.18	416.76	1,847.54	2,077.43
Physical Training	340.55	540.97		
Health Services	265.41	458.66	3,238.81	3,252.85
Business Administration	224.45	426.47	948.05	3,828.30
Teacher Education- Practice Teaching	274.18	611.34		
Technology	312.20	507.85	1,145.95	
<b>Totals</b>	<b>294.72</b>	<b>521.04</b>	<b>1,331.48</b>	<b>2,259.26</b>

**Exhibit 2–12 (Continued)**  
**Total Expenditures per Credit Hour by Discipline and Level of Instruction**  
**A&M, UT, and the State Average (in Dollars)**

	Undergraduate Lower Division	Undergraduate Upper Division	Masters	Doctoral
<b>University of Texas at Austin</b>				
Liberal Arts	227.33	424.85	1,116.52	1,726.82
Science	694.80	1,158.05	3,095.80	4,720.32
Fine Arts	294.08	594.92	1,206.46	1,420.43
Teacher Education	385.57	550.07	942.63	1,462.65
Engineering	651.27	900.57	2,581.00	3,657.60
Home Economics	202.53	429.15	1,514.32	1,754.71
Social Service	575.83	839.87	914.99	2,902.50
Library Science	199.48	179.36	820.77	1,591.17
Health Services	295.02	343.45	1,333.72	3,363.79
Pharmacy			2,427.22	3,762.03
Business Administration	184.96	317.99	634.38	4,520.27
Teacher Education- Practice Teaching		290.28		
Nursing	422.79	717.47	1,525.83	3,226.41
<b>Totals</b>	<b>358.43</b>	<b>600.35</b>	<b>1,286.38</b>	<b>2,776.58</b>
<b>State Average Cost</b>				
	Undergraduate Lower Division	Undergraduate Upper Division	Masters	Doctoral
Liberal Arts	175.14	319.42	809.36	2,009.77
Science	319.34	540.39	1,622.56	3,773.73
Fine Arts	240.11	407.91	972.52	1,474.76
Teacher Education	255.90	335.46	448.68	1,289.05
Agriculture	397.96	552.06	1,324.12	2,252.54
Engineering	302.51	524.77	1,076.41	3,002.67
Home Economics	191.51	328.48	603.73	1,265.01
Social Service	414.06	480.88	581.30	2,654.94
Library Science	182.38	219.23	551.48	933.16
Vocational Training	409.90	385.22		
Physical Training	272.77	219.39		
Health Services	256.82	387.29	629.48	2,176.42
Pharmacy			2,012.70	3,889.60
Business Administration	182.82	289.64	584.18	3,700.55
Optometry			3,226.02	2,929.86
Teacher Education- Practice Teaching	251.49	330.01		
Technology	325.47	452.45	1,106.11	
Nursing	437.55	488.28	1,002.13	1,960.91
<b>Totals</b>	<b>220.50</b>	<b>376.37</b>	<b>752.36</b>	<b>2,452.75</b>

Source: THECB, Texas Public University Cost Study FY2002 and FY2003, December 2004.

**RECOMMENDATION 2–1:**

**The university should conduct an analysis to determine which factors are contributing to higher-than-average expenditures for academic support and institutional support, and find methods to reduce those costs.**

This analysis will identify factors in the expenditure patterns at A&M that are causing the higher-than-average costs. An analysis of the cost study data used by the Texas Higher Education Coordinating Board (THECB) in its funding formula revisions in 2003–04 will also be necessary for determining the reasons for the differences.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources. The elimination of identified excess costs could result in considerable savings for A&M.

**FINDING 2-2**

A&M's average class sizes are larger than those at peer universities, and its student-to-faculty ratio is highest among the peers. **Exhibit 2–13** displays the student/faculty ratios at A&M and its peer universities, as reported to the National Center for Education Statistics as part of the Common Data Set. All colleges and universities report these data using the same methodology for counting students and faculty, as listed below:

*For counting students, NCES defines a full-time undergraduate student as “a student enrolled for 12 or more semester or quarter credit hours, or 24 or more contact hours a week. A graduate full-time student is a student enrolled for 9 or more semester or quarter credits, or students involved in thesis or dissertation preparation that are considered full-time by the institution. A full-time first professional student is defined by the credit or contact hours defined by the institution. A part-time student is one enrolled for less than full-time.”*

*NCES defines faculty as “those persons identified by the institution as such and typically those whose initial assignments are made for the purpose of conducting instruction, research or public service as a principal activity (or activities). They may hold academic rank titles of professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of those academic ranks. Faculty may also include the chancellor/president, provost, vice provosts, deans, directors or the equivalent, as well as associate deans, assistant deans and executive officers of academic departments (chairpersons, heads or the equivalent). The designation as “faculty” is separate from the activities to which they may be currently assigned. For example, a newly appointed president of an institution may also be appointed as a faculty member.”*

A&M's student/faculty ratio in the fall 2003 semester was 21:1, the highest of the peers except for the University of Florida at 22:1. These data could mean that A&M is able to take advantage of economies of scale. However, students who attended the Open Forum noted that class sizes were too large to receive adequate attention from professors, especially in difficult subjects. In *Vision 2020*, A&M has established a goal of a student/faculty ratio of 16:1.

**Exhibit 2–13**  
**Student Faculty Ratios at A&M and Peer Universities**

	Student to faculty ratio
<b>A&amp;M</b>	<b>21:1</b>
Kansas State University	12:1
U of Illinois-Urbana-Champaign	12:1
U of Wisconsin Madison	13:1
Ohio State University	14:1
UNC-Chapel Hill	14:1
Purdue University	15:1
Iowa State University	16:1
U of Nebraska	16:1
UC-Berkeley	16:1
Virginia Tech	16:1
U of Maryland College Park	18:1
Michigan State University	19:1
U of Texas-Austin	19:1
Oklahoma State University	21:1
U of Florida	22:1

*Source: 2003–04 Common Data Set from each university's web site.*

**Exhibit 2–14** displays the number of class sections of particular sizes for A&M and the peer universities. A&M provided less than 20 percent of its classroom instruction in sections of less than 20 students, while the University of California-Berkeley taught 58 percent of classroom instruction in sections of less than 20 students. Similarly, A&M taught 12 percent of classes in sections with more than 100 students, while Kansas State University, Oklahoma State University, the University of North Carolina Chapel-Hill, and the University of Illinois-Urbana Champaign taught only 5 percent of classes in sections with more than 100 students. Although these data could be interpreted to mean that A&M is taking advantage of economies of scale in classroom size, the data could also indicate that classes at A&M are too large to be pedagogically sound. Current and former students indicated that larger class sizes caused problems in graduating on time and made courses more difficult.

When developing a course schedule, department chairs and others setting the schedule set maximum sizes for each section. The goal is to enroll as many students in each section as possible. Several factors are critical to scheduling decisions, including the size of the room and the equipment available, accreditation requirements, learning theory, and the amount of reading or grading required. Schedulers also consider the minimum number of students required for a class to “make” and may adjust this number if the course is required for graduation.

Failure to review minimum class enrollments when putting together a schedule can lead to inefficiency. The Council for Educational Facility Planners International (CEFPI) sets standards or guidelines/formulas for class size to improve efficiency. Some university systems also set standards. For example, the University of California System set a minimum standard of 70 percent capacity. When the average “fill rate” declines, average class size and efficiency are reduced.

**Exhibit 2–14**  
**Class Sections by Size and as a Percent of Total Classes**  
**A&M and Peer Universities**

Class Sections by Size and Percent of Total Classes															
I3-Undergraduate Class Size	2–9	% of total	10–19	% of total	20–29	% of total	30–39	% of total	40–49	% of total	50–99	% of total	100+	% of total	Total Classes
<b>A&amp;M</b>	<b>69</b>	<b>2%</b>	<b>551</b>	<b>17%</b>	<b>939</b>	<b>29%</b>	<b>611</b>	<b>19%</b>	<b>274</b>	<b>8%</b>	<b>440</b>	<b>13%</b>	<b>387</b>	<b>12%</b>	<b>3,271</b>
Iowa State	309	12%	598	23%	603	24%	355	14%	199	8%	280	11%	216	8%	2,560
Kansas State	657	19%	1,027	30%	727	21%	357	11%	245	7%	204	6%	172	5%	3,389
Michigan State	116	5%	394	16%	728	30%	442	18%	192	8%	292	12%	303	12%	2,467
Ohio State	754	19%	904	23%	874	23%	388	10%	262	7%	442	11%	252	6%	3,879
Oklahoma State	199	8%	476	19%	701	28%	357	14%	321	13%	295	12%	130	5%	2,479
Purdue	582	14%	907	22%	1,001	24%	551	13%	293	7%	471	11%	316	8%	4,121
U of Maryland	407	13%	711	22%	931	29%	511	16%	205	6%	269	8%	209	6%	3,243
U of Nebraska	271	12%	432	20%	637	29%	375	17%	166	8%	154	7%	160	7%	2,195
U of Wisconsin	303	10%	979	32%	760	25%	265	9%	186	6%	267	9%	297	10%	3,057
UC-Berkeley	1,019	31%	895	27%	484	15%	228	7%	131	4%	268	8%	231	7%	3,256
U of Florida	355	12%	624	21%	661	22%	389	13%	258	9%	350	12%	317	11%	2,954
UNC-Chapel Hill	307	13%	901	38%	440	19%	297	13%	125	5%	163	7%	120	5%	2,353
U of Texas-Austin	197	5%	1,030	28%	1,042	28%	347	9%	191	5%	538	14%	398	11%	3,743
Virginia Tech	147	6%	366	15%	643	27%	477	20%	291	12%	314	13%	188	8%	2,426
U of Illinois-U-C	861	14%	1,571	25%	2,031	32%	933	15%	258	4%	373	6%	306	5%	6,333

Source: 2003–04 Common Data Set from each university’s web site.

**Exhibit 2–15** provides information on the average class size by the level of class and by each college for fall 2003. At the lower division level (freshman and sophomore), the average lecture class size was 77.1 students, while the average upper division lecture course size was 44.4 students. As expected, graduate courses were smaller.

**Exhibit 2-15  
Texas A&M University  
Average Class Size Report by College Fall 2003**

Texas A&M University		Freshman		Sophomore		Lower Div.		Junior		Senior		Upper Div.		Undergraduate		Graduate		Total	
College	Type Instr.	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size	Sections	Avg Size
Agriculture	Lec	23	132.7	37	98.1	60	111.4	106	68.5	144	37.8	250	50.8	310	62.5	135	12.1	445	47.2
	Lab	29	30.0	65	21.7	94	24.3	111	22.6	99	19.8	210	21.3	304	22.2	23	9.0	327	21.3
	Sem			1	43.0	1	43.0			1	28.0	1	28.0	2	35.5	3	10.3	5	20.4
<b>Total Agriculture</b>		<b>52</b>	<b>75.5</b>	<b>103</b>	<b>49.4</b>	<b>155</b>	<b>58.1</b>	<b>217</b>	<b>45.0</b>	<b>244</b>	<b>30.5</b>	<b>461</b>	<b>37.3</b>	<b>616</b>	<b>42.6</b>	<b>161</b>	<b>11.6</b>	<b>777</b>	<b>36.1</b>
Architecture	Lec	29	55.4	22	60.0	51	57.4	44	32.5	31	26.3	75	29.9	126	41.1	76	14.7	202	31.1
	Lab	21	21.7	15	23.9	36	22.6	31	18.0	9	16.0	40	17.6	76	20.0	30	12.8	106	17.9
	Sem																		
<b>Total Architecture</b>		<b>50</b>	<b>41.3</b>	<b>37</b>	<b>45.4</b>	<b>87</b>	<b>43.0</b>	<b>75</b>	<b>26.5</b>	<b>40</b>	<b>24.0</b>	<b>115</b>	<b>25.6</b>	<b>202</b>	<b>33.1</b>	<b>106</b>	<b>14.2</b>	<b>308</b>	<b>26.6</b>
Business Admin	Lec	1	461.0	40	134.4	41	142.3	73	103.1	86	37.2	159	67.5	200	82.8	119	32.8	319	64.2
	Sem															4	5.0	4	5.0
	Sem																		
<b>Total Business Admin</b>		<b>1</b>	<b>461.0</b>	<b>40</b>	<b>134.4</b>	<b>41</b>	<b>142.3</b>	<b>73</b>	<b>103.1</b>	<b>86</b>	<b>37.2</b>	<b>159</b>	<b>67.5</b>	<b>200</b>	<b>82.8</b>	<b>123</b>	<b>31.9</b>	<b>323</b>	<b>63.4</b>
Education	Lec	5	37.0	43	54.6	48	52.7	105	36.9	89	28.3	194	33.0	242	36.9	141	13.8	383	28.4
	Lab	372	31.0	18	30.4	390	31.0	43	27.1	15	21.0	58	25.5	448	30.3	7	8.3	455	29.9
	Sem															7	10.9	7	10.9
<b>Total Education</b>		<b>377</b>	<b>31.1</b>	<b>61</b>	<b>47.4</b>	<b>438</b>	<b>33.4</b>	<b>148</b>	<b>34.1</b>	<b>104</b>	<b>27.2</b>	<b>252</b>	<b>31.3</b>	<b>690</b>	<b>32.6</b>	<b>155</b>	<b>13.5</b>	<b>845</b>	<b>29.1</b>
Engineering	Lec	32	75.5	69	62.9	101	66.9	108	45.2	150	36.5	258	40.1	359	47.7	171	17.7	530	38.0
	Lab	50	41.7	116	29.7	166	33.3	110	17.3	150	16.5	260	16.8	426	23.3	20	21.1	446	23.2
	Sem							5	18.4			5	18.4	5	18.4			5	18.4
<b>Total Engineering</b>		<b>82</b>	<b>54.9</b>	<b>185</b>	<b>42.1</b>	<b>267</b>	<b>46.0</b>	<b>223</b>	<b>30.8</b>	<b>300</b>	<b>26.5</b>	<b>523</b>	<b>28.3</b>	<b>790</b>	<b>34.3</b>	<b>191</b>	<b>18.0</b>	<b>981</b>	<b>31.1</b>
G. Bush	Lec															31	15.1	31	15.1
	Sem																		
<b>Total G. Bush</b>																<b>31</b>	<b>15.1</b>	<b>31</b>	<b>15.1</b>
Geosciences	Lec	12	130.9	25	114.7	37	12.0	19	76.4	17	22.5	36	51.0	73	85.9	27	12.3	100	66.1
	Lab	82	18.8	64	22.0	146	20.2	20	14.8	11	14.5	31	14.6	177	19.2	6	11.8	183	19.0
	Sem															1	42.0	1	42.0
<b>Total Geosciences</b>		<b>94</b>	<b>33.1</b>	<b>89</b>	<b>48.0</b>	<b>183</b>	<b>40.4</b>	<b>39</b>	<b>44.8</b>	<b>28</b>	<b>19.4</b>	<b>67</b>	<b>34.2</b>	<b>250</b>	<b>38.7</b>	<b>34</b>	<b>13.1</b>	<b>284</b>	<b>35.7</b>
Liberal Arts	Lec	161	64.1	274	69.3	435	67.4	223	46.9	110	31.9	333	42.0	768	56.4	108	11.6	876	50.8
	Lab	53	29.7	58	17.2	111	23.2	28	16.5	24	11.3	52	14.1	163	20.3	6	8.2	169	19.8
	Sem			1	248.0	1	248.0							1	248.0	6	8.5	7	42.7
<b>Total Liberal Arts</b>		<b>214</b>	<b>55.6</b>	<b>333</b>	<b>60.8</b>	<b>547</b>	<b>58.7</b>	<b>251</b>	<b>43.5</b>	<b>134</b>	<b>28.2</b>	<b>385</b>	<b>38.2</b>	<b>932</b>	<b>50.3</b>	<b>120</b>	<b>11.3</b>	<b>1052</b>	<b>45.8</b>
Other	Lec	65	22.7	22	21.7	87	22.4	10	18.7	30	21.1	40	20.5	127	21.8	1	8.0	128	21.7
	Lab	7	119.3	5	56.0	12	92.9	4	25.3	4	23.3	8	24.3	20	65.5			20	65.5
	Sem																		
<b>Total Other</b>		<b>72</b>	<b>32.1</b>	<b>27</b>	<b>28.1</b>	<b>99</b>	<b>31.0</b>	<b>14</b>	<b>20.6</b>	<b>34</b>	<b>21.4</b>	<b>48</b>	<b>21.1</b>	<b>147</b>	<b>27.8</b>	<b>1</b>	<b>8.0</b>	<b>148</b>	<b>27.6</b>
Science	Lec	114	118.4	80	85.4	194	104.8	73	55.2	36	27.4	109	46.0	303	83.6	108	16.7	411	66.0
	Lab	344	23.4	183	23.3	527	23.4	58	21.0	10	16.4	68	20.3	595	23.0	9	14.3	604	22.9
	Sem															2	6.0	2	6.0
<b>Total Science</b>		<b>458</b>	<b>47.0</b>	<b>263</b>	<b>42.2</b>	<b>721</b>	<b>45.3</b>	<b>131</b>	<b>40.1</b>	<b>46</b>	<b>25.0</b>	<b>177</b>	<b>36.1</b>	<b>898</b>	<b>43.5</b>	<b>119</b>	<b>16.3</b>	<b>1017</b>	<b>40.3</b>
Vet. Medicine	Lec	4	202.5	3	82.3	7	151.0	12	73.5	18	48.2	30	58.3	37	75.8	28	7.8	65	46.5
	Lab							7	61.3	10	41.2	17	49.5	17	49.5	10	4.5	27	32.8
	Sem									1	13.0	1	13.0	1	13.0	1	1.0	2	7.0
<b>Total Vet. Medicine</b>		<b>4</b>	<b>202.5</b>	<b>3</b>	<b>82.3</b>	<b>7</b>	<b>151.0</b>	<b>19</b>	<b>69.0</b>	<b>29</b>	<b>44.6</b>	<b>48</b>	<b>54.2</b>	<b>55</b>	<b>66.5</b>	<b>39</b>	<b>6.8</b>	<b>94</b>	<b>41.8</b>
<b>A&amp;M TOTAL LEC</b>		<b>446</b>	<b>79.3</b>	<b>615</b>	<b>75.5</b>	<b>1061</b>	<b>77.1</b>	<b>773</b>	<b>54.3</b>	<b>711</b>	<b>33.5</b>	<b>1484</b>	<b>44.4</b>	<b>2545</b>	<b>58.0</b>	<b>945</b>	<b>16.6</b>	<b>3490</b>	<b>46.8</b>
<b>LAB</b>		<b>958</b>	<b>28.1</b>	<b>524</b>	<b>24.3</b>	<b>1482</b>	<b>26.8</b>	<b>412</b>	<b>21.0</b>	<b>332</b>	<b>18.0</b>	<b>744</b>	<b>19.7</b>	<b>2226</b>	<b>24.4</b>	<b>111</b>	<b>12.3</b>	<b>2337</b>	<b>23.8</b>
<b>SEM</b>				<b>2</b>	<b>145.5</b>	<b>2</b>	<b>145.5</b>	<b>5</b>	<b>18.4</b>	<b>2</b>	<b>20.5</b>	<b>7</b>	<b>19.0</b>	<b>9</b>	<b>47.1</b>	<b>24</b>	<b>9.7</b>	<b>33</b>	<b>19.9</b>
<b>GRAND TOTAL</b>		<b>1404</b>	<b>44.4</b>	<b>1141</b>	<b>52.1</b>	<b>2545</b>	<b>47.8</b>	<b>1190</b>	<b>42.6</b>	<b>1045</b>	<b>28.6</b>	<b>2235</b>	<b>36.1</b>	<b>4780</b>	<b>42.3</b>	<b>1080</b>	<b>16.0</b>	<b>5860</b>	<b>37.5</b>

Source: A&M Office of Institutional Studies and Planning.

Class sizes varied significantly by college. The Mays Business School taught the largest lower division courses, with an average 142.3 students. The smallest average class sections were in the College of Education with an average of 33.4 students. It is likely that accreditation requirements in the College of Education had an impact on course offerings. One additional explanation for the variations is that A&M also reports lab sections that “meet with lectures” as a single course, which removes credit for smaller lab sections, as required for IPEDS reporting. However, peer institutions are required to use the same definitions for comparison and not all classes require labs. A&M is a very large university and is able to take advantage of economies of scale in its larger classes. However, as was shown in **Exhibit 2–3**, large class size did not result in lower Instruction expenditures per student. A&M expended \$9,909 per FTSE in fiscal year 2002, while the peer average was \$9,487 per FTSE. This issue will be discussed in relation to room utilization in Chapter 7.

## **RECOMMENDATION 2–2:**

### **Evaluate and adjust class sizes to ensure maximum efficiency.**

Any adjustments to class size must be evaluated carefully to ensure that A&M can operate effectively while maintaining the quality of its academic programs. Since doubling the number of small classes for undergraduates is one of the goals of *Vision 2020*, the dean of the faculty or the provost should appoint a committee or task force to evaluate course schedules. The committee should include department chairs, deans, a facilities person, as well as student representatives. The committee should review course schedules and class sizes for at least the past two years to determine which courses need adjustments.

## **FISCAL IMPACT**

This recommendation can be implemented with existing resources, and will result in more effective usage of classrooms.

## **FINDING 2-3**

A&M Instruction expenditures, which totaled \$412.7 million for fiscal year 2002, were 35 percent higher than the average Instruction expenditures for their peers, as reported in IPEDS, fiscal year 2002 Finance Surveys (**Exhibit 2–3**). To determine the possible causes for the relatively high cost, the review team analyzed data on student/faculty ratios, class size, instructional expenditures per FTSE, the percentage of courses taught by tenured and tenure-track faculty, and costs per credit hour compared to the Texas average. Since A&M is much larger than most universities, some economies of scale would likely have been observed. However, A&M still reported higher Instruction expenditures in several areas reviewed, as discussed in this section.

Legislatures and governors in Alabama, Georgia, and Florida have included the metric pertaining to the percent of undergraduate hours taught by tenured and tenure-track faculty as one measure of the quality of undergraduate programs and as a measure of faculty productivity. Since current data was not obtainable for all A&M’s peer institutions for this metric at the time of this report, a comparison is not available. The Texas Legislature has included a measure, “Percent of Lower Division Courses Taught by Tenured or Tenure-Track Faculty,” in the state’s strategic planning and budgeting system since 1995. According to this performance measure data reported in fall 2003, tenured and tenure-track faculty taught 48.7 percent of lower division credit hours, and in spring 2004, this faculty taught 44.6 percent of lower division credit hours. Statewide, A&M reported performance ranks below approximately two-thirds of other Texas institutions. A&M’s *Vision 2020* has also set a goal of 75 percent of lower division courses to be taught by tenured and tenure-track faculty.

The A&M student/faculty ratio of 21:1 as shown in **Exhibit 2-13** is larger than the peer average. Thus, the cost of instruction should be less than the peer average.

In addition, A&M class sizes are larger than the peer average as shown in **Exhibit 2-14**, also leading to the assumption that the cost of instruction per student should be less than average.

Faculty salaries at A&M are marginally less than the average faculty salaries at the peer institutions as shown in Chapter 3, which would also cause the expectation of lower than average instructional costs.

Since a smaller percentage of undergraduate credit hours are taught by tenured and tenure-track faculty at A&M than at other research universities, instructional costs should be less for A&M since salaries of tenured and tenure-track faculty are usually higher than salaries of instructors or lecturers, or graduate assistants.

Despite these factors, Instruction expenditures per FTSE at A&M are greater than the peer average. The only reason for this seeming contradiction is that departmental operating costs are higher than those of the peers. This situation is summarized in **Exhibit 2-16**.

**Exhibit 2-16  
Instructional Cost Factors and Their Influence on Instructional Costs**

Instructional Cost Factor	A&M Relation to Peers or Benchmarks	Meaning Related to Cost of Instruction
Faculty salaries	Less than peers	Should be less per student
Economies of scale	Larger than peers	Should be less per student
Class size	Greater than peers	Should be less per student
Student/Faculty Ratios	Higher than peers	Should be less per student
% Credit Hours taught by tenured & tenure-track faculty	Less than peers	Should be less per student
% Faculty with terminal degrees	Marginally less than peers	Should be marginally less per student
Departmental operating costs	Greater than peers	Should be greater per student

Source: MGT, 2004.

**RECOMMENDATION 2-3:**

**Examine departmental operating costs included in Instructional expenditures, to identify and reduce areas of possible excessive cost.**

This recommendation is discussed in detail in Chapter 4, as Recommendation 4-1 with the possible fiscal impact.

**C. STUDENT PERFORMANCE AND ACHIEVEMENT**

In its efforts to assess overall effectiveness and measure progress toward the imperatives in *Vision 2020*, A&M captures data on a variety of metrics that relate to enrollment and students. Data are collected on delivery systems, the number of students served, retention and graduation rates, and the number of degrees awarded. The student enrollment figures displayed in **Exhibit 2-1** showed that A&M has a smaller proportion of minority students and a greater proportion of undergraduate students than the peer universities.

### Evaluation of Progress Toward Goals

A&M uses a number of metrics to evaluate progress toward the goals of *Vision 2020* related to Imperative 3: Enhance the Undergraduate Academic Experience. Among those goals are the following: Attain a 95 percent freshman retention rate and an 80 percent six-year graduation rate. **Exhibit 2–17** displays the six-year graduation rate and the freshman retention rate for A&M and its 15 peer universities. A&M retains 89 percent of its freshmen, compared to a peer average of 95 percent. A&M’s six-year graduation rate was 75 percent, about equal to that of the peer universities. The exhibit also includes the “predicted graduation rate,” which predicts the graduation “capability” of each student based on variables such as SAT/ACT score, class rank, and demographic variables. A&M’s actual graduation rate was 5 percent higher than the predicted graduation rate.

Other indicators used by A&M in *Vision 2020* include median SAT scores for the entering freshman class, the number of National Merit Scholars, and national rank. These data are displayed in **Exhibit 2–18**. A&M ranks highly on the number of National Merit Scholars.

**Exhibit 2–17**  
**Freshman Retention and Six-year Graduation Rates, A&M and Peer Universities**

	Freshman Retention %	Predicted 6 yr grad %	Actual 6 yr grad %
A&M	89	70	75
Iowa State	84	59	65
Kansas State	78	50	55
Michigan State	89	54	69
Ohio State	85	54	59
Oklahoma State	83	60	55
Purdue	88	57	64
U of Maryland	91	67	69
U of Nebraska	81	54	54
U of Wisconsin	91	70	77
UC-Berkeley	95	87	84
U of Florida	92	74	77
UNC-Chapel Hill	95	78	80
U of Texas-Austin	91	73	71
Virginia Tech	88	64	74
U of Illinois-U-C	92	74	80

Source: 2003–04 Common Data Set from each university’s web site.

**Exhibit 2–18**  
**Merit Scholars and SAT Scores, A&M and Peer Universities**

	Median SAT 2000	National Rank	National Merit Scholars 2002	National Rank
A&M	1180	37	160	4
Iowa State	1210	23	99	10
Kansas State	1050	165	9	66
Michigan State	1115	83	51	20
Ohio State	1160	50	119	6
Oklahoma State	1110	90	13	58
Purdue	1130	69	90	12
U of Maryland	1250	12	58	15
U of Nebraska	1145	58	42	25
U of Wisconsin	1245	15	149	5
UC-Berkeley	1320	2	67	13
U of Florida	1210	23	237	2
UNC-Chapel Hill	1235	19	149	5
U of Texas-Austin	1195	32	271	1
Virginia Tech	1175	43	23	41
U of Illinois-U-C	1245	15	32	34

Source: The Center’s Lombardi Program on Measuring University Performance, 2003.

A&M uses another set of metrics in the evaluation of progress toward the goals of *Vision 2020*. These metrics are related to the number of doctorates awarded, the number of postdoctoral fellowships



awarded, and faculty productivity. **Exhibit 2–19** provides information on the number of graduate awards, faculty awards, and national academy fellowships at A&M.

**Exhibit 2–19**  
**Faculty and Graduate Program Productivity, A&M and Peers**

	2002 National Academy Members	National Rank, Publics	2002 Faculty Awards	National Rank	Doctorates Granted	National Rank	Post-doctoral Fellows	National Rank
A&M	17	27	13	26	504	11	232	26
Iowa State	9	35	13	26	239	38	180	44
Kansas State	0	114	5	66	152	62	122	60
Michigan State	6	47	13	26	428	14	289	23
Ohio State	17	27	21	10	617	4	283	24
Oklahoma State	3	64	4	79	188	51	43	98
Purdue	15	30	17	19	409	15	247	32
U of Maryland	1	23	19	15	430	13	224	35
U of Nebraska	2	70	6	56	213	46	76	74
U of Wisconsin	69	6	52	1	650	2	467	12
UC-Berkeley	202	1	27	4	850	1	896	3
U of Florida	16	29	16	22	607	6	510	11
UNC-Chapel Hill	36	12	24	9	390	17	594	8
U of Texas-Austin	53	8	20	13	639	3	207	40
Virginia Tech	12	32	10	36	326	24	111	66
U of Illinois-U-C	51	9	26	5	602	7	261	27

*Source: The Center's Lombardi Program on Measuring University Performance, 2003.*

In addition to the 17 national academy members reported by The Center's annual report, The Top Research Universities for A&M, two A&M faculty members that are national academy members were inadvertently left out of the count. A&M has made progress on the number of national academy members and the number of faculty awards. A&M is competitive with its peers in terms of doctorates awarded and post-doctoral fellowships.

#### **D. STRUCTURAL STATUTORY OR REGULATORY BARRIERS**

A&M must follow Texas state laws, federal laws, and THECB rules and regulations as well as A&M System Board of Regents policies and procedures. THECB rules and regulations may be found at the THECB web site, <http://www.thecb.state.tx.us/>. State laws are published each biennium in the *Texas School Law Bulletin*; laws applicable to higher education begin with Title 3, Chapter 51 and relate to control of funds, general property, faculty development, information network associations, protection of buildings and grounds, maintaining campus order, required and elective courses, admissions, and tuition and fees. As part of the performance review process, the review team requested feedback from A&M management regarding potential statutory or regulatory barriers faced by the university. Findings 2-4 through 2-8 below are barriers identified by A&M.

#### **FINDING 2-4**

Over 50 percent of the freshman class was automatically admitted to A&M under § 51.803 of the Texas Education Code (TEC) (the so-called "Top 10% Rule"). Although the rules were originally intended to ensure minority students equal access to Texas public colleges and universities, A&M's minority student enrollment has had not increased as of fall 2003 and lags behind peer institutions (See **Exhibit 2–1**). Although slight increases were seen in minority enrollments for fall 2004, the university attributes the growth to increased recruitment efforts, as opposed to admissions criteria.

In addition, *Closing the Gaps*, the approved THECB plan for meeting the access and enrollment needs of Texas universities, calls for larger minority enrollments by 2020. If A&M is to reach the goals in *Closing the Gaps*, additional means for increasing minority enrollments must be found – such as the recruiting initiatives A&M has implemented. **Exhibit 2–20** lists the percentage of the entering

class who ranked in the top ten percent of their high school graduating class for A&M and its peer universities. The peers were able to enroll a high quality freshman class that was more diverse than A&M’s without a top ten percent rule.

**Exhibit 2–20  
Freshmen in Top 10 Percent of High School Class, A&M and Peers**

<b>Institution</b>	<b>% Minority</b>	<b>% in Top 10%</b>
<b>A&amp;M</b>	<b>23.4</b>	<b>55</b>
University of California Berkeley	65.1	99
University of Florida	31.8	75
University of Illinois – Urbana-Champaign	38.0	56
Iowa State University	22.2	25
Kansas State University	14.6	24
University of Maryland College Park	42.7	58
Michigan State University	24.4	26
University of Nebraska – Lincoln	16.6	26
University of North Carolina Chapel Hill	24.0	71
Ohio State University	26.2	32
Oklahoma State University	24.5	27
University of Texas at Austin	39.8	53
Virginia Tech	24.5	40
University of Wisconsin – Madison	18.4	55
Purdue University	22.4	28
<b>Peer Average</b>	<b>29.0</b>	<b>46</b>

*Sources: Percent minority calculated from IPEDS enrollment data; percent in top ten from U.S. News & World Report America’s Best Colleges 2004.*

A&M deans and other administrative staff perceive that the law actually limits the diversity of the A&M entering freshman class because there are limited places left after the students in the top 10 percent group are admitted. For the more selective colleges within A&M, such as the College of Business, over 75 percent of the entering class spaces are filled by students automatically admitted under the top ten percent rule.

**FINDING 2-5**

Section 54.0065 of the TEC, Tuition Rebates for Certain Undergraduates, has become an “unfunded mandate” of the legislature according to the university. This section of the TEC provides that a student is eligible for a refund of up to \$1,000 of undergraduate tuition if the student has attempted no more than three hours beyond the minimum number of semester credit hours required to complete a bachelor’s degree. Each institution is to pay for the rebate from local funds, but the legislature has not increased general funds appropriated to the institution in an equal amount. The code states that it is the intent of the legislature to fund rebates through the savings to the state resulting from reductions in the number of courses taken by undergraduates. During academic year 2003–04, the tuition rebate paid by A&M totaled \$1.36 million; however, state appropriations have not increased for this situation.

Moreover, students are eligible for the rebate regardless of how long it takes to complete their degree. The only qualification is that the graduate has no more than three credit hours beyond the degree; if the student takes six or seven years to graduate, but does not exceed the credit limitation, the student is eligible for the rebate. Consequently, this law does not encourage students to graduate within four years.

**FINDING 2-6**

Section 54.066 and §61.059 of the TEC, relating to formula funding and tuition rates for doctoral students who have a total of 100 or more semester credit hours of doctoral work at an institution of higher education, does not adequately consider the requirements of most doctoral programs in

humanities, the sciences, engineering, and education, or the circumstances of doctoral students who have transferred among institutions. The limit of 100 credit hours translates to about 10 semesters of work, or five years. The national mean time to obtain a degree in history, English, education, the sciences, or engineering is 7.3 years.

These sections of TEC impact research universities like A&M most heavily because A&M enrolls a significant number of doctoral students in programs whose average time to obtain a degree can be ten years and not five, depending on the type of research project the student is completing for his/her doctoral thesis.

#### **FINDING 2-7**

The General Appropriations Act, Special Provisions Relating Only to State Agencies of Higher Education, Sec. 50, Limitation on Formula Funding Contact and Semester Credit Hours, places an excessive administrative burden on universities. This rider states the intent of the legislature to control costs and limit General Revenue formula appropriations by excluding credit hours for students generating formula funding for the third time, and will reduce A&M's biennial appropriations by approximately \$800,000. A&M will be required to keep special records that show any attempt a student makes at a course at all institutions the student attended. The administrative burden of this section appears excessive.

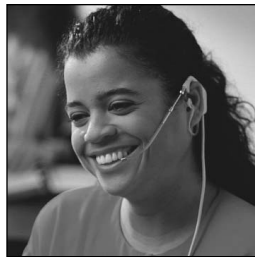
#### **FINDING 2-8**

The Texas Education Agency (TEA) does not provide lists of graduating high school students who are in the top ten percent of their graduating class. Since class rank is not required to be provided on high school grade transcripts, for purposes of determining if a high school student is eligible for automatic admission to A&M or any other Texas public college or university, an official listing from the high school, school district, or TEA would facilitate recruiting and admissions processes. TEA has indicated that provision of such a list would violate the Family Educational Rights and Privacy Act (FERPA). Since all colleges and universities need the listing to verify student standing, they must go directly to the high schools for verification. This is an inefficient process.

#### **RECOMMENDATION 2-4 through 2-8:**

**The legislature should consider the potential barriers identified by A&M in Findings 2-4 through 2-8 and develop remedies where appropriate.**





# Chapter 3

## Human Resources Management

Texas A&M University College Station



*Chapter 3*  
***HUMAN RESOURCES MANAGEMENT***

This chapter reviews the Human Resources functions of Texas A&M University (A&M) in the following sections:

- A. Organizational Structure
- B. Key Faculty Policies and Procedures, including Tenure
  - Faculty recruitment
  - Tenure and promotion, including annual performance review and tenure review
- C. Faculty Salaries, Workload and Productivity, Performance Appraisal
  - Faculty salaries
  - Faculty workload and productivity
  - Faculty research productivity

Human resources management is critical for any organization to recruit and retain quality employees. As the success of a university depends in large part on its faculty, efficient and effective management of the Human Resources functions of faculty, including workload, productivity, and compensation, is of great importance.

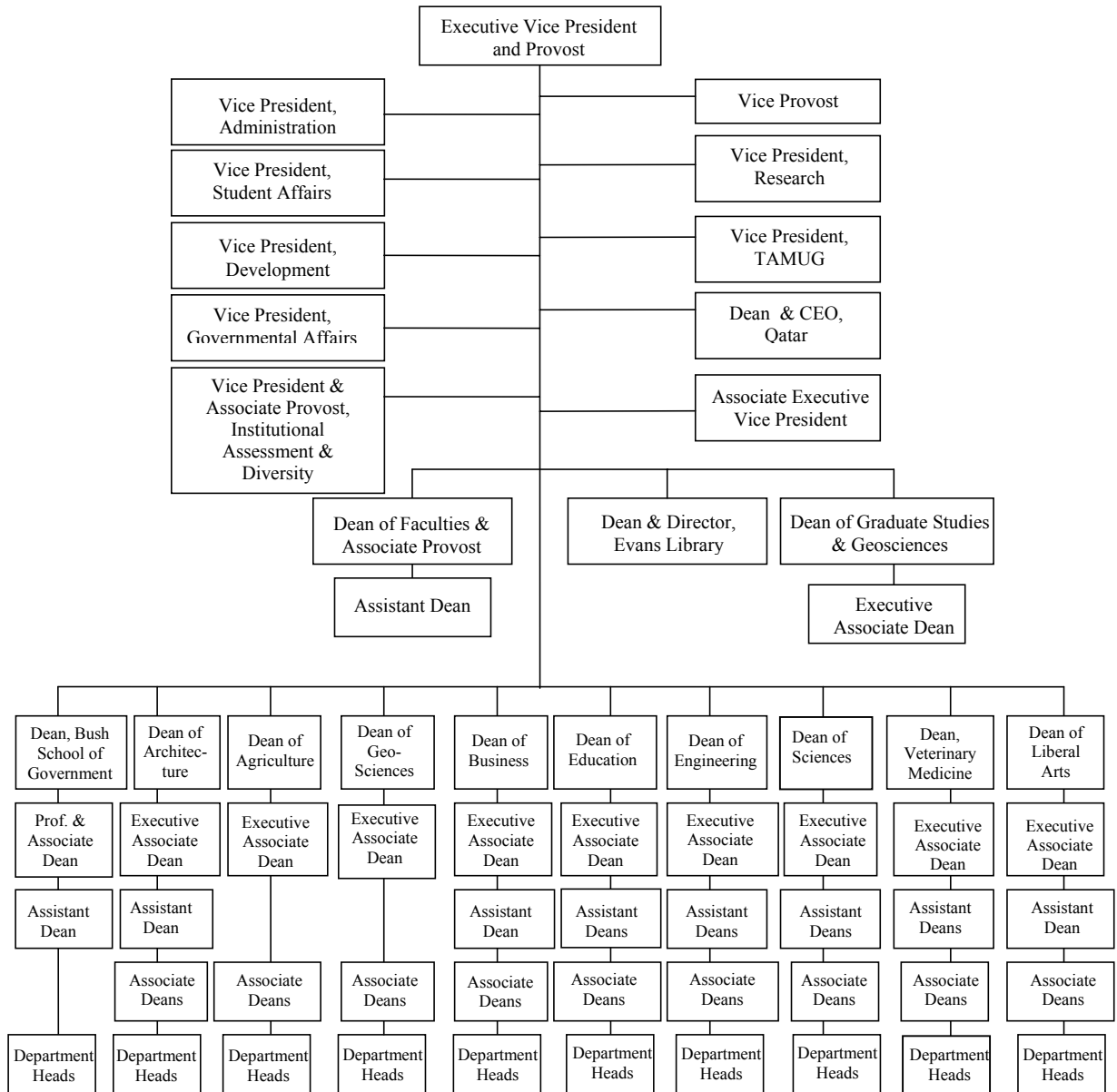
***A. ORGANIZATIONAL STRUCTURE***

Like many universities, A&M has organized its Human Resources management functions into two separate functions—faculty and non-faculty. With the exception of benefits administration, the Dean of Faculties Office oversees Human Resources functions for faculty. A&M’s Human Resources Office handles Human Resources functions for all non-faculty employees, as well as benefits administration for all A&M employees. A broad organizational structure of academic governance is presented in **Exhibit 3–1**, and a more detailed organizational structure of the dean of Faculties Office is presented in **Exhibit 3–2**.

The mission statement of the Office of the Dean of Faculties states that the office is to work with multiple constituencies to facilitate an environment in which the maximum potential of each faculty member can be achieved. The office is charged with providing to the university community leadership and service of distinction in facilitation of faculty and administrator development, commitment to standards of quality in evaluation of faculty and administrators, commitment to diversity, advocacy for individual and collective faculty rights, recognition of achievement, and enhancement of the academic environment. Primary responsibilities of the office include the following:

- faculty ombudsmen;
- promotion, tenure, and development of faculty;
- appointment, evaluation, and development of academic administrators;
- advocacy for women and minority faculty;
- recruitment and retention of faculty;
- faculty development leave;
- appointment and evaluation of endowed and distinguished professors;
- retirement programs;
- awards programs; and partner placement.

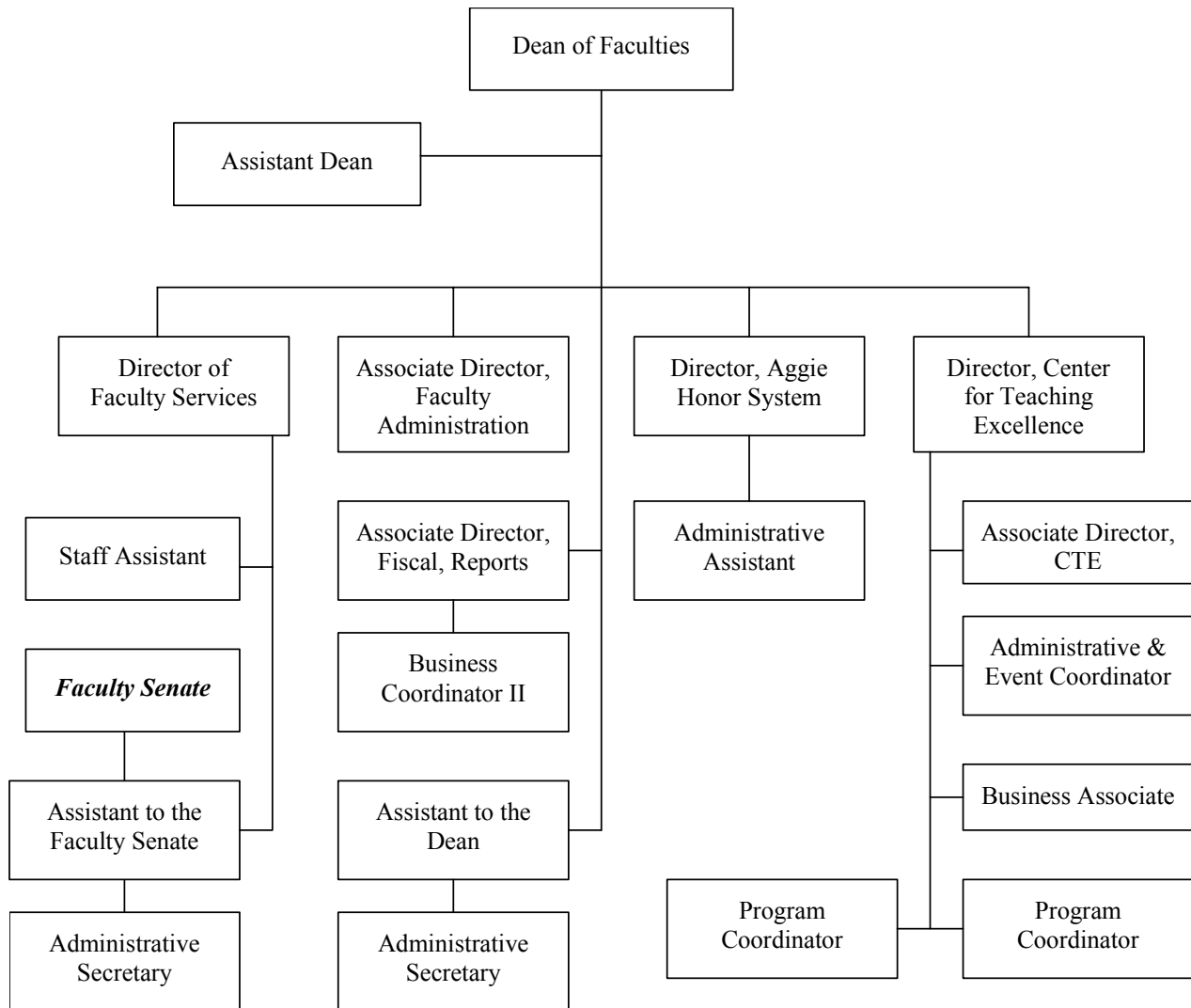
**Exhibit 3-1  
A&M Academic Governance Organizational Structure**



Source: A&M, 2004.



**Exhibit 3-2  
A&M Dean of Faculties Office Organizational Structure**



Source: A&M, 2004.

**FINDING 3-1**

The dean of faculties serves as a representative of the administration and a confidential resource to faculty for issue resolution (ombudsman), as well as serving in formal grievance processes, administrative decisions, and as judge in some cases. In essence, an ombudsmen serves as a “representative of the people” who handles grievances in an effective and efficient manner.

According to the University and College Ombudsman Association (UCOA), the following activities should not be combined with the responsibilities of the ombudsman's office:

- Participate in formal grievance processes or testify in law suits;
- Make administrative decisions for administrators;
- Determine "guilt" or "innocence" of those accused of wrong-doing;
- Assign sanctions to individuals; and
- Give legal advice.

The dean of faculties position requires participation in formal grievance processes, administrative decisions, and corrective actions. In addition, among peer institutions, it is much more common for a faculty member in a non-administrative capacity to serve as the ombudsman, with the one exception being the University of Wisconsin-Madison, where the associate vice chancellor occupies the position.

Although nothing from this review indicates that the dean has failed to perform either role effectively, it is not a good practice to utilize a division of labor that combines these roles, as is the case at A&M.

### **RECOMMENDATION 3-1:**

**Remove the ombudsman's duties from the dean of faculties office and assign the duties to a faculty member.**

The dean of faculties should be involved in resolving and, in some cases, negotiating grievances, but should not be the advocate. Typically, an ombudsman's duties do not require more than 4 hours per week, or ten percent, of a person's workload. A faculty member could be assigned this responsibility.

### **FISCAL IMPACT**

This recommendation can be implemented within existing resources, and at no additional cost by having a member of the faculty serve as Ombudsman as part of their assignment. There also would not be cost savings related to removing the duties from the dean of faculties, as the dean would still be involved in resolving, and in some cases negotiating grievances.

### **FINDING 3-2**

The A&M dean of faculties and the Human Resource Department operate without the benefit of an annual formal survey to assess faculty or staff satisfaction with human resource services at A&M. However, the Texas A&M University System (A&M System) Human Resources Office conducts a formal survey of component institutions every other year to assess satisfaction with human resource services, and reports the results to each component. While the biennial System Office survey results are beneficial, there is not a mechanism for ascertaining the level of need for, and satisfaction with, the services provided at A&M on an annual basis. The absence of this information reduces the capability of the Human Resources director and the dean in adjusting service delivery, changing options offered, and responding to potential future needs.

### **RECOMMENDATION 3-2:**

**Conduct an annual customer service survey to assess the level of need for, and satisfaction with, the services provided by the dean of faculties and the Human Resources Department.**

## FISCAL IMPACT

This recommendation can be implemented within existing resources. It is not likely that any resources can be saved by this recommendation; rather, the offices will operate more effectively.

### ***B. KEY FACULTY POLICIES AND PROCEDURES, INCLUDING TENURE***

#### **Faculty Recruitment**

*Faculty Recruitment Procedure 12.99.99 M1* is designed to provide fairness to candidates in the recruitment process. The authorization to recruit tenured and tenure-earning faculty is formally initiated by a request to initiate recruitment from the department head to the college or library dean. The authorization to recruit is to include the position title, description of the academic duties of the position, minimum criteria to be required, an outline of the search procedure to be used, a proposed salary, and an appointment period.

The dean must approve initiation of the recruitment process. A search may not be required for non-tenure earning faculty with short-term appointments, very specific short-term academic duties, or if an appointment is necessitated by an emergency situation. In such cases, a memorandum to the dean describing the circumstances is sufficient.

A review of recent faculty applications indicates that faculty participation is defined “as provided for in department and/or college procedures.” At the point of requesting an approval to offer the position, several pieces of documentation are required, one of which is a description of the departmental process for the recruitment and selection of the proposed appointee.

The dean of faculties has primary authority for the recruitment and retention of faculty. The dean of faculties is also responsible, among other duties, for the advocacy of Women and Minority Faculty and Partner Placement. If a faculty appointment is with the recommendation for tenure, the provost's approval is also required. Each department has the authority to recruit and make recommendations on hiring faculty, upon authorization of the respective dean. Approval to initiate faculty appointments proceeds from the department head to the dean, and from the dean to the dean of faculties.

#### **FINDING 3-3**

A&M does not consistently abide by its personnel policies as described in the Texas Labor Code regarding data collection for workforce analyses and reporting. Texas Labor Code Sections 21.452, 21.501, 21.502, 21.504, and 21.552 require personnel policies and selection procedures that incorporate a workforce diversity program, workforce analyses, a recruitment plan based on workforce availability analyses, and annual collection and reporting of Equal Employment Opportunity (EEO) related data.

The decentralized nature of faculty human resource management, as provided by university policy, authorizes colleges and departments to follow self-developed and managed procedures for recruiting and hiring new faculty. The Human Resource Department and the Dean of Faculties Office require the completion of an EEO statement as part of the application process. The Dean of Faculties Office developed and currently posts on their web site a form for applicant response (Applicant EEO Data Form) and a form for summary purposes (Applicant EEO Tracking Log). While every department is told, after receiving an application, to direct all applicants to complete the forms, the response rate is sparse and there

are no formal enforcement measures in place to ensure that faculty completes the forms. However, the Dean of Faculties Office noted that the response rate has improved since moving requests from a central office location to a mail out procedure.

A&M uses a decentralized process for hiring faculty and certain other staff that differs from faculty hiring processes used by other universities. Each college and department conducts its own searches, and these processes may vary from college to college. This is a weakness of the decentralized administrative processes that is discussed in Chapters 1 and 4. The absence of complete applicant pool records violates the law and institutional policy, and prevents inclusion of complete applicant data in A&M's diversity planning and analysis.

### **RECOMMENDATION 3–3:**

#### **Enforce uniform Equal Employment Opportunity reporting and analysis procedures related to faculty hiring.**

Uniform EEO reporting is required by Texas Labor Code Section 21.552 and A&M System Office policy. In addition, the collection and reporting of racial/ethnic data on the Fall Staff (S) survey is mandatory for all institutions which receive, are applicants for, or expect to be applicants for federal financial assistance as defined in the Department of Education (ED) regulations implementing Title VI of the Civil Rights Act of 1964 (34 CFR 100.13). The collection of data is also mandated by Public Law 88–352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972 (29 CFR 1602, subparts O, P, and Q). Institutions with 15 or more full-time employees are required to respond to the IPEDS Fall Staff component. The completion of all IPEDS surveys in a timely and accurate manner is mandatory for all institutions that participate in or are applicants for participation in any federal financial assistance program authorized by Title IV of the Higher Education Act of 1965, as amended. Completion of the surveys is mandated by 20 USC 1094, Section 487(a)(17).

### **FISCAL IMPACT**

This recommendation can be implemented within existing resources.

### **Tenure And Promotion Policies And Procedures—Annual Review**

*University Policy 12.01.99.M2*—University Statement on Academic Freedom, Responsibility, Tenure, and Promotion—seeks to establish a “spirit of cooperation, good faith, and responsibility,” and to provide useful guidelines for situations not specifically described in the policy.

The policy guidelines first provide for an annual faculty review to serve as the primary documentation for evaluation of job performance in the areas of assigned responsibility and for merit salary increases. To ensure consistency of evaluation over time, each department is required to publish its annual review procedure, which is subject to the approval of the dean. The dean of faculties reviews all annual review procedures to ensure compliance with university policy.

Required components of the annual faculty review include the following:

- Report of previous activities, including teaching, research, and service activities accomplished during the previous academic year.
- Written assessment of faculty member's performance by the department head. The assessment is also to include expectations for the coming year in the areas of teaching, research, and service.
- Upon request of either party, a meeting to discuss the written review or future expectations.
- Assessment making sure that weights given to teaching, research, and service are consistent with expectations reflected in the annual assignment of duties. For example, persons solely with teaching responsibilities who attain excellence in all aspects of teaching should receive comparable merit to persons with multiple responsibilities.

The annual faculty guidelines issued by the university are sufficiently detailed to provide guidance to departments that have been delegated the responsibility of developing their annual review process. To ensure appropriate accountability and consistency across years, especially at the point at which tenure is considered, the department is required to annually post its review procedures, which are then subject to the approval of both the respective department dean and the dean of faculties. If any departmental procedures are found to be in noncompliance with university policies, the dean and/or the dean of faculties are in a position to suggest appropriate modifications.

Components of the A&M tenure system include the following:

- probationary period not to exceed seven years of full-time service;
- concurrent promotion and tenure to the associate professor level;
- annual performance review;
- mandatory third-year review to familiarize the faculty member with the tenure process and ensure that the faculty member understands expectations;
- descriptions of the categories of the three key performance areas—teaching, research, and service;
- college tenure criteria;
- university tenure criteria; and
- evaluation processes and criteria. This requires college and faculty to jointly develop written guidelines describing the evaluation criteria and procedures employed in the unit. The guidelines must include the following:
  - relative importance and normal level of performance required in each category of performance; and,
  - description of procedures for evaluating of faculty, including review committees, selection of members, responsibilities of committee, and a timeline.

The college wide Tenure and Promotion Committee forwards tenure recommendations to the respective department dean. If the dean overturns a recommendation for tenure/promotion, the department may resubmit the recommendation, but only if new material is included in the file.

The recommendation of the dean is submitted to the provost for review and is subsequently forwarded to the president and the chancellor of the system for final approval by the Board of Regents, which must officially designate tenure status.

**FINDING 3-4**

A&M administration does not have a formal process in place to ensure that an annual review of the colleges' tenure criteria is conducted. As shown in **Exhibit 3-3**, tenure approvals increased by 11.4 percent between the 2000-01 and 2003-04 academic years.

While the data indicate an increasingly high approval rate, it is unclear whether this is a function of significant pre-screening of applicants or tenure evaluation processes that do not adequately gauge faculty performance. It may well be that the quality of the faculty coming up for tenure is very high.

**Exhibit 3-3**  
**A&M Tenure Approvals**

Approval Progression	Academic Year			
	2000-01	2001-02	2002-03	2003-04
# of Tenure Applicants	44	36	46	41
# of approvals at Department level	41	35	45	41
# of approvals at College level	39	35	44	40
# of approvals at Provost level	39	34	44	41
# of approvals at President's level	39	34	44	41
# of approvals at Board level	39	34	44	41
% of applicants approved	88.6%	94.4%	95.7%	100.0%

*Source: Dean of Faculties Office, A&M 2004.*

Data from peer institutions indicate that a 100 percent tenure approval rate is seldom attained. In fact, tenure approval rates at other universities have decreased in recent years because of tighter budgets at most public colleges and universities.

To provide a broader perspective on the tenure selection process, **Exhibit 3-4** provides a summary of the progression of new tenure-track faculty over a seven-year period. Five distinct employment year classes, beginning in 1993, are used. As noted earlier, the A&M tenure system provides for a probationary period not to exceed seven years of full-time service, an annual performance review, and a mandatory three-year review to familiarize the faculty member with the tenure process and to ensure that the faculty member understands expectations.

Given this rigorous evaluation period, which is common among universities in America, faculty often leave the university prior to the end of this seven-year probationary period. Opportunities for employment elsewhere and/or annual counseling indicating unsatisfactory progress toward achievement of standards for receiving tenure will cause a significant number of faculty to "self-select" out of the process.

**Exhibit 3–4  
A&M Tenure Attrition Rate**

<b>Class Year</b>	<b>Total Headcount</b>	<b>No Longer Employed by Seventh Year</b>	<b>Attrition Rate</b>
1993	52	18	34.6%
1994	61	32	52.5%
1995	88	43	48.9%
1996	52	24	46.2%
1997	72	31	43.1%

*Source: Dean of Faculties, TAMU, August 2004.*

As noted in **Exhibit 3–4**, the seven-year attrition rates for tenure-track faculty new hire groups range from 34.6 percent to 52.5 percent. A significant number of faculty is leaving the university prior to being eligible for tenure consideration. One would expect, then, that those remaining faculty members are more likely to receive tenure status should they choose to submit a request for consideration. This provides some justification for the high tenure approval ratings provided in **Exhibit 3–3**.

Additionally, as discussed in Chapter 2, tenure evaluation criteria vary from college to college. Coupled with the variation in tenure evaluation criteria, tenure rates merit a review of tenure criteria to determine if standards have been lowered, or if other problems exist.

#### **RECOMMENDATION 3–4:**

**Establish a formal procedure to ensure that each college’s tenure criteria are reviewed annually to evaluate consistency and equity across all colleges.**

A review of each college’s tenure criteria will determine if the criteria have been reduced, as well as ensure that standards are applied consistently and equitably across A&M. Such a review should also reduce appeals and legal actions by faculty members who could point to variation in standards for promotion and tenure as evidence of illegal discrimination.

#### **FISCAL IMPACT**

This recommendation can be implemented within existing resources.

## **C. FACULTY SALARIES, WORKLOAD AND PRODUCTIVITY**

### **Faculty Salaries**

Faculty salaries, like all employee compensation, are important measures to both faculty members and the institution. The system of rewards must be considered equitable by the institution and the faculty member alike. From a recruitment standpoint, the applicant must be attracted to the institution and motivated to perform at the highest level. From the standpoint of the institution, the compensation should not be considered excessive, but should be competitive within the market from which the faculty is recruited. Further, maintaining competitive salary levels once faculty members have been hired is important from both a retention and morale standpoint.

A&M conducts analyses of faculty salaries on a regular basis. A competitive analysis of A&M faculty salaries was conducted as part of this review, using A&M's selected peer group for comparison purposes, and similar analyses should be conducted every year. Average faculty salaries and the number of faculty by rank at A&M and its peers are shown in **Exhibit 3–5**. A&M does not have teaching “faculty” called “instructors” and the exhibit does not show an average salary for instructors.

A&M salaries are positioned near the simple average and median values of its peers at each individual rank as well as across all ranks (which also includes lecturers and faculty without rank, who are not shown). However, there is a fairly wide range in salaries at these institutions, as all faculty averages range from \$101,542 at the University of California at Berkeley to \$61,723 at Kansas State University. Salary differences have been attributed to factors such as the distribution of faculty across disciplines or variances in the average cost of living in the areas in which the institutions are located.

A&M also participates in the Oklahoma State University Faculty Salary Survey. Instead of looking at faculty salaries from a university wide perspective, the Oklahoma State survey looks at salaries in each academic discipline. About five years ago, the A&M deans each selected a group of peer institutions against which to compare faculty salaries for each department in the college. The group of peers does not change from discipline to discipline within the college. This is problematic for colleges like Agriculture and Life Sciences because the structure of the college at A&M is not the same as the structure of agriculture colleges at many other universities. For example, biological sciences are not generally departments in agriculture, but rather are located in colleges of science, natural science, biological science, or liberal arts and sciences.

When faculty salaries are compared, generally faculty wants to compare their salaries to those of faculty in similar departments that are considered peers. This is logical because salaries vary by discipline. Salaries for accountants and engineers tend to be higher than salaries for English professors or faculty in educational fields. The institutions used in the Oklahoma State comparisons for A&M were chosen because they are institutions, with which A&M competes for faculty. Generally, A&M faculty salaries are somewhat lower than salaries for faculty in the same discipline at these selected institutions.



**Exhibit 3–5**  
**Faculty Salaries By Rank, 9/10-Month Equivalent Contracts,\***  
**Texas A&M University and Peer Institutions, 2003**

Institution	Full Professor		Assoc. Prof.		Assist. Prof.		Instructor		All Ranks	
	n	Average Salary	n	Average Salary	n	Average Salary	n	Average Salary	n	Average Salary
<b>Texas A&amp;M University</b>	<b>747</b>	<b>\$100,103</b>	<b>408</b>	<b>\$71,115</b>	<b>410</b>	<b>\$61,555</b>	<b>N/A</b>	<b>N/A</b>	<b>1,813</b>	<b>\$76,634</b>
University of California–Berkeley	886	\$122,551	257	\$76,871	213	\$69,883	1	\$39,900	1,475	\$101,542
University of Florida	705	\$93,470	501	\$65,662	473	\$56,597	N/A	N/A	1,679	\$74,785
University of Illinois at Urbana–Champaign	869	\$104,100	553	\$70,151	605	\$61,428	31	\$32,315	2,229	\$78,594
Iowa State University	501	\$92,211	401	\$69,159	355	\$57,827	14	\$37,435	1,415	\$70,856
Kansas State University	280	\$76,220	272	\$60,851	209	\$52,253	89	\$41,016	850	\$61,723
University of Maryland at College Park	667	\$107,018	401	\$74,937	273	\$69,989	32	\$50,567	1,539	\$84,260
Michigan State University	963	\$98,338	525	\$72,390	493	\$58,855	110	\$32,819	2,091	\$79,067
University of Nebraska	452	\$90,880	305	\$65,384	177	\$56,159	3	\$39,930	1,035	\$72,422
University of North Carolina–Chapel Hill	528	\$106,266	286	\$74,117	239	\$61,846	8	\$65,284	1,296	\$81,717
Ohio State University	956	\$103,538	760	\$69,088	458	\$62,262	7	\$57,070	2,181	\$82,717
Oklahoma State University	225	\$74,945	264	\$58,161	206	\$49,613	6	\$39,659	835	\$55,795
University of Texas at Austin	964	\$103,213	416	\$64,889	411	\$62,274	22	\$44,409	2,265	\$76,988
Virginia Polytechnic Institute and State University	476	\$93,332	400	\$67,767	237	\$56,795	133	\$36,318	1,251	\$71,964
University of Wisconsin–Madison	841	\$96,235	246	\$73,256	323	\$63,597	15	\$50,150	1,474	\$83,605
Purdue University	779	\$97,155	529	\$68,287	457	\$60,122	92	\$39,417	1,857	\$76,957
<b>Peer Institution Simple Averages</b>	<b>673</b>	<b>\$97,298</b>	<b>408</b>	<b>\$68,731</b>	<b>342</b>	<b>\$59,967</b>	<b>40</b>	<b>\$43,306</b>	<b>1,565</b>	<b>\$76,866</b>
<b>Peer Institution Median Values</b>	<b>705</b>	<b>\$97,155</b>	<b>401</b>	<b>\$69,088</b>	<b>323</b>	<b>\$60,122</b>	<b>19</b>	<b>\$39,915</b>	<b>1,475</b>	<b>\$76,988</b>

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2003 Faculty Salary Survey.

\* 11/12 month contract salaries adjusted by 9/11 to equate with 9/10 month contracts. Less than 9-month contract faculty are excluded.

\*\*Includes Lecturers and no rank faculty who are not otherwise depicted in exhibit.

Monitoring faculty salaries is an important task for universities. Salaries need to be consistent with the market but not below the average because low salaries make an institution a prime target for “raiding” by other institutions. Competition for the best faculty is very intense among major research universities and among those institutions that want to be major research universities.

Continued annual monitoring of salaries will provide A&M with information to ensure competitive salaries for its faculty. As more institutions compete for limited faculty pools, competitive salaries are critical to continued excellence and to meeting the institution’s mission.

### Faculty Workload And Productivity

One of the more highly charged and controversial topics pertaining to public higher education has been the issue of faculty workload and productivity. External constituencies—governors, legislators, governing board members, business people, and the general public—see the productivity of the academic enterprise as an important key in evaluating higher education's claim on scarce resources. As a result, many state legislatures and policy makers in the early 1990s mandated reports on faculty workload as well as more substantive teaching load requirements for public college and university faculty. Hines and Higham (1996) found that by 1995, 24 states had enacted mandates on faculty workload. Seventeen of these mandates originated from state legislatures, and seven originated from state higher education agencies. Since that time, legislative interest in faculty workload and productivity has declined. A recent study showed that by 2000, other faculty issues (for example, instructional technology and faculty as a human resource for the

state) were among the highest priority faculty issues in states, whereas workload and productivity was of moderate interest (Russell, 2000).<sup>1</sup>

The content of faculty work has come under increased scrutiny in recent years. Some constituencies have posed the question: What is it that faculty does? Historically, faculty work has been comprised of instruction, research, and public service activities.

- **Instruction**—While teaching usually occurs in the classroom setting, faculty spend considerable outside time in addition to their instructional responsibilities, including preparing for lectures, evaluating student performance, advising students, and conducting related administrative tasks (for example, supervising teaching assistants, preparing student progress reports, or writing reference letters for students). Furthermore, faculty may be asked to design new courses or curricula, adapt existing courses or curricula to new technology, and serve on a variety of ad hoc academic committees (for example, internal program review for accreditation).
- **Research**—Many faculties, particularly those at research or doctoral universities, are also required to conduct research related to their discipline or specialty area, seek external funding to support the costs associated with that research, and publish their findings.
- **Public Service**—In addition to disseminating knowledge to students, faculty members sometimes serve as experts or resource persons for local communities, their state, or the nation. Additionally, they often serve their disciplines by taking leadership roles in professional organizations (for example, president or journal editor), an honor that reflects well on their respective institutions.

Beyond these responsibilities, some faculty also serve on university committees (for example, strategic planning, tenure review) or fill administrative roles, such as department chair, which may require a significant or ongoing time commitment.

System Policy 12.03, Faculty Academic Workload and Reporting Requirements, requires the A&M board to adopt rules and regulations concerning faculty academic workloads consistent with general policies developed by the Texas Higher Education Coordinating Board. The president of each institution is required to develop a procedure specific to that institution, and to designate an officer to monitor workloads and prepare required reports as described.

System Policy covers the following areas:

- **Teaching Load.** This section recognizes that a full-time instructional load will vary from institution to institution (and between departments in the same institution) because of differences in instructional missions, the nature of instructional programs, the stages of development of the institutions, the nature of student bodies, and other factors. Duties that are recognized to enhance the teaching/learning process include classroom teaching, scholarly study, basic and applied research, professional development, student advising and counseling, course and curriculum development, continuing education, public service, assistance in the administration of an academic program, and similar academic activities.
- **Evaluation of Teaching Loads.** This section delegates responsibility to the president of the university to evaluate academic workloads and determine that each person employed for instructional purposes is carrying the minimum full-time equivalent load and that academic duties within and among departments are assigned equitably.

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<sup>1</sup>Note: An extensive bibliography on faculty workload issues may be found as Appendix B.

- **Minimum Teaching Load Standards.** Each institution may establish standards for teaching loads to meet the instructional obligations of the institution and its students. THECB issues the following teaching workload standards: “a minimum teaching load for undergraduate courses shall be nine semester credit hours of normal classroom teaching; a minimum teaching load for graduate courses shall be six semester credit hours of normal classroom teaching. Adjustments to these amounts may be made to account for factors such as large class sizes; laboratory, seminar, lecture, clinical, or field-type courses; availability of support services; situations where both graduate and undergraduate work are involved; courses which involve individualized instruction; and overload from the previous long semester. Teaching load may also be reduced to recognize departmental chair duties.”
- **Institutional Workload Policy.** Each institution is to have a faculty workload rule.
- **Reports Required.** Each institution is to submit Faculty Report CBM-008 to the Coordinating Board and a Faculty Workload Report for each long semester to the chancellor.

### ***A&M Faculty Workload Policy***

A&M has developed a workload policy and guidelines for faculty workload compliance reporting that complies with faculty reporting requirements of both the THECB and the A&M System Office. The policy provides for minimum workload requirements consistent with those established by the system, and detailed reporting guidelines.

### ***Assessment of Faculty Workload***

For purposes of measuring faculty workload, the review team’s analyses of instructional activity among faculty were based on the faculty and course databases for fall 2003, as provided by the A&M Office of Institutional Studies and Planning. The first analysis is limited to tenure and tenure-track faculty exclusively, and all faculty included in the analysis had to be associated with at least one course listed in the course file. A small number of faculty members teaching courses in multiple departments were excluded from the analysis.

The measures of instructional activity listed in the faculty database are “classroom teaching credits” and “total teaching credits.” According to the document entitled *Instructions for Completing the Faculty Workload Compliance Report* (October 1987), classroom teaching credits are calculated as follows:

- **Lecture and Seminar**
  - a. Undergraduate Courses—The LECTURE CONTACT hour value of the course. A course listed as 3 hours, 0 hours laboratory, 3 semester credit hours – (3-0) credit 3 – yields a teaching credit of 3. If the course is cross-listed, or meets with another section, it should be counted only once for teaching credit.
  - b. Graduate Courses—The LECTURE CONTACT hour value of the course multiplied by 1.5. A graduate course listed as (3-0) credit 3 yields a teaching credit of 4.5.
- **Laboratory Instruction**—Lab or practice time multiplied by 0.67. A laboratory course listed as (0-2) credit yields a teaching credit of 1.3 without regard to the level of the course (graduate or undergraduate).
- **Independent Study and Research**—The total student credit hours (number of students times semester credit hour value of the course) are summed for all such courses for each faculty member. The total is divided by three (3), with a limit of six (6) credits per faculty member.
- **Practicum and Student Teaching**—Faculty who are supervising practicum or student teaching courses will receive one (1) hour of teaching credit for each two students supervised, up to a maximum of nine (9) teaching credits.

In addition to classroom teaching credits, “total teaching credits” are calculated and credited toward the minimum teaching load standard. These credits are for academic duties performed outside the classroom that enhance the teaching/learning process and are funded as part of faculty salaries. As noted earlier, duties that have been recognized to enhance the teaching/learning process include scholarly study, basic and applied research, professional development, student advising and counseling, course and curriculum development, continuing education, public service, assistance and administration of the academic program, and similar academic activities. These credits may only be assigned to faculty members and graduate teaching assistants (GATs) engaged in activities that are not defined as being in compliance with the minimum requirements. Once the faculty member or GAT is in compliance, no further assignment of equivalent credits is required.

Each faculty member is assigned a rating regarding the percent of their effort that should be dedicated to teaching, as opposed to activities such as administration, research, and public service. Using this measure, a value was calculated by the review team for the number of full-time equivalent (FTE) teaching faculty. For example, if a faculty member is assigned a teaching effort rating of 50 percent, they would count for 0.5 teaching FTEs in the review team analysis.

For comparisons across various segments of the university, the review team organized and divided faculty by college and department. **Exhibit 3–6** presents the headcount number of faculty, FTE teaching faculty, classroom teaching credits, and total teaching credits reported for each department. The classroom and total teaching credits per FTE faculty have been calculated and provided in the far right columns.

**Exhibit 3–6**  
**Faculty and Classroom and Total Teaching Credits, by College and Department**  
**Texas A&M University, Fall 2003**  
**Tenured and Tenure-Track Faculty**

College	Dept.	Total Faculty	Full-Time Equivalent Teachers	Teaching Credits		Teaching Credits Per FTE Teacher	
				Classroom	Total	Classroom	Total
Agriculture & Life Sciences	AGEC	24	15.06	186.9	202.6	12.41	13.45
	AGED	15	12.77	220.5	232.0	17.27	18.17
	ANSC	32	23.04	343.1	360.1	14.89	15.63
	BAEN	16	9.28	144.4	146.4	15.56	15.78
	BCBP	26	15.49	205.4	230.4	13.26	14.87
	CLAG	1	0.06	0.5	0.5	8.33	8.33
	ENTO	20	10.74	169.1	196.1	15.74	18.26
	FRSC	12	5.74	81.7	88.7	14.23	15.45
	HRSC	14	9.45	124.4	134.4	13.16	14.22
	PLPM	14	8.46	86.9	95.9	10.27	11.34
	POSC	10	5.13	87.9	92.4	17.13	18.01
	RLEM	12	9.30	115.6	203.6	12.43	21.89
	RPTS	14	9.15	116.4	128.4	12.72	14.03
	SCSC	26	13.67	212.2	226.0	15.52	16.53
	WFSC	28	23.69	254.7	366.2	10.75	15.46
College Totals		264	171.03	2,349.7	2,703.7	13.74	15.81
Architecture	ARCH	40	38.51	512.8	554.6	13.32	14.40
	COSC	17	17.00	201.5	221.0	11.85	13.00
	LAUP	22	20.45	215.6	237.6	10.54	11.62
College Totals		79	75.96	929.9	1,013.2	12.24	13.34
Mays Business School	ACCT	21	20.35	182.5	219.2	8.97	10.77
	FINC	12	12.00	143.5	149.0	11.96	12.42
	INFO	19	18.22	150.4	192.6	8.25	10.57
	MGMT	24	23.35	221.8	252.0	9.50	10.79
	MKTG	12	11.75	116.1	132.8	9.88	11.30
College Totals		88	85.67	814.3	945.6	9.51	11.04
Education & Human Development	EAHR	29	25.32	322.2	361.2	12.73	14.27
	EPSY	28	25.64	308.4	327.4	12.03	12.77
	HLKN	29	27.45	238.6	298.6	8.69	10.88
	TLAC	24	23.28	262.2	282.2	11.26	12.12

**Exhibit 3-6 (Continued)**  
**Faculty and Classroom and Total Teaching Credits, by College and Department**  
**Texas A&M University, Fall 2003**  
**Tenured and Tenure-Track Faculty**

College	Dept.	Total Faculty	Full-Time Equivalent Teachers	Teaching Credits		Teaching Credits Per FTE Teacher	
				Classroom	Total	Classroom	Total
College Totals		110	101.69	1,131.4	1,269.4	11.13	12.48
<b>Engineering</b>	AERO	18	17.56	176.3	245.8	10.04	14.00
	BMEN	8	7.06	95.8	105.3	13.57	14.92
	CHEN	19	16.91	175.9	184.9	10.40	10.93
	CLEN	1	0.22	2.0	2.0	9.09	9.09
	CPSC	32	28.72	301.7	323.7	10.50	11.27
	CVEN	54	48.90	453.6	758.1	9.28	15.50
	ELEN	46	42.34	413.6	457.3	9.77	10.80
	ETID	19	17.95	212.4	227.4	11.83	12.67
	INEN	18	17.39	188.1	200.1	10.82	11.51
	MEEN	45	36.90	412.6	456.7	11.18	12.38
	NUEN	15	7.52	115.1	125.4	15.31	16.68
	PETE	14	12.52	138.9	143.9	11.09	11.49
College Totals		289	253.99	2,686.0	3,230.6	10.58	12.72
<b>George Bush School of Govt. and Public Svc.</b>	BUSH	14	12.34	77.8	136.8	6.30	11.09
College Totals		14	12.34	77.8	136.8	6.30	11.09
<b>Geosciences</b>	ATMO	11	10.50	98.1	107.1	9.34	10.20
	GEOG	16	15.33	96.3	154.7	6.28	10.09
	GEPL	29	27.14	234.2	297.2	8.63	10.95
	OCNG	26	20.80	146.8	222.6	7.06	10.70
College Totals		82	73.77	575.4	781.6	7.80	10.60
<b>Liberal Arts</b>	ANTH	18	18.00	160.9	198.9	8.94	11.05
	COMM	14	13.50	106.3	145.3	7.87	10.76
	ECON	31	29.77	236.3	422.3	7.94	14.19
	ENGL	45	42.94	321.4	418.4	7.48	9.74
<b>Liberal Arts (continued)</b>	HIST	39	36.28	260.6	359.6	7.18	9.91
	JOUR	6	6.00	66.5	72.7	11.08	12.12
	MODL	27	27.00	226.4	290.4	8.39	10.76
	PHUM	18	17.40	152.7	190.2	8.78	10.93
	POLS	33	30.62	263.6	330.6	8.61	10.80
	PRFM	13	13.00	97.8	131.0	7.52	10.08
	PSYC	29	29.00	282.7	325.2	9.75	11.21
	SOCI	26	24.03	185.6	240.6	7.72	10.01
College Totals		299	287.54	2,360.8	3,125.2	8.21	10.87
<b>Science</b>	BIOL	31	29.90	252.2	313.2	8.43	10.47
	CHEM	43	42.27	409.7	466.0	9.69	11.02
	MATH	61	60.00	412.8	575.3	6.88	9.59
	PHYS	42	41.26	308.2	423.7	7.47	10.27
	STAT	23	22.03	190.2	257.2	8.63	11.67
College Totals		200	195.46	1,573.1	2,035.4	8.05	10.41
<b>Veterinary Medicine</b>	VAPH	21	6.61	139.3	158.3	21.07	23.95
	VLAM	7	0.85	12.0	14.0	14.12	16.47
	VSAM	6	1.08	19.8	20.8	18.33	19.26
	VTPB	28	5.52	127.5	134.5	23.10	24.37
	VTPP	14	5.13	94.7	94.7	18.46	18.46
College Totals		76	19.19	393.3	422.3	20.50	22.01
UNIVERSITY TOTALS		1,501	1,276.64	12,891.7	15,663.8	10.10	12.27

Source: Texas A&M University, Office of Institutional Studies and Planning, Fall 2003 Faculty and Course databases.

Notes: Analysis limited to tenured and tenure-track faculty only.

Classroom and total teaching credits calculated according to specifications provided in the document entitled "Instructions for Completing the Faculty Workload Compliance Report."

Excludes limited number of faculty teaching across multiple departments.

**Exhibit 3–7** displays information on instructional activity among non-tenure earning faculty based upon data provided on the faculty and course databases for fall 2003. Positions within this category include laboratory assistants, teaching assistants, and teaching fellows and lecturers who are responsible for, or in charge of, a class or class section, quiz, drill, or laboratory section.

**Exhibit 3–7**  
**Faculty and Classroom and Total Teaching Credits, by College and Department**  
**Texas A&M University, Fall 2003**  
**Non-Tenure Earning Faculty**

College	Dept.	Total Faculty	Full-Time Equivalent Teachers	Teaching Credits		Teaching Credits Per FTE Teacher	
				Classroom	Total	Classroom	Total
<b>Agriculture &amp; Life Sciences</b>	AGEC	11	4.14	45.5	47.5	10.99	11.47
	AGED	13	6.04	73.3	76.3	12.14	12.63
	ANSC	13	7.19	81.2	96.2	11.29	13.38
	BAEN	2	0.80	13.9	13.9	17.38	17.38
	BCBP	18	7.75	118.6	118.6	15.30	15.30
	CLAG	2	0.39	4.8	4.8	12.31	12.31
	ENTO	1	1.00	4.5	9.5	4.50	9.50
	FRSC	2	0.23	4.6	4.6	20.00	20.00
	HRSC	7	2.54	32.9	32.9	12.95	12.95
	POSC	5	3.64	42.3	45.8	11.62	12.58
	RLEM	4	2.17	34.9	42.9	16.08	19.77
	RPTS	4	2.68	25	28	9.33	10.45
	SCSC	10	2.91	51.6	53.6	17.73	18.42
	WFSC	10	2.87	38.7	40.7	13.48	14.18
College Totals		102	44.35	571.8	615.3	12.89	13.87
<b>Architecture</b>	ARCH	26	16.75	213	213	12.72	12.72
	COSC	7	5.50	57.7	64.7	10.49	11.76
	LAUP	7	2.40	33.1	33.1	13.79	13.79
College Totals		40	24.65	303.8	310.8	12.32	12.61
<b>Mays Business School</b>	ACCT	12	10.20	113.5	117.5	11.13	11.52
	CLBA	5	2.55	47	47	18.43	18.43
	FINC	12	8.18	81.5	87	9.96	10.64
	INFO	7	6.30	60.5	63	9.60	10.00
	MGMT	20	11.40	114.7	116.2	10.06	10.19
	MKTG	7	6.25	55.5	58.5	8.88	9.36
College Totals		63	44.88	472.7	489.2	10.53	10.90
<b>Education &amp; Human Development</b>	EAHR	13	6.46	73.3	80.3	11.35	12.43
	EPSY	18	8.89	177	177	19.91	19.91
	HLKN	74	52.95	725.7	731.2	13.71	13.81
	TLAC	75	38.37	837.6	845.6	21.83	22.04
College Totals		180	106.67	1813.6	1834.1	17.00	17.19
<b>Engineering</b>	AERO	7	2.71	29.6	37.1	10.92	13.69
	BMEN	2	0.80	8	9.5	10.00	11.88
	CHEN	6	3.72	41.6	44.6	11.18	11.99
	CPSC	36	20.02	168.8	180.8	8.43	9.03
	CVEN	13	5.42	44.9	45.9	8.28	8.47
	ELEN	42	18.94	195.7	215.7	10.33	11.39
	ETID	47	30.82	335.5	356.5	10.89	11.57
	INEN	5	2.25	11	15	4.89	6.67
	MEEN	21	12.10	106.3	119.9	8.79	9.91
	NUEN	8	2.64	40.2	44.2	15.23	16.74
	PETE	16	8.40	73.5	81.5	8.75	9.70
College Totals		203	107.82	1055.1	1150.7	9.79	10.67
<b>George Bush School of Govt. and Public Svc.</b>	BUSH	7	3.22	49.5	55.5	15.37	17.24
College Totals		7	3.22	49.5	55.5	15.37	17.24
<b>Geosciences</b>	ATMO	2	2.00	15.3	24.3	7.65	12.15
	GEOG	28	16.69	99.3	135	5.95	8.09
	GEPL	53	24.76	198.3	201.3	8.01	8.13
	OCNG	14	6.13	34	46	5.55	7.50
College Totals		97	49.58	346.9	406.6	7.00	8.20

**Exhibit 3-7 (Continued)**  
**Faculty and Classroom and Total Teaching Credits, by College and Department**  
**Texas A&M University, Fall 2003**  
**Non-Tenure Earning Faculty**

College	Dept.	Total Faculty	Full-Time Equivalent Teachers	Teaching Credits		Teaching Credits Per FTE Teacher	
				Classroom	Total	Classroom	Total
Liberal Arts	ANTH	10	5.50	32	38	5.82	6.91
	COMM	27	14.44	138.8	153.3	9.61	10.62
	ECON	14	5.68	54	58	9.51	10.21
	ENGL	60	42.31	360	381	8.51	9.00
	HIST	15	9.15	70	81	7.65	8.85
	JOUR	16	8.65	104.1	104.1	12.03	12.03
	MODL	26	18.25	245.4	249.4	13.45	13.67
	PHUM	5	2.58	18.3	23.3	7.09	9.03
	POLS	13	8.77	65	77.5	7.41	8.84
	PRFM	20	9.43	88.4	110	9.37	11.66
	PSYC	16	10.28	116.9	119.9	11.37	11.66
SOCI	14	8.98	74.5	82.5	8.30	9.19	
College Totals		236	144.02	1367.4	1478	9.49	10.26
Science	BIOL	64	35.95	356.1	379.6	9.91	10.56
	CHEM	100	51.32	512.9	537.8	9.99	10.48
	MATH	80	55.13	428.7	529.7	7.78	9.61
	PHYS	42	20.96	228.8	234.8	10.92	11.20
	STAT	13	8.50	51	63	6.00	7.41
College Totals		299	171.86	1577.5	1744.9	9.18	10.15
Veterinary Medicine	CLVM	2	0.44	4	4	9.09	9.09
	VAPH	7	2.66	34.1	34.1	12.82	12.82
	VLAM	1	0.19	1.7	1.7	8.95	8.95
	VSAM	1	0.10	1	1	10.00	10.00
	VTPB	8	2.61	30.2	40.2	11.57	15.40
	VTPP	2	1.93	18.3	18.3	9.48	9.48
College Totals		21	7.93	89.3	99.3	11.26	12.52
<b>UNIVERSITY TOTALS</b>		<b>1,283</b>	<b>705</b>	<b>7,997</b>	<b>7,829</b>	<b>11.10</b>	<b>11.87</b>

Source: Texas A&M University, Office of Institutional Studies and Planning, Fall 2003 Faculty and Course databases.

Notes: Analysis limited to non-tenure earning faculty only.

Classroom and total teaching credits calculated according to specifications provided in the document entitled "Instructions for Completing the Faculty Workload Compliance Report."

Excludes limited number of faculty teaching across multiple departments.

### FINDING 3-5

Classroom and total teaching credits per faculty vary widely across departments. Of the ten colleges listed, four report average classroom teaching credit loads below the minimum workload requirement level of nine teaching credits, as specified in the *Instructions for Completing the Faculty Workload Compliance Report*. These colleges are Geosciences, Liberal Arts, Science, and the George Bush School of Government and Public Service. However, in terms of average total teaching credits, each college exceeds this standard. Total teaching credits include efforts dedicated to professional development, research, class-related advising, committee assignments, and other assignments directly related to the teaching function (this last category being essentially a judgment call). Thus, it is important to identify what distinguishes these two measures and to determine which measurement is appropriate for application of the minimum standard. Across the entire university, there is a 21 percent difference in the values reported for each measure (10.10 versus 12.27).

### RECOMMENDATION 3-5:

**Review faculty teaching loads in the four colleges that do not meet the workload standard—Geosciences, The Bush School of Government and Public Service, Science, and Liberal**

**Arts—to determine which of A&M measurements for faculty workload are appropriate for applying the minimum standard.**

### **FISCAL IMPACT**

This recommendation can be implemented within existing resources and could result in increased teaching loads, with the potential for some cost savings.

### **FINDING 3-6**

The College of Geosciences also falls below the minimum standard in terms of average total teaching credits.

### **RECOMMENDATION 3–6:**

**Review the College of Geosciences to determine if minimum teaching loads for non-tenure earning faculty are adequate.**

### **FISCAL IMPACT**

This recommendation can be implemented within existing resources and could result in increased teaching loads, with the potential for some cost savings.

### ***Faculty Workload Benchmarking***

To be meaningful and useful, faculty productivity data should be measured against some relevant external benchmark based on a comparison with appropriate peer institutions.

Among national studies of instructional costs and productivity, the Delaware Study has grown and matured over the past decade into a major data-sharing consortium of close to 400 colleges and universities that have elected to participate. The Delaware Study is the tool of choice among many prominent national universities for benchmark data on faculty teaching loads, instructional costs, and externally funded research and service activity, all at the academic level of analysis. A&M is a participant in this consortium along with thirteen of its peer institutions. A&M's participation in a national study of instructional costs and productivity, such as the *Delaware Study*, provides university decision-makers with relevant peer benchmarks against which A&M's productivity can be evaluated.

### **Faculty Research Productivity**

Faculty responsibilities at A&M extend well beyond teaching. Although undergraduate instruction is a vitally important component of the institutional mission, it is but one of the central functions of higher education. Faculty members are expected to devote a significant portion of their effort to the myriad research and service activities that inform and enhance the instructional process and enrich the communities of which they are a part.

As one of the core functions of A&M, research plays an invaluable role to both the institution and society at large. Faculty members engaged in active research contribute to the extension of the frontiers of knowledge and innovation in Texas. Perhaps more important to the process of education at the undergraduate level, universities that actively support vital research attract top faculty members whose



expertise and talents are then available to the student body of those institutions. Research not only supports the instructional function of the institution, it also generates significant revenues for A&M.

The two simplest measures of input and output relative to faculty research activities are aggregate institutional accounts of research expenditures and contract and grant revenues. These data are available in the IPEDS finance report, and are shown for A&M and affiliated agencies in **Exhibit 3–8**.

**Exhibit 3–8**  
**Revenues and Expenditures from Research,**  
**Texas A&M University and Affiliated Agencies, 1999–2000 through 2002–2003**

	Fiscal Year			
	1999–00	2000–01	2001–02	2002–03
Research Expenditures	\$308,521,051	\$259,652,610	\$270,630,097	\$292,169,814
Federal Grants & Contracts	\$128,721,325	\$129,488,901	\$176,185,159	\$215,583,119
State Grants & Contracts	\$68,374,072	\$58,874,982	\$80,676,341	\$93,187,458
Local/Private Grants & Contracts	\$90,675,041	\$109,757,948	\$35,007,414	\$42,242,838
<b>TOTAL Grants &amp; Contracts</b>	<b>\$287,770,438</b>	<b>\$298,121,831</b>	<b>\$291,868,914</b>	<b>\$351,013,415</b>

*Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 1999–00 through 2002–03 finance surveys.*

*Note: Grant and contract revenues include both operating and non-operating funds. Research expenditures do not equal contract and grant revenues because of differences in the timing of the receipt of contract and grant revenues.*

### ***A&M and Affiliated Agencies Contracts and Grants Revenues***

Contracts and grants revenues of A&M and its affiliated agencies from federal, state, local and private sources have increased, in total, by almost 22 percent between 1999–2000 and 2002–03. As shown in **Exhibit 3–10**, funds derived from federal, and state sources have increased significantly. Especially notable is the increase in federal grants and contracts from \$128.7 million in 1999–2000 to \$215.6 million in 2002–03, of more than 67 percent.

The increases in both federal sources and state contract and grants, were primarily in the fields of engineering, geosciences and physical sciences. A few of the major federal projects that contributed to this effort were the Ocean Drilling Program, Texas Sea Grant Program, DOD Cyclotron Program, USDA Food Safety Inspection Service, Army Digital EMS Project, and the Navy Quantum Optics Initiative. Increased support from state contracts and grants has come from such sources as the Texas Department of Transportation and the Texas Advance Technology/Advance Research Program.

Even though private or local grants and contracts decreased from 2000–01 to 2001–02 primarily due to a change in the reporting of A&M Research Foundation revenues from private grants to federal pass through grants. A small increase of approximately 21 percent occurred from 2001–02 to 2002–03.

**Contract and Grant Revenues Per Faculty Member**

Contract and grant revenues per faculty member increased approximately 17.9 percent between 1999–2000 and 2002–03. **Exhibit 3–9** compares research revenue and expenditure data against the total numbers of full-time faculty on 9/10-month or 11/12-month contracts. The number of full-time faculty declined sharply between 2000–01 and 1999–2000, because of the transfer of the Health Science Center faculty. It would be expected that research revenues per faculty member would decline after the transfer of health science faculty because health science faculty members typically receive more research grant funding than do other faculty, especially those in liberal arts and education.

**Exhibit 3–9**  
**Revenues and Expenditures from Research,**  
**Texas A&M University and Affiliated Agencies, 1999–2000 through 2002–2003**

	Fiscal Year			
	1999–00	2000–01	2001–02	2002–03
9/10-Month Contract Faculty	807	829	858	915
11/12-Month Contract Faculty	946	753	917	898
Total Full-Time Faculty	1,753	1,582	1,775	1,813
Research Expenditures per Faculty	\$175,996	\$164,129	\$152,468	\$161,153
Contract & Grant Revenues per Faculty	\$164,159	\$188,446	\$164,433	\$193,609

*Source:* National Center for Education Statistics, Integrated Postsecondary Education Data System, 1999–00 through 2002–03 finance surveys and staff surveys.

*Note:* Grant and contract revenues include both operating and non-operating funds.

**Comparison to Peer Institutions**

A&M's research expenditures per faculty and contract and grant revenues per faculty are about the midpoint of those for its peer institutions. Since the best universities in the nation compete at the top levels in many areas (students, research, academic excellence, awards, and more), research expenditures and contract and grant revenues per faculty provide a good approximation of research activity for comparison. To gauge the competitiveness of this revenue level to that of its peer institutions, **Exhibit 3–10** provides research expenditure and contract and grant revenue per faculty data for A&M and each peer institution. A&M's research revenues have increased significantly over the last four years to a high of \$193,609 per faculty member. A&M falls within the average of its peers in terms of contracts and grants revenues per faculty. The University of Wisconsin-Madison had the highest revenue per faculty (\$366,302) and the University of Nebraska at Lincoln the lowest (\$87,368).

**Exhibit 3–10**  
**Revenues and Expenditures from Research,**  
**Texas A&M University and Peer Institutions, 2002–2003**

Institution	9/10-Month Contract Faculty	11/12-Month Contract Faculty	Total Full-Time Faculty	Research Expenditures per Faculty	Contract & Grant Revenues per Faculty
<b>Texas A&amp;M University</b>	<b>915</b>	<b>898</b>	<b>1,813</b>	<b>\$161,153</b>	<b>\$193,609</b>
Iowa State University	1,061	354	1,415	\$98,758	\$103,083
Kansas State University	671	179	850	\$110,538	\$134,889
Michigan State University	1,361	730	2,091	\$102,218	\$135,770
Ohio State University–Main Campus	1,668	513	2,181	\$138,762	\$220,134
Oklahoma State University–Main Campus	663	172	835	\$82,905	\$118,168
Purdue University–Main Campus	1,390	467	1,857	\$87,790	\$101,640
The University of Texas at Austin	2,265	Blank	2,265	\$133,888	\$154,287
University of California–Berkeley	1,392	83	1,475	\$238,930	\$319,409
University of Florida	1,153	526	1,679	\$221,282	\$319,144
University of Illinois at Urbana– Champaign	1,988	241	2,229	\$142,153	\$187,202
University of Maryland–College Park	1,066	473	1,539	\$178,003	\$231,373
University of Nebraska at Lincoln	741	294	1,035	\$105,078	\$87,368
University of North Carolina at Chapel Hill	965	331	1,296	\$190,921	\$351,605
University of Wisconsin– Madison	1,294	180	1,474	\$387,912	\$366,302
Virginia Polytechnic Institute and State University	944	307	1,251	\$124,642	\$131,605

*Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2002–03 finance and faculty salaries surveys.*

*Note: Grant and contract revenues include both operating and non-operating funds.*

Institutions that have significant outside funding for research along with high performance rankings of academic quality are often considered to be one of the top universities in the nation. Although setting a goal does not have a fiscal impact, achievement of A&M’s VISION 2020 goal to “*Achieve top five standing in research expenditures as measured by the National Science Foundation and top-ten standing in federally funded research,*” would provide an additional \$227.7 million (in 2002–03 dollars) in contract and grant funding for A&M (calculated as the top quartile revenues per peer faculty member [\$319,200] minus A&M’s revenues per faculty member [\$193,609] times the number of A&M faculty [1813].)





# Chapter 4

## Financial and Asset Management



## Chapter 4

# ***FINANCIAL AND ASSET MANAGEMENT***

This chapter reviews the financial and asset management functions of Texas A&M University (A&M) in the following sections:

- A. Organization and Management
  - Business and Administrative Advisory Committees
  - A&M Affiliated Agency Administration
- B. Administrative Costs
  - Consolidated Administrative Support Services
- C. Cash and Investment Management
  - Cash Concentration Pool Performance
- D. Budgeting and Planning
- E. Internal Controls
  - Sarbanes-Oxley Act of 2002
  - Internal Control Enhancement
- F. Asset and Risk Management
  - Investment Management and Strategies for the System Endowment Fund
  - Fixed Asset management: Tracking, Counting, Reporting and Surplus Property
  - Accounts Receivable, Tuition, and Fee Collection Process at A&M
  - Procurement Process
  - Debt Management
  - Property Management

Financial management is critical for any organization. Managing the assets of a university, including cash and physical assets, is an ongoing challenge that involves budgeting and planning; accounting operations such as accounts payable, payroll, and student and other accounts receivable; preparing financial statements and other reports; and internal auditing. Universities must practice sound financial management to maximize the effectiveness of limited resources and to plan for future needs. Financial management activities at Texas A&M are for the most part decentralized down to the department level, although some are centralized in the A&M Division of Finance or are conducted by the A&M System Office.

A&M must follow financial accounting policies and standards set by various regulatory bodies. The Governmental Accounting Standards Board (GASB), the National Association of College and University Business Officers (NACUBO), the National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS), the Texas State Comptroller of Public Accounts, and the Texas Higher Education Coordinating Board (THECB) all set policies and standards that A&M must follow. THECB prescribes reporting requirements. In November 1999, GASB issued Statement No. 35, *Basic Financial Statements – And Management’s Discussion and Analysis – for Public Colleges and Universities* (GASB 35), which made dramatic changes to the way public colleges and universities report their finances to the public.

The A&M System Office of Budgets and Accounting (SOBA) is responsible for general supervision and coordination of financial accounting and reporting functions within the University System.

IPEDS requires colleges and universities to classify expenditures in the functional categories described in **Exhibit 4–1**. These categories allow comparison of expenditures for all public institutions of higher education.

**Exhibit 4–1**  
**IPEDS Functional Expenditure Category Descriptions**

Category	Description
Instruction	Includes expenditures for all activities related to an institution’s instruction program, including department office operating expenses. Includes credit and non-credit courses, academic, vocational, and technical education, for regular, special, and extension sessions.
Research	Includes expenditures for research-related activities sponsored either internally or externally.
Public service	Includes costs of activities designed primarily to serve the general public, such as correspondence courses, adult study courses, public lectures, radio and television stations, cooperative extension, and similar activities.
Academic support	Includes costs of libraries, instructional administrative expenses including deans’ offices, instructional technology not in Instruction, and faculty development leaves
Student services	Includes costs to administer activities such as admission and registration, student financial services, career centers, and other activities for the benefit of students.
Institutional support	Includes expenditures for central, executive level management and long-range planning; fiscal operations; administrative data processing; space management; employee personnel and records; procurement; safety; printing and other services that support the institution.
Operation and maintenance of plant	Includes costs of plant support services, building maintenance, custodial services, grounds maintenance, and utilities.
Scholarships and fellowships	Includes financial aid to students, but not the costs of administering financial aid programs.
Auxiliary enterprises	Includes operational costs of self-supporting activities for the benefit of students, faculty, staff, and visitors, such as campus bookstores, food services, and residence halls.

*Sources: IPEDS, 2004.*

A&M groups these accounts into fund groups for its financial account system. The fund groups relate to the source of funds, not to the use or functional expenditure category. **Exhibit 4–2** provides the six fund groups and a description of the source of funds. Each fund group is treated as a separate accounting entity with a self-balancing set of accounts consisting of assets, liabilities (if applicable), funds balances, and where appropriate, revenue and expenditure accounts.



**Exhibit 4–2  
Fund Groups**

Fund Group	Description
Current Funds	Operating funds available for current purpose that may be restricted or unrestricted
Loan Funds	Funds available for loans to students, faculty and staff
Endowment Funds	Funds for which a donor, governing board or external agency has stipulated as a condition of a gift that only the income from the investment of funds be expended unless the donor has a stated all or part of the principal may be used after a stated period of time or occurrence of an event
Annuity Funds	Funds donated to an institution under a deferred-giving agreement that requires the institution to pay the donor or other designated individual a fixed amount (or income earned by the asset) for a specific time or until death of the annuitant.
Plant Funds	Funds for the construction, rehabilitation, acquisition, renewal or replacement of physical properties or plant assets or the retirement of debt related to plant assets
Agency Funds	Funds held by the institution as custodian or fiscal agent for others, e.g., student organizations

*Source: Texas A&M System, System Regulations, 21.01.01 Financial Accounting and Reporting.*

With over 45,000 students and annual revenues of more than \$1.5 billion (including affiliated agencies), A&M at College Station is one of the largest universities in the U. S. College Station is also headquarters for the A&M System Office and several affiliated agencies. The affiliated agencies increase the size and complexity of A&M and account for nearly half of total annual revenues; however, the agencies are not considered part of A&M for state budgeting purposes. Each agency receives separate state appropriations and is listed separately in the state budget as previously mentioned in the Introduction to this report.

Some agencies have numerous joint appointments with A&M, and all agencies benefit the university in multiple ways, including the receipt of grant funds. A&M does not have oversight of the revenues and expenditures of the agencies, all of which report to the A&M System Office. However, two A&M deans have oversight and revenue and expenditure authority over the agriculture- and engineering-related units, which provide revenues to A&M and expend funds for the benefit of A&M.

In addition, all universities are required to report data in a consistent format to IPEDS. In the reports, A&M includes revenues and expenditures for its affiliated agencies, including cooperative extension services, experiment stations, research foundations, and transportation institutes. Some of A&M's peer institutions, including "land grant" institutions, do not report data in this format. To make valid comparisons to peer universities using IPEDS data, information from the affiliated agencies was included in this report. **Exhibit 4–3** lists the name and year established for each of these entities, and statewide dispersion of operations. **Exhibit 4–4** displays revenues by source for each of the entities for fiscal year 2003.

A&M administration takes the position that the portion of funding attributable to the service agencies should be excluded when IPEDS data is used for comparison purposes, emphasizing the autonomy of the agencies and lack of financial oversight from A&M College Station. In addition, according to A&M, not all other land grant institutions with service agencies aggregate service agency financial data into their IPEDS reporting. However, this review found that disaggregating the funds associated

with research and other functions conducted in conjunction with the service agencies provides a distorted picture of the financial interrelationship between A&M College Station and the service agencies, particularly the agricultural and engineering agencies.

**Exhibits 4–3** and **4–4** show revenues for legislative or state appropriations and all other state revenues. The category “all other state revenues” includes pass-through funding as well as state grants and contracts. The “other local revenues” category includes funds received from the sales of goods and services, sales related to the residence and dining halls and other auxiliary enterprises, and monies received for parking fines and overdue library books.

The “federal” category includes U.S. government grants and contracts as well as federal appropriations for the land grant, sea grant, and space grant programs of the university. The “other gifts and grants” category includes monies received from grants and contracts with private business, individuals, and foundations, while endowment income includes money transferred from the A&M System Office, which was taken from the Permanent University Fund (PUF). The A&M System Office records the PUF as an interagency transfer from the University of Texas (UT) at the direction of the State Comptroller of Public Accounts, and as a transfer to A&M via an allocation approved by the Board of Regents.

**Exhibit 4–3**  
**A&M and Affiliated Agencies in College Station**

<b>Name of Entity</b>	<b>Year Established</b>	<b>Additional Locations Across Texas</b>
Texas A&M University	1876	1*
Texas A&M Research Foundation	1951	0
<b>Agricultural Programs</b>		
Texas Agricultural Experiment Station (TAES)	1887	13
Texas Cooperative Extension (TCE), including the Texas Wildlife Damage Management Service (TWDMS)	1915	250
Texas Forest Service (TFS)	1915	67
Texas Veterinary Medical Diagnostic Laboratory (TVMDL)	1969	3
<b>Engineering Programs</b>		
Texas Engineering Experiment Station (TEES)	1914	18
Texas Engineering Extension Service (TEEX)	1919	12
Texas Transportation Institute (TTI)	1950	14

*\*Note: A&M operates a campus in Qatar. A&M Galveston is not included in this report.  
Sources: <http://tamusystem.tamu.edu>; A&M Financial Report for each entity (Exhibit IV).*

**Exhibit 4-4  
FY 2003 Revenues by Source, A&M and Affiliated Agencies**

Entity	Appropriations	Other State Revenues	Subtotal, State Revenues	Tuition and Fees	Other Local Revenues	Subtotal, Local Revenues	Federal:	Other Gifts and Grants*	Endowment Income, Including PUF	Other Revenues	TOTAL
A&M	249,625,791	52,270,599	301,896,390	211,368,254	155,334,437	366,702,691	68,193,086	31,874,836	23,078,285	92,912,726	884,658,014
Texas A&M Research Foundation	0	806,824	806,824	0	8,614,147	8,614,147	130,549,228	9,460,124	287,053	4,286,158	154,003,534
TAES	64,969,960	2,589,124	67,559,084	0	13,559,677	13,559,677	42,493,025	6,479,517	1,130,745	4,661,722	135,883,770
TCE	55,416,262	2,098,399	57,514,661	0	2,739,163	2,739,163	28,115,129	1,942,699	178,965	920,078	91,410,695
TWDMIS	4,357,296	0	4,357,296	0	6,841	6,841	0	2,211,705	6,006	4,382	6,586,230
TFS	14,191,756	68,148	14,259,904	0	5,253,433	5,253,433	6,172,779	294,254	136,192	15,009,309	41,125,870
TVMDL	5,043,540	14,407	5,057,947	0	6,365,931	6,365,931	450,719	-46,526	17,983	30,734	11,876,788
TEES	16,603,394	5,146,577	21,749,971	0	443,158	443,158	56,891,361	9,101,047	1,519,328	7,152,275	96,857,139
TEEX	6,760,935	6,589,888	13,350,823	14,996,267	2,624,531	17,620,798	41,887,005	5,087,755	652,351	1,368,150	79,966,882
ITII	5,362,116	24,492,871	29,854,987	0	1,726,667	1,726,667	4,338,671	3,013,211	198,296	405,626	39,537,458
<b>TOTAL</b>	<b>422,331,049</b>	<b>94,076,838</b>	<b>516,407,887</b>	<b>226,364,521</b>	<b>196,667,984</b>	<b>423,032,505</b>	<b>379,091,004</b>	<b>69,418,622</b>	<b>27,205,204</b>	<b>126,751,159</b>	<b>1,541,906,382</b>

\*This column is shown net of other, non-operating expense.

[A] On report as presented – the amount includes these lines:

Other Grants&Contracts – operating 11,559,665.17  
 Gifts 49,280,535.57  
 Other Nonoperating [Expenses] (28, 965, 365.13)

31, 874, 835.61

[B] On report as Endowment Income, Including PUF – includes;

Interest Revenue 517,555.31  
 Investment Income 2, 560,729.37

23, 078, 284.68

This does not include the PUF transferred from the System  
 And a portion is endowment earnings but not all.

[C] On Report includes:

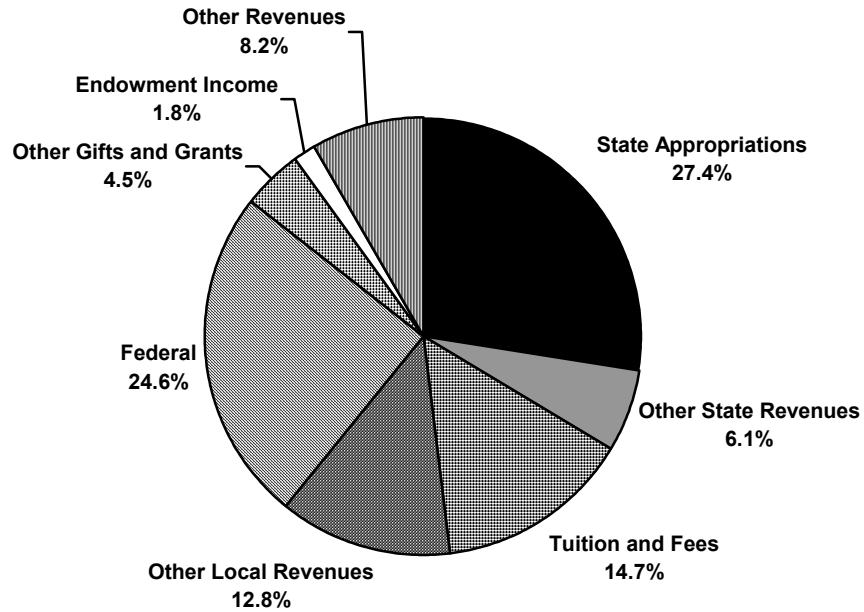
Other Operating Revenue 11, 157, 942.11  
 Land Income 497, 070.62  
 Investing Activities Expenses (1,530,242.08)  
 Interest Exp and Fiscal Charges (80,293.45)  
 Gain ( Loss) on Sale of Capital Assets (581,833.47)  
 Net Increase/Decrease in Fair Value 63, 823, 541.52  
 Settlement of Claims (208, 619.33)  
 Other non-operating Revenues 19,835,160.41

92,912,726.35

SOURCE: <http://tamusystem.tamu.edu>, and A&M Financial Report for each entity (Exhibit IV).

**Exhibit 4–5** displays the revenues by source for A&M, including affiliated agencies. A&M received 27.4 percent of its revenues from state appropriations and 14.7 percent from tuition and fee revenues.

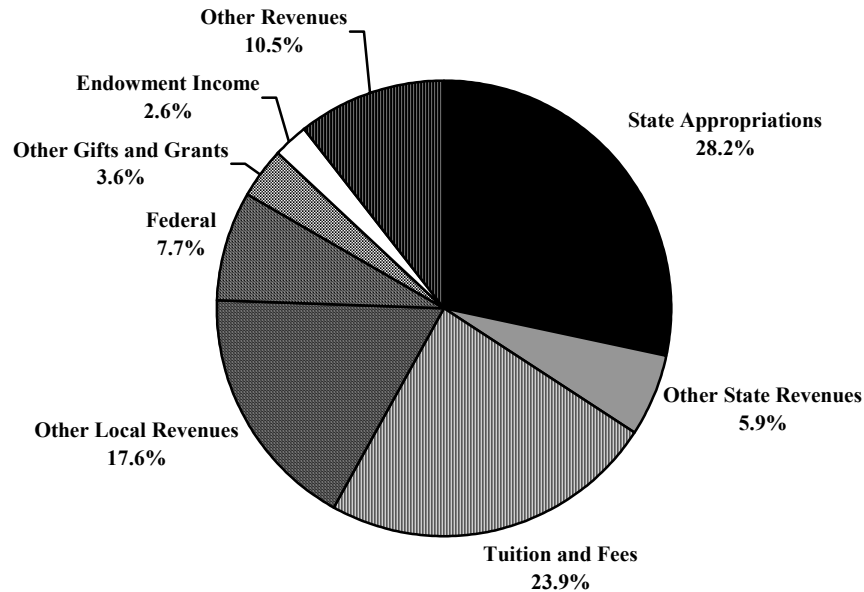
**Exhibit 4–5**  
**Fiscal Year 2003 Revenues by Source,**  
**A&M and Affiliated Agencies**



Sources: <http://tamusystem.tamu.edu>; A&M Financial Report for each entity (Exhibit IV).

**Exhibit 4–6** displays the revenues by source for only A&M. A&M received 28.2 percent of its revenues from state appropriations and 23.9 percent from tuition and fee revenues.

**Exhibit 4–6**  
**Fiscal Year 2003 Revenues by Source, A&M**



Sources: <http://tamusystem.tamu.edu>; A&M Financial Report for each entity (Exhibit IV).

**Exhibit 4–7** displays the amount of facilities and administrative cost (also known as indirect cost) recovery (F&A) revenues received in fiscal year 2003 for A&M and each affiliated agency. Facilities and administrative cost recovery revenues are funds received as part of contract and grant revenue, which reimburse the university or the agency for certain overhead costs such as utilities, space, the president's and vice presidents' offices, human resources, purchasing, and other university offices. F&A rates are negotiated with the federal government and other granting agencies and can vary significantly from agency to agency and from grantor to grantor. For example, the F&A rates negotiated for Texas' regional education service centers with the federal government vary from less than 2 percent to over 20 percent. Typical university facilities and administrative cost rates also vary from grantor to grantor and can exceed 60 percent. A&M received \$8.9 million in F&A funds for fiscal year 2003; the total received by A&M and all affiliated agencies except the Research Foundation was \$46.7 million.

**Exhibit 4-7**  
**Fiscal Year 2003 Facilities and Administrative Cost Recovery**  
**Revenues Received by A&M and its Affiliated Agencies**

Name of Entity	F&A Revenues
Texas A&M University	\$8,856,931
Agricultural Agencies:	
Texas Agricultural Experiment Station (TAES)	8,120,502
Texas Cooperative Extension (TCE)	1,209,955
Texas Wildlife Damage Management Service (TWDMS)	0
Texas Forest Service (TFS)	415,645
Texas Veterinary Medical Diagnostic Laboratory (TVMDL)	0
Engineering Agencies:	
Texas Engineering Experiment Station (TEES)	15,706,330
Texas Engineering Extension Service (TEEX)	6,434,379
Texas Transportation Institute (TTI)	5,983,187
Total Indirect Cost Recovery	\$46,726,929

\*Note: Research Foundation does not report indirect cost recovery.

Source: A&M Controller, September 2004.

**Exhibit 4-8** displays undergraduate tuition and mandatory fees for A&M and its peer institutions for the 2003-04 and 2004-05 academic years. A&M increased its tuition for 2004-05 at a greater rate than any of the peer universities, except the University of Texas. During the 2003-04 academic year, A&M's in-state tuition of \$5,051 was slightly below the median of the peers, \$5,095, but A&M's undergraduate non-resident/out-of-state tuition and fees of \$12,131 was significantly below the peer median of \$15,920. Even with significant increases in tuition and fees for 2004-05, A&M's out of state tuition and fees remained below the median of the peer universities. A&M's in-state tuition and mandatory fees of \$5,955 were above the median of \$5,735 for the peer universities.

**Exhibit 4-8**  
**Tuition and Mandatory Fees, A&M and Peer Universities**

Undergraduate Full-time Tuition and Fees	2003-2004 Academic Year		2004-2005 Academic Year		% Change	
	In-state Tuition & Fees	Out-of-state Tuition & Fees	In-state Tuition & Fees	Out-of-state Tuition & Fees	In-state Tuition & Fees	Total Out-of-state Tuition & Fees
<b>A&amp;M</b>	<b>\$5,051</b>	<b>\$12,131</b>	<b>\$5,955</b>	<b>\$13,695</b>	<b>17.9%</b>	<b>12.9%</b>
Peer Median	\$5,095	\$15,920	\$5,735	\$16,581	9.3%	7.3%
Iowa State	\$5,028	\$14,370	\$5,426	\$15,128	7.9%	5.3%
Kansas State	\$4,060	\$11,950	\$4,059	\$11,949	0.0%	0.0%
Michigan State	\$6,769	\$16,729	\$7,043	\$17,888	4.0%	6.9%
Ohio State	\$6,651	\$16,638	\$7,479	\$18,066	12.4%	8.6%
Oklahoma State	\$3,748	\$10,066	\$3,665	\$9,611	-2.2%	-4.5%
Purdue	\$5,860	\$17,640	\$6,092	\$18,700	4.0%	6.0%
U of Maryland	\$6,758	\$17,432	\$7,410	\$18,710	9.6%	7.3%
U of Nebraska	\$4,711	\$12,293	\$5,341	\$13,831	13.4%	12.5%
U of Wisconsin	\$5,104	\$19,136	\$5,139	\$19,139	0.7%	0.0%
UC-Berkeley	\$5,250	\$19,460	\$5,754	\$28,192	9.6%	44.9%
U of Florida	\$2,780	\$13,283	\$2,990	\$14,850	7.6%	11.8%
UNC-Chapel Hill	\$4,072	\$15,920	\$4,451	\$17,549	9.3%	10.2%
U of Texas-Austin	\$4,188	\$12,814	\$5,735	\$13,634	36.9%	6.4%
Virginia Tech	\$5,095	\$15,029	\$5,838	\$16,581	14.6%	10.3%
U of Illinois-U-C	\$7,010	\$18,046	\$7,922	\$20,842	13.0%	15.5%

Sources: Chronicle of Higher Education, Annual Survey of Colleges of CB, 2003-04 CEEB; Common Data Sets, 2003-04; university Web sites [www.unc.edu](http://www.unc.edu); [www.unl.edu](http://www.unl.edu); [www.testudo.umd.edu/soc/feesfall.html](http://www.testudo.umd.edu/soc/feesfall.html); [www.ohiostate.edu](http://www.ohiostate.edu); [www.msu.edu](http://www.msu.edu); [www.bursar.vt.edu/sp/04-05.html](http://www.bursar.vt.edu/sp/04-05.html).

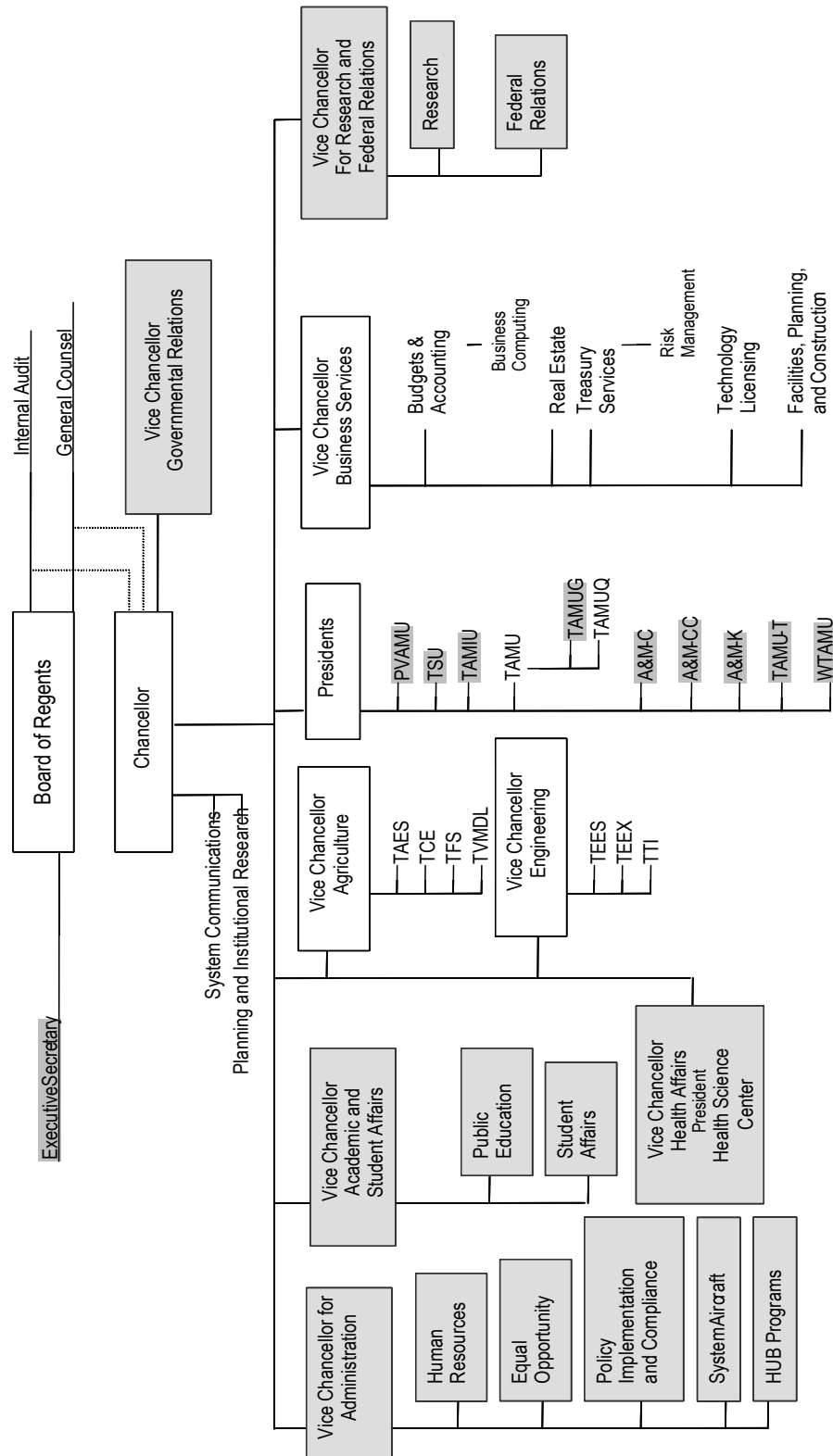
## **A. ORGANIZATION AND MANAGEMENT**

Financial and asset management activities are conducted at every level of the organization. The A&M System Office has several important and unique responsibilities, while at the campus level, the A&M Division of Finance has a separate set of responsibilities, and each college, agency, and academic and non-academic department have other financial and administrative responsibilities and activities. A&M's decentralized approach for conducting administrative functions may be viewed as effective considering the complexity and the size of the institution; however, inefficiencies still exist.

The current organizational structure of the A&M System Office is shown in **Exhibit 4–9**. Entities whose administrative functions were not considered in our review of A&M are shaded, including A&M-Galveston.

Within the A&M System Office is the Office of the Treasurer/Treasury Services and the System Internal Audit Department. These offices have primary responsibility for several crucial activities regarding financial and asset management. Treasury activities and internal audit functions are established at the system level to provide services to all system component universities and agencies. Among the centralized financial services provided by the Treasury are cash, debt, and investment management services.

**Exhibit 4-9**  
**Texas A&M University System Units**



Note: Shaded areas represent A&M System entities that were not analyzed in this section.  
Source: <http://tamussystem.tamu.edu/documents/pdf/orgcharts/tamussor.pdf>.



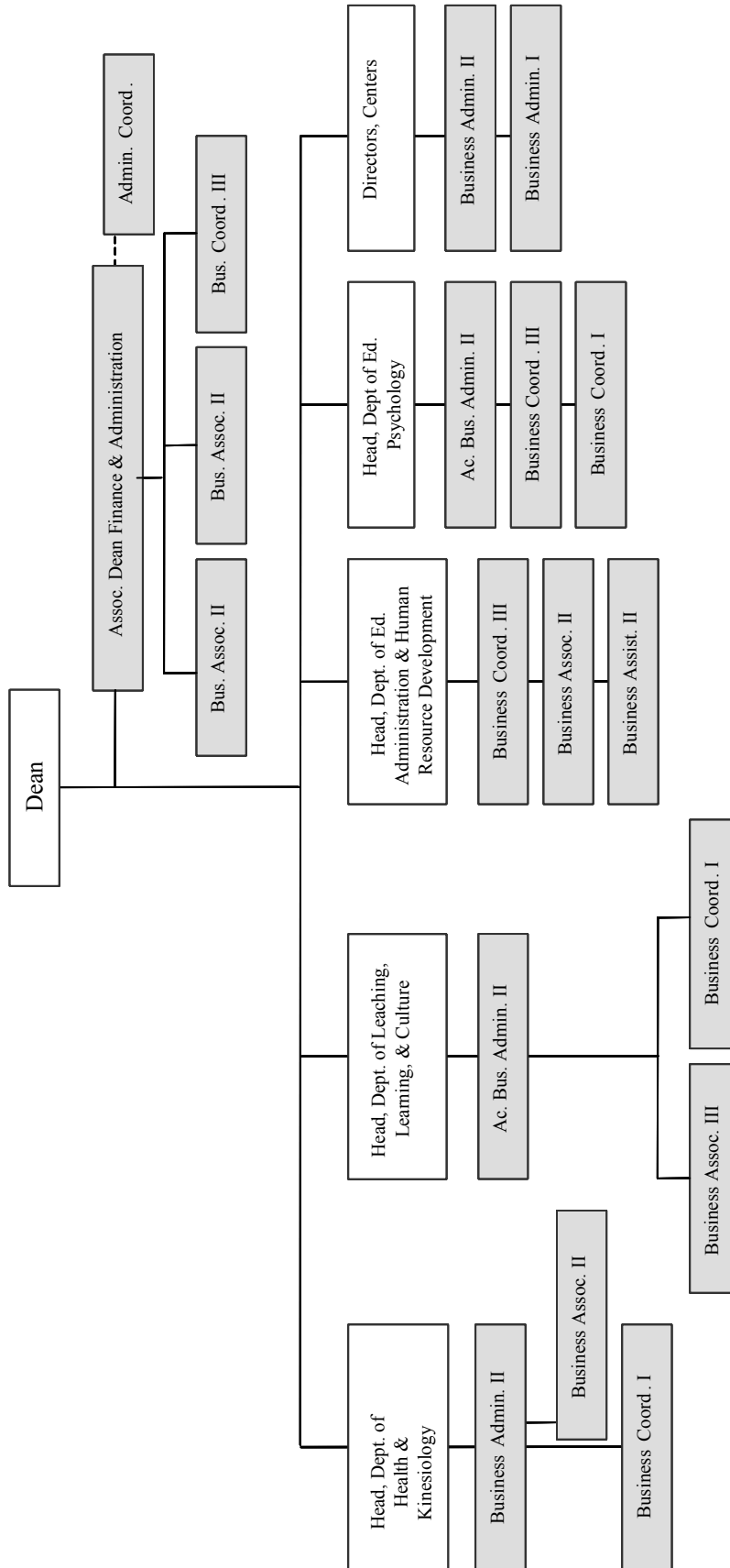
The system treasurer (associate vice chancellor and treasurer), with the aid of a small staff, is responsible for daily cash management activities, which include, among other things, a sweep of cash from numerous depositories, accounting for money received, ensuring that adequate cash is available to cover checks written by components, and that excess cash is invested each day to ensure that money is not sitting idly in checking accounts, lock boxes, or cash drawers. Funds from every component institution are pooled and invested to enhance earning ability and reduce management and administrative expenses.

At the campus level, the A&M Division of Finance, under the direction of the senior vice president for Finance and chief financial officer (CFO), provides financial, payroll, human resources, and purchasing services for all A&M academic and non-academic units. The Accounting Support Services Section provides many services, for a fee, to A&M units that wish to have the Division of Finance handle all or some of their accounting and other financial responsibilities. The Division of Finance was reorganized in April 2004. Prior to that time, in addition to the previously mentioned duties, it had responsibility for environmental health and safety (EHS) functions. EHS was moved to the Provost Office and now has responsibility for certain compliance issues as well as health and safety.

Staff dispersed throughout the university at departmental and college levels provide an additional set of financial services for the university community. There are 10 colleges and more than 225 academic and non-academic departments (units) on the College Station campus. The decentralized approach to business operations places much of the day-to-day workload for activities such as payroll, purchasing, tracking expenditures, human resources, and more, at the respective unit level, rather than the Division of Finance. Therefore, each unit has numerous business type activities and any number of administrative and business staff devoted to business, financial, and other administrative functions. Certain business activities in some departments are centralized within their respective college's administration, thus creating in essence a fourth level organization that conducts financial activities. For example, many colleges, including the College of Architecture, have an assistant dean of Finance and Administration, and most of the business-related activities of departments within the college are conducted at the college's business office, with the other activities conducted at the department level.

An example of decentralized business and financial activities can be found in the College of Education and Human Development, shown in **Exhibit 4-10**. Like the College of Architecture, this college has an assistant dean of Finance and Administration who coordinates and supervises business functions. In addition to the assistant dean, there are 19 staff members with business-related duties or titles within the college. Department heads have their own set of administrative and business-related duties as well as staff to assist them. For example, the Education Psychology Department has three staff with business-related duties in their job title.

**Exhibit 4-10**  
**Example of Organization Structure**  
**College of Education and Human Development**



Source: A&M, 2004.

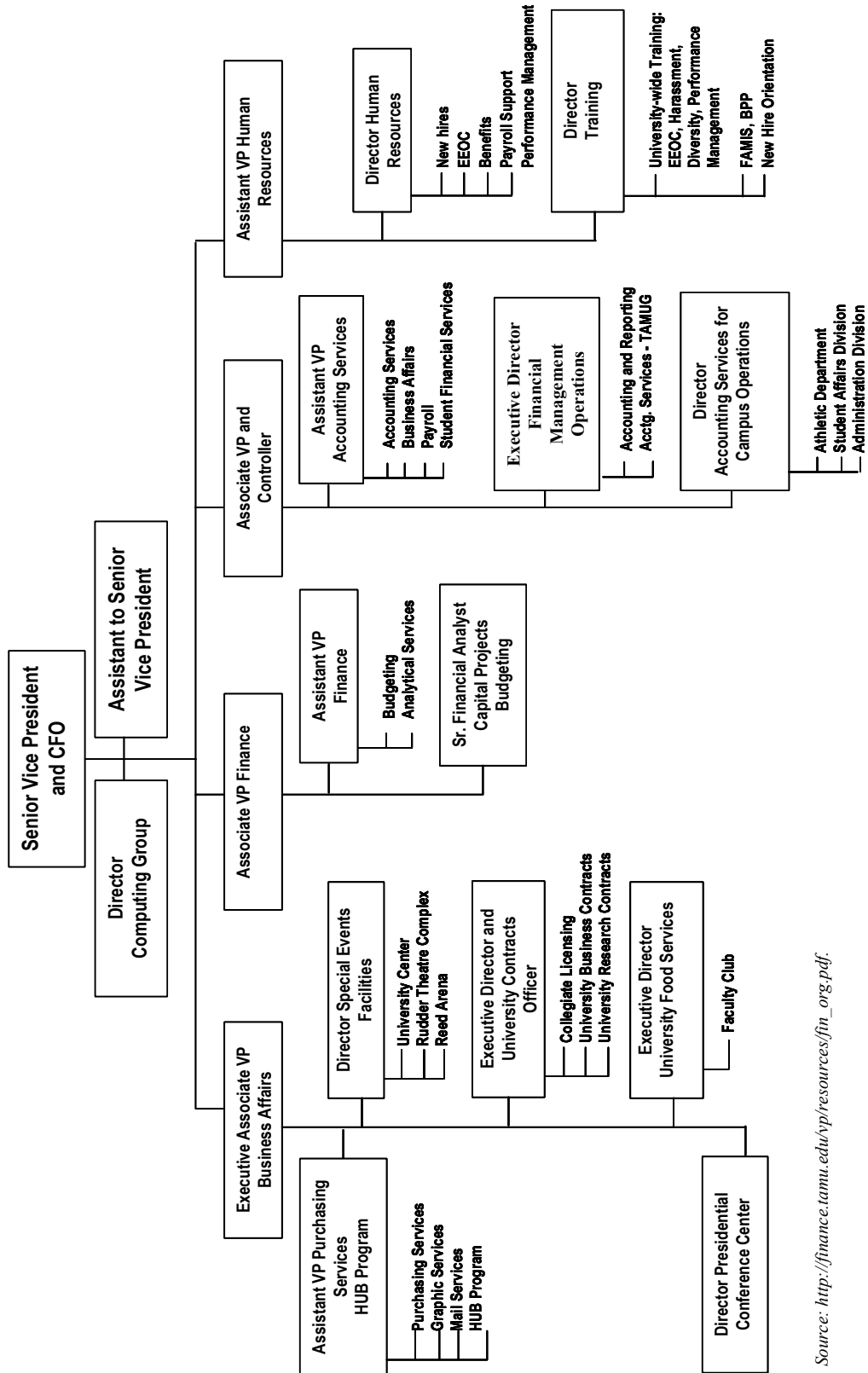
There are the seven affiliated agencies, each with administration and a headquarters located in College Station. These agencies contract with A&M for certain financial and administrative support services and operate their own administrative organizations to deliver other support services. Some of the agencies have substantial administrative expenses.

For A&M, most administrative and financial management responsibilities fall under the purview of the senior vice president and chief financial officer, even though many of the financial activities are conducted at the department level. The CFO is responsible for the following:

- business affairs, including purchasing;
- finance, including budgeting for operations and capital programs;
- controller, including accounting, student financial services, and payroll services;  
and
- human resources, including training.

**Exhibit 4–11** displays the organization of the Division of Finance that was implemented in April 2004.

**Exhibit 4-11  
Organizational Structure of Selected  
Business, Finance, and Human Resource Functions**



Source: [http://finance.tamu.edu/vp/resources/fin\\_org.pdf](http://finance.tamu.edu/vp/resources/fin_org.pdf).

As previously mentioned, in addition to the administrative positions shown in **Exhibit 4–11**, each college and most departments have their own business administration personnel. Within each college, for example, a position usually titled “assistant dean for Finance and Administration” has responsibility for purchasing, human resources, and budget administration, along with other duties. In particular, the following are examples of specific types of administrative activities performed at the unit level rather than university wide administrative offices:

- Purchasing, subject to a \$5,000 threshold, usually with the Pro-card system.
- Advertising vacant positions and posting notices online.
- Developing financial management reports for unit-level operations.

The affiliated agencies also typically have a chief administrative officer position, often called an “associate director.” These agency officials have significantly greater administrative responsibility than their counterparts in the colleges, since the agencies operate independently of campus administrative offices for most functions.

### **Business and Administrative Advisory Committees**

A&M central administrative offices provide strong leadership and support for business personnel positions in the academic units. Two groups exist to provide an ongoing flow of two-way communication between university wide and unit-level business personnel positions about new developments and needed improvements:

- Academic Business Operations Committee (ABOC), a 29-member group comprised of representatives from each college and various university wide administrative offices that interact with the college-level business personnel positions. The focus of ABOC is mainly on issues and policies related to conducting business in academic affairs (budgets, faculty, student credit hours, audit, and more).
- Council of Senior Business Administrators (CSBA), a 41-member group comprised of senior business personnel from all divisions of A&M representing key business and administrative units. Since CSBA has broader membership across campus divisions, its focus is on general business issues (procedure implementation, policy compliance, etc).

Eleven members of CSBA also serve on ABOC, thus enabling strong communication and coordination between the two advisory bodies. The two groups, however, exist to serve somewhat different positions across the university: CSBA is primarily for senior business personnel in the administrative and college units, while ABOC is designed for college and academic department personnel.

CSBA has taken a leadership role in coordinating a structured training program for unit-level business personnel positions to keep them up to date on changes in external requirements and university policies, as well as provide advice on optimal use of administrative software packages. The agenda for the May 20, 2004 CSBA Workshop (see **Exhibit 4–12**) provides an example of the range and extent of training offered to unit-level business personnel positions.

**Exhibit 4–12**  
**Training Agenda**  
**CSBA Workshop, May 20, 2004**  
**Texas A&M University**

Session	Time Period	Program Title
I	9:00 am to 9:50 am	Exempt Purchases Locating HUB Vendors for Delegated Purchases Replacing the Form 500: The on-line EPA LeaveTraq, the A&M System Web-Based Leave Maintenance Program The In's and Out's of Transfers, Deposits, & Corrections
II	10:00 am to 10:50 am	Locating HUB Vendors for Delegated Purchases Replacing the Form 500: The On-Line EPA Position Descriptions FAMIS Online Monthly Reports, Entire Connection, and Online Reconciliation Software The In's and Out's of Transfers, Deposits, & Corrections
III	11:00 am to 11:50 am	Departmental Delegated Purchases Hiring a New A&M Employee Sales Tax FAMIS Online Monthly Reports, Entire Connection, and Online Reconciliation Software
IV	1:30 p.m. to 3:00 p.m.	Teamwork with Diversity

Source: [http://www.tamu.edu/csba/view\\_courses.php](http://www.tamu.edu/csba/view_courses.php).

The university's commitment to training for unit-level business personnel positions was strengthened through the recent reorganization of the business and finance units. In particular, a director of Training position was established under the assistant vice president for Human Resources (as shown in **Exhibit 4–11**) to implement a stronger, better-coordinated program of ongoing staff development.

#### **FINDING 4-1**

Although it appears that staff training opportunities are improving, A&M's high level of decentralization has caused the potential for inefficient use of business, financial, and human resource activities. The extent of decentralized administrative activity can be seen in **Exhibit 4–13**, which lists the number of unit-level business personnel by college. (For this purpose, the review team counted staff whose job titles suggest business-related duties rather than administrative support types of positions such as department secretaries and administrative assistants.) As seen, 237 staff are assigned to academic units who appear to be performing business and finance functions. On an FTE basis, there are 180.24 business and finance positions. The difference between the 237 head count positions and the 180 FTE positions for A&M is that many academic business officers are partially funded in the budgets of affiliated agencies. For instance, if 40 percent of the funding for a departmental business officer in the engineering college came from TEEEX, this person would represent one headcount and 0.60 FTE position in **Exhibit 4–13**.

**Exhibit 4–13**  
**Overview of Staffing Levels for Business and Finance Functions in the Colleges**

College	Position Headcount			FTE Positions		
	Business Personnel Positions	All Positions in Unit	Ratio of Positions per Business Personnel	Business Personnel Positions	All Positions in Unit	Ratio of Positions Per Business Personnel
Agriculture and Life Sciences	42	555	13.2	20.06	271.07	13.5
Architecture	6	170	28.3	6.00	112.97	18.8
Bush School of Government and Public Service	2	58	29.0	2.00	44.01	22.0
Mays Business School	12	235	19.6	10.50	153.14	14.6
Education	17	362	21.3	14.41	189.11	13.1
Engineering	34	614	18.1	23.27	367.50	15.8
Geosciences	6	162	27.0	5.75	96.53	16.8
Liberal Arts	20	628	31.4	17.00	345.92	20.3
Science	34	515	15.1	28.19	328.23	11.6
College of Veterinary Medicine	33	790	21.2	28.17	439.19	14.8
All Other Academic Units	31	326	10.5	24.90	164.00	6.6
<b>Total</b>	<b>237</b>	<b>4,415</b>	<b>18.6</b>	<b>180.24</b>	<b>2,511.66</b>	<b>13.9</b>

*Source: A&M, 2004.*

The decentralized approach to financial management dates back approximately 25 years, when it was implemented as a strategy to address the increasing administrative pressures of a rapidly growing university. The decentralization concept was adapted from Purdue University, which had reported successful results from a similar realignment of its administrative responsibilities. The general management concept behind the decentralized approach is that decisions are best made at the lowest possible level within an organization.

Several of A&M's peer universities do not operate on a decentralized approach to financial management. For example, the University of Florida was decentralized thirty years ago, but around 1990 it brought the functions of purchasing, payroll, and other administrative activities back to central university offices. The University of Florida (UF) estimates that it saved over \$1 million per year by consolidating activities. In addition, UF believes that it now operates more efficiently and effectively and has reduced its risk of violating state and federal laws. However, other peer universities such as Michigan State, Purdue, and Virginia Polytech, operate on a decentralized approach and have done so for years.

The current decentralized system may not be as efficient or effective as it was thought to be when first established more than 25 years ago. In general, departments maintain their own records systems to have the control and knowledge they believe is necessary to manage their department's budget. Departments have more responsibility for human resources, payroll services, budget preparation, and data entry, specifically into financial (FAMIS) and budget (BPP) systems. A review of the university payroll system indicated more than 400 staff with business, finance, accountant, or similar business-related functions in their title, with 237 of them working in academic departments. This survey did not include those with administrative assistant in their job title, who may also perform finance-related activities.

In October 2003, the university created a task force to review the centralization of finance operations. The task force made numerous recommendations in its final report “to reduce the number of problems being found in our dispersed finance operations by System auditors.” The task force recommended that

- A training department be established that is designed to provide a specific protocol of training for all levels of business staff and administrators.
- Academic department business functions be centralized whenever possible, with special attention to consolidating payroll, personnel, accounts payable, and reconciliation functions within small departments.
- Payroll services across College Station-based system components be consolidated.
- A committee comprised of agency and university personnel be appointed to determine the feasibility of consolidating human resources offices across College Station-based system components.
- A committee be established to review both the benefits and costs associated with changing to a monthly pay cycle for all employees, with a phase-in period for current employees if necessary.
- A committee be appointed to study the feasibility of making certain electronic processes mandatory.
- A pre-existing committee on research administration include in its deliberations:
  - the elimination of unnecessary waiving of indirect cost charges and unnecessary cost sharing;
  - the inclusion of tuition charges, where allowable, for graduate students actively participating in a research project; and
  - a study of the costs of providing pre- and post-award research administrative services on a comparable basis across the agencies, the university, and the Research Foundation.
- A study be conducted to review individual processes that have been delegated from central departments, such as human resources, payroll services, financial management services, financial aid, and student financial services.<sup>1</sup>

One problem area that the task force attempted to address is departmental business staff with numerous duties and no specialization. Other, even more critical, results of the decentralization are that many staff in the smaller departments may work without adequate checks and balances because they perform most activities themselves. There is little segregation of duties. For example, the same employee might prepare a requisition of supplies, receive them, and approve the bills. These employees, their department heads, and their colleges are vulnerable to accounting errors or even suspicion of malfeasance. Such small, generalized staff has little back up, and duties tend to stack up when they are on vacation or other leave.

The analysis of the cost of instruction, as discussed in Chapter 2, indicates that although teaching loads are high and faculty salary is relatively low compared to peers, instructional cost per student is high. The number of staff in academic departments who are involved in finance, business, and other administrative activities could account for this disparity.

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<sup>1</sup> Texas A&M University, “Recommendation of the Centralization of Finance Operations Task Force,” March 2004, Appendix p. 1.



**RECOMMENDATION 4-1:**

**Under the direction and leadership of the Division of Finance and the CFO, implement the recommendations of the task force to centralize finance and business activities conducted campus wide.**

Business functions of academic departments should be centralized wherever possible, and the remaining business functions of small departments should be consolidated. Payroll services and the human resource offices of all College Station components should be consolidated.

Peer universities have central purchasing, human resource, payroll, travel, and other business-related units that are responsible for these functions. Central human resource and payroll departments are designed to ensure that federal and state equal employment rules, employment laws, and other regulations are followed. The same can be said for central purchasing offices. Decentralization of these functions increases the cost of administration, creates duplication, and increases the risk and the cost of implementing a system of internal controls.

The National Association of College and University Business Officers (NACUBO) commended the University of West Virginia (WVU) for their best practice in this area. WVU had 28 program and departmental units with 60 business personnel in student affairs that had self-sufficient business operating units that operated as separate entities even though their business processes were the same. To become more efficient, a centralized business office was introduced that overlooked purchasing, inventory control, accounts payable, travel management, payroll, budget development, general financial reporting, and internal training functions. Through consolidation, WVU reduced staffing without resorting to layoffs, resulting in savings of \$300,000 annually. In addition WVU eliminated costly duplication of services, reduced errors, clarified lines of authority, minimized the time and costs required to accomplish administrative tasks, and improved customer service.<sup>2</sup>

**FISCAL IMPACT**

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Centralize and/or consolidate finance and business activities.</b>	\$500,000	\$1,500,000	\$2,500,000	\$3,500,000	\$4,500,000

The centralization and consolidation of finance and business activities should result in significant savings. If half of the 237 positions with business-related titles within the academic departments were eliminated, the savings would be \$4.5 million per year, based on an average salary and benefits of \$38,000.

**A&M Affiliated Agency Administration**

The seven affiliated agencies of the A&M System located on the A&M campus operate relatively independent of campus administration. Each of these affiliated agencies has a distinct statutory mandate for a mission that extends well beyond the boundaries of the A&M campus in College Station. Most of the agencies operate in counties across the state, with the Texas Cooperative Extension (TCE) having offices in 250 counties, the Texas Forest Service (TFS) having 67 additional locations, and the Texas Engineering Experiment Station (TEES) having 18 additional locations, to

<sup>2</sup> E.R. Goeres, A. Mohammadi, and M.C. Myers, “A Transforming Effect,” *NACUBO Business Officer*, May 2004, pp. 20–24.

mention a few, as discussed in **Exhibit 4–3**. Along with the geographic dispersion of staff, several other rationale are offered for the need for separate agency status, including more direct exposure to state policymakers and greater ease in working cooperatively with other universities in the state. The Texas General Appropriations Act states that the agency budgets not be redirected to operations of the A&M campus: “Nothing in this section shall authorize the transfer of appropriations from Texas A&M University Service Agencies to Texas A&M University” (p. III-254).

The affiliated agencies typically operate their own administrative offices to support most of the business, finance, and human resource requirements of their respective units. Part of the reason for operating separate administrative support offices is to maintain autonomy from the A&M campus. A second reason is the concern that A&M administrative systems, which are designed to serve faculty in close proximity to one another, are not prepared to meet the needs of agencies that have unique missions, funding arrangements, and staff and resources located across the state. For example, many employees of the Texas Cooperative Extension (TCE) are jointly appointed (and paid) by county governments and need special features in a payroll processing system to respond to such unique circumstances.

#### **FINDING 4-2**

One of the most time-consuming activities of department-level business staff and central finance office staff is processing travel vouchers. Due to state requirements, vouchers must be paper documents and require handwritten signatures. According to the A&M Division of Finance, the Comptroller of Public Accounts (CPA) requires paper vouchers with handwritten signatures. This appears to contrast with Government Code Section 660.027, which appears to permit electronic vouchers and electronic signatures. The Comptroller’s Office clarified this disparity and acknowledged that it still requires signed paper documents.

#### **RECOMMENDATION 4–2:**

**Work with the CPA to implement an electronic process for travel vouchers to include electronic signatures, as is permitted by statute.**

Eliminating hand-written signatures will speed up the processing of travel vouchers as well as reduce costs. CPA should be encouraged to comply with the statute permitting electronic signatures.

#### **FISCAL IMPACT**

Universities that have an electronic travel voucher process, such as the University of Florida and the University of Illinois, indicated that they save \$5 for each voucher processed electronically. If each member of A&M’s 4,800 faculty, administrative, and professional staff travel ten times per year, the savings would be \$240,000 (4,800 faculty members \* \$5 \* 10 trips).

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Implement an electronic travel voucher process.</b>	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000

## ***B. ADMINISTRATIVE COSTS***

A&M is one of the nation's more complex universities, especially when attempting to analyze administrative costs. Beyond sheer size, the complexity of A&M is related to at least three additional factors:

- distribution of duties between the A&M campus administrative offices and the A&M System Administrative and General Offices (SAGO); the SAGO performs some functions on behalf of A&M (and other system members) that are typically performed by campus personnel at other universities without large system offices;
- existence of seven affiliated agencies, each with a headquarters location in College Station; they contract with A&M for some administrative support services and operate parallel administrative organizations to deliver other support services; and
- extent of decentralization of administrative authority to colleges and departments on the A&M campus, resulting in some administrative expense being shifted to instructional departments.

Selected administrative functions performed at SAGO, the seven agencies, A&M administrative offices, and the colleges and departments were considered for the examination of administrative expenses at A&M. In particular, the review team focused on administrative activities that are classified as "institutional support" in the accounting statements of A&M and the affiliated agencies. "Institutional support" is defined in industry accounting resource documents to include such university wide administrative offices as:

- presidents;
- vice presidents;
- financial management;
- purchasing;
- human resources;
- university relations; and
- administrative computing.

Because of the extent of decentralization of certain administrative functions at A&M, staffing in academic departments was analyzed to identify positions whose primary duties overlap, creating a duplication of effort.

### **Consolidated Administrative Support Services**

The College of Agriculture and Life Sciences, the Texas Agricultural Experiment Station, and the Texas Cooperative Extension operate common administrative support offices that enable greater economy of scale and expertise in service delivery and provide greater convenience to faculty and staff in the various agriculture units on the A&M campus. The two agencies that comprise the

“agriculture programs” consolidated their various administrative support functions five years ago. Instead of having separate business offices for the Texas Agricultural Extension Station (TAES) and the Texas Cooperative Extension (TCE), a common office of administrative support services provides budgeting, purchasing, property management, and records management services for both agencies. The agriculture program Fiscal Services Office provides cash management, disbursement, travel processing, and FAMIS support. A common agriculture program human resources office handles employment, payroll processing, and fringe benefits coordination for the agriculture units. Since many of the faculty in the agriculture program have joint appointments in the College of Agriculture and Life Sciences, TAES, and TCE, the joint approach to providing business, finance, and human resource support to the departments eliminates potentially confusing and inefficient duplicative services.

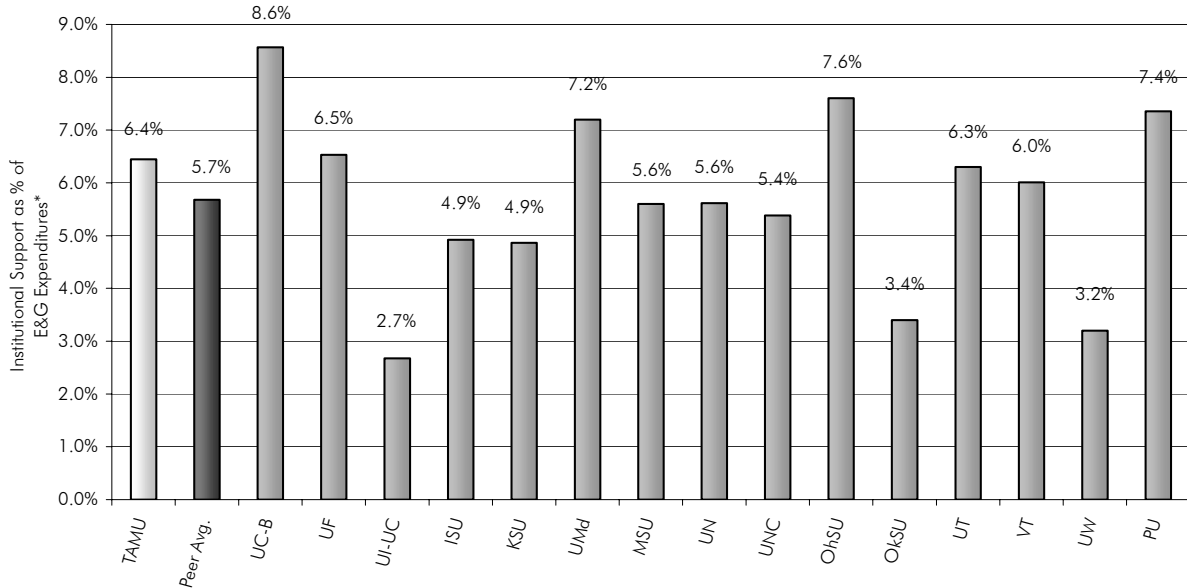
### **FINDING 4-3**

A&M has unusually high administrative costs relative to its expenditures for the primary programs of instruction, research, and public service. The costs of providing decentralized administrative support can become especially costly in smaller academic units where there is little opportunity for economy of scale. The ratio of business staff to total staff for each academic unit is listed in **Exhibit 4-15**, which clearly demonstrates greater levels of efficiencies in the delivery of support services for the larger units. As shown, the number of positions supported in departments with 25 or fewer personnel averages 12 positions per business personnel position, while departments with over 100 positions average 24 positions per business personnel position.

The proportion A&M spends on administrative expenses relative to peer universities is likely understated since various business, finance, and human resource functions at A&M are more likely to be performed at the college and department level for A&M than its peers. That is, the costs related to unit-level business personnel positions are reported as instruction or academic support expenses for A&M, while the costs for corresponding functions at the peer universities is reported as institutional support (or administrative expense).

As shown in **Exhibit 4-14**, the proportion of expenditures for institutional support activities at A&M was 6.4 percent of total spending, while the average rate at the 15 peer universities was 5.7 percent. If A&M could achieve the same relative spending pattern on administration as its peers, that is, expend 5.7 percent of total spending on institutional support, approximately \$8 million could be redirected to instruction, research, and public service.

**Exhibit 4–14**  
**Analysis of Expenditures for Administration**  
**Texas A&M University and Fifteen Peer Institutions**  
**Fiscal Year 2002**



\* Note: Education and General (E&G) expenditures include Instruction, Research, Public Service, Academic Support, Student Services, Institutional Support, Scholarships and Fellowships, and Operation and Maintenance of Plant.

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) 2001–02 Finance surveys for A&M and peer universities.

**Exhibit 4–15**  
**Number of Positions Served by Unit-Level Business**  
**Personnel Positions According to Size of Department**

Department Size	Number of Positions per Unit Business Personnel Position
25 or fewer headcount positions	12.4
26–50 positions	16.6
51–75 positions	19.4
76–100 positions	21.6
More than 100 positions	24.2

Source: A&M, 2004.

Members of the university community who took part in the Open Forum expressed concern that financial functions are too decentralized in the colleges. In particular, they perceived that the current extent of decentralization has created costly duplication of effort and that, in the smaller units, the business personnel position does not have the training and qualifications needed to perform delegated business functions effectively.

**RECOMMENDATION 4–3:**

**Consolidate decentralized support units in smaller departments and colleges.**

**FISCAL IMPACT**

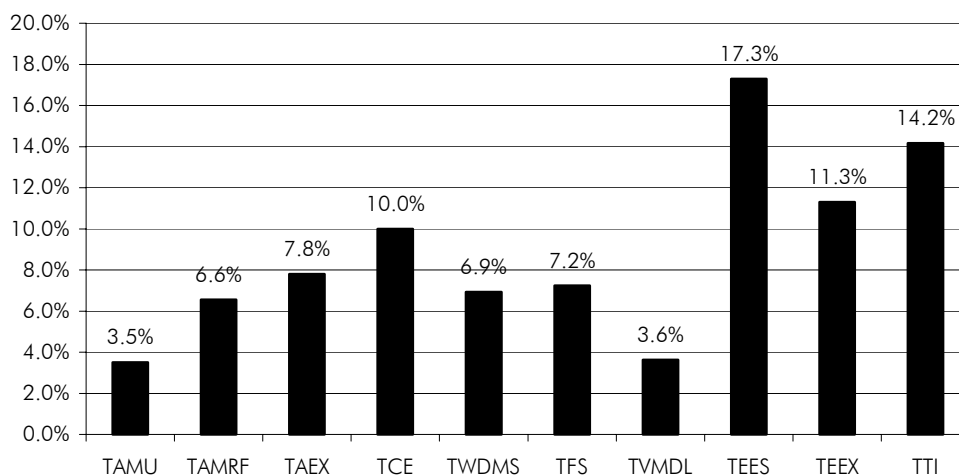
If the administrative support sections for smaller academic units are consolidated, the benefits of decentralized administrative support operations, such as more personalized support for faculty, can be maintained while achieving greater economy of scale and a higher level of expertise in service delivery. For the smaller colleges, a single collegewide unit should be sufficient. In the larger colleges, units for several departments might be consolidated, perhaps with support staff in each major building. This recommendation can be implemented with existing resources and will result in significant savings in the ensuing years. Based on an average salary of \$30,645 with benefits equal to 24 percent of salary, reducing the number of support personnel by 40 of the more than 180 FTE positions would save \$1,520,000 per year (40 personnel X \$30,465 X 1.24).

Recommendation	2005	2006	2007	2008	2009
Consolidate smaller decentralized units.	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000	\$1,520,000

**FINDING 4-4**

The affiliated agencies have an unusually high proportion of their total budget devoted to administrative functions. As seen in **Exhibit 4-16**, each of the affiliated agencies devotes a higher proportion of its total expenditures to institutional support (that is, administrative expense) than the A&M campus, often by a considerable margin.

**Exhibit 4-16  
Institutional Support as Percent of  
Educational and General Spending, Fiscal Year 2003  
Texas A&M University and Affiliated Agencies**



*Source: Calculated by MGT from each agency's annual financial report.*

Despite the oft-stated position that the agencies are intended to be autonomous and not departments of A&M, there is a high level of interrelationships between the agencies and A&M. In fact, the agencies were created by statute as separate agencies but were to remain part of the A&M “family” to benefit from the synergy that can result from co-location. Some of the agencies are especially linked to

college-level units of A&M. For instance, the same individual serves as vice chancellor for engineering (a system-level position), dean of the Dwight Look College of Engineering (a university-level position), and as the agency director of the Texas Engineering Experiment Station (an agency-level position). Several agriculture faculty members serve in positions that are jointly funded by the College of Agriculture and Life Sciences, TAES, and TCE.

For a limited number of administrative support functions, the agencies contract with the appropriate A&M office for services. For instance, agencies rely on campus support units for international services such as work visa clearance, Internet service and mail delivery, and similar logistical support functions. The statutory provision restricting “transfer of appropriations” does not prevent an agency from contracting with A&M for specified administrative support services.

The potential savings in administrative expenses are significant if the agencies could lower their cost of institutional support as a percentage of E&G expenditures to the same rate as A&M-College Station. As illustrated in **Exhibit 4–16**, the administrative expense ratio for A&M-College Station was 3.5 percent in fiscal year 2003, while the agencies had an average of 9.9 percent. If the ratio for the agencies could be lowered to 3.5 percent, potential savings would be \$40.5 million, as is shown in **Exhibit 4–17**.

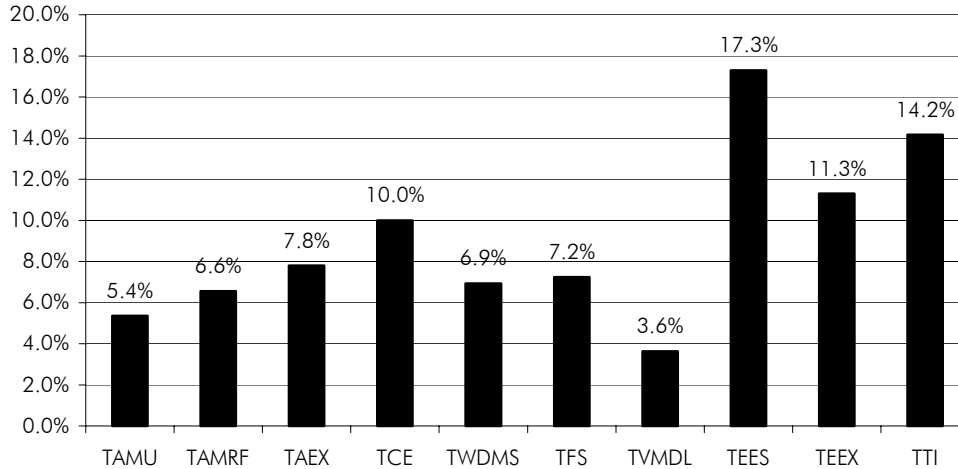
**Exhibit 4–17**  
**Percent of Total Expenditures Spent on Institutional Support**  
**A&M and Affiliated Agencies**

Entity	Institutional Support Expenditures	Total Expenditures	Percent Expended on Institutional Support
<b>A&amp;M</b>	<b>21,528,117</b>	<b>614,903,687</b>	<b>3.5%</b>
TAMRF	9,685,125	147,813,440	6.6%
TAEX	10,491,623	134,594,792	7.8%
TCE	9,040,451	90,417,571	10.0%
TWDMS	458,578	6,615,178	6.9%
TFS	2,750,127	37,982,581	7.2%
TVMDL	380,231	10,472,831	3.6%
TEES	16,685,498	96,462,571	17.3%
TEEX	7,630,497	67,572,812	11.3%
TTI	5,391,805	38,074,282	14.2%
Subtotal	62,513,935	630,006,058	9.9%
<b>Total</b>	<b>84,042,052</b>	<b>1,244,909,745</b>	<b>6.8%</b>

*Source: Calculated by MGT from agency annual financial reports.*

Because institutional support does not include decentralized business support functions and positions that are scattered throughout academic departments and colleges, it would be unfair to assume that all of A&M’s administrative costs were only 3.5 percent of E&G expenditures. To account for the 237 positions with business-related titles, estimated salary, benefits, and other costs of those positions were added to institutional support expenditures, which resulted in an increase of the administrative expense ratio from 3.5 percent to 5.5 percent. This is illustrated in **Exhibit 4–18**. If the ratio for the agencies could be lowered to 5.5 percent, the potential savings would be \$28.1 million.

**Exhibit 4–18  
Institutional Support plus Business Positions in  
Academic Departments as Percent of E&G Spending, Fiscal Year 2003  
Texas A&M University and Affiliated Agencies**



Source: Calculated by MGT from each agency’s annual financial report.

Due to the unique administrative support requirements of the agencies, it is unlikely that their administrative cost ratio could be lowered to the campus rate even if certain institutional support functions were consolidated with A&M. Furthermore, additional positions would be required by A&M to provide additional institutional support functions and there would probably have to be some investment in technology to make certain processes more efficient. **Exhibit 4–19** shows estimated savings to be \$24.9 million if the agencies could lower their administrative cost ratio to 6.0 percent, and \$21.9 million if they could lower the cost ratio to 6.5 percent.

**Exhibit 4–19  
Potential Savings from Consolidation of Institutional Support Functions  
Texas A&M University and Affiliated Agencies**

Entity	Institutional Support as % of E&G Expenditures		
	Current	Potential	Potential Savings
<b>A&amp;M</b>	<b>5.5%</b>	<b>5.5%</b>	-
Affiliated Agencies	9.9%	5.5%	28,059,377
Total	6.8%		28,059,377
<b>A&amp;M</b>	<b>5.5%</b>	<b>5.5%</b>	-
Affiliated Agencies	9.9%	6.0%	24,961,710
Total	6.8%	5.7%	24,961,710
<b>A&amp;M</b>	<b>5.5%</b>	<b>5.5%</b>	-
Affiliated Agencies	9.9%	6.5%	21,864,044
Total	6.8%	6.0%	21,864,044

Note: Includes estimated expenses of academic business-related positions in addition to institutional support  
Source: Calculated by MGT from A&M and Affiliated Agencies Annual Financial Reports.



**RECOMMENDATION 4-4:****Develop additional contractual relationships between A&M and the affiliated agencies for business, finance, and human resource support services.**

As mentioned above, the agencies have developed their own systems and procedures that are tailored to their unique missions. However, we believe there is considerable opportunity for shared administrative services between the agencies and A&M that would lead to reduced administrative expenses at the agencies without loss of initial mission support.

**FISCAL IMPACT (to the service agencies)**

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Reduce expenditures through additional contractual relationships for administrative support with affiliated agencies.</b>	\$1,900,000	\$6,900,000	\$11,900,000	\$16,900,000	\$21,900,000

The fiscal impact assumes that it would take several years to transition business, finance, and human relations support to A&M. Amounts are shown in **Exhibit 4-19**.

**C. CASH AND INVESTMENT MANAGEMENT**

The A&M System Office of the Treasury performs cash management, including cash flow forecasting. This office has responsibility for investment management of the Cash Concentration Pool and the System Endowment Fund (which are two pooled funds invested for the benefit of the A&M System), cash management, fiscal issues relating to capital planning, and debt management. The purpose of the Cash Concentration Pool is to collectively invest all operating and other funds of the A&M system and its components.

The Board of Regents establishes the system investment policy for the Cash Concentration Pool and the endowment pool. Office of the Treasury staff, investment consultants, and the Board of Regents review the policy annually. A formalized process to select external managers based on specific criteria is in place for both the Cash Concentration Pool and the endowment fund. An independent consultant assists the staff in this process. Managers are evaluated monthly, quarterly, and annually, including an annual review at the System Office and a site visit to the manager's office.

The objectives of the Cash Concentration Pool are to collect all of the system operating cash and manage it, and fund disbursements on a daily basis; maintain bank balances as close to zero as possible; and invest idle cash in a manner to provide adequate liquidity and obtain the highest investment return possible. The Cash Concentration Pool has a cash portfolio and long-term pool. The long-term pool is composed of a liquidity portfolio, a long-term portfolio, and equities.

As of May 31, 2004, the Cash Concentration Pool had a market value of \$1.2 billion. As of that date, 12.6 percent of the pool's assets were invested in the cash portfolio and 87.4 percent were invested in the long-term pool. **Exhibit 4-20** shows the comparative returns of the pool.

**Exhibit 4–20**  
**Comparative Return of the Cash Concentration Pool**  
**As of May 31, 2004**

	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>7 Year</b>
Pool Total	8.9%	4.9%	6.4%	7.5%
Composite Index	7.6%	4.6%	5.2%	7.4%
Difference	1.3%	.3%	1.2%	.1%

*Source: A&M, 2004.*

### **Cash Concentration Pool Performance**

The associate vice chancellor and the director of Financial Planning manage the various processes, from bank and fund manager selection to daily management of deposits and withdrawals, in a professional manner utilizing good business practices that result in greater earnings than is generated by the composite index over every comparative time period. A discussion with university representatives indicated the current system and processes provided adequately for university needs.

The Cash Concentration Pool objectives are achieved through a series of banking and investment relationships, which include a lead bank used for disbursements, a depository bank for daily receipts, a short-term money market fund, and a long-term cash pool. At least one controlled disbursement account and one concentration are maintained for each system component at a zero balance. A depository account is maintained for each system component, and funds are transferred to the system master account each night. Available funds are transferred to the short-term cash pool each morning. A daily cash settlement process between incoming and outgoing funds is completed each day by noon. Institutional needs are forecasted on a monthly basis using historical data coupled with current factors.

### **FINDING 4-5**

Although the treasurer works closely with regents, particularly with the chair of the Finance Committee on matters relating to the Cash Concentration Pool, manager selection has been delegated to the staff. Such an important responsibility should not be delegated to staff.

A commonly followed business practice, such as the Public Funds Investment Act (PFIA), Chapter 2256 of the Texas Government Code, authorizes university systems to hold and invest funds for the benefit of the system. Investment management, for a period of no more than two years, may be contracted with an outside firm. The PFIA also specifies the type of funds in which public resources may be invested and requires the board of an “agency” to maintain an investment strategy that must be reviewed annually.

Although the A&M System is not required to follow PFIA rules, they are widely considered good practices. PFIA requires that the investment manager meet specific requirements and hold the board responsible for ensuring compliance with all PFIA components.

Staff and a systems investment consultant interview asset managers for the Cash Concentration Pool, and the vice chancellor for business services has responsibility for hiring. His decision is communicated to the board. However, since the board is ultimately responsible for the decision, manager selection for investment pools should involve at least one member of the board.

**RECOMMENDATION 4-5:****Include the chair of the Finance Committee in manager selection decisions.**

Prudent fiscal management dictates that the board, which has ultimate responsibility for the investment of funds, should have a voice in selecting the manager of the funds.

**FISCAL IMPACT**

This recommendation can be accomplished with existing resources.

**FINDING 4-6**

A&M has not regularly reviewed the Cash Concentration Pool. According to PFIA recommendations, this is a lack of effective oversight.

A&M's chief financial officer (CFO) is a member of the Investment Input Committee, which meets quarterly to review both the Cash Concentration Pool and the System Endowment Fund. In addition, A&M's CFO receives monthly reports on investment performance, as well as the consultant's quarterly reports. Nevertheless, the investment pools should be subject to a regular audit.

**RECOMMENDATION 4-6:****Have the A&M System Internal Auditor undertake a comprehensive audit review of the Cash Concentration Pool.**

The National Association of College and University Officers (NACUBO) recommends that any investment pools managed by university entities be audited on a regular basis.

**FISCAL IMPACT**

This recommendation can be implemented within existing resources, and could result in a potential increased return on the pool's assets.

***D. BUDGETING AND PLANNING***

The internal budgeting process at A&M is centrally directed but decentrally implemented. For the budget preparation process, academic and non-academic units prepare their budgets based primarily on a carry forward basis, meaning the ensuing budget will be based on the previous budget period with possible minor additions or deductions and reflecting projected revenues. Additions or deductions to the budget are negotiated with deans and possibly the provost (vice presidents for non-academic units) before the budgets are built. Funds for salary increases are distributed to units in Phase 1 of the budget process and are reallocated in Phase 2 by unit heads.

Specific decision packages initiating at the unit level do not appear to be part of the budget building process, mostly due to the lack of new funds coming into the institution. Due to the current funding situation, decision packages, if used as part of the budget process, would need to be funded with revenues redirected from other units.

For academic year 2004–05, A&M increased undergraduate, in-state tuition and mandatory fees by \$913 per student, and undergraduate out-of-state tuition and mandatory fees by \$1,573 per student. A&M projects that this tuition increase will raise \$29.3 million in additional revenues, which will be used for the purposes shown in **Exhibit 4–21**.

**Exhibit 4–21**  
**Uses of Additional 2004–05 Tuition Revenue**

Use of Revenues	Amount
State Minimum Tuition – Merit raises	\$1,500,000
Designated Tuition	8,300,000
Faculty Reinvestment - New Faculty	3,100,000
Faculty Reinvestment – Faculty Retention	1,800,000
Student Financial Aid	9,600,000
Computer Access Fee – Systems and Labs	3,700,000
Bus Replacement Plan, etc.	1,000,000
Student Services Initiatives	300,000
<b>Total Projected New Revenues</b>	<b>\$29,300,000</b>

Source: A&M, 2004.

The university has many available fund sources. The fund sources can be categorized into Education and General (E&G) revenues, e.g., state appropriations, tuition, and indirect cost revenue, and special revenues, which include dedicated, restricted, and local funds. Included in the special revenue category are service fees such as library fees and special program fees. In building their E&G budgets, the academic and non-academic units receive revenue forecasts from the university Budget Office. In the second year of the biennium, these revenue forecasts resemble levels from the prior budget period. In some cases, such as state mandated budget cuts or internal re-appropriation of funds, the revenue available for units may not resemble the previous budget period.

Once the funds have been allotted to the academic and non-academic units, there does not appear to be any formal procedure for reporting actual expenditures. Because of the centrally directed yet decentralized implementation process for the budget, the central university Budget Office does not have the resources for a large staff. Similar large research institutions with a comparable type of budget process have similarly sized budget offices, usually ranging from 6 to 10 staff members. The decentralized implementation process creates a need for budget staff. In many cases at A&M, the college staff with budget responsibility is assistant deans. These assistant deans work closely with the central Budget Office so that duplication of effort is kept to a minimum, while the consistency of information is maintained.

Gradual growth in enrollment has increased tuition revenues. In recent years, funding constrictions by the state and internal redistributions of funds have altered the funding levels of the units. Although there is increasing enrollment pressure on A&M, the university does not plan on significantly increasing enrollment. Because the funding formula is enrollment driven, the university anticipates its state funding to remain relatively constant. Additional state funding could be available if the funding rate per student increases. However, in the near term, the funding rate per student is anticipated to remain fairly constant. Increases in designated tuition and/or special program fees are options for increased revenue; however, significant tuition increases in designated tuition are likely to occur if state appropriations do not increase. Facilities and Administrative or Indirect Cost Recovery (F&A) funds provide another potential source of increased funding if the university's research grant dollars increase. The funding situation for A&M is not expected to radically change in the near future. New university initiatives, such as the faculty reinvestment program, were initially supported by internal reallocation of \$20 million. However, future support for new initiatives must be funded from new revenues.

**FINDING 4-7**

The process of creating individual budget packets for each department is a manual process. The budget system (BPP) used by the university is at a fund level by account. Therefore, the Budget Office of the Division of Finance must manually produce reports that indicate the complete budget for each academic and non-academic department. These reports do not come out the accounting system, FAMIS, which is an old system that is reported to have many problems. The A&M System uses FAMIS for its financial reporting; A&M uses FAMIS for financial accounting.

**RECOMMENDATION 4-7:**

**Consider re-engineering the budget process and altering the budget system to eliminate the manual process of creating departmental budget documents.**

System improvements could also minimize or eliminate the use of a separate accounting system by many departments to track expenditures.

**FISCAL IMPACT**

The cost of completing a re-engineering study and bringing in an outside consultant to assist in the process is estimated at \$50,000. Potential savings from the implementation of this recommendation are estimated to be \$152,000 per year (the elimination of the equivalent of 4 FTE). Based on an average salary of \$30,645 and benefits equal to 24 percent of salary, reducing the number of support personnel by 4 (in addition to the 40 in another recommendation) would save \$152,000 per year (4 personnel X \$30,465 X 1.24).

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Reengineer the process.</b>	(\$50,000)	0	0	0	0
<b>Reduce staff.</b>	\$152,000	\$152,000	\$152,000	\$152,000	\$152,000
<b>Net change</b>	\$102,000	\$152,000	\$152,000	\$152,000	\$152,000

***E. INTERNAL CONTROLS***

Internal controls help provide reliable financial and performance reporting; give management, administrators, and policymakers tools to make timely decisions; help protect organizations assets; assist in ensuring compliance with laws and regulations; and help ensure an organization's mission can be achieved efficiently and effectively.

In 1992, the Committee of Sponsoring Organizations (COSO) of the National Commission of Fraudulent Financial Reporting (the Treadway Commission), a voluntary private sector organization dedicated to improving the quality of financial reporting through business ethics, internal controls, and corporate governance, completed a study to provide a common understanding of internal controls and to assist managers in exercising better control over their organizations. The commission is composed of representatives from the American Institute of Certified Public Accountants (AICPA), the American Accounting Association (AAA), the Institute of Internal Auditors (IIA), the Institute of Management Accountants (IMA), and the Financial Executive Institute (FEI).

According to COSO, internal control consists of five interrelated components. The components are:

- Control Environment
- Risk Assessment
- Control Activities
- Information and Communication
- Monitoring

Since the Treadway Commission work of the early 1980s and 1990s, managers have become more responsible for internal controls. However, it never had the meaning nor the relevance that it has in today's financial world. As a result of several recent major corporate acts of malfeasance, the federal government has stepped in to help ensure publicly traded corporations are more accountable to their shareholders and other stakeholders. The Sarbanes-Oxley Act of 2002, generally referred to as Sarbanes-Oxley (SOX), was a congressional response to headline-making accounting scandals, including the ones at Enron and MCI-World Comm.

### **Sarbanes-Oxley Act of 2002 (SOX)**

Sarbanes-Oxley applies only to publicly traded companies, the executives of those companies, and the public accounting firms who audit those companies. While SOX does not specifically apply to non-profit organizations, many areas will affect colleges and universities. Some colleges and universities have started to implement certain aspects of Sarbanes-Oxley without any official announcements. In addition, Massachusetts, Maryland, California, and New York are discussing mandating certain provisions of SOX for public institutions. In addition to improving accountability, transparency, and disclosure, implementation of certain SOX provisions could affect bond ratings, fund-raising efforts, and insurance premiums.

Because Sarbanes-Oxley was intended specifically for publicly traded corporations, many of its provisions are not directly applicable to higher education. Absent new legal requirements, colleges and universities need to identify practices in SOX that are relevant to institutions of higher learning. To help institutions find these areas, the National Association of College and Universities Business Officers (NACUBO) has responded with some guidance.

The National Association of College and Universities Business Officers (NACUBO) issued an *Advisory Report* in November 2003. NACUBO's recommendation focuses on independent auditors, audit committees, and senior management. According to some financial experts, areas regarding institutional transactions and relationships among board members will come under closer scrutiny and will lead to enhanced enforcement and oversight by state oversight agencies and internal controls.

According to Fitch Ratings, the voluntary adoption of certain provisions of SOX is a "best management practice." In a January 27, 2004 *Special Report*, Fitch states, "When assigning a rating, Fitch assesses the quality of management since decisions by management can affect the financial condition of the school. While schools that utilize best management practices are not guaranteed financial success, Fitch believes that generally they are better able to self-assess and evaluate financial risks and respond in a more timely fashion." Fitch believes that voluntary adherence to several sections of the act and the NACUBO recommendations demonstrates best management practices by the school and is, therefore, looked upon favorably as a rating consideration. In addition

adherence provides greater confidence to investors that may be purchasing debt issued by the schools.”<sup>3</sup>

Internal control areas covered in SOX are critical to organizations in reducing fraud and protecting financial and other assets. Sound, documented policy and procedures are an important component of controls, and a periodic review of policy and procedures is important to help ensure appropriateness and applicability over time.

In its November 2003 *Advisory Report*, NACUBO issued recommendations for higher education with respect to issues raised by the Sarbanes-Oxley Act of 2002. The purpose of the report was to provide “best practice” guidance to the higher education community as institutions consider SOX implications and decide which aspects of SOX to implement. The *Advisory Report* covered three main areas of SOX: independent auditors, senior management, and audit committees. NACUBO recommends that an internal control assessment be planned and conducted; the internal audit department report on internal controls to the governing board’s audit committee and to management; and that management provide assertion and testing on internal controls.

### **Internal Control Enhancement**

The A&M Division of Finance and the CFO are committed to enhancing an already strong system of internal controls by complying with the requirements of Sarbanes-Oxley. Cash handling training classes are being mandated for all departments and employees that handle cash receipts. University policies and rules applicable to purchasing, travel, and other finance activities are on the division’s web site. The Financial Management Operations Department is conducting its own assessment of internal controls and has ordered a questionnaire, prepared by AICPA, to help conduct such an assessment. In addition, the division recently purchased software to automate account reconciliation.

Another example of a strong internal control is the requirement that all university departments that deal with online payment transactions use the secure web payment gateway, AggiePay. This helps ensure secure processing on the Internet, more timely posting into FAMIS, improves separation of duties for refunds, and facilitates reconciliation.

Although A&M is working toward adopting certain recommended, relevant sections of SOX, the decentralized deployment of finance and asset management functions may hinder adoption of certain provisions of SOX. Lack of financial expertise by many department business staff, lack of separation of duties in small departments, and the continued maintenance of second sets of books are not effective internal controls.

One of the SOX areas mentioned by the CFO for consideration is the certification process. This would require having deans or department heads formally certify financial reports and officially confirm that they have reviewed the reports and, to the best of their knowledge, believe the reports to be accurate and complete. This certification would extend the effectiveness of an internal control system. However, the decentralized nature of the finance and asset management functions at A&M could make this difficult.

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<sup>3</sup> Fitch Ratings, Higher Education Special Report, “Sarbanes-Oxley Act: Voluntary Compliance Viewed as a Best Management Practice,” January 27, 2004, p.1.

## **F. ASSET AND RISK MANAGEMENT**

This section reviews the asset and risk management functions of A&M and the Texas A&M System Office in the following sections:

- Investment management and strategies for the System Endowment Fund;
- Fixed asset management: tracking, counting, reporting and surplus property;
- Accounts receivable, tuition, and fee collection process at A&M;
- Procurement process at A&M;
- Debt management for the Texas A&M System; and
- Property management.

It is necessary to review these functions at either A&M or the System Office because of the centralization of certain activities, including treasury services, internal auditing, and certain risk management functions at the system level.

Asset management and risk management are two major fiduciary responsibilities of system and university administrative offices. In these areas, it is important to have appropriate statutory provisions, system regulations, and institutional operational policies and procedures in order to achieve desired results. *The Essentials of Risk Management*, published by the Insurance Institute of America, currently defines risk management as “the process of making and implementing decisions that will minimize the adverse effects of accidental and business losses on an organization.” Risk management is important because it can preclude reduction of property losses, income losses, financial losses from third party claims, and possible loss of credibility.

*College and University Business Administration*, a publication of the National Association of College and University Business Officers, categorizes risk in higher education into five categories. Operating risks are those risks that materialize from the daily operations of the institution. Legal and regulatory risk arises from the numerous federal, state, and local laws and regulations that govern higher education. Financial risk is the risk of loss of assets from damage to facilities, theft, lawsuits, and decrease in investment value. Political and reputation risk regards the standing of the institution in the opinion of the general public and/or lawmakers. Technological risks are risks associated with the computer hardware and software, which are used to manage many areas of the institution.

Within the A&M System, responsibility for these functions is shared between the System Office and the component parts of the system including A&M. In instances where authority and responsibility rest with the System Office, the support provided to the various system components is very important, as many of these units are relatively small and lack the resources and expertise to appropriately develop and manage programs.

### **Investment Management and Strategies for the System Endowment Fund**

As indicated in an earlier section, the A&M System Office of the Treasury has responsibility for the Cash Concentration Pool and the System Endowment Fund. Staff recommends investment objectives and policies with advice from the investment consultant and approval from the Board of Regents. The board delegates to the staff the authority to work with investment consultants and select investment managers. All assets are invested with the primary objectives of 1) providing continual and dependable payouts that grow in real terms after giving effect to inflation and 2) causing the value of the fund to appreciate over time, exclusive of growth derived from donations.



The associate vice chancellor and the director of financial planning manage the System Endowment Fund in a business-like manner that has resulted in greater earnings than the composite index in three of the four comparative time periods. The objectives of the System Endowment Fund are to maximize returns consistent with the level of risk of the investment and to meet the need for current payouts while maintaining appropriate diversification to ensure that investments in a single security, a class of securities, or an industry will not have an excessive impact on the fund. The asset allocation is determined by examining risk versus return for various classes of assets and examining the effect of different allocations on the expected risk versus return profile of the total portfolio. The current endowment spending policy, excluding fees, is to distribute no more than 5 percent of the last 20-quarter average unit market value of the fund, calculated at the end of each February for the next fiscal year. The System Endowment Fund is operated on a unitized basis, with deposits and payouts processed quarterly. Realized income over the current payout policy is credited to the appreciation reserve with ownership reflected in the market value of each account. It was noted that some of the endowment funds are modest in size, and interest income and growth are minimal. In these cases, it is questionable if the original objectives of the fund are being met.

A comparison of the returns of the fund to the composite index for a one-, three-, five- and seven-year period indicates the fund outperformed the index in all but the three-year period, which reflected 0.3 percent less than the composite index. **Exhibit 4-22** shows the performance of the System Endowment Fund as of May 31, 2004. The *Chronicle of Higher Education* listed the A&M System as having the highest return on endowment funds for any private organization for the time period ending May 2004.

The treasurer works closely with the regents, particularly with the chair of the Finance Committee, on matters relating to the System Endowment Fund.

**Exhibit 4-22**  
**Comparative Return of the System Endowment Fund as of May 31, 2004**

	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>7 Year</b>
SEF Fund	19.0%	2.9%	6.4%	8.8%
Composite Index	17.7%	3.2%	4.0%	8.2%
Difference	1.3%	-.3%	2.4%	.6%

*Source: A&M, 2004.*

#### **FINDING 4-8**

Endowment funds under control of the Texas A&M University Foundation are not managed by, nor consolidated with system endowment funds. Therefore, the cost of managing these funds is in addition to the cost of managing the system endowment funds. In addition, the return on system endowment funds was greater than the one-year return on foundation endowment funds, as shown in **Exhibit 4-23**. The time periods in **Exhibit 4-23** are different from those of **Exhibit 4-22**, and so returns are slightly different.

**Exhibit 4–23**  
**Comparative Return on System Endowment Funds and**  
**Texas A&M University Foundation Endowment Funds**

	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>7 Year</b>
SEF Fund*	20.2%	4.2%	5.7%	8.7%
A&M Foundation*	18.7%	7.3%	8.2%	9.0%
Difference	1.5%	(3.1%)	(2.5%)	(0.3%)

\*Note: As of June 30, 2004.

Source: A&M Foundation, September 2004.

### RECOMMENDATION 4–8:

**Consider consolidating the management and investment of the system endowment funds with the funds under control of the Texas A&M University Foundation.**

The potential for these funds to be managed at a lesser cost and in a more effective manner should be explored.

Based on similar actions in other states, the legal avenues for accomplishing such action may be available. A committee should be established to review a potential consolidation that includes representatives for the Board of Regents, the foundation, and the university. The A&M Foundation is a separate 501(c) 3 organization, and the committee will need to review whether the A&M System can manage foundation funds.

### FISCAL IMPACT

If the A&M foundation funds are earning an average rate of 1.5 percent less over the last year than funds invested in the system endowment pool and the total of A&M foundation funds is \$625,800, then the potential exists to earn \$10,000 more per year on the foundation endowment funds.

In addition, consolidating management will likely increase efficiency. Over the next five years, at least one investment specialist position could be eliminated by attrition at a savings of \$49,600 (a salary of \$40,000 plus 24 percent fringe benefit costs).

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Consolidate funds.</b>	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Reduce staff.</b>	\$49,600	\$49,600	\$49,600	\$49,600	\$49,600
<b>Net change</b>	\$59,600	\$59,600	\$59,600	\$59,600	\$59,600

### Fixed Asset Management: Tracking, Counting, Reporting & Surplus Property by Texas A&M University

The management of moveable departmental equipment, surplus equipment, and lost, stolen, or abandoned property is an important component in the protection of university assets. Good internal controls are necessary for effective management. A proactive system and procedures are required in order to effectively assure faculty, staff, students, and other stakeholders that these assets are receiving adequate protection. Administering equipment inventory includes recording new equipment purchased as well as moving existing equipment from one location to another, certifying an annual inventory, reporting lost or stolen equipment, and complying with federal regulations when

equipment is funded from federal sources. The surplus property function includes recycling excess property within the institution and selling surplus property to private buyers at auction. An important role of the Surplus Property Office is to help locate an institutional unit that can utilize property no longer required by the department that originally acquired the equipment.

Moveable equipment costing over \$5,000 or classified as sensitive equipment by the State Property Accounting Office is required to have a property bar code label and/or an inventory number inscribed with a permanent marker. Upon acquisition of equipment, the Controller's Office provides a decal to the department. An annual inventory is coordinated by the Controller's Office, and individual departments are provided an inventory listing and a bar code reader in order to take inventory and certify that equipment is accounted for. Items that are cannibalized are noted as such and may be written off the inventory within the same year. The University Police Department is notified anytime an item is suspected of being stolen. These items may also be written off within the same year but require an investigation and police report. Items that cannot be located must remain on the state property list for two years before they can be written off.

The Purchasing Division of the Division of Finance manages surplus property. In accordance with state regulations, antiquated and retired computer equipment is provided to school districts or the prison system. Other equipment is sold at auctions, which are held two or three times a year. **Exhibit 4-24** provides the results of auctions held in fiscal years 2003 and 2004 and shows that the more recent auctions have recovered more of the original asset cost.

**Exhibit 4-24**  
**Texas A&M University**  
**Surplus Property Auction Sales Proceeds**  
**Fiscal Years 2003 and 2004**

<b>Date of Auction</b>	<b>Original Cost</b>	<b>Auction Proceeds</b>	<b>Proceeds as a Percent of Original Cost</b>
12/07/02	\$605,253.92	\$27,695.37	4.6%
05/10/03	1,166,014.81	80,924.71	6.9%
07/26/02	849,948.46	100,034.24	11.8%
11/15/13	1,284,253.22	141,589.99	11.0%
05/01/04	758,646.53	75,369.65	9.9%

*Source: A&M, 2004*

Personal property lost or abandoned by faculty, staff, students, and visitors is held in the Memorial Student Center, or in the case of larger items, by the police department. After a 120-day period, the university may sell the property at public auction, with the proceeds being deposited in the Memorial Student Center account to benefit the student body.

### **Accounts Receivable, Tuition and Fee Collection Process at Texas A&M University**

Tuition and fees as well as campus service charges such as housing, food service, and parking are charged to students through their student accounts, which are maintained by Student Financial Services. To be customer friendly, students have the option of paying their bill on line, sending a payment to the university, mailing a payment to the university lockbox, or making payment at the University Cashier's Office. All students are assigned a university e-mail account to which all university tuition and fee bills are sent. This system has helped spread the receipt of payments out over a few weeks, versus all in one week, and substantially reduced the number of checks handled.

If a student does not make payments on time, a late fee is charged to his/her account. At a certain date within the semester a hold is placed on the student's account until all charges are paid. This hold prohibits the student from receiving certain university services such as being able to register for classes, receive a transcript, or certify for graduation. If a graduating student owes less than \$250, he/she is allowed to receive a diploma, but the block on the account will prohibit the student from receiving any university services, including receiving a transcript.

Students' accounts receivable are kept active on their student accounts for a period of six years. At that time, the receivable is written off, but the hold is maintained on the account, so that the student cannot receive any university services. Students have an opportunity to enter into a repayment agreement with the university. In this arrangement, the student is required to pay approximately 50 percent of the amount due to the university and negotiate a specified time period in which to pay off the remaining balance. A temporary removal of the hold allows the student to receive a transcript or some other university service. Write-offs are done annually, as recommended by the Controller, and are approved by the general counsel for both customer accounts receivable and student accounts.

The other main source of accounts receivable for A&M is other components, including the affiliated agencies. **Exhibit 4–25** shows the total of accounts receivable as of March 31, 2004 and indicates that very few (1.44 percent) are more than 180 days old. Of the total \$17.1 million, \$6.1 million (36 percent) were outside the A&M system.

**Exhibit 4–25**  
**Texas A&M University Accounts Receivable as of March 31, 2004**

	<b>0–60 Days</b>	<b>61–180 Days</b>	<b>181–1 Year</b>	<b>+ 1 Year</b>	<b>Total</b>
Total	\$15,437,503	\$1,430,174	\$183,941	\$63,480	\$17,115,098

*Source: A&M Division of Finance*

### **Procurement Process at Texas A&M University**

Providing university academic and non-academic departments with high quality goods and services is the major responsibility of the University Purchasing Department, which is housed in the University's Division of Finance. The Purchasing Department provides assistance to all other departments in the acquisition of certain goods and services through state and university contracts, the issuance of purchase orders, and request for proposals for complicated and/or unusual purchases. Commercial purchasing cards, commonly referred to as P-Cards, function as credit cards for the supplier and the buyer. For approximately ten years, P-Cards have increased in usage throughout higher education. P-Cards are normally distributed to certain employees at the departmental unit, enabling them to purchase small items within certain dollar limitations. This relieves a significant paper burden from both the department making the purchase and from the Accounts Payable Department, enabling them to concentrate on purchasing functions for larger acquisitions.

### **Debt Management for the Texas A&M System**

The Board of Regents establishes the debt policy for the Texas A&M University System. Staff reviews it annually and recommended changes are presented to the Board of Regents for consideration. The policy includes debt programs, authorization limits, approval requirements, and reporting criteria. Debt programs for the Texas A&M System are the revenue financing system, which consists of short-term commercial paper and long-term bonds, and the Permanent University Fund, which consists of short-term flexible rate notes and long-term bonds. The debt policy of the system, as approved by the Board of Regents, takes into consideration factors such as statutory

limitations, the types of projects to be included, and the addition of debt services to the fixed costs of operations.

During 2003–04, the debt for A&M and the affiliated agencies totaled \$406,486,000, as shown in **Exhibit 4–26**.

**Exhibit 4–26**  
**A&M and Affiliated Agency Debt as of 2004**

Name of Entity	Bonded Indebtedness
Texas A&M University	\$405 million
Texas Agricultural Experiment Station (TAES)	\$246,000
Texas Cooperative Extension (TCE)	\$610,000
Texas Transportation Institute (TTI)	\$630,000
<b>TOTAL A&amp;M System Debt</b>	<b>\$804 million</b>

*Source: Texas A&M 2004*

### ***Favorable Bond Ratings***

Based on the financial strength of the pledged revenue sources, the rating agencies have given excellent bond ratings for the Texas A&M System, resulting in favorable interest costs. The revenue financing system is a program secured by a gross pledge of all legally available revenues of the system. The strength of the system is its flexibility and lower borrowing cost for system institutions. Current credit ratings include Moody's at AA1, Standard & Poors at AA+, and Fitch at AA+. According to Moody's, only about 24 percent of public universities are rated in its AA or AAA categories. This means A&M's credit rating is in the top quarter of all public universities.<sup>4</sup>

For debt proceeds to be utilized for a project, the Board of Regents and THECB must approve such action. Commercial paper is used primarily for interim financing of construction/renovation projects as well as equipment purchases. Projects are consolidated and commercial paper is issued in aggregate amounts based on projected needs. Long-term bonds are issued based on interest rate and funding opportunities.

The System Office maintains holding accounts for each system member, with projects using commercial paper paying their share of debt service costs. Interest, paying agents, remarketing fees, and other costs associated with the commercial paper program are allocated to each project utilizing dollar days averaging calculation. Interest is paid on amounts deposited into the holding accounts.

The total debt for the system is currently \$804 million. A&M debt is slightly over 50 percent of the system, at \$405 million, as shown in **Exhibit 4–26**.

The permanent university fund (PUF) is a public endorsement that benefits both the Texas A&M System and the University of Texas System. The Texas A&M System receives one-third of the distribution, which is 4.75 percent of the twelve-quarter average market value of the PUF, calculated at the end of February, for the next fiscal year. PUF funds are transferred to the Available University Fund (AUF) for use by the two systems.

<sup>4</sup> "Special Debt Issuance and Increased Rating Volatility: 2003 Higher Education and Not-for-Profit Year-End Review," Special Comment, February 2004, p. 2.

The Available University Fund is used for debt service on PUF notes and bonds for programs of excellence and operational activities. The current PUF credit ratings are Moody's, AAA; Standard and Poors, AAA; and Fitch, AAA. PUF flexible rate notes are used primarily for interim financing of construction projects and equipment purchases. This is similar to the revenue financing system for commercial paper. As needed, permanent PUF bonds are issued based on interest rates and refunding opportunities, and short-term notes are used until market conditions favor long-term financing. Total PUF debt is currently \$308 million of that amount; Texas A&M University is benefited by approximately \$150 million of the total.

## **Property Management**

Section 85.25 of the Texas Education Code states that the A&M System Board of Regents has "sole and exclusive management and control of lands and mineral interests under its jurisdiction and that may be acquired by it." Based upon this delegation of authority from the legislature, the board has developed a comprehensive set of policies dealing with real property assets of the A&M System, which may be found on the A&M System web site, <http://sago.tamu.edu/policy/tocmain.htm>

The policies direct that title to all real property be held in the name of the Board of Regents and that the use and control of these properties be assigned to institutions within the A&M System. Once a property is assigned to an institution or agency, the real property inventory maintained by the System Real Estate Office will be revised to reflect such assignment. The A&M System Real Estate Office is mainly involved in the purchase and sale of land and the leasing of land for oil and gas exploration and production.

All property is classified into one of three distinct categories: academic, investment, and non-investment. Academic properties are those that are either presently being used as, or will be used in the future, for academic or institutional purposes. Campuses, campus expansions, and institutional buildings fall under this classification. Investment properties are those used in support of institutional mission, usually for educational or research programs. Non-investment properties are those identified as being in excess to A&M System needs. These properties are actively marketed for sale.

Periodically, the System Real Estate Office meets with each institution and agency to assess current and future real property needs. Based upon this assessment, properties may be reclassified and leased or sold, as appropriate. For those properties reclassified as non-investment properties, the System Real Estate Office will lease them to third parties to generate a revenue stream while the property is being prepared for marketing. The properties that are being marketed are listed with a real estate broker as well as on the A&M System web site at <http://recenter.tamu.edu/data/datar1.html>. All sales of real property must be supported by two fair market appraisals and must be approved by the board. Over the past 12 years, the A&M System Real Estate Office has sold over 21,000 acres of land for all A&M System members.

At the end of each fiscal year, the System Real Estate Office prepares and presents a report to the Board summarizing system real property holdings. The September 1, 2003 report showed that the A&M System controlled 54,944.09 surface area acres and 53,323.23 mineral area acres. Of that amount, 17,262.28 surface area acres were assigned to A&M, representing 30.9 percent of the total surface holdings of the A&M System. **Exhibit 4-27** displays the A&M System holdings as of September 1, 2003.

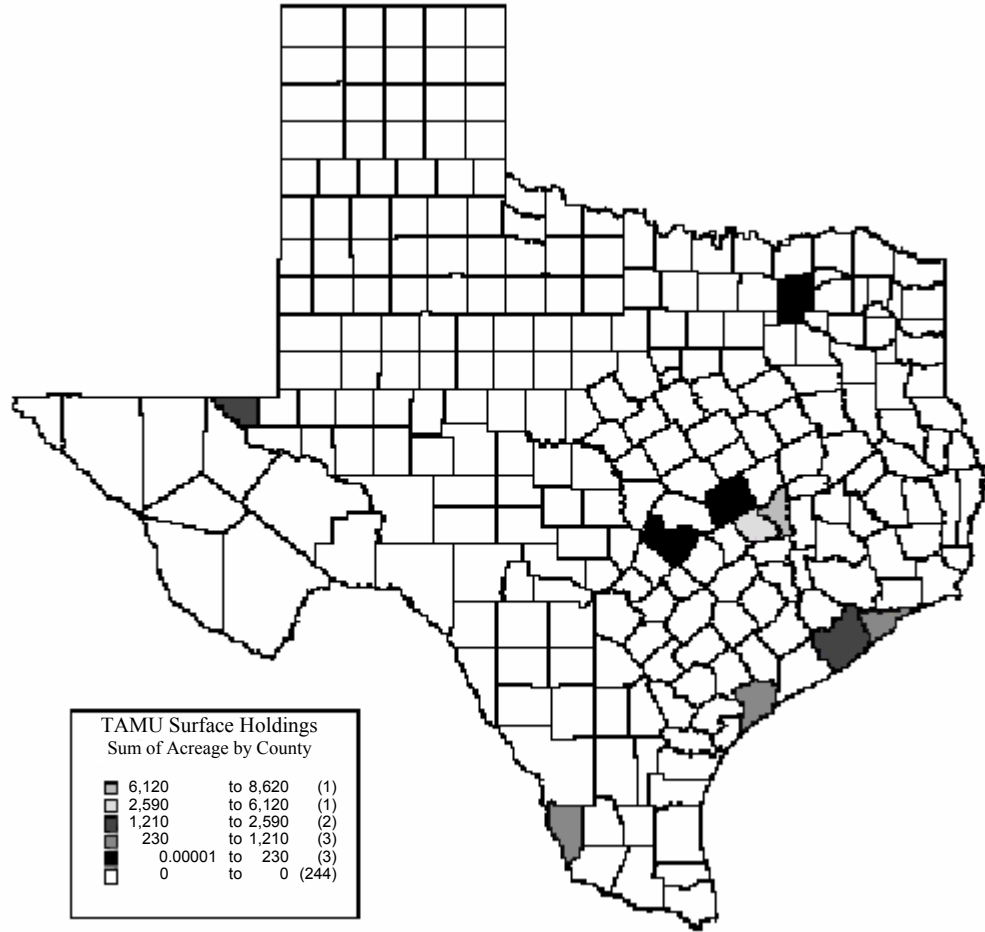
**Exhibit 4-27**  
**System Component Holdings**  
**September 1, 2003**

<b>System Component</b>	<b>Surface Acres</b>	<b>Percent of Total System</b>	<b>Mineral Acres</b>	<b>Percent of Total System</b>
Texas Agricultural Experiment Station	19,337.55	34.566	19,420.00	36.419
Texas A&M University	17,262.28	30.856	18,229.72	34.187
Texas Forest Service	8,928.67	15.960	6,817.31	12.785
West Texas A&M University	2,848.52	5.092	2,898.95	5.437
Tarleton State University	2,028.17	3.625	3,735.60	7.006
Texas A&M University - Commerce	1,760.36	3.147	0.39	0.001
Texas A&M University - Kingsville	1,623.91	2.903	561.29	1.053
Prairie View A&M University	1,366.31	2.442	1,479.83	2.775
Texas A&M International University	300.00	0.536	0.00	0.000
Texas A&M University - Corpus Christi	223.82	0.400	0.00	0.000
Texas Engineering Extension Service	201.31	0.360	152.94	0.287
Texas Engineering Experiment Station	33.06	0.059	12.36	0.023
Texas Veterinary Medical Diagnostic Laboratory	11.04	0.020	10.00	0.019
A&M System Office Health Science Center	9.38	0.017	4.84	0.009
Texas A&M University - Texarkana	7.46	0.013	0.00	0.000
Texas Cooperative Extension	2.25	0.004	0.00	0.000
Texas Transportation Institute	0.00	0.000	0.00	0.000
Texas Wildlife Damage Management Service	0.00	0.000	0.00	0.000
<b>The Texas A&amp;M University System</b>	<b>55,944.09</b>	<b>100.000</b>	<b>53,323.23</b>	<b>100.000</b>

*Source: A&M System Real Estate Office, August 2004.*

Exhibits 4–28 and 4–29 display maps of the A&M surface and mineral holdings, respectively.

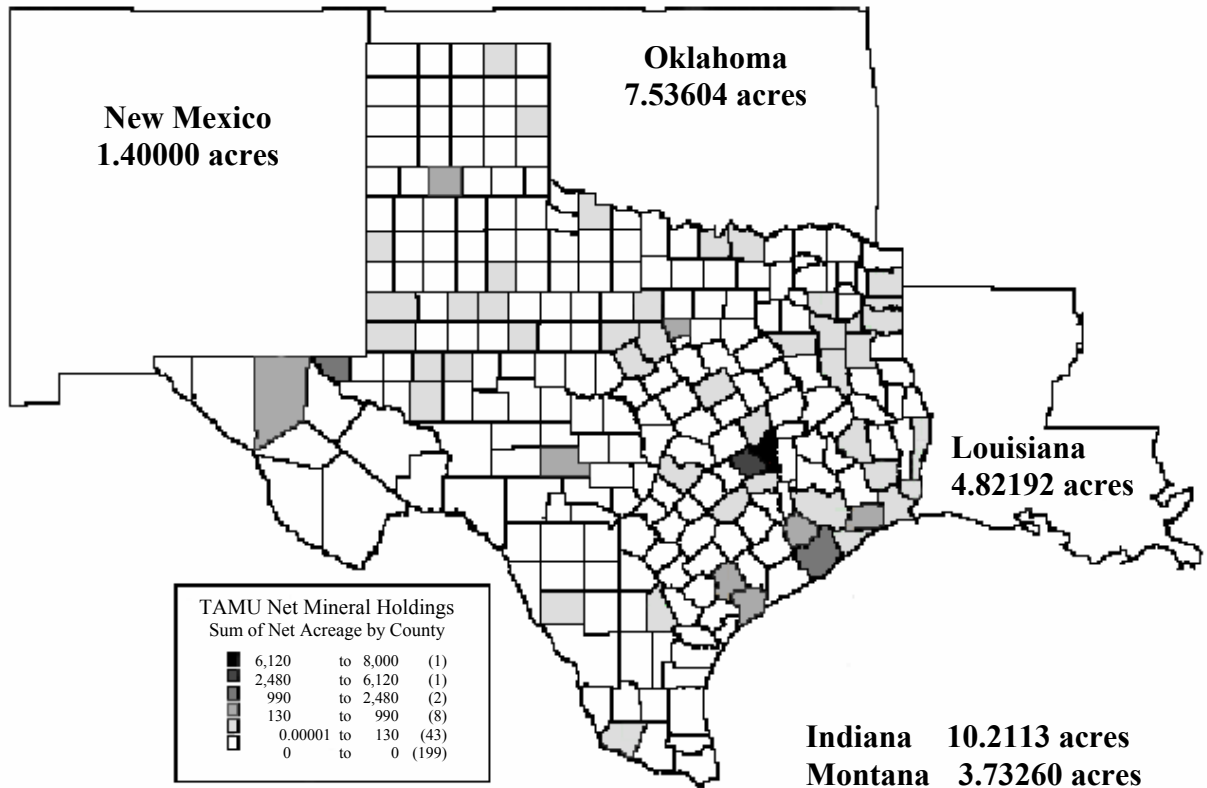
**Exhibit 4–28**  
**A&M College Station Surface Holdings (totaling 17, 262.28 surface area acres)**  
**as of September 1, 2003**



Source: A&M System Real Estate Office, August 2004.



**Exhibit 4-29**  
**A&M College Station Mineral Holdings (totaling 18,229.72 surface area acres)**  
**As of September 1, 2003 Compared to Surrounding States**



Source: A&M System Real Estate Office, August 2004.

Exhibit 4–30 lists all the surface parcels of land held for the benefit of A&M.

**Exhibit 4–30  
A&M Surface Holdings as of September 1, 2003**

<b>A&amp;M Animal Science Center–Campus Lands</b>					
<b>County</b>	<b>Surface Acres</b>	<b>Classification</b>	<b>Land Use Description</b>	<b>Acq/Dist Date</b>	<b>A&amp;M System Office Parcel No.</b>
Brazos	574.54000	Academic	Varisco Tract Animal Science Center	09/08/1989	021-002-151
<b>Total:</b>	<b>574.54000</b>			<b>Total No. of Parcels: 1</b>	
<b>A&amp;M Main Campus–Campus Lands</b>					
Brazos	209.36000	Academic	Campus	06/21/1871	021-002-102
Brazos	102.00000	Academic	Campus	06/21/1871	021-002-103
<b>Total:</b>	<b>311.36000</b>			<b>Total No. of Parcels: 2</b>	
<b>A&amp;M Riverside Campus–Campus Lands</b>					
Brazos	1,929.61000	Academic	A&M Riverside Campus	04/30/1962	021-002-125
<b>Total:</b>	<b>1,929.61000</b>			<b>Total No. of Parcels: 1</b>	
<b>A&amp;M West Campus–Campus Lands</b>					
Brazos	817.88500	Academic	Campus	06/21/1871	021-002-101
Brazos	1,226.00000	Academic	Campus	06/21/1871	021-002-104
Brazos	106.20000	Academic	Campus	10/07/1919	021-002-106
Brazos	150.00000	Academic	Campus	08/09/1926	021-002-107
Brazos	3.50000	Academic	Campus	06/14/1967	021-002-128
Brazos	19.95000	Academic	Campus	05/11/1982	021-002-129
Brazos	56.22300	Academic	Campus	01/21/1982	021-002-130
Brazos	5.13000	Academic	Campus	11/01/1982	021-002-131
Brazos	1.13000	Academic	Campus	02/22/1983	021-002-133
Brazos	40.63000	Academic	Campus	04/29/1983	021-002-134
Brazos	6.16400	Academic	Campus	07/25/1983	021-002-135
Brazos	0.43000	Academic	Campus	08/22/1983	021-002-137
Brazos	0.38100	Academic	Campus	12/16/1983	021-002-138
Brazos	5.00000	Academic	Campus	02/24/1984	021-002-139
Brazos	0.86000	Academic	Campus	05/07/1984	021-002-140
Brazos	0.17220	Academic	Campus	10/19/1984	021-002-143
Brazos	0.17300	Academic	Campus	12/10/1986	021-002-144
<b>Total:</b>	<b>2,439.82820</b>			<b>Total No. of Parcels: 17</b>	

**Exhibit 4-30 (Continued)**  
**A&M Surface Holdings as of September 1, 2003**

<b>Easterwood-Institutional Use Lands</b>					
<b>County</b>	<b>Surface Acres</b>	<b>Classification</b>	<b>Land Use Description</b>	<b>Acq/Dist Date</b>	<b>A&amp;M System Office Parcel No.</b>
Brazos	834.45000	Academic	Easterwood	12/30/1931	021-002-108
Brazos	50.00000	Academic	Airport Runway at SE End	03/03/1941	021-002-110
Brazos	41.00000	Academic	Airport Runway at NW End	07/24/1941	021-002-111
Brazos	24.00000	Academic	Easterwood	11/13/1941	021-002-112
Brazos	0.20000	Academic	Easterwood	01/24/1942	021-002-113
Brazos	127.00000	Academic	Easterwood	01/09/1943	021-002-114
Brazos	25.00000	Academic	Easterwood	02/23/1943	021-002-115
Brazos	5.45000	Academic	Easterwood	07/02/1943	021-002-116
Brazos	125.05000	Academic	Easterwood	11/12/1943	021-002-117
Brazos	68.30000	Academic	Campus	11/12/1943	021-002-118
Brazos	8.60000	Academic	Easterwood	11/12/1943	021-002-119
Brazos	63.40000	Academic	Easterwood	12/06/1943	021-002-120
Brazos	377.40000	Academic	Easterwood	12/30/1943	021-002-121
Brazos	507.30000	Academic	Student Leadership Retreat Center	12/31/1943	021-002-122
Brazos	25.00000	Academic	Sewage Disposal Plant	11/24/1944	021-002-123
Brazos	34.00000	Academic	Easterwood	12/16/1944	021-002-124
Brazos	41.00000	Academic	Easterwood	03/11/1946	021-002-125
Brazos	0.79300	Academic	Easterwood	07/18/1986	021-002-142
Brazos	0.38000	Academic	Easterwood	12/18/1992	021-002-302
Brazos	0.22000	Academic	Easterwood	02/23/1993	021-002-303
Brazos	45.00000	Academic	Yager Gift/Student Retreat	11/13/1996	021-002-304
<b>Total:</b>	<b>2,403.54300</b>				<b>Total No. of Parcels: 21</b>
<b>Hensel Pk/Marr Stud Qtrs-Institutional Use Lands</b>					
Brazos	169.70000	Academic	Hensel Pk/Marr Stud Qtrs	07/16/1919	021-002-105
<b>Total:</b>	<b>169.70000</b>				<b>Total No. of Parcels: 1</b>
<b>Hirschfeld-Moore House in Austin-Institutional Use Lands</b>					
Travis	0.54068	Academic	Hirschfeld-Moore House (cannot be sold)	12/22/1986	227-002-301
<b>Total:</b>	<b>0.54068</b>				<b>Total No. of Parcels: 1</b>
<b>System Headquarters Building-Institutional Use Lands</b>					
Brazos	14.50000	Academic	System Headquarters Building	06/27/2001	021-002-164
<b>Total:</b>	<b>14.50000</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M Building on Texas at Dominik-Institutional Use Lands</b>					
Brazos	1.03000	Academic	A&M Financial Management Services Building	03/24/1998	021-002-162
<b>Total:</b>	<b>1.03000</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M &amp; J. B. Connally Building-Institutional Use Lands</b>					
Brazos	4.20300	Academic	A&M & J. B. Connally Bldg	05/31/1989	021-002-150
Brazos	1.09610	Academic	A&M & J. B. Connally Bldg	05/31/1989	021-002-152
Brazos	1.12170	Academic	A&M & J. B. Connally Bldg	06/14/1990	021-002-157
Brazos	0.34870	Academic	A&M & J. B. Connally Bldg	10/31/1990	021-002-159
<b>Total:</b>	<b>6.76950</b>				<b>Total No. of Parcels: 4</b>
<b>A&amp;M Microwave Tower-Institutional Use Lands</b>					
Milam	2.00000	Academic	Microwave Tower	08/30/1978	166-002-301
<b>Total:</b>	<b>2.00000</b>				<b>Total No. of Parcels: 1</b>

**Exhibit 4-30 (Continued)**  
**A&M Surface Holdings as of September 1, 2003**

A&M State Hwy 47-Institutional Use Lands					
County	Surface Acres	Classification	Land Use Description	Acq/Dist Date	A&M System Office Parcel No.
Brazos	0.27000	Academic	State Hwy 47	09/15/1989	021-002-501
Brazos	0.00900	Academic	State Hwy 47	09/15/1989	021-002-502
Brazos	0.01800	Academic	State Hwy 47	09/13/1989	021-002-503
Brazos	0.01300	Academic	State Hwy 47	10/25/1989	021-002-504
Brazos	1.18200	Academic	State Hwy 47	11/10/1989	021-002-505
Brazos	12.19300	Academic	State Hwy 47	11/29/1989	021-002-506
Brazos	6.34400	Academic	State Hwy 47	02/05/1990	021-002-507
Brazos	1.78000	Academic	State Hwy 47	03/01/1990	021-002-508
Brazos	0.07500	Academic	State Hwy 47	03/12/1990	021-002-509
Brazos	1.73900	Academic	State Hwy 47	06/07/1990	021-002-510
Brazos	0.68700	Academic	State Hwy 47	06/08/1990	021-002-511
Brazos	8.32300	Academic	State Hwy 47	06/11/1990	021-002-512
Brazos	5.42800	Academic	State Hwy 47	06/22/1990	021-002-513
Brazos	8.74700	Academic	State Hwy 47	10/15/1990	021-002-514
Brazos	0.83600	Academic	State Hwy 47	09/27/1990	021-002-515
Brazos	7.54400	Academic	State Hwy 47	12/21/1990	021-002-516
Brazos	1.33100	Academic	State Hwy 47	12/22/1990	021-002-517
Brazos	44.85100	Academic	State Hwy 47	02/22/1991	021-002-518
Brazos	23.43100	Academic	State Hwy 47	02/22/1991	021-002-519
Brazos	3.00100	Academic	State Hwy 47	02/22/1991	021-002-520
Brazos	0.13500	Academic	State Hwy 47	02/22/1991	021-002-521
Brazos	4.45000	Academic	State Hwy 47	02/22/1991	021-002-522
Brazos	50.82500	Academic	State Hwy 47	03/06/1991	021-002-523
Brazos	0.88600	Academic	State Hwy 47	03/12/1991	021-002-524
Brazos	27.84900	Academic	State Hwy 47	03/12/1991	021-002-525
Brazos	16.10600	Academic	State Hwy 47	03/29/1991	021-002-526
Brazos	1.87000	Academic	State Hwy 47	05/03/1991	021-002-527
Brazos	0.55300	Academic	State Hwy 47	05/07/1991	021-002-528
Brazos	7.97100	Academic	State Hwy 47	05/08/1991	021-002-529
Brazos	1.14700	Academic	State Hwy 47	06/03/1991	021-002-530
Brazos	4.09900	Academic	State Hwy 47	06/03/1991	021-002-531
Brazos	7.68800	Academic	State Hwy 47	06/07/1991	021-002-532
Brazos	0.48500	Academic	State Hwy 47	06/11/1991	021-002-533
Brazos	3.18700	Academic	State Hwy 47	06/11/1991	021-002-534
Brazos	37.85400	Academic	State Hwy 47	10/25/1991	021-002-535
Brazos	2.80900	Academic	State Hwy 47	02/14/1992	021-002-536
Brazos	0.51600	Academic	State Hwy 47	02/29/1992	021-002-537
Brazos	0.90900	Academic	State Hwy 47	05/14/1992	021-002-538
Brazos	3.92900	Academic	State Hwy 47	06/02/1992	021-002-539
Brazos	7.61300	Academic	State Hwy 47	06/02/1992	021-002-540
Brazos	0.06500	Academic	State Hwy 47	06/16/1992	021-002-541
Brazos	11.95500	Academic	State Hwy 47	06/22/1992	021-002-542
Brazos	11.24000	Academic	State Hwy 47	01/15/1993	021-002-543
<b>Total:</b>	<b>331.94300</b>			<b>Total No. of Parcels: 43</b>	

**Exhibit 4-30 (Continued)**  
**A&M Surface Holdings as of September 1, 2003**

<b>A&amp;M Texas Instruments Building—Institutional Use Lands</b>					
<b>County</b>	<b>Surface Acres</b>	<b>Classification</b>	<b>Land Use Description</b>	<b>Acq/Dist Date</b>	<b>A&amp;M System Office Parcel No.</b>
Brazos	57.30400	Investment	Texas Instruments Building	06/20/1990	021-002-158
<b>Total:</b>	<b>57.30400</b>				<b>Total No. of Parcels: 1</b>
<b>Conoco Tract—Research Lands</b>					
Brazoria	2,436.58200	Investment	Conoco Tract	03/5/1985	020-002-301
<b>Total:</b>	<b>2,436.58200</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M Farm—Research Lands</b>					
Burleson	2,776.36000	Investment	A&M Farm Member Note: Brazos bottom farm; lease of 1,300 acres expires 12/31/2003; approx. 1,800-acre farm managed by TAES	04/05/1944	026-002-101
Burleson	219.50000	Investment	A&M Farm Member Note: portion of A&M Farm	06/21/1944	026-002-102
Burleson	196.20000	Investment	A&M Farm Member Note: portion of A&M Farm	12/15/1944	026-002-103
<b>Totals:</b>	<b>3,192.06000</b>				<b>Total No. of Parcels: 3</b>
<b>Anna Boyer Estate—Calhoun County—Agricultural Lands</b>					
Calhoun	159.00000	Non- Investment	Anan Boyer Estate for College of Agriculture	08/02/1971	029-002-202
Calhoun	316.73800	Non- Investment	Anan Boyer Estate for College of Agriculture	08/02/1971	029-002-203
<b>Total:</b>	<b>475.73800</b>				<b>Total No. of Parcels: 2</b>
<b>James Dye Farm—Agricultural Lands</b>					
Zapata	850.72000	Non- Investment	James Dye Estate	09/26/1996	253-002-2001
<b>Total:</b>	<b>850.72000</b>				<b>No. of Parcels: 1</b>
<b>Kyle, Sid M., Estate—Agricultural Lands</b>					
Loving	1,600.00000	Investment	Sid Kyle Estate	05/19/1992	151-002-304
<b>Total:</b>	<b>1,600.00000</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M Kelley Farm—Agricultural Lands</b>					
Hunt	41.61000	Non- Investment	Jewel Kelley Estate	05/31/2001	116-002-201
<b>Total:</b>	<b>41.61000</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M Brazos Duplexes—Other Surface Use</b>					
Brazos	12.03527	Investment	A&M Brazos Duplexes	10/05/1989	021-002-153
<b>Total:</b>	<b>12.03527</b>				<b>Total No. of Parcels: 1</b>
<b>A&amp;M Triangle—Other Surface Use</b>					
Brazos	6.89000	Investment	Triangle	08/15/1988	021-002-149
Brazos	29.14000	Investment	Triangle	03/09/1990	021-002-154
Brazos	3.53000	Investment	Triangle	03/09/1990	021-002-155
Brazos	0.84100	Investment	Triangle	04/04/1990	021-002-156
Brazos	4.32450	Investment	Triangle	02/04/1993	021-002-160
Brazos	0.77200	Investment	Triangle	10/31/1993	021-002-161
<b>Total:</b>	<b>45.49750</b>				<b>Total No. of Parcels: 6</b>

**Exhibit 4-30 (Continued)**  
**A&M Surface Holdings as of September 1, 2003**

<b>A&amp;M Utilities, Water Wells, Pump Stations—Other Surface Use</b>					
<b>County</b>	<b>Surface Acres</b>	<b>Classification</b>	<b>Land Use Description</b>	<b>Acq/Dist Date</b>	<b>A&amp;M System Office Parcel No.</b>
Brazos	1.70800	Academic	FM 2818 Elec Sta	12/13/1982	021-002-132
Brazos	3.00000	Academic	Water Well #3 Site	08/11/1983	021-002-136
Brazos	2.05600	Academic	Luza Pump Station	12/20/1985	021-002-148
Brazos	1.00000	Academic	Water Well #7	10/23/2000	021-002-163
<b>Total:</b>	<b>7.76400</b>				<b>Total No. of Parcels: 4</b>
<b>Totals for Texas A&amp;M University</b>					
<b>Total Surface Acres: 17,262.27865</b>			<b>Total No. of Parcels: 126</b>		

*Source: A&M System Real Estate Office, August 2004.*

Classifications for each parcel are shown in the exhibit. Three properties are identified non-investment: the Anna Boyer Estate in Calhoun County, the James Dye Estate in Zapata County, and the Kelly Farm in Hunt County. The Calhoun and Hunt County properties are listed for sale with a real estate broker, and the Zapata County property sold in August 2004.

The Texas Instruments Building is listed under investments even though it is actually being used by A&M for storage and off-campus offices and likely will be reclassified as academic property. The Conoco property is being used by A&M and TAES as a demonstration farm for harvesting waterfowl and upland birds. At the same time, a local farmer is leasing the farm for agricultural purposes. The Sid Kyle Estate cannot be sold since it is classified as mineral lands; and, if sold, would result in the loss of royalty income from the minerals; the property also is under an agricultural lease. As of 2003, the Brazos Duplexes and the Triangle properties were classified under investment, but they may soon be reclassified to non-investment.

The A&M System Real Estate Office maintains a complete inventory of all properties, with details on acreage, land use, and surface acres; no information on the market value of the properties is included in the listings. Without market value, it is difficult to assess whether the property assets of A&M are being maintained at their "highest and best use." However, the A&M Real Estate Office has determined that the core mission of A&M "service through education, research and extension" is being upheld through this practice. A&M does not maintain the market value of campus and research land inventory since those properties are not for sale and will never be sold unless at some point they cease to be used in support of education, research, or extension programs. In these instances, a fair market appraisal is performed and the land and/or buildings are listed for sale. The effort and cost associated with obtaining and maintaining current market values for assets that are not going to be sold is not justified by any foreseeable benefit.



# Chapter 5

## Instructional Technology

Texas A&M University College Station





*Chapter 5*  
***INSTRUCTIONAL TECHNOLOGY***

This chapter reviews the use of Instructional Technology at Texas A&M University (A&M) in the following sections:

- A. Resource Organizations
  - Computing and Information Services
  - Educational Broadcast Services
  - Instructional Technology Services
  - Office of Distance Education
- B. Innovative Uses of Technology
- C. Instructional Technology Issues
  - Funding System for Technology Improvements
- D. Advisory Groups
  - Instructional Technology Council
  - Instructional Advisory Committee
  - Computer Access Fee Competitive Grant Proposals Committee
  - Instructional Technology Working Group

The world today is driven by technology. Almost without exception, large and small corporations alike are seeking to gain an advantage in their particular market by employing technology more effectively than their competitors. Similarly, non-profit organizations are using technology in an effort to be successful in their arena. Governments are using technology extensively to be more efficient and/or to provide more effective services to their constituents. Most of the actions of the military now rely to a large extent upon technology.

Higher education is no different in its reliance on technology. Studies show that when technology is employed in appropriate ways, students learn more and at a faster pace. Moreover, the technology that impacts the rest of the world is now a great resource for education. For example, the Internet can be a very powerful tool for conducting research or accessing educational resources. The Internet enables students to collaborate with others in the next room or the next country, and also provides access to an endless number of experts. It is a growing reality that the most effective universities will be those which employ technology most effectively in helping to prepare students for the world they will enter.

In many cases, the students of today's colleges and universities are not like those of past years. Often the person taking courses at a university is already employed and lives miles from campus. However, through the use of technology, such individuals can be very productive students despite the distance between their place of work or residence and their university.

Policy makers and the general public expect that distance education courses result in significant savings to the provider. The issue of the cost of distance education is extremely complex. Implementing the technology and developing the course to provide distance education may cost more than courses taught in the traditional methods on campus. However, certain savings can occur when students learn from an off-campus location. First, distance education reduces the classroom space needed to conduct on campus classes. Distance education students are also less likely than traditional students to utilize on-campus resources such as the library, and student services, or require

face-to-face contact with university faculty and staff. While these aspects of distance education could result in some measure of cost savings, those savings are nearly impossible to quantify.

In 2002, the National Association of College and University Business Officers (NACUBO) contracted with the National Center for Higher Education Management Systems (NCHEMS) to determine the costs of distance education. The study resulted in a methodology for estimating the cost of distance education, and showed that the costs of distance education courses could be more than, less than, or the same as traditionally delivered courses.<sup>1</sup>

The University System of Georgia (USG) also studied the costs of distance education on its 34 college and university campuses. USG determined that the costs of distance education courses were greater than the costs of courses delivered by traditional means until course enrollments became larger than those of traditionally delivered courses taught on campus.<sup>2</sup>

When estimating the cost of providing the necessary technology and delivering distance education, there is not a clear measure of additional costs or savings. This issue is further complicated by the belief, as expressed by one A&M faculty member at the review team's Open Forum, that conducting a course via distance education is much more labor intensive than conducting a traditional course. Given these variables, the general consensus among instructional technology professionals is that distance education should be viewed as a means of providing high quality educational services to students whose personal situation prevents them from attending classes on campus rather than a means of saving money.

It is in this context that instructional technology use is examined to determine if A&M is using technology as effectively as possible to help students learn.

To use technology effectively, several components need to be in place. For example, it is essential that faculty have the opportunity to learn how to effectively employ technology in their lesson plans. Additionally, if faculty is interested in becoming involved in distance education, they must learn how this form of teaching is different from the teaching they have been doing up to this point in their career. Thus, professional development for faculty is one of the more significant issues that must be addressed if the university is to successfully employ technology. However, unless the university takes steps to ensure that using technology for instructional purposes is a high priority, faculty members are not likely to seek the professional development that they need.

Another critical area is the provision of technical support. When a faculty member has problems with a computer, an Internet connection, or software, help must be available. Faculty members who are new users of technology will especially need prompt support if they are to be expected to grow as a technology user. There have been many instances where an instructor, new to technology use, encountered a problem as he/she attempted for the first time to use technology in class and, because he/she failed in that one situation, did not try again.

Another important factor that will determine the level of success A&M experiences in using technology is the level of access students have to the technology and Internet, and the technical support that students receive. Although students may be more familiar with newer technology than some staff, they still need to be able to get help when they encounter problems they cannot resolve.

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<sup>1</sup> Conversation with Dennis Jones, executive director, NCHEMS, August 2004.

<sup>2</sup> MGT worked with USG staff to complete the analysis of USG distance education costs.

The infrastructure that is available is another significant factor. There must be a sound network that allows many users to have simultaneous access to the Internet at an acceptable speed. Both faculty and students require this resource.

A&M is highly decentralized in the operation of its technology systems. Technical support is largely the responsibility of each college or provider unit. As a consequence, each college has a technical support team that is responsible for supporting the needs of the faculty in that college. To a large extent the same is true of professional development, although there are several support organizations on campus that offer a variety of training courses that augment the professional development that is provided by each college.

To ensure student access, A&M has implemented a number of what are called “Open Access Labs” (OALs) that provide access not only to computers but to color printers, plotters, film recorders, scanners, and other tools that students may need. Each OAL has support people available to help with technical problems. In addition, over 10,000 high-speed Internet connections are available in the residence halls; these connections provide additional access for students in residence halls, who comprise one-fourth of student enrollment. In addition, there is a formal “network support team” that provides equipment repair services to students. The funding for almost all of the technology resources and services that are available to students come from the computer access fees that each student pays.

The vice president for Information Technology is the chief information officer (CIO) at A&M. Technology services were reorganized in spring 2004 during the university president’s general reorganization of university administration. **Exhibit 5–1** displays the organization of the Office of the Vice President for Information Technology before and after the reorganization.

## ***A. RESOURCE ORGANIZATIONS***

While the university is very decentralized, there are a few organizations on campus that provide services and support to the colleges. The five support organizations that will be addressed in this section are Computing and Information Services, Educational Broadcast Services, Instructional Media Services, Instructional Technology Services, and the Office of Distance Education.

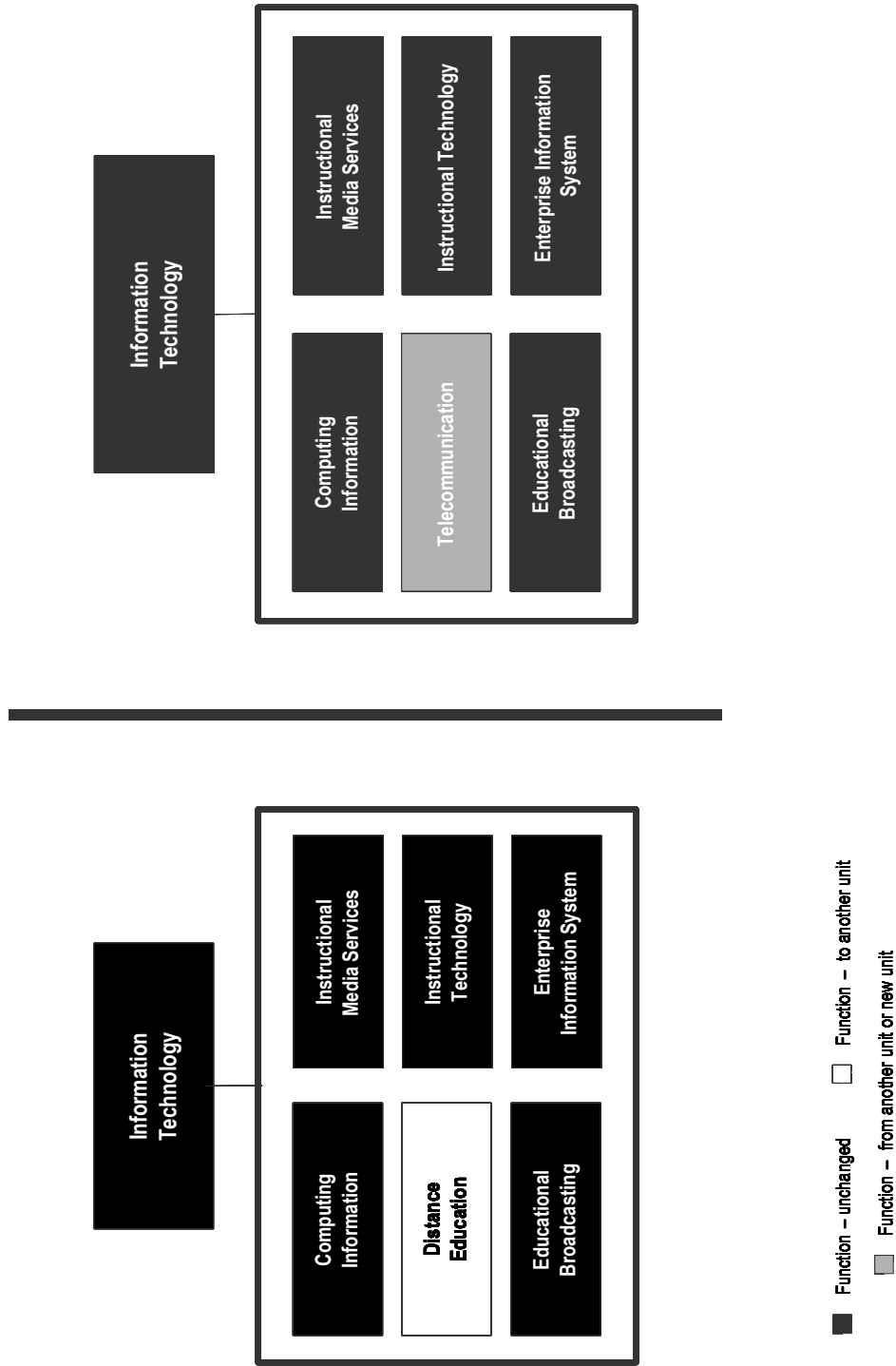
Computing and Information Services (CIS) is the primary technology support office on campus. It includes a networking support unit, a customer applications unit, an operations section that houses the help desk, an operating systems support unit, a support unit for the open access labs, and a training center, among others.

Educational Broadcast Services (EBS) includes the university’s public broadcasting TV station, KAMU-TV, and radio station; KAMU-FM. EBS makes its television production facilities available to classes for academic purposes. EBS also operates the Trans Texas Videoconference Network (TTVN), which provides video and data communications services throughout the A&M System.

Instructional Media Services (IMS) provides many types of equipment to faculty, staff, and students, as needed. The use of these resources is free for university classes, but there is a charge when the use is not for a university class. Equipment that can be obtained from IMS includes film projectors, slide projectors, data projectors, and desktop and laptop computers. This equipment is delivered to the classroom, set up, and made ready for use by the faculty member or student that requested it.

Instructional Technology Services (ITS) is primarily an instructional technology resource for faculty that provides one-on-one consultation, workshops, and access to online modules that enhance teaching and learning. The Office of Distance Education (ODE) provides leadership and guidance to the university in its effort to expand distance education programs. ODE also serves as a resource for faculty in planning and preparing online courses.

**Exhibit 5-1  
Organizational Structure- Information Technology**



Source: A&M, 2004.

## **Computing and Information Services**

### ***Software Licensing***

Computing and Information Services (CIS) negotiated site licenses for 37 products, which have resulted in considerable savings for the university.

CIS reports to the associate provost for Information Technology and employs approximately 210 people. In addition, CIS employs up to 200 student workers, depending upon the time of year. About half of the staff within CIS support A&M's administrative functions. According to the associate provost for Information Technology, about 51 percent of the CIS budget supports academic technology uses.

The following mission statements describe the goals of CIS:

- “We provide computing and information services to help our customers achieve their missions. We serve the full range of university functions including teaching, research, public service, and administration.”
- “Our most important services are those that need to be shared by multiple divisions of the university, those that need to be coordinated between multiple customers, and those that need to be ongoing to assure continued availability over the years.”
- “Our primary customer is Texas A&M University, its students, faculty, and staff. We also support the agencies and institutions of the Texas A&M University System and other clients who contract for services, provided such services are compatible with meeting TAMU's needs.”
- “Our staff is our most important resource. Their technical and management expertise is available to our customers both directly through consultation and contracts for services, and indirectly through their work to provide the other resources: computing systems, networks, software, and information.”

One CIS initiative that has reduced the cost of software used by A&M faculty and students is the effort to obtain software site licenses for products that are used campus wide. Negotiation for site licenses has been going on for 10 years and has resulted in considerable savings over that period of time. According to its web site, CIS has negotiated site licenses for a total of 37 products. Included among those are the following widely used products:

- ARC/INFO
- ArcView
- Adobe Products
- AutoCAD
- Dreamweaver
- Flash
- Macromedia Products
- McAfee
- Microsoft Products
- Pagemaker
- Photoshop
- SAS
- SPSS for Windows

The number of products is greater than the 37 listed since the list includes Adobe, Macromedia, and Microsoft Products, each of which represents more than one product. For example, Microsoft products include Word, Excel, PowerPoint, Outlook, Photo Editor, and Access.

### ***Software Application Training***

There is no policy that requires colleges to seek assistance from CIS to arrange a site license. Over time colleges have learned that it is more cost effective and convenient for CIS to work out these arrangements. There are instances when a college needs software that only it will use, and in that instance, the college will purchase the software on its own.

The training center in Computing and Information Services (CIS) offers all levels of training in software applications to A&M System employees. Classes are offered in operating environments, spreadsheets, databases, word processing, desktop publishing, web publishing, and multimedia/presentation design and graphics. These classes range from three to nine hours of instruction and most carry Continuing Education Unit (CEU) credits.

**Exhibit 5–2** displays enrollment in CIS classes by employee classification and college during fiscal year 2003–04. The data in the exhibit include only training that is funded by the Computer Access/Instructional Technology Fee. The CIS Training Center provides significant training for other non-academic purposes.

**Exhibit 5–2**  
**Enrollments in CIS Courses, Fiscal Year 2002–03 and First Half of 2003–04**

	FY 2002–03	First Half of FY 2003–04
Number of Classes	274	113
Total Enrollment:	146	77
Faculty	87	52
Staff	32	17
Graduate Assistants	21	5
Undergraduate Students	6	3
College:		
Agriculture	40	14
Architecture	9	6
Business	1	0
Education	20	11
Engineering	14	5
Geosciences	3	7
Liberal Arts	22	13
Science	9	4
Veterinary Medicine	11	1
Bush School	1	0
Health Science Center	4	3
Other Units	12	13

*Source: A&M Computing and Information Services, 2004.*

During fiscal year 2002–03, 146 individuals completed 274 classes, and during the first half of fiscal year 2003–04, a total of 77 individuals completed 113 classes. Participant feedback was positive, as shown by the following comments made regarding the classes:

- *“I’ve struggled to learn software on my own for some time now. These classes greatly increased my confidence and ability to use the software. This was definitely a wise use of my time.”*
- *“I very much appreciate the support allotted for faculty for the purpose of training.”*
- *“The material presented was most applicable to my teaching and research.”*
- *“I really enjoyed the Flash Class. It was great!”*

The cost of classes varies from \$70 to \$150. However, participants are not charged for the class. Instead, the Computer Access/Instructional Technology Fee, that is included in student fees, covers the cost. See discussion of these fees in Section C.

### ***Open Access Lab Support***

Computing and Information Services (CIS) provides support to seven open access labs (OALs) with a total of 1,350 computers that are available for student use. To facilitate access, OALs are located across the campus. For five of the labs, CIS buys the equipment and software and provides support. Other departments that purchase software host two labs, but CIS purchases the equipment and provides support for the labs. In addition, CIS has an agreement to provide support to the Athletic Department lab, which is fully furnished by the department.

The support unit has 21 full-time staff members and hires from 90 to 130 students, depending upon the time of year. The Student Computing Center, which is the largest of the labs, has approximately 500 workstations. It is open 24 hours a day, five days a week, and for a variable number of hours on the weekends. One lab is open until 2:00 AM, and the other labs close at midnight. The computer access fee that students pay covers all costs associated with the labs.

In addition to the computers, the labs also provide access to peripherals such as color printers, large format plotters, film recorders, scanners, CD/DVD burners, and multimedia workstations. There also are supercomputer workstations that are used by graduate students.

The review team found that the number of computers available satisfies the needs of students. During the 2002 academic year, the highest number of seats occupied in the labs was 1,112, and the average occupancy was 521 seats. Observers report that the only time there are students waiting to use computers is when classes are about to change.

On the review team survey of alumni, 67.6 percent of recent graduates indicated that they were very satisfied or satisfied with the instructional technology at A&M. Approximately 30 percent had no opinion on the issue, and less than three percent indicated any dissatisfaction with instructional technology at A&M. Of those alumni who reported dissatisfaction with instructional technology, 37.5 percent said there was not enough technology in the classrooms.

Recent graduates indicated that the university has an adequate number of computers for students. This may be due partially to the fact that many students now have their own computer, which reduces demand for computer lab space. Four faculty members who were interviewed reported that they do not hear students complain about access to technology and that their students seem to be quite satisfied with the labs.



CIS also has seven classroom labs in which every student seat has a computer. Although these classrooms stay busy during the day, students may use these computers when the room is not scheduled for a class.

Computers are normally upgraded on a three-year cycle, however, with recent budget cuts, the cycle will likely be extended. The intent of the cycle is to keep technology up-to-date. Computers that are replaced are relocated to the library and elsewhere on campus where their use will still satisfy a need. For example, the library, which usually receives at least 300 computers through this process, uses older computers as workstations for the public, since they will most likely be doing searches that these computers still do well.

To assure sufficient technology access for students, CIS supports 10,500 Ethernet connections to the Internet in the residence halls, which consist of almost one-fourth of the total student population. Evidence of the use of these high-speed connections is demonstrated by the reduction from 2,000 modems in the late 1990s to 1,100 modems in 2004. None of these modems is at more than 70 percent capacity. Thus, the access in the residence halls reduces the need for computers in the open access labs.

CIS also provides a network support team student for computer repairs. The team is composed almost entirely of student workers and is so good at what they do that faculty members occasionally take advantage of their repair services. This service reduced the need for open access labs in that, by quickly repairing computers owned by students, the number of trips students need to make to one of the labs while repairs are being made is reduced.

The associate provost for Information Technology appoints an Open Access Labs Advisory Committee whose purpose is to provide advice on all aspects of OAL operation and rules. Membership on the committee consists of the OAL associate director of CIS or designated representative; two members of CIS involved with the OALs; seven students, one of whom is a graduate student; one representative of the library; and four at-large faculty members, one of whom is a faculty senator.

Some members of the OAL Advisory Committee indicated they felt the committee was essentially a “rubber stamp” committee for CIS. Although they cited several decisions that had been made by the committee as evidence, the review team found that there were factors relating to each of the decisions that suggested the final action of the committee to be appropriate. Nevertheless, the associate provost for Information Technology needs to do everything possible to ensure there is not the slightest perception that the committee serves as a convenience mechanism for CIS.

## **Educational Broadcast Services**

Educational Broadcast Services (EBS) has developed and maintains a state-of-the-art video and data communications network. EBS reports to the associate provost for Information Technology and is the host for A&M's public television station, KAMU-TV, and National Public Radio Station, KAMU-FM. EBS makes television production facilities available to classes for academic purposes and has a state-of-the-art Universal Distance Learning Classroom that provides automated production facilities for television courses as well as high quality streaming media clips.

EBS also operates TTVN. There are more than 20 two-way, interactive videoconference rooms located on campus that can connect to more than 100 sites across the state via TTVN. The mission of TTVN is to provide and maintain a network that allows educators to deliver courses and content over a distance without complications or disturbance.

TTVN is the wide area data and video network for institutions of the A&M System. TTVN provides data transmission services that include, in addition to Internet and intranet services, two-way multi-point digital videoconferencing and data transmission services to the system component institutions, including 10 universities, the A&M Health Science Center, the Agriculture and Engineering Extension and Experiment agencies, the Texas Forest Service, and the Texas Transportation Institute. Several affiliate institutions, including community colleges, other universities, and approximately 40 independent school districts, are connected to the network.

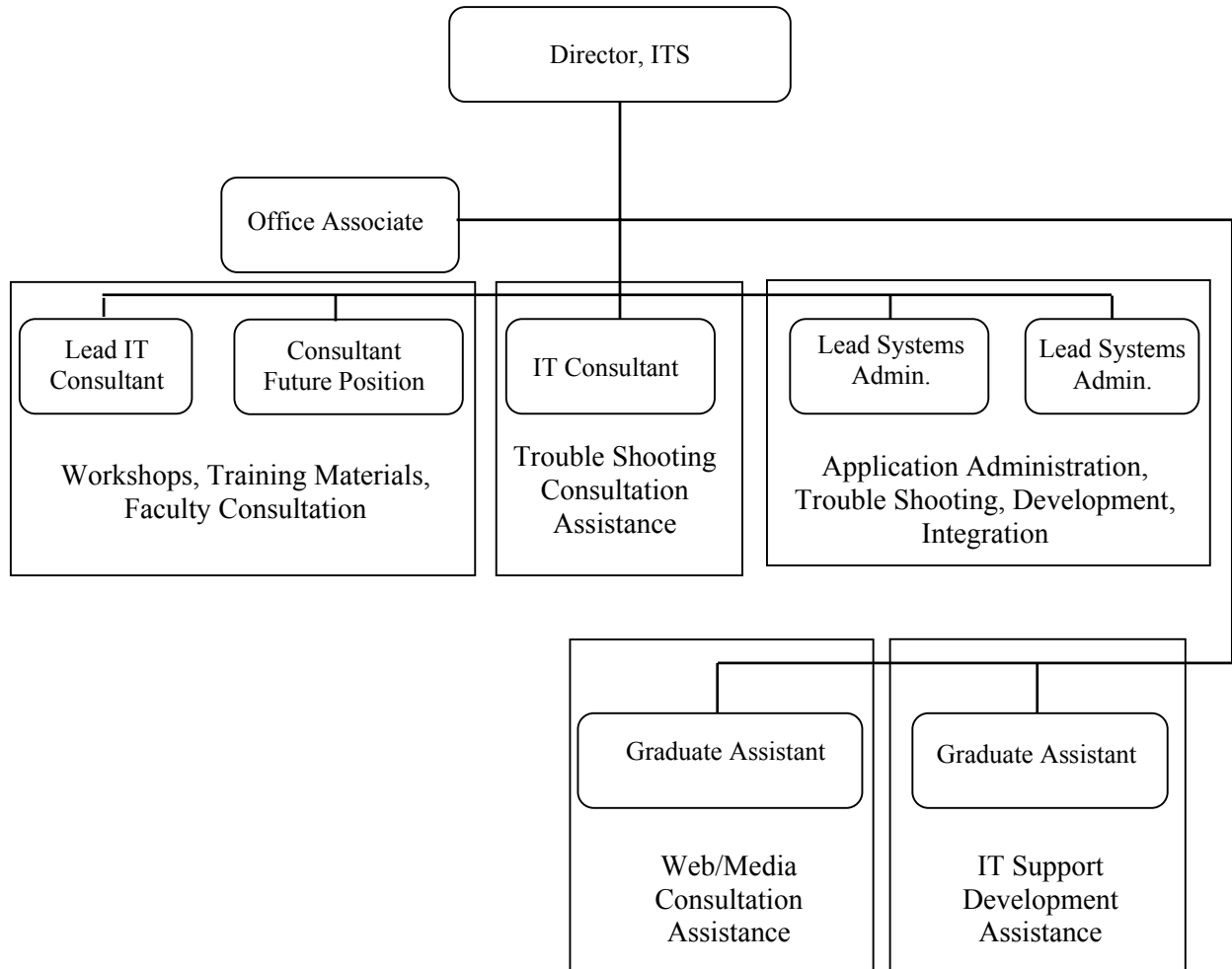
TTVN began operation in October 1990 to provide effective long distance digital communications between the then seven A&M System campuses. Today, TTVN provides interactive services to a network that includes over 120 dedicated video sites and over 100 data sites in 40 Texas cities. There are also links to Mexico City and Qatar.

TTVN provides video and satellite uplink facilities for a variety of projects. The network carries approximately 175 graduate classes each year, provides for over 5,000 conferences annually, and is the backbone for all web-based courses that originate from A&M System Office institutions.

## **Instructional Technology Services**

Instructional Technology Services (ITS) provides faculty instruction services, including course development and web tools. ITS was established in February 2002 and reports to the associate provost for Information Technology. Its mission is: "To foster effective use of instructional technology in teaching and learning at Texas A&M University." The unit staff includes a director and six other full-time staff members, plus two graduate assistant positions. The function is paid for entirely through the computer access fee. **Exhibit 5-3** provides an organizational chart of the unit.

**Exhibit 5–3  
Instructional Technology Services Organization**



*Source: Texas A&M Instructional Technology Services, July 2004.*

The services provided by ITS include the following:

- Workshops with hands-on training on topics such as instructional design basics, WebCT tools, online quiz generators, HTML editors, and multimedia.
- One-on-one assistance, including identifying alternative technologies for course use.
- System administration of WebCT, the university's course management system.
- On-call support staff, centrally located in Heldenfels Hall.
- Informational web site that provides workshop schedules and online resources.

These services are provided at no cost to A&M faculty, teaching assistants, and staff.

**Exhibit 5–4** displays the number of workshops conducted by ITS and the total number of workshop participants over the last four years.

**Exhibit 5-4**  
**Instructional Technology Services**  
**Workshop Orientation Statistics**

	2000-01	2001-02	2002-03	2003-04
Workshops	59	129	111	76
Participants	415	614	419	391
Course Orientations	12	28	91	120

*Source: Texas A&M Instructional Technology Services, July 2004.*

The course orientations listed in **Exhibit 5-4** are instances where ITS staff members conduct a 5-10 minute WebCT overview for students, usually during the first or second-class meeting in a semester. The consultant covers topics on how to get logged in, where students can seek help with password problems, and other topics that the instructor may request.

### Office of Distance Education

The Office of Distance Education (ODE) provides effective leadership and guidance on issues related to distance education. ODE was established in 1998 to assist faculty in planning distance education programs using various forms of technology, including the Internet, videoconferencing, and satellites. The office also ensures that all courses meet state and university regulations. Through the use of technology, A&M provides an opportunity for people to obtain an education when circumstances would otherwise not allow it. ODE's role is to help expand the number of courses delivered via distance education, thereby increasing educational opportunities for people in Texas.

The ODE web site provides information on setting up distance education courses, taking distance education courses, other distance education programs across the nation, and relevant state and university regulations. ODE has three advisory committees that offer guidance to the office. A Faculty Advisory Committee is composed of nine faculty members: one from each college, one representative from TTVN, one from Graduate Studies, one from the Faculty Senate, and one from the Evans Library. An Operations Advisory Committee is composed of 12 individuals from various offices in the A&M administration and 10 distance education coordinators, one from each college and one from TTVN.

Recently, the provost appointed a Distance Education Review Committee to assess the status of distance education at A&M. The mission of the group is to examine where the university is today in terms of delivering distance education programs and to make recommendations on how the university should proceed with this important educational approach. Their recommendations are due to be released in fall 2004.

The Office of Distance Education maintains information on the number of semester credit hours delivered via distance education. **Exhibit 5-5** shows the total student enrollments and semester credit hours that were reported for school year 1998-99 through school year 2003-04.

**Exhibit 5-5**  
**Enrollment/Semester Credit Hours**

Years	Enrollments	Semester Credit Hours
1998-99	535	1,507
1999-2000	1,080	2,815
2000-01	2,001	4,304
2001-02	2,380	5,378
2002-03	2,964	6,690
2003-04	3,843	10,732

*Source: Texas A&M Office of Distance Education, July 2004.*

As the exhibit shows, the number of courses being offered via distance education is growing and likely will continue to grow.

**Exhibit 5-6** reflects the growing number of semester credit hours for selected colleges: Agriculture and Life Sciences, Business, Education, and Science.

**Exhibit 5-6**  
**Growth of Semester Credit Hours Delivered via Distance Education**

Years	COALS	COB	COE	COS
1998-99	63	228	1,009	
1999-2000	27	999	1,446	
2000-01	136	1,848	1,814	119
2001-02	336	1,813	2,475	332
2002-03	874	2,236	3,114	496
2003-04	892	1,811	5,790	910

*Source: Texas A&M Office of Distance Education, July 2004. The two blank entries for the College of Science in 1998-99 and 1999-2000 indicate that the college did not offer online courses until the 2000-01 year.*

College representatives made many favorable comments about the services provided by ODE. Comments praised ODE's staff expertise and leadership, which in turn influenced decision-makers on distance education-related actions the college should undertake.

## **B. INNOVATIVE USES OF TECHNOLOGY**

This section provides a description of a number of instructional technology uses in colleges across the university. These examples illustrate the innovative activities underway at A&M. As indicated above, A&M's information technology is very decentralized, and innovation is often left to individual faculty members who use their technical capabilities and creativity to implement an innovative program that could be described as a model or "best practice." There are "pockets of excellence" all over the university. **Exhibit 5-7** summarizes the colleges and highlighted programs.

**Exhibit 5-7  
Exemplary Instructional Technology Uses by A&M Colleges**

College or Department	Information Technology Best Practices
Bush School of Government	<p>Implemented requirement that students acquire a laptop for the 2003–04 school year. Reduced previous space issues with desktop computers, and laptops now have Internet capabilities anywhere in the building within the wireless network.</p> <p>Developed Certificate in Advanced International Affairs (CAIA) program that is available to students on campus or via the web.</p>
College of Agriculture and Life Sciences	<p>Developed in conjunction with Texas Tech University, students can obtain a Doctorate of Education in Agriculture Education through the <b>Doc-at-a-Distance</b> doctoral program. Designed to ensure that expensive doctoral programs are not duplicated across the state of Texas. The first class started in 2000 and seven students graduated in August 2004.</p>
College of Architecture	<p>Organized a consortium of sister institutions, <b>Las Americas Network</b>, across Central and South America to participate in a joint architectural teaching program. Helps recruit some of the brightest students from Latin America to A&amp;M and the US.</p> <p>Currently developing an online masters program to allow students working in architectural firms to complete their architecture degree at A&amp;M without having to leave their jobs.</p> <p>Requires all undergraduate students of the college to participate in an off-campus internship for at least one semester. All interns post their daily activities and experiences on the college website that allows their professor to oversee their internship remotely.</p>
College of Education	<p>Designed <b>Accelerate: Online</b> to prepare and certify secondary (grades 8–12) science and mathematics teachers in Texas with a highly structured online program of education that can be completed in 12–18 months. The final component of the program includes a paid teaching internship in a high school classroom.</p> <p>Developed <b>i-Folio System</b>, an interactive portfolio documentation tool that allows pre-service teachers to display work and experiences from their academic career and correlate that work to state and national standards.</p> <p>Developed the first online graduate program in bilingual education, Masters Degree in Educational Psychology with an emphasis in Hispanic Bilingual Education. Bilingual students at A&amp;M have been very successful on the state’s teacher certification test with about 100 percent of their students passing.</p> <p>Created program that provides undergraduate student technology mentors to the faculty and teachers in nearby school districts. Over the course of the three-year grant that funded this activity, around 630 students served as mentors to 500 College of Education faculty and teachers, and the program has been considered quite successful.</p>
Mathematics Department in College of Science	<p>Developed an online Masters in Mathematics degree program three years ago with a \$150,000 on-campus grant. The program has grown from 10 students in the first year to 100 students in 2004. The demand for the program is so high that the department believes more students would enroll if more faculty were available to teach the courses.</p>
Department of Petroleum Engineering	<p>Developed an online Master of Engineering degree program focused towards the “industry” audience. Several of the 25 students currently participating reside outside of the US. To solve the common problems surrounding “traditional” experiments such as cost, danger, delays, and presence of faculty, 70 to 80 percent of lab experiments are done by computer simulations, which have been proven to be more efficient.</p>

Source: MGT, 2004.

### **C. INSTRUCTIONAL TECHNOLOGY ISSUES**

As described above, many innovative programs related to instructional technology are underway at A&M. A number of the practices described in Section B are best practices—strategies or approaches that others would do well to emulate. However, a relatively small number of faculty members are involved in these practices. Consequently, there are several areas that need some attention and this section of the chapter addresses those issues.

#### **Funding System for Technology Improvements**

Texas A&M established a fee-based funding system for technology improvements involving administrators and students in the development of recommendations for use of funds allocated to support student access to technology. In addition, A&M utilizes grants, which often provide funding for technology resources.

In fiscal year 2003–04, approximately one-half of the students paid \$9.25 per semester credit hour for Computer Access/Instructional Technology fees, and the other half paid \$14.05 per semester credit hour. The \$4.80 difference is due to a fee increase that is not charged to students who were “grand fathered” at the lower level.

For fiscal year 2003–04, the Computer Access/Instructional Technology Fee generated approximately \$10,450,000. Funds were allocated to 25 different accounts, some of the more significant of which were:

- Open Access Labs – \$2,334,263 (for both recurring and non-recurring expenses)
- Lab Printing Supplies – \$334,750
- Adaptive Technology Services – \$25,000
- Internet2 Access – \$78,256
- High Performance Computing – \$473,280
- Multi-User Systems (email, web operations, and more) – \$1,183,200
- Network Operations and Internet Access – \$2,850,295
- Network Help Desk – \$187,340
- Faculty Tuition for the CIS Training Center – \$32,954
- Instructional Technology Services – \$484,000
- Instructional Media Services – \$713,000
- Internet Media Services – \$87,000.

All of these funds were used by the central technology support organization except for the following:

- \$800,000 allocation to colleges by formula (the formula considers number of students and courses; Liberal Arts received the most at \$181,033 and the Bush School received the least at \$763).
- \$200,000 allocation for computer access competitive grants (a program that funds grants to colleges and departments based on proposal submissions; grants ranged in size from \$9,082 to \$38,398).
- \$200,000 allocation that is used to fund classroom instructional technology matching grants (grant applications are received, evaluated, and funded so that grant funds cover two-thirds of the cost, with the college covering the remaining one-third).

Colleges receiving funds from any of these categories must use them to support instructional technology in some fashion.

In the spring of 2004, A&M proposed an increase in the fee of \$3.25 per semester credit hour to the Board of Regents. The board approved the proposal in March 2004. This increase will be “phased in” by moving the Computer Access/Instructional Technology Fee from \$9.25 to \$12.50 per semester credit hour for one-quarter of A&M students. The other 75 percent of A&M students will be paying \$17.30 per semester credit hour. This increase is expected to generate an additional \$3,390,000 in revenue.

The following are some of the uses to which \$3.00 of the increase will be applied:

- Replacement of the Student Information Management Systems (SIMS)—\$2,360,000 per year to replace SIMS, which has been used by A&M since 1985. Despite updates over the last 19 years, the system no longer meets the needs of students, faculty, and staff for web-based self-service.
- Network operations and Internet access—\$475,000 per year to implement and maintain a more advanced and faster network.
- Wireless and wired network access—\$75,000 per year to install and maintain new wireless networks that will be placed in student areas (for example, the Memorial Student Center, residence halls, academic building communal areas, and more). These networks will allow connections via either laptops or handheld devices.
- Adaptive Technology Services—\$25,000 per year to increase adaptive support services, such as book-on-tape, textbook scanning, adaptive software, and more, for students with disabilities. This unit has not received an increase in the CA/IT fee in several years, although the number of students who require service has increased.

The remaining \$.25 increase per semester credit hour will be used to support faculty, teaching assistants, and staff that assist faculty in making use of technology. This part of the increase is expected to generate \$282,500 in new revenue.

Of the \$282,500, \$207,000 will go to Instructional Technology Services to support salary and benefits for the following new positions:

- lead system administrator for the WebCT course management system;
- training consultant for Instructional Technology; and
- part-time server administrator.

A total of \$75,000 per year will go to the Internet Media Services unit. This unit interacts directly with faculty, teaching assistants, and staff in producing and archiving video streaming lectures and laboratories.

In addition to the Computer Access/Instructional Technology Fee, there is also a \$40 Distance Education Fee per semester credit hour that is paid by distance education students. The funds generated by this fee go to support the Office of Distance Education and distance education program development and services.

The A&M Academic Program Council, which is chaired by the executive vice president and provost, recommends changes in these fee allocations from year to year, subject to approval of the president. Other members of the council include the student body president, the Graduate Student Council



president, the speaker of the Faculty Senate, the chair of the Executive Committee of Distinguished Professors, the president of the Council of Principal Investigators, the deans of each college, and the provost's administrative team.

### **FINDING 5-1**

The conversion process to WebCT Vista as A&M's Course Management System has not been smooth. The university is still in a transition period that began in fall 2002 in which it is changing from WebCT Standard Edition (SE) to WebCT Vista, a newer, enhanced version of the product. Information Technology Services (ITS) provides university wide support for the product.

WebCT Vista is specifically built to address the challenges of enterprise wide deployment and provides a state-of-the-art teaching and learning environment that is designed to streamline course management for faculty, offer features to help improve student outcomes, and improve efficiency institution wide.

WebCT Vista is designed to be quickly adapted across an institution and provide immediate value to faculty. WebCT Vista enables the following:

- easy course preparation
- efficient course management
- positive impact on learning outcomes

A&M's experience with WebCT has not been completely positive. Although the product offered "great potential," staff was surprised at the number of difficulties they had encountered. Some other interviewee comments included the following:

- The implementation of WebCT has been a "bumpy road."
- It is challenging to support.
- WebCT is a "nightmare."
- "I gave it up. It is cumbersome."
- "Grades are the main reason most people use it."
- "WebCT does not work well" and that is "because of the out-dated student information system that is still being used."

While several individuals were not complimentary of the product, representatives of the colleges of Education and Liberal Arts indicated that the product is widely used in their colleges. Other interviewees from other colleges indicated that the support for WebCT is "outstanding."

Although not all of the WebCT comments from interviewees were positive, the fact is that the system was used extensively. In spring 2004, the standard edition supported the following:

- 46,000 automated student enrollments across all sections
- 427 academic courses requesting loads
- 859 academic sections being loaded

During that same period, the WebCT Vista system supported the following:

- 6,700 automated student enrollments across all sections
- 142 academic courses requesting loads
- 275 academic sections being loaded

There are difficulties with implementing almost any new system, and there is no reason to believe that WebCT would be any different. If, as one person suggested, some of the problems with WebCT can be attributed to the university's old student information system, that problem will correct itself as the student information management system (SIMS) is replaced over the next two to three years. It should be noted, however, that CIS personnel contend that the relationship between WebCT and the SIMS system is limited and therefore has little or no effect on the operation of WebCT.

**RECOMMENDATION 5-1:****Continue with the implementation of WebCT Vista.**

There will continue to be problems as is the case with any system conversion, but it is highly probable that those difficulties will disappear in time. At this time it is not prudent to incur the significant costs that would be necessary to acquire a replacement for WebCT. WebCT Vista should be evaluated in two years to determine its usefulness.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources and avoids the significant costs of another system installation.

**FINDING 5-2**

Although A&M has been proactive in recent years in the area of distance education, faculty promotion and salary structures do not reward distance education innovations. The establishment of the Office of Distance Education in 1998 is one indication of the institution's early efforts in this area. As shown in **Exhibits 5-5 and 5-6**, there has been a steady growth in the number of semester credit hours delivered via distance education over the last seven years, and distance education is not just confined to one or two colleges. At least six colleges offer online programs. **Exhibit 5-8** lists the degrees and graduate certificates that are offered via distance education.

**Exhibit 5–8**  
**Degrees and Graduate Certificates Offered through Distance Education**

College	Degree or Certificate
Liberal Arts	Ph.D. – Hispanic Studies, a collaborative doctorate
Science	M.S. – Mathematics, with a teaching option
Dwight Look College of Engineering	M.S. – Engineering Systems Management Master of Engineering – Industrial Engineering Master of Engineering – Petroleum Engineering Master of Industrial Distribution
Education	M.Ed. or M.S. – Educational Administration M.Ed. or M.S. – Educational Psychology with Bilingual Education emphasis M.Ed. – Education Technology M.Ed. – Education Human Resource Development
Agriculture and Life Science	Master in Agriculture – Agricultural Development Master in Agriculture – Plant Sciences Master in Agriculture – Natural Resource Development Master in Agriculture – Poultry Science Ed.D. – Agricultural Education (Doc@Distance)
George Bush School	Certificate in Advanced International Affairs
Interdisciplinary	Certificate Program for Mathematics and Science Teachers

*Source: A&M Colleges, July 2004.*

Although several individuals and colleges have initiated some innovative distance education programs, there is more that can and should be done; additional courses and programs should be offered. According to a survey of recently-graduated alumni conducted by the review team, almost one-fifth of those responding indicated that the reason for their dissatisfaction with instructional technology at A&M was that there was not enough distance or web-based learning opportunities.

Moreover, there are additional courses or programs that could be offered if there were instructors available to teach courses. As reported earlier, those responsible for the Math Department’s Masters in Mathematics program believe another 100–200 students would enroll if instructors were available to teach the courses. Other interviewees indicated that similar situations existed in their colleges.

The review team found innovative uses of technology in several colleges. However, most faculty members still do not use technology effectively. Some use technology only for electronic mail and word processing. When faculty actively using technology in instruction were asked why many of their colleagues were slow to adopt technology in their teaching, they indicated that the university offers no incentives to faculty for implementing technology in their courses or developing new distance education degree programs. Younger faculty members who have yet to achieve tenure must pursue their profession to get tenured; therefore, they are unlikely to devote time to anything that does not help them reach that goal. As a result, most distance education professors are older faculty members who have reached a point in their career where they feel they have the freedom to develop and teach online courses without a negative impact on their careers.

Also, online courses are enormously “expensive” in terms of faculty time and commitment, much more so than in-class instruction. Thus, there is a large amount of additional responsibility in developing distance education or technology-enhanced courses.

Faculty who were interviewed indicated that although the university speaks loudly about wanting to be a model for technology use among higher education institutions, little is actually done to make that a reality. The executive vice president and provost appointed a Distance Education Review Committee to assess where the university currently is and where it should go with respect to distance education and classroom technology use. While that committee's report was not completed by the time the review team finished its study, it is probable that at least some of the recommendations from that committee will move the university forward in its use of technology.

Several faculty indicated that it is going to be necessary for A&M to make changes in the faculty reward system if the university is to significantly expand distance education. As long as faculty members are not rewarded for teaching distance education courses, it is unlikely distance education course offerings will proliferate. Faculty hopes that the Distance Education Review Committee will recommend the faculty reward system be modified to encourage involvement in distance education.

Other universities have approached this dilemma by modifying their reward structures to include credit toward tenure for Internet or web-based course development and teaching. The University of Illinois at Urbana-Champaign and University of Maryland-College Park provide release time to faculty to develop distance education courses. Course materials developed online may be considered publications for purposes of promotion and tenure.

## **RECOMMENDATION 5-2:**

### **Change the reward system so that faculty members are encouraged to teach distance education courses.**

Current requirements for teaching, research and service are important and should continue to be important elements of faculty reward structures. However, a fourth component—developing and teaching distance education courses—needs to be added to those three.

While it is not simple to make changes to the faculty reward system, the consequences of not doing so are exceedingly simple: A&M will fall behind those institutions who place emphasis on distance education, thus limiting A&M's ability to achieve its mission.

To modify the faculty reward system, the provost should appoint a committee that includes deans, representatives of the Faculty Senate, faculty members, and others to incorporate recommended changes to the reward system. The committee should be charged with developing a structure for faculty promotion, tenure, and rewards that includes teaching, research, and service as well as development and advancement of distance education. The committee should confer with the Council for the Educational Environment and make its recommendations through the Faculty Senate to the provost and president for approval.

Implementation of this recommendation would signal to the faculty the importance of distance education to the future of A&M as a major contributor in providing access for Texas citizens to a quality education.

## **FISCAL IMPACT**

This recommendation can be implemented with existing resources, and should result in more faculty involvement in distance education.

**FINDING 5-3**

While some colleges and departments in the university have been proactive in developing distance education courses, no development has occurred in the area of providing professional development for professionals such as engineers, architects, veterinarians, and certified public accountants (CPAs). As reported earlier, the College of Architecture is developing an online program to offer masters degrees primarily for people who work in architectural firms. One of the reasons cited for starting this program was to generate goodwill among architectural firms. Architectural firms could benefit as well by implementing continuing education courses, which employees could take at times convenient to their schedules.

All of these professions are required by law to stay up-to-date in their fields, that is, they must take continuing education courses. Given A&M's reputation for quality programs, continuing education courses would most likely be attractive to any professional. The University of Maryland-College Park and the University of California-Berkeley have been extremely proactive in offering distance education courses for the continuing education of professionals.

**RECOMMENDATION 5-3:****Provide continuing education programs, via distance education, for engineers, architects, certified public accountants, veterinarians, and other professionals.**

By establishing such programs, the individuals developing and delivering these programs would be directly involved in teaching and service, currently two of the three factors on which faculty is evaluated. Implementing this recommendation will create goodwill with the professional firms that take advantage of continuing education opportunities, and revenue from additional participants will be generated.

There are several methods that might be used to implement such programs. One is for the provost to issue an RFP seeking proposals from colleges that would undertake such a program. Revenue generated by the students taking the courses would recoup the costs of developing the program in two or three years.

A key component to successful implementation is effective marketing. In addition to working with large architectural, engineering, or accounting firms, appropriate personnel from the university should work out arrangements with the professional association that represents the group for which the courses are developed. Associations are constantly looking for ways to provide services to members, and contracting with A&M for continuing education services is a very good possibility. It would be productive to market the courses to professional associations in other states as well. The potential for these courses is very high.

To implement this recommendation, the president should assign the provost responsibility for issuing an RFP that would solicit one or more colleges to develop continuing education courses for professionals in its field. Courses could be developed by fall semester 2005.

**FISCAL IMPACT**

The RFP issued four years ago for the Masters in Mathematics program provided \$150,000 to the Math Department to develop its program. Since the purpose of the RFP process recommended here is

to develop three to four individual courses rather than a full-fledged program, the development costs should be no more than \$100,000.

When the courses are completed and operational, the cost for taking a course should be \$700–\$800. Since such courses are not currently being offered, there is no cost precedent; however, ODE can help determine appropriate pricing. It is reasonable to expect that, if marketed effectively, as many as 40 professionals will sign up for courses in the first year of operation. By the second year, there should be at least of 100 people signed up for courses.

The estimate below assumes an enrollment 30 students at \$750 per course in the first year the courses are available (2006–07) and 100 students in the second year (2007–08). By the third year, the estimated enrollment is 140 students, with this same number continuing into the fourth year. In reality, if the marketing effort is aggressive, then it should not be difficult to exceed the estimated enrollment of 140. Moreover, if multiple colleges were providing distance education courses to professionals in their fields, the number of students would grow dramatically.

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Provide continuing education courses to professionals.</b>	(\$100,000)	\$22,500	\$75,000	\$105,000	\$105,000

**FINDING 5-4**

A&M does not sufficiently support professional development for faculty. For example, A&M officials said, “We need to continue to ramp up the support for faculty. We are not spending enough for a university our size.” Faculty leaders said professional development for faculty is not what it should be because it is not a high priority of Texas A&M. In colleges where there are innovative technology-based initiatives underway, faculty members reported that the use of technology by many of their peers is still very limited. Faculty members in the Math Department believe that if there were more faculty members who could teach distance education courses, many more students could be enrolled in their masters program. Thus, it seems clear that many faculty members do not effectively employ technology in their teaching.

It is not unusual for an educational institution to under fund professional development. When budgets are cut, as they have been in recent years, two common areas for reductions are professional development and travel, and often travel funds are expended for professional development. However, if A&M is to be a leader among higher education institutions, it must take proactive steps to strengthen technology-related professional development for faculty.

**RECOMMENDATION 5–4:**

**Expand A&M’s support for faculty professional development by adding an Instructional Technology training consultant position to the Office of Distance Education and ensuring that the Office of Distance Education and Instructional Technology Services work closely together on training.**

The role of this position is to provide instruction and training to faculty members in teaching distance education courses. For other types of classroom technology training, ODE should refer faculty members to ITS.

Since ITS is scheduled to add an Instructional Technology training consultant in the coming year, its ability to support faculty will have increased. It is critical that ODE and ITS work with each other to ensure that each training augments, but does not duplicate, the training of the other office. In fact, the two offices need to collaborate on all training issues to be sure they collectively address the greatest needs on campus in the most effective manner possible. The two offices also need to stay in close contact with each college to ensure that they understand the training needs of the various colleges, are not duplicating training offerings being provided by those units, and the training offerings these two offices provide are publicized within the colleges. The reason for more extensively publicizing the courses is that during interviews it was learned that “many faculty do not know who they should go to for various types of training.”

ITS reported that it had plans to develop some online workshops. This should be made a priority. If ODE and ITS are to effectively promote technology, they need to employ it themselves to the fullest extent possible. Online training modules might be an area for collaboration between the two offices. Moreover, adding only two positions to strengthen professional development for faculty (including the one new position ITS is scheduled to receive in fiscal year 2004–05) will not have a great impact on an institution the size of A&M unless the efforts of these individuals are augmented significantly. Online training is an excellent way of doing that.

If the university implements recommendation 5–2, which calls for changing the institution’s reward system to encourage faculty members to become more effective technology users, the demand for training in this area will grow significantly. Consequently, it will be critical that appropriate resources are in place to help prepare faculty members for that purpose. An additional ITS or ODE position may be necessary to accompany the anticipated growth in technological capabilities. It is important that A&M management monitors these developments.

If the university is successful in raising the technological capabilities of all faculty, as it should strive to do, the costs for technology use on campus will increase.

## **FISCAL IMPACT**

The costs of adding an ODE training position would start in fiscal year 2006. The costs are predicated on a salary of \$45,000 for the position plus 30 percent for benefits, which equals \$58,500.

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Add a new training position to ODE.</b>	\$0	(\$58,500)	(\$58,500)	(\$58,500)	(\$117,000)

## **D. ADVISORY GROUPS**

The associate provost for Information Technology, who has responsibility for administering technology support functions at Texas A&M, seeks to involve stakeholders in the decision making process by appointing advisory groups that provide advice and guidance to the efforts of the various technology support units.

There are several advisory groups that have been established by the executive vice president and provost and the associate provost for Information Technology. These include the Instructional Technology Council, the Instructional Technology Advisory Committee, the Computer Access Fee

Competitive Grant Proposal Committee, and the Open Access Labs Advisory Committee, which was described under Section A as part of the support provided by Computing and Information Services. In addition, a grass roots organization that includes faculty representatives from across the campus, called the Instructional Technology Working Group, has been formed.

### **Instructional Technology Council**

A&M established the Instructional Technology Council to provide advice and guidance for the use of instructional technology. The Instructional Technology Council is composed of 21 representatives from across the university and is chaired by the director of Instructional Technology Services. The associate provost for Information Technology appoints council members. The council meets monthly to carry out its responsibilities. The purposes of the council are as follows:

- Serve as a forum for discussion relating to instructional technology use.
- Coordinate the university's Instructional Technology services.
- Advise the Instructional Technology Executive Committee (which consists of a representative from the Council of Deans, the vice president for Research, and the associate provost for Information Technology) in the area of instructional technology.

Council members include voting representatives from the colleges and the following groups:

- Office of Distance Education (1)
- Library (1)
- Digital Library (1)
- Internet Media Services (1)
- The Academy for Advanced Telecommunications and Learning Technologies (1)
- Educational Broadcast Services (1)
- Computing and Information Services (2)
- Faculty Information Instructional Technology Working Group (1)
- Instructional Media Services (1)

The Instructional Technology Council has formed three subcommittees to devote additional time to particular issues. Those three groups are the following:

- Student Assistance Program—this subcommittee is looking into the concept of having a large group of highly trained undergraduate and graduate students who would be available to work with faculty on instructional technology issues. The students would be available for one-on-one assistance by appointment. A student might be assigned to an instructor for a short period of time.
- Large Group Online Testing—this group represents several faculty who want to arrange or create a facility that would allow for large groups of students to take a test online.
- Copyright Issues—this group is studying copyright issues as they apply to university faculty and will develop some recommended policy statements that the university should adopt.

This third group is particularly important because of the potential costs that could be incurred by A&M if copyright infringement suits are brought against the university. In recent years various organizations have been fined thousands of dollars because of copyright infringements committed by their staff. It is therefore most appropriate for ITC to examine this matter closely and develop some policies that the university can adopt.



### **Instructional Technology Advisory Committee**

A&M has established the Instructional Technology Advisory Committee to assist in making instructional technology funding allocation decisions. The associate provost for Information Technology also appoints members to the Instructional Technology Advisory Committee. The director of Instructional Media Services is the convener for the committee. The committee's function is to advise the director of Instructional Media Services in all aspects of providing instructional technology to classrooms controlled by the Registrar. In addition, the committee evaluates proposals for matching funds to upgrade specific classrooms that may be outside the Registrar's control. The funds for these grants are drawn from the Computer Access/Instructional Technology Fee.

Membership consists of six at-large faculty members, one of whom is a member of the Faculty Senate; three students, one of who is a graduate student; two at-large support staff members; and a staff member from Instructional Media Services involved with the delivery of instructional technology. All members of the committee are voting members except the two staff members from Instructional Media Services. The committee meets once each semester with the associate provost of Information Technology. During the fall semester, the committee will present its Classroom Technology Funding Plan for approval. This spending plan is based on the evaluations of the Classroom Instructional Technology Proposals that were submitted by departments and colleges.

While there is sometimes confusion between this committee and the Instructional Technology Council because of their similar names, this committee functions effectively and helps make funding decisions that have more credibility than would decisions made only by staff members of Instructional Media Services of Computing and Information Services.

### **Computer Access Fee Competitive Grant Proposals Committee**

A&M has established the Computer Access Fee Competitive Grant Proposals Committee to evaluate grant applications from departments and colleges.

The executive vice president and provost appoint members of the Computer Access Fee Competitive Grant Proposals Committee. Annually, \$200,000 from the Computer Access/ Instructional Technology Fee is used to fund instructional technology projects across campus. This committee's role is to review college grant requests to use those funds and produce a finalized list for funding recommendations. The committee is able to accomplish its responsibilities in one or two meetings each year.

Members on the committee for fiscal year 2003–04 include the following:

- Director, Infomatics for Medical Education, serves as chair
- Executive associate dean, College of Architecture
- Executive director of Technology, Student Government Association
- Executive associate dean, Dwight Look College of Engineering
- President, Graduate Student Council
- Acting associate dean of Academic Affairs, College of Geosciences

Inclusion of a graduate student on the council is especially important because it identifies the role of students in providing these funds.

## **Instructional Technology Working Group**

The Instructional Technology Working Group has assumed a leadership role in the development of instructional technology. This group was not appointed by anyone; it just formed itself about two years ago. Several professors who are technology proponents initiated the effort as a way of getting representatives from the colleges to discuss their use of technology and to learn from each other. The membership is composed of senior faculty members who are doing innovative things with technology and want to share what they are doing with others.

The format of their monthly meeting is for one member to describe what he/she is doing with technology. This format is not only a way of keeping up with what is going on across the campus, but it also helps faculty keep up with the latest developments in technology. Given this last objective, the group may want to consider occasionally inviting the individual in Computing and Information Services whose job responsibilities include keeping up with the latest technology developments.

Members of this group have a wealth of knowledge about how to employ technology as an effective tool in helping students learn. Their ideas and experiences would be of value to all faculty members.



# Chapter 6

## University Government Relations

Texas A&M University College Station



*Chapter 6*  
**UNIVERSITY GOVERNMENT RELATIONS**

This chapter reviews the Government Relations function of Texas A&M University (A&M) and its relationship to the Texas A&M University System Offices of Government Relations and Research and Federal Relations. This chapter has been divided into the following sections:

- A. System Policies and Rules
  - Delegation Authority for Legislative Relations
- B. Organization and Staffing
  - A&M Governmental Affairs Office
- C. Budgeting and Costs
- D. Selected Comparisons
  - University of Texas System
  - Peer Institutions

Public institutions of higher education derive significant portions of their total operating budgets from both the state and federal governments. In addition, even those funds not derived from direct state appropriations, such as tuition and fees, are highly regulated by state statutes and rules. As such, public colleges and universities are heavily reliant on legislatures to provide them with adequate operating funds and rules and regulations that allow them to offer the highest quality education to state citizens. It follows then that this constituency group has a significant interest and investment in ensuring that its needs, issues, and concerns are clearly articulated and understood. Almost without exception, public higher education institutions play a significant role in shaping state and federal education policy and resource allocation through direct and frequent contact with legislative leaders and their respective staffs.

The A&M System Governmental Relations Office is responsible for the development, execution, coordination, and communication of governmental relations activities for the A&M System Offices. The A&M Government Affairs Office performs liaison duties with state and federal government and System Office administration and assists the president in external affairs, including development, corporate relations, and constituency-building activities. The office is also responsible for representing the president at various meetings and functions, and for serving on task forces and committees. The office works in close coordination with the A&M System Offices of Governmental Relations and Research and Federal Relations in supporting both the statewide higher education agenda of the A&M system and the specific interests of A&M and its constituents.

The A&M System Governmental Relations Office operates primarily to represent the A&M System institutions before the state legislature. A separate office headed by the vice chancellor for research and federal relations is charged with managing the federal relations efforts to increase the A&M System Office's success in obtaining federal funding, raise awareness of the system's capabilities at the national level, and involve the system as a participant in developing public policy.

**A. SYSTEM POLICIES AND RULES**

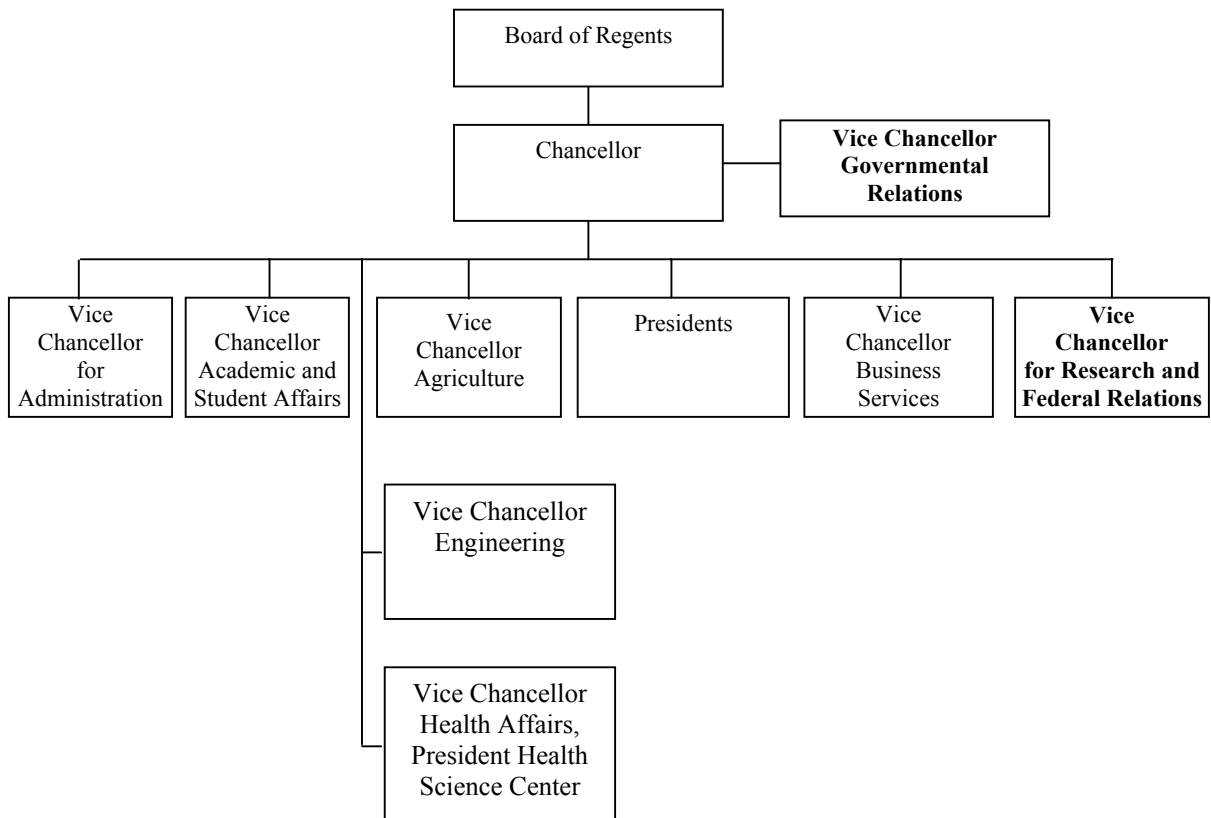
System Policy 02.02 provides that the chancellor of the A&M System is responsible for the management and operation of the system under the direction of the board. Relevant to the area of governmental relations, the chancellor has the responsibility to:

*(2.3) Represent or direct the representation of the system in all areas of public affairs, including the legislature, the Texas Higher Education Coordinating Board and other state, federal and local agencies.*

To this end, the two offices with direct responsibility for representation of the system before the state and federal legislative branches are shown on the System Administrative and General Office Organizational Chart provided in **Exhibit 6-1**. These offices are

- The Office of the Vice Chancellor for Governmental Relations; and
- The Office of the Vice Chancellor for Research and Federal Relations

**Exhibit 6-1  
A&M System Office  
System Administrative and General Offices**



Source: A&M System Office, June 2004.

System Policy 2.02 (3.2) authorizes the chancellor to delegate any of the assigned duties and responsibilities of these offices, except as otherwise restricted in system policies, and record such delegations in System Regulations. Unless otherwise restricted in System Policy or by the chancellor,

such delegated duties and responsibilities may be subdelegated, and such subdelegations recorded in University, Agency, or Health Science Center Rules.

System Policy 60.02, Public Affairs, provides that:

“The Chancellor shall recommend for the Board’s approval an organizational structure and a procedure for the coordination of efforts designed to inform the Board, the Chancellor, System components, and the concerned public as to the legislative activities occurring in Austin and in Washington and to coordinate information requested by committees of the Legislature and the Congress in a timely manner. Information gathering and dissemination for these purposes shall not be construed as lobbying but is rather a legitimate function of supplying needed information.”

System Policy 27.04, Budget Authorizations, Limitations, and Delegations of Authority, Section 2, Clarification of Salary Items by Source of Funds, provides that: “The approval of the operating budget for each component of the system authorizes the total salary for each position. The sources from which individual salaries are to be paid are for payroll purposes only and no restriction is intended with reference to changes between sources of funds.”

### **Delegation of Legislative Relations Duties**

The chancellor, as authorized by System Policy 2.02, section 3.2, has allowed for the sub delegation of duties related to legislative relations in some limited instances. The A&M System Office has delegated duties related to legislative relations to certain system institutions, including A&M, and has established dual reporting relationships between the institutions and the System Office in an effective organizational model that fosters good cooperation in the legislative area between the A&M System Office and member institutions. This delegation is provided with the understanding that university representatives to whom such delegation has been granted have both a duty and an obligation to the system to represent the interests of the system, as appropriate and required. This duty and obligation is further reinforced by the dual reporting relationship of this position to both the president of the respective institution and the vice chancellor for Government Relations, and the payment of a portion of the position’s salary by the A&M System Office. This arrangement has been authorized for A&M, Prairie View A&M, the A&M Health Science Center, and TEEX, TTI, TEES, TCE, TAES, TFS, and TVMDL. This delegation is described in detail in the following section.

## ***B. ORGANIZATION AND STAFFING***

As noted earlier, the two designated offices at the A&M System Office level that have responsibility for the coordination of efforts designed to inform the board, the chancellor, system components, and the concerned public as to the legislative activities occurring in Austin and in Washington, and to coordinate information requested by committees of the legislature and the congress in a timely manner are:

- The Office of the Vice Chancellor for Research and Federal Relations. The primary function of this office is to provide overall coordination of research efforts within the A&M System Offices, and for interaction with the federal government on Capitol Hill and the various federal agencies.

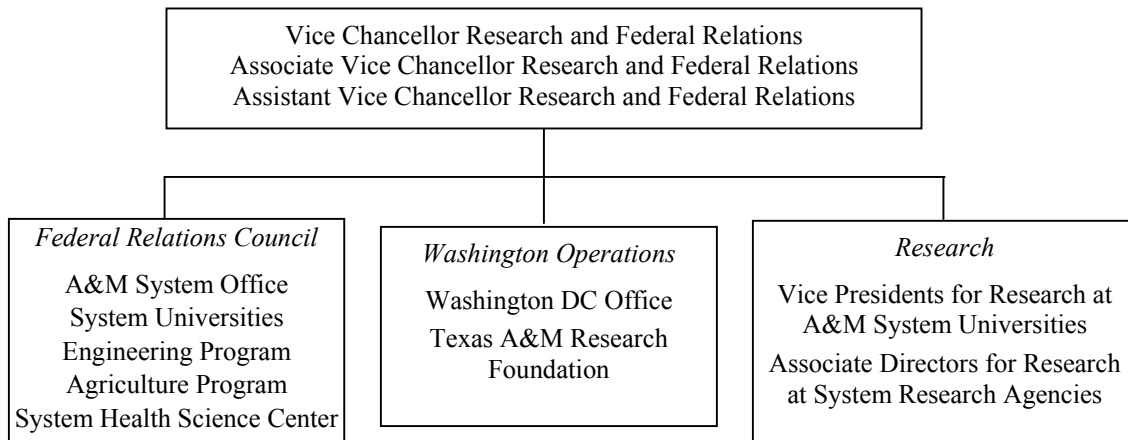
- The Office of the Vice Chancellor for Governmental Relations. The primary function of this office is to develop and implement the legislative and appropriations program of the A&M System Offices and its member institutions.

The Governmental Affairs Office at A&M operates primarily to develop, execute, coordinate, and communicate state governmental relations activities, to perform liaison duties with state and federal government representatives and system administration, and to assist the president with external affairs, including development, corporate relations, and constituency-building. The office is also responsible for representing the president at various meetings and functions, and serving on relevant task forces and ad hoc committees.

**A&M Governmental Affairs Office**

The organizational structure of the A&M Governmental Affairs Office is an efficient use of staff resources. **Exhibits 6-2** and **6-3** display the organization of the A&M System Offices Governmental Relations offices. **Exhibit 6-4** displays the organization of the A&M Governmental Affairs Office.

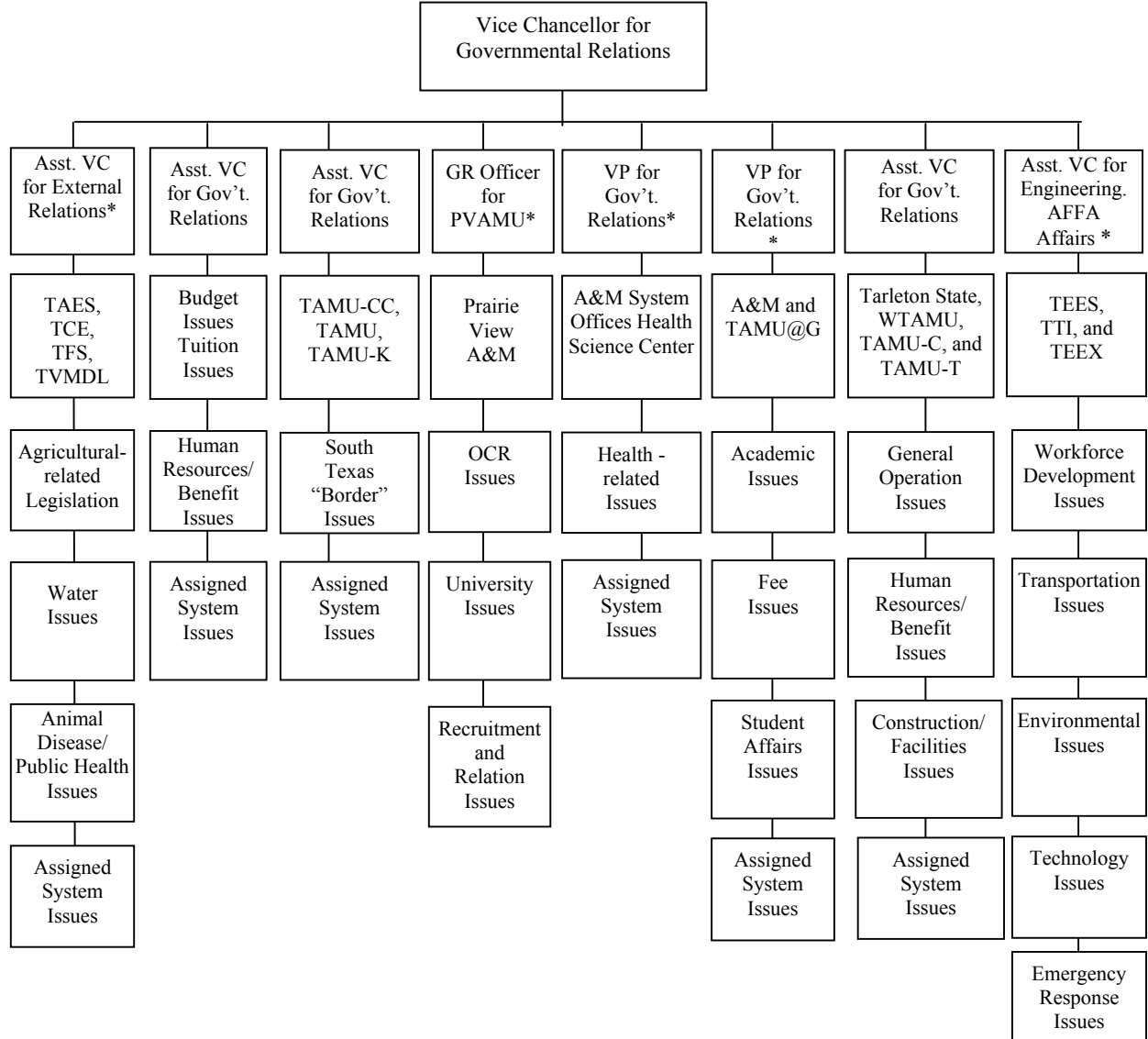
**Exhibit 6-2  
A&M System  
Office of the Vice Chancellor  
Research and Federal Relations**



Source: A&M System Office of Research and Federal Relations 2004.



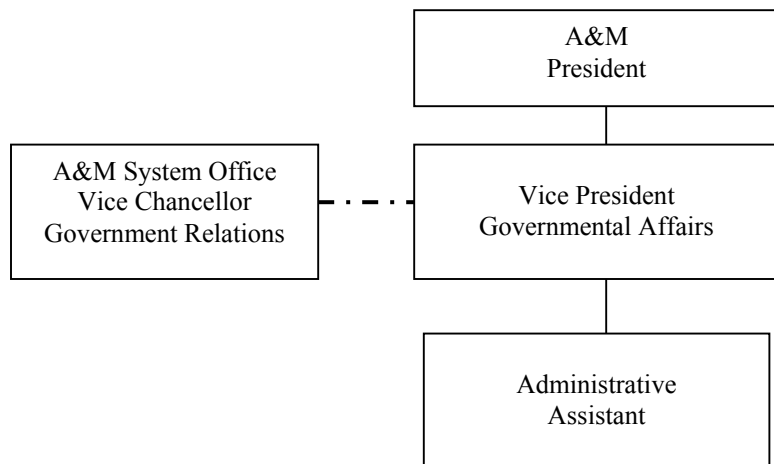
**Exhibit 6-3  
A&M System Office  
Government Relations Team  
Institutional/Subject Area Match-Up**



Source: A&M System Office, Governmental Relations Team, 2004.

\*Denotes a dual reporting responsibility.

**Exhibit 6-4  
Office of the Vice President  
Governmental Affairs**



Source: A&M Office of Governmental Affairs, July 2004.

The federal government relations responsibilities of the A&M System Office are contained within the Office of the Vice Chancellor for Research and Federal Relations. The Office of the Vice Chancellor for Research and Federal Relations is staffed by three positions, including the vice chancellor, who reports to the chancellor. The three system resources are responsible for the establishment and maintenance of the Federal Relations Council, Washington governmental operations, and systemwide research program development. The Washington operation, located in D.C., is funded through the A&M Research Foundation and is contracted to the firm of Myers and Associates.

The Office of the Vice Chancellor for Government Relations for the A&M System Office is responsible for state government relations. The Office of the Vice Chancellor is staffed by seven positions that are 100 percent system-funded. Three of these positions are support positions. In addition to the vice chancellor, one dedicated system level staff resource is responsible for state legislative representation for Tarleton State, A&M-Commerce, A&M-Texarkana, and West Texas A&M; one dedicated system level staff resource is responsible for state legislative representation for A&M-International, A&M-Corpus Christi, and A&M-Kingsville; and one dedicated system level staff resource is responsible for state legislative appropriations and other budget issues.

Five additional positions maintain a dual reporting relationship between the A&M System Office and their respective agencies/institutions. In recognition of this dual reporting relationship, the System Office funds \$25,000 of the total salary for each of these dual report positions from its budget, with the agency/university providing the salary balance. The vice president of Governmental Affairs at A&M is one of these five dual reporting positions.

The System Office’s \$8.5 million budget, from which the system’s portion of the dual reporting positions is funded, is derived from a combination of General Revenue (GR) (\$560,000), proceeds from the “Special Mineral Fund (SMF),” and a fraction of A&M’s one-third share of the proceeds of the Permanent University Fund (PUF). The appropriated proceeds are referred to as the “Available University Funds,” or AUF, and are allocated to the A&M System Board of Regents for the System Office. Together, these three sources of revenue constitute the \$8.5 million that are appropriated by the Texas Legislature and budgeted by the Board of Regents for the general administration of the A&M System Office. Therefore, the source of the \$25,000 supplement for the vice president for

Government Affairs position at A&M and other dual reporting positions is a combination of GR, AUF, and SMF funds. Since GR is approximately 6 percent of the \$8.5 million budget, or \$560,000, then approximately 6 percent, or \$1,500, of the funding for the dual reporting positions is derived from General Revenue, with the remaining 94 percent funded through AUF and SMF funds.

The Office of the Vice President for Governmental Affairs at A&M is staffed by two positions, including the vice president, who is a member of the A&M executive staff and reports to the president. The administrative assistant reports to the vice president and is responsible for performing general administrative office duties. Also, as noted in **Exhibit 6–4**, the vice president for Governmental Affairs has a dual reporting relationship between the university and the A&M System Office for certain legislative matters. A similar relationship exists between the A&M System Office and four Government Relations positions representing the following institutions:

- Prairie View A&M;
- TEES, TTI, and TEEEX;
- TAES, TCE, TFS, and TVMDL; and
- A&M Health Science Center.

The vice president for Governmental Affairs at A&M, along with the other governmental relations representatives noted in **Exhibit 6–3**, is responsible for carrying out the overall A&M System Office’s legislative agenda. This includes monitoring legislation in specific areas assigned by the vice chancellor, participating in interim legislative activities with the system, and developing of system legislative strategies. The position is also responsible for working as a system team member to ensure passage of approved system initiatives, including appropriations.

Specific duties and responsibilities of the Vice President’s Office include the development and implementation of a plan to create a closer relationship between elected officials and the university community through

- special recognition of legislators in their districts for their efforts to assist A&M;
- coordination of campus visits for legislators and staff to demonstrate student development and research success;
- creation of an information network with college deans and administrative leaders of the university to better represent and understand their interests, goals, and priorities; and
- quick responsiveness to state and federal government requests for information. For example, during the 2003–04 academic year, significant time was spent addressing legislators’ questions and concerns about the university’s decision to disregard race as a factor in admissions.

Since the A&M System Office legislative agenda incorporates the specific needs of A&M, the vice president spends the majority of his state relations time on system legislative activities. An additional portion of the vice president’s time is spent on building A&M-specific legislative relationships, serving on university committees as the president’s representative, and providing federal legislative support for the A&M campus, as needed. Reflected as a percentage of time, these activities would be divided roughly as follows: 70 percent system, inclusive of university agenda, and 30 percent university specific activities.

### C. BUDGETING AND COSTS

As noted earlier in this chapter, A&M System Office provides approximately \$25,000 of the salary of the vice president for Governmental Affairs. This position has a dual reporting relationship with the vice chancellor for Governmental Relations and the president of A&M.

The budget for the past five fiscal years for the Office of the Vice President for Governmental Affairs is shown in **Exhibit 6–5**. This budget includes both A&M general revenue funds and A&M System Office funds. The System Office provides \$25,000 towards the salary of the vice president. Expenditures have decreased since fiscal year 2002 by over 90 percent, due to streamlining of office processes by the current vice president. However, the expenditures per student increased from \$3.98 per student in fiscal year 2000 to \$4.37 per student in fiscal year 2001 and then decreased to \$4.06 per student in fiscal year 2004, reflecting the fluctuations in student enrollment.

**Exhibit 6–5**  
**Budget of the Office of the Vice President for Governmental Affairs,**  
**Fiscal Year 2000 to fiscal year 2004**

	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>
Salaries	162,000	175,400	187,136	175,000	180,260
Expenses	11,046	16,962	18,805	2,223	1,533
Total	173,046	192,362	205,941	177,223	181,793
Headcount students	43,442	44,026	44,618	45,083	44,813
<b>Expenditures/student</b>	<b>\$3.98</b>	<b>\$4.37</b>	<b>\$4.62</b>	<b>\$3.93</b>	<b>\$4.06</b>

*Source: Office of the Vice President of Governmental Affairs, 2004. Headcount students from Common Data Set Information at <http://www.tamu.edu/oisp/>*

A review of the College and University Personnel Association (CUPA) salary survey for fiscal year 2002, the most current data available, provides the following salary data for a director of Government/Legislative Relations. For selecting appropriate comparison parameters, the largest available comparison budget size used for CUPA survey purposes is for universities with expenditures exceeding \$743.9 million. This is significantly below A&M's budget of \$1.37 billion. As such, the 60<sup>th</sup> and 80<sup>th</sup> percentile CUPA salary figures for the \$742.9 million budget category are displayed to partially mitigate for budget size incompatibility. Also, A&M's enrollment of 44,813 headcount students is significantly greater than the CUPA comparison figure of 12,656 students. These CUPA data points should, therefore, be viewed as very general benchmarks against which to make compensation comparisons.

Salaries for public institutions with a budget greater than \$743.9 million:

- Median: \$129,300; 60<sup>th</sup> percentile: \$135,300; 80<sup>th</sup> percentile: \$148,000.
- Salaries for all doctoral institutions: 60<sup>th</sup> percentile: \$111,594; 80<sup>th</sup> percentile: \$138,600.
- Median salary for public institutions with enrollment greater than 12,650: \$104,410.
- Median salary/median years service – all doctoral institutions: \$102,896 and four years service.

The vice president for Government Relations at A&M has fifteen years of experience in government relations. The budget and enrollment parameters of A&M relative to CUPA data points have already

been described above. Given these factors, the current salary for the vice president is competitive within the market but not excessive.

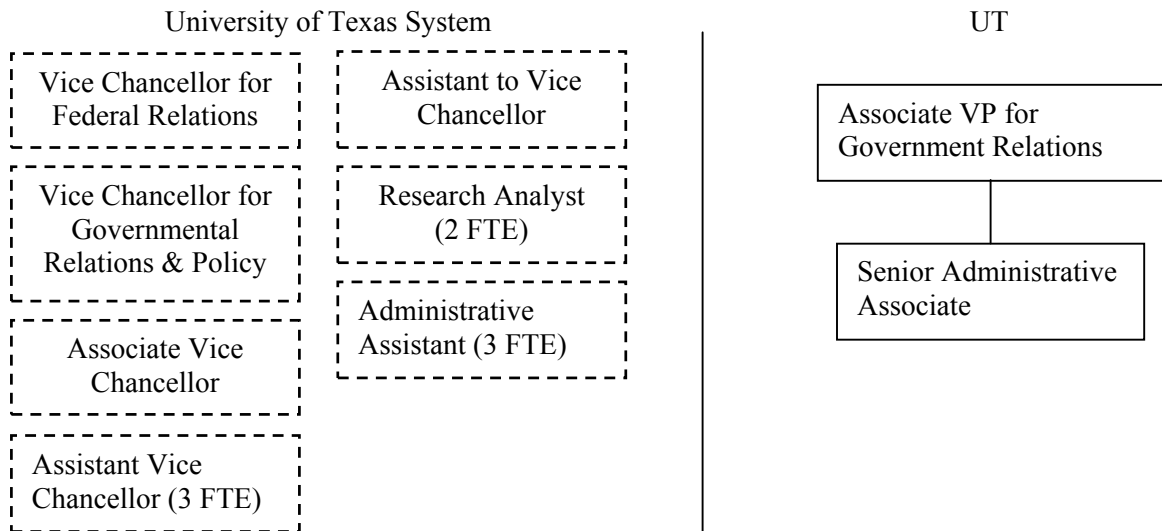
**D. SELECTED COMPARISONS – A&M SYSTEM OFFICE AND PEER INSTITUTIONS**

To determine how the organizational structure of Government Relations at A&M compared to external counterparts, two peer groupings were reviewed. The first comparison was made between A&M/A&M System Office and the UT System and its fourteen institutions. The second comparison provides information on selected institutional peers. For the University of Texas System, detailed organizational charts are provided. The dotted lines indicate a system-level position, and shaded boxes indicate a position located in Washington, D.C.

**University of Texas System**

The UT System Office employs a vice chancellor for Federal Relations and a vice chancellor for Governmental Relations and Policy. The Office of the Vice Chancellor (VC) for Governmental Relations and Policy includes eleven dedicated staff resources, including the vice chancellor. Additional office positions include one associate VC, four assistant VCs, two research analysts, and three administrative assistants. The related positions at UT-Austin (UT), which is one of A&M’s identified peer institutions, are shown to the right in **Exhibit 6–6**.

**Exhibit 6–6  
Organizational Structure of the University of Texas System and University of Texas  
Offices for Governmental Relations**



Source: MGT, 2004.

The associate VP for Government Relations at UT is part of the Office of the Vice President for Institutional Relations and Legal Affairs. The total office budget contains 12.88 FTE and has an operating budget of \$1,195,670. Of this total, approximately \$240,000 is allocated to the Governmental Relations function and includes the salary of the associate vice president for Government Relations, an administrative assistant, 25 percent of one other professional support position, travel, and other budgeted office support items.

A cursory review of the available organizational data from UT component institutions suggests that several of these universities/medical centers have offices and positions established primarily to enhance public and governmental support of their respective constituency groups. For example:

- UT Arlington has an Office of Governmental and Community Relations.
- UT Medical Branch at Galveston has an assistant to the president for Governmental Relations within the Office of the President, and a director of State Governmental Relations.
- UT Health Sciences Center at San Antonio has the Office of the Vice President for Governmental Relations.
- UT Brownsville has a vice president for External Affairs.

### Peer Institutions

The following peer institutions were used for comparison purposes:

University of California-Berkeley	University of Nebraska-Lincoln
University of Florida	Michigan State University
University of Illinois-Urbana-Champaign	University of Wisconsin-Madison
Iowa State University	Kansas State University

In general, in instances where there is a strong system office presence, the institution's government relations offices are smaller and similar in size to that of the A&M Governmental Relations Office. Absent a system office presence, however, the universities tend to have significantly larger governmental relations programs. A few examples are provided below:

Institutions with relatively strong system presence are as follows:

- **The University of Wisconsin's** government relations function is staffed by an executive assistant to the chancellor; two assistant directors for state relations; and an assistant director for state relations-health sciences. There are two additional positions at the system level—associate vice president and assistant vice president.
- **The University of California-Berkeley** maintains a Government Affairs Office within the Department of University Relations, Office of Public Affairs. This office contains one individual—director of Government Affairs. State level system offices include an office for federal government relations and an office for state government relations similar to the general structure of the Government Relations function at the A&M System Office.
- **The University of Illinois at Urbana-Champaign** does not have dedicated government relations staff, though system-level positions are physically located on the Urbana-Champaign campus. There are seven FTE employees, including an executive director of Government Relations and director of Federal Relations.
- **Kansas State University** has one position that performs governmental relations functions. In addition, the Kansas State University system has one position that provides government relations services.

- **Iowa State University's** government relations function is staffed by an assistant to the president, two associate directors, and a secretary. These institutional-level positions are aided in part by the director of business and finance at the system level. However, the System Office indicated the services provided by the system are limited.
- **The University of Nebraska, Lincoln** does not appear to maintain dedicated government relations staff on its campus. Rather, there are two system-level positions—associate vice president for External Affairs and director of Governmental Relations and an Administrative and Project Coordinator—that provide services to the Lincoln campus.

Institutions without a strong system presence:

- **The University of Florida's** government relations function is currently staffed by the vice president for Government Relations. However, the university is in the process of reorganizing the function and will rename the position vice president for University Relations, with a salary of approximately \$200,000. There are four positions at the System Office level that provide some very limited support to this function.
- **Michigan State University** has three government relations positions located in Washington, D.C., and five Government Relations positions on campus, all under the direction of the vice president for Governmental Affairs. Michigan State is not part of a system.

A&M's staffing pattern for the governmental relations functions is reasonably comparable to the staffing patterns of its peer institutions. Given the dual reporting relationship created by the A&M System Office, A&M's staffing pattern could be an efficient model for other systems to consider.







# Chapter 7

## Plant Operation and Maintenance

Texas A&M University College Station



## ***PLANT OPERATION AND MAINTENANCE***

This chapter reviews the Plant Operation and Maintenance functions of Texas A&M University (A&M) in the following sections:

- A. Facility Planning Function (Long and Short Range)
  - Campus Master Plan
- B. Classroom and Overall Building Utilization Rates
  - Office of Facilities Coordination
- C. Maintenance and Custodial Programs
- D. Construction Program Management
  - Facilities Planning and Construction Department
  - A&M Physical Plant Department

The Plant Operation and Maintenance (O&M) functions at A&M are similar in nature to those found at major public research universities. As with many universities, the O&M functions are split between different university divisions, with the primary office being the Physical Plant Office. The facility planning function and classroom and building utilization activities fall under the Facilities Coordination Office.

A&M is a large campus, with buildings comprising approximately 9.8 million gross square feet of education and general space, of which 5.1 million is net assignable space. The university recently completed a facilities master plan that identifies the types and amounts of space that will be needed by the university. The master plan will serve as a roadmap as the university plans for new construction and renovation of existing facilities.

### ***A. FACILITY PLANNING FUNCTION (LONG AND SHORT RANGE)***

The Texas Education Code, Section 61.0582, gives the Texas Higher Education Coordinating Board (THECB) responsibility for collecting planning information from institutions of higher education and using that information for evaluating and approving campus construction and land acquisition projects. Periodically, colleges and universities undertake a campus facility master planning effort to determine how to best meet their long-range facility needs.

At the same time, institutions must react to short-range facility needs. There must be processes for responding to facility needs such as additional space for academic programs, health and safety issues, and deferred maintenance. For example, approximately four years ago, the fire marshal identified about \$30 million of life safety needs. Currently, the president has instituted the Faculty Reinvestment Plan, which will increase the number of faculty and space needs over the next five years. Both of these initiatives require planning and coordination.

Texas A&M began its most recent campus facility master planning process in 2001, with the final campus master plan completed and approved by the Board of Regents in July 2004. Planning began with the establishment of a Master Plan Steering Committee, which worked for a year to establish goals for the master plan and set parameters for the hiring of a master-planning consultant. A key goal was for the master plan to support the campus' strategic plan, *Vision 2020*.

Once the Steering Committee had completed its initial work, the master planning consultants were selected. The consultants are Barnes, Gromatzky, Kosarek Architects from Austin, Texas in association with Michael Dennis & Associates from Boston, Massachusetts; Dr. Bryce Jordan of Sasaki Associates; and Paulien & Associates from Denver, Colorado. The consultants worked in collaboration with the Steering Committee and various representatives from the campus community. The president created the Council on the Built Environment to advise the president, vice president, and provost on all aspects of the campus' built environment. The council advised on the following items:

- policies and plans supportive of development of a built environment enabling progress toward *Vision 2020*;
- prioritization, location, and funding of new construction;
- alternative methods of acquisition and financing of additional facilities;
- prioritization of usage of existing space, renovation plans, and use of off-campus facilities;
- support of and information to the master planning process; and
- plans for the built environment to recognize and incorporate the recommendations from new councils on finance, research, and education.

The council actively worked to coordinate short range planning issues with the strategic goals of the university and the master plan. In a memo from the Council's Chair, dated November 26, 2003 and titled "Recommendations on Space Issues Associated with the Faculty Reinvestment Plan," the following recommendation was put forth: "All decisions on space associated with the faculty reinvestment plan will be consistent with the Campus Master Plan currently nearing completion."

The council's membership includes deans, faculty, and administrators from the divisions of Finance, Administration, and Student Affairs, and is chaired by the vice provost.

### **Campus Master Plan**

The A&M campus master planning effort has produced a Campus Master Plan that will serve the campus for at least the next half century.

The A&M campus master planning effort produced a viable Campus Master Plan for the College Station campus. The final Campus Master Plan fulfills the Texas Education Code, Section 61.0582 requirement for institutions to submit campus master plans to the Texas Higher Education Coordinating Board. The Campus Master Plan will also serve to meet the campus planning requirements as identified in the Coordinating Board Rules and Regulations – Chapter 17 Campus Planning.

The planning effort was comprehensive and collaborative. The Master Plan Steering Committee established goals for the master plan and a scope of work for the planning consultants. The committee selected the consultants and oversaw their work. The consultants worked with various groups from the university community and held over one hundred stakeholder meetings.

The resulting plan has four major sections, which are:

- the Long Range Plan;
- the Landscape Plan;
- the Architectural Plan; and
- the Process Plan.

The Campus Master Plan addresses broad planning issues for the campus and provides a framework for planning policies, open space structure, land use, density of development, primary circulation systems, infrastructure, and relationship to the surrounding community. The Landscape and Architectural plans provide principles and guidelines for the landscape and the buildings. The Process section addresses the implementation and management of the plan and outlines processes for selecting architects, defining projects, and controlling design.

A&M developed a comprehensive plan that provides principles and guidelines for campus development and addresses the implementation and management of the plan. In addition, the plan was developed using a very inclusive process that allowed for input from many stakeholders.

### **FINDING 7-1**

Although the A&M Campus Master Plan provides comprehensive long-range facility planning guidance, A&M lacks policies and procedures for updating the Campus Master Plan. Long-range facility master plans should be “living” documents that provide a framework for developing a physical environment that supports the strategic goals of an institution. For a master plan to be in step with an evolving institution, it must be reviewed and updated on a regular basis. The review will determine whether the plan is still relevant and whether the plan is being followed.

Interviews with administrators indicated that there were no established policies and procedures for updating the master plan. The administration acknowledged the need for updating the plan but suggested the frequency and procedures (whether the update would be accomplished by in-house staff or an outside consultant) would depend on funding and would probably not occur more frequently than every five years.

### **RECOMMENDATION 7-1:**

#### **Develop policies and procedures for updating the Campus Master Plan on an annual basis.**

The process for updating the Campus Master Plan could be overseen by the Council for the Built Environment and should examine the following questions on an annual basis:

- Is the plan being followed?
- If the plan is not being followed, why not?
- Are there internal procedures that can be modified to ensure the plan is followed?

On a five-year cycle, the council should oversee the utilization of an outside consultant to examine the following questions:

- Are there changes in the strategic plan that affect the master plan?
- Are there new academic programs or building technologies that need to be reflected in the master plan guidelines?

**FISCAL IMPACT**

The fiscal impact of annually updating the Campus Master Plan will vary depending on the resources used. The annual updates overseen by the Council for the Built Environment can be accomplished with in-house staff and should have no significant cost. The fifth year update, using an outside consultant, will have a cost that is dependent on the scope of work for the consultant. A reasonable estimate for the scope as defined above would be \$100,000–\$200,000.

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Develop policies and procedures for updating the facility master plan on an annual basis.</b>	\$0	\$0	\$0	\$0	(\$200,000)

**FINDING 7-2**

While the Council for the Built Environment does include the vice president for Administration, it does not include any representatives from the Physical Plant Department who are directly involved in the day to day planning for facilities. A&M is a dynamic institution with several initiatives that affect short range planning for facilities. Among these are the Deferred Maintenance Program, the life safety needs, and the Faculty Reinvestment Plan. These programs must be coordinated to ensure the university’s resources are used to support strategic goals in a cost efficient manner.

Involvement of physical plant personnel, such as the assistant vice president for Physical Plant or a designee, on the Council for the Built Environment would ensure that all physical plant activities are in line with the strategic goals of *Vision 2020* and supportive of the priorities as established by the Councils for Educational Environment, Finance, and Research Environment.

**RECOMMENDATION 7–2:**

**Appoint a Physical Plant administrator, such as the assistant vice president for Physical Plant, to the Council for the Built Environment.**

The involvement of a Physical Plant administrator will ensure open communication between the Council and the physical plant. The physical plant staff will be able to conduct short range planning and make sure it meets the priorities of the council and is supportive of the Campus Master Plan.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources, and will result in more effective planning.

**B. CLASSROOM AND OVERALL BUILDING UTILIZATION**

Assets of the university include the building inventory and the classrooms, laboratories, offices, and other spaces in these buildings. The review team evaluated the management of university assets and determined whether or not assets were low performing or non-performing. This section of the report addresses the issue of classroom/building assets. Discussion of the university management of other classes of assets may be found in Chapter 4.

As part of the requirements dictated by the Coordinating Board, higher education institutions must provide space inventory information and data needed to calculate classroom and class laboratory information. The Coordinating Board then publishes room utilization information and predicted and actual facilities square footage in its *Report on the Performance of Texas Public Universities*. For A&M, the Coordinating Board Report consistently indicates an overall university space deficit, averaging about 250,000 square feet. As for the institution as a whole, the Coordinating Board's model for the most recent three years of available information calculates a need for greater teaching square footage than the university possesses, as shown in **Exhibit 7-1**.

**Exhibit 7-1**  
**Predicted versus Actual Square Footage**

Year	Teaching				Overall			
	Space Model Predicted	Actual	Difference	% Diff	Space Model Predicted	Adjusted Actual	Difference	% Diff
1999	1,761,633	1,608,666	(152,967)	-9%	5,019,225	4,762,079	(257,146)	-5%
2000	1,867,952	1,620,016	(247,936)	-13%	5,023,404	4,757,136	(266,268)	-5%
2001	1,894,444	1,580,851	(313,593)	-17%	5,095,382	4,850,647	(244,735)	-5%

Source: *Report on the Performance of Texas Public Universities*, Texas Higher Education Coordinating Board, March 2001, June 2002, & May 2003.

The Texas Higher Education Coordinating Board's *Facilities Inventory Classification and Procedures Manual*, dated August 2001, contains the complete list of "room type" code definitions and descriptions for higher education space. The manual contains eleven major categories of room types that should encompass all space found in campus buildings. Architectural features of a room, including its structural design and utility services, are relevant to its primary use and help in determining the type of room. For example, classroom space, coded as "110 Space," is defined as space for scheduled instruction, often referred to as lecture rooms, lecture demonstration rooms, seminar rooms, and general-purpose classrooms. Classrooms can be equipped with tablet armchairs, tables and chairs (as in a seminar room), or similar types of seating. Classrooms also can be furnished with special equipment, including multimedia or telecommunications equipment, appropriate to a specific area of study if the room is still suitable for use by other classes. Student station capacity is required. The limitations are as follows: the "classroom" category does not include class laboratories (210), conference rooms (350), meeting rooms (680), or assembly rooms (610). Conference rooms (350) and meeting rooms (680) are rooms with tables and chairs that primarily are for meetings. Assembly rooms or auditoriums are large rooms with seating oriented toward a focal point where dramatic or musical productions are staged. Assembly rooms also are used for general meetings, graduation exercises, and other special events. A class laboratory is equipped with special equipment, such as personal computers, benches, typewriters, desk calculators, drafting tables, musical instruments, shop equipment, and more. Classroom service space, coded as "115 Space," directly serves one or more classrooms. Included in this category are projection rooms, cloakrooms, preparation rooms, closets, and storage space.

In the same Coordinating Board Report, the room utilization of every institution is listed. In the case of A&M, the most recent data indicates a scheduled classroom utilization of 29.6 hours per week. This classroom utilization rate is 22 percent below the Coordinating Board standard of 38 scheduled hours per week.

A&M shows a teaching space deficit and an under-utilization of classroom space. One would expect to see over-utilization of space with a calculated space deficit: if there is a deficit of space, then the existing space must be overused.

Reasons for the under-utilization of space may be that classroom space is misclassified and that A&M does not intensively schedule its academic space.

With respect to the Coordinating Board's space planning model, the recently completed Campus Master Plan calculated an academic space deficit of 526,058 net square feet, which was based on the university's existing academic space.<sup>1</sup> These calculations indicate an even greater deficit than the space needs calculated by the Coordinating Board. Based on this analysis, the focus then rests with the actual classification and utilization of classrooms and class laboratories.

Several years ago, the university chose to increase the time between scheduled classes from 10 minutes to 20 minutes so students and faculty would have enough time for movement between classes. From a utilization standpoint, the amount of time academic space could be used was reduced. For example, for an 8:00 AM to 5:00 PM academic day, under the previous scheme, nine classes could be scheduled, while under the new scheme, only eight classes can be scheduled, assuming a 50-minute class period. The reduction of one class period reduced the time available for scheduling by 50 minutes per day, or 250 minutes per week. To meet the Coordinating Board's utilization standard of 38 hours per week for classroom usage and 25 hours for class laboratories, A&M must schedule their classes and class laboratories more intensely.

The topics below identify areas and issues that when addressed, will help to increase the utilization of academic space.

### **Office of Facilities Coordination**

The Office of Facilities Coordination (FCOR) provides and analyzes facilities and land use information to support the decision and planning processes of A&M and its external constituencies. In particular, FCOR is the central repository for the detailed building and room space inventory and the repository for the A&M land use inventory. The office also ensures that room and building identifiers are consistent throughout the university and are consistently applied by the entities using room and building identifiers (for example, Physical Plant staff, Registrar's Office, GIS Office, and more). The FCOR provides a variety of analytical functions ranging from room usage to the development of space assessments for academic and non-academic units to identifying space occupied by auxiliary units so that proper charges for maintenance and utilities can be applied.

A relatively new role for the office is the coordination of space and land use. Because of its coordination function, FCOR is responsible for collecting and analyzing space requests and providing an independent and unbiased analysis on requests for additional space made to the Council on the Built Environment. This role of coordinating of space and land use is particularly critical as the university implements the Faculty Reinvestment Program, which will bring up to 447 new faculty members, plus associated support staff to the A&M campus.

The Office of Facilities Coordination, as its title indicates, provides high-quality space and land use coordination for academic and non-academic units as well as external agencies. Because of the well-developed space and land use inventories and the ability of its staff to analyze the inventory data, this office can and should be called upon to conduct more space and land use analyses. The analyses

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<sup>1</sup> Texas A&M University Academic Space Needs Analysis, Paulien & Associates, Inc., November 2003, page 6.



permit the university to better utilize its existing space as well as justify any projects that create new space or modify existing space.

### **FINDING 7-3**

A&M misclassifies some rooms as “classroom space.” Although the focus of this high-level review was on classroom space, the results indicated that similar classification issues are present with class laboratory space as were found with classrooms.

During a high-level review of classroom space by the review team, it was determined that several spaces coded as classroom space should have been coded as other space. For example, as shown in **Exhibit 7-2**, Building 0435 – Harrington Education Center Office Tower, Room 222G should be classified as a conference room, even though 3.6 hours per week of academic activity are scheduled in the room; Building 0443 – Oceanography & Meteorology Building, Room 712 should be classified as a conference room, even though 3.0 hours per week of academic activity is scheduled; and Building 0435 – Harrington Education Center Office Tower, Room 575 should be classified as a conference room, even though 3.4 hours per week of academic activity are scheduled.

For space inventory and classification purposes, A&M uses the Texas Higher Education Coordinating Board’s *Facilities Inventory Classification and Procedures Manual*, dated August 2001.

Building 0435 Room 222G resembles a conference room, with reference materials on the bookshelves, comfortable chairs, limited technology, and a corner location. The room is scheduled for only 3.6 hours per week for instruction and is probably used more for conferences than scheduled instructional classes. The room is scheduled by the Department of Teaching, Learning, & Culture.

Building 0443 Room 712 resembles a conference room, with reference materials and award plaques on the bookshelves, extremely comfortable chairs, and a corner location. The room is scheduled for only 3.0 hours per week for instruction and room is probably used more for conferences than scheduled instructional classes. The room is scheduled by the Oceanography Department.

**Exhibit 7-2  
Examples of Rooms Classified as Classrooms**

**Building 0435 Room 222G**



**Building 0443 Room 712**



**Exhibit 7–2 (Continued)**  
**Examples of Rooms Classified as Classrooms**

**Building 0435 Room 575**



*Source: MGT, A&M photos, 2004.*

Building 0435 Room 575, although having some classroom characteristics (for example, blackboard) is more characteristic of a conference room. The room is scheduled for only 3.4 hours per week for instruction and is probably used more for conferences than scheduled instructional classes. The Department of Education Administration and Human Resource Development schedules the room.

**RECOMMENDATION 7–3:**

**Inventory any classroom or class laboratory that has a weekly utilization rate 50 percent below the Coordinating Board standard to determine if rooms are properly classified.**

This recommendation would ensure that academic space is properly classified and ensure that utilization rates calculated by the Coordinating Board accurately represent the utilization of classrooms and class laboratories. Classrooms and class laboratories with low utilization that are found to have a predominate use other than academic activity should be reclassified to indicate the predominate use of the room. This review activity should be accomplished each year based on fall term activity. Although the utilization information produced by the Coordinating Board will not change for the current year, the utilization information should be more accurate in future years.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources.

**FINDING 7-4**

A&M does not have a facilities audit completed by an outside firm experienced in auditing facilities. The current process used by the Office of Facilities Coordination to inventory space is to send inventory sheets to the academic and non-academic units and have these units validate the space under their control. The specific instructions are as follows:

Please indicate corrections directly on the inventory. Make all corrections **IN RED** by drawing a line through the item to be corrected and printing the correct information above it. Special attention should be given to the room detail listing. If a room is being deleted from your inventory, indicate if known, to whom the room is being reassigned. After you complete the facilities inventory update, **PRINT** your name and phone number in the space provided and forward the inventory to your unit head for review and signature.<sup>2</sup>

Although specific instructions are provided, this inventory method relies on the individual unit to make judgments about its space, including the classification of its rooms. In most cases, room information is straightforward. However, in some cases, there are gray areas that require interpretation. Since each unit is responsible for interpreting its space, the inventory has the tendency to drift and lose consistency over time.

For many higher education institutions, the general practice is to periodically have space experts conduct a complete space inventory. The complete and formal inventory of space returns the inventory to a baseline or consistent status. Third parties, such as Coordinating Board staff or external consultants, often conduct the inventory of space. Chapter 17, Subchapter L of the Coordinating Board’s Rules and Regulations directs the board to: “periodically conduct a comprehensive audit of all education and general facilities on the campuses of institutions to verify the accuracy of the institutional facilities inventory and approved facilities development projects for each of those institutions.”<sup>3</sup> An external audit of facilities space has not been conducted in the past few years for A&M.

**RECOMMENDATION 7-4:**

**Under the provisions contained in Chapter 17, Subchapter L, a request for a comprehensive audit of all education and general facilities on the A&M campus should be made by the Coordinating Board, which may contract with a recognized firm with substantial experience in auditing facilities.**

To ensure the space inventory remains accurate, A&M should request the Coordinating Board conduct the external audit every 4 years. For the intervening years, the process currently used by A&M is adequate.

**FISCAL IMPACT**

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Conduct an external facilities audit.</b>	(\$50,000)	\$0	\$0	\$0	(\$50,000)

<sup>2</sup> Facilities Inventory and Procedures Classification Manual, Office of Facilities Coordination, Texas A&M University, page 33.

<sup>3</sup> Chapter 17-Campus Planning, Texas Higher Education Coordinating Board, Subchapter L-Facilities Audit.

**FINDING 7-5**

A&M's smaller classroom space is under-utilized, and its larger classrooms are over-utilized. The Average Class Size Report by College, **Exhibit 2–14**, located in Chapter 2 of this report, displays the average section sizes by college for A&M. For reference purposes, the A&M totals by undergraduate and graduate levels are listed below in **Exhibit 7–3**.

**Exhibit 7–3**  
**A&M Average Class Size by Level**

A&M	Lower Division		Upper Division		Graduate		Avg. Size	
	Sections	Avg. Size	Sections	Avg. Size	Sections	Avg. Size	Sections	Avg. Size
Lecture	1,061	77.1	1,484	44.4	945	16.6	3,490	46.8
Laboratory	1,482	26.8	744	19.7	111	12.3	2,337	23.8
Seminar	2	145.5	7	19.0	24	9.7	33	19.9
Wt. Avg. All Space	2,545	47.8	2,235	36.1	1,080	16.0	5,860	37.5

*Source: A&M Office of Institutional Studies and Planning – fall 2003.*

Average class size of lecture activity varies from 77.1 students per section for lower division to 44.4 for upper division to 16.6 for graduate, with an average of all levels of 46.8 for all lecture activity. Seventy-three percent of total university lecture activity occurs at the undergraduate level (2,545 undergraduate sections, 3,490 total sections), with an average class size of 58.

For comparison purposes, **Exhibit 7–4** displays the room capacity for the classrooms at A&M, along with the utilization of the rooms by room capacity groupings. The rooms with the lowest utilization are the rooms with the smaller capacities, while rooms with higher capacities have greater utilization

**Exhibit 7–4**  
**A&M Classroom Capacity Table**

Room Capacity	# of Rooms	% of Total	Avg. Hrs./Wk.	Min. Hrs./Wk.	Max. Hrs./Wk.
1–25	45	14.4%	17.82	3.0	47.6
26–50	158	50.6%	29.31	3.3	47.0
51–75	42	13.5%	30.90	5.0	47.2
76–100	13	4.2%	30.88	18.0	41.8
101–150	35	11.2%	38.69	27.0	51.8
151–200	7	2.2%	37.19	24.4	44.4
201–300	6	1.9%	42.45	34.5	45.0
301–400	5	1.6%	40.46	36.0	45.6
400+	1	0.3%	48.00	48.0	48.0
Total / Wt. Avg.	312	100%	29.65		

*Source: A&M Office of Facilities Coordination, fall 2003.*

Sixty-five percent of the classrooms have a room capacity of 50 or less, while the section sizes for lecture activity average 46.8 students per section for the university, with an average of 77.1 students per section for 1,061 lower division sections and an average of 44.4 students per section for 1,484 upper division sections. These data indicate that the room capacities do not correspond with the sizes of the classes being taught, and the class sizes, in general, exceed the capacity of the rooms. A more balanced situation would have either a higher number of rooms with greater capacities than what exists at A&M or smaller section sizes. The intent is to more closely match the room capacities with

the size of the sections being taught. A&M’s practice results in under utilization of smaller capacity rooms and over utilization of larger capacity classrooms, (for example, classrooms with over 200 capacity on average, and exceeds THECB’s utilization standard of 38 scheduled hours per week). The same situation does not exist for class laboratory space. Seventy percent of class laboratory space is in rooms with a capacity of 30 workstations or less. The average class size for lower division is 26.8, upper division 19.7, and graduate 12.3, with a total university average of 23.8 students per class lab section.

**RECOMMENDATION 7-5:**

**As new classroom space is created or existing space renovated, A&M should construct classrooms with a capacity that corresponds to the class sizes taught.**

If rooms with larger capacity were available, the university would have the flexibility to schedule smaller section sizes into rooms with slightly higher capacity. However, the institution would have difficulty scheduling larger class sizes into smaller rooms. Since the Coordinating Board looks only at hours per week of use and not classroom utilization rates, mid-sized classrooms would offer the university more scheduling flexibility, which should lead to improved utilization.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources.

**FINDING 7-6**

Classrooms scheduled by the Registrar are used more efficiently than classrooms scheduled by other university offices. Of the total 312 classrooms, the Registrar schedules or has control of 69 percent, or 216 classrooms, as shown in **Exhibit 7-5**. The average utilization of these centrally controlled rooms is 32.16 hours per week, 15 percent below the Coordinating Board standard of 38 hours per week. The rooms controlled by a department or college other than the Registrar have an average utilization of 23.99 scheduled hours per week, nearly 37 percent below the Coordinating Board standard.

**Exhibit 7-5  
Classroom Utilization by Control Agent**

Scheduler / Controller	Count	% of Total	Avg. Hrs./Wk.	Min.	Max.
Other Offices	96	30.8%	23.99	3	46.2
Registrar’s Office	216	69.2%	32.16	4	51.8
Total / Wt. Avg.	312	100.0%	29.65		

Source: A&M Office of Facilities Coordination, fall 2003.

During a walkthrough of classroom facilities, particular attention was given to under-utilized classrooms. Of special interest were two rooms in Building 0385, the Civil Engineering Lab Building, rooms 234 and 419, which are shown in **Exhibit 7-6**.

**Exhibit 7-6  
Classroom Space**

**Building 0385 Room 234**



**Classroom 0385 Room 419**



*Source: MGT, A&M photos, 2004.*

In the case of room 234, the room is under the control of the dean of the College of Engineering. The room is scheduled for 13.6 hours of instruction per week. However, as the exhibit shows, the room would be an excellent classroom for use by other disciplines. The College of Engineering might argue that the college paid for the equipment installed in the room, and the college could be reluctant to let other disciplines use the equipment, making the room less attractive for general scheduling. Room 418, which is in the same building, has a utilization rate of 5.0 hours per week and is under the control of the dean of the College of Engineering. The room across the hall, Room 419, has a utilization rate of 38.4 and is under the control of the Registrar. The design, size, equipment, and number of stations for both rooms are almost exactly the same, but the room scheduled by the Registrar is scheduled for use nearly eight times more often.

Building 0385, room 234, is classified as a classroom but is under the scheduling control of the dean of the College of Engineering. The room is scheduled for 13.6 hours of instruction per week; moveable furniture allows for multiple configurations to correspond to different desired teaching environments; and multiple technologies (overhead, computer, network connectivity, projector) allow for multiple teaching modes. Restricted scheduling prevents other disciplines from using the room, resulting in under utilization.

Building 0385, Room 419, is classified as a classroom and is under the scheduling control of the registrar. The room is scheduled for 38.4 hours of instruction per week; moveable furniture allows for multiple configurations to correspond to different desired teaching environments; and multiple technologies (overhead, computer, network connectivity, projector) allow for multiple teaching modes. In contrast to room 234, centralized scheduling allows multiple disciplines to use the room, resulting in increased utilization.

#### **RECOMMENDATION 7-6:**

##### **Require the Registrar to schedule all classrooms.**

In cases where classrooms are shifted to the control of the Registrar, the first preference for scheduling can remain with the academic unit that relinquished control. However, by centrally scheduling classrooms, the opportunity for increased classroom utilization will occur, which will reduce the need for construction of additional classrooms.

#### **FISCAL IMPACT**

This recommendation can be implemented with existing resources, and will likely result in more efficient use of classroom space.

#### **FINDING 7-7**

Classrooms that are below THECB's space utilization standard are not evaluated annually to determine the reasons for underutilization and plan corrective action.

The Registrar uses the previous similar semester as the basis for the new course and class schedule. In concept, this is an acceptable practice if the previous scheduling effort resulted in positive room utilization. However, at A&M, the most recently available classroom utilization figures are 22 percent below the Coordinating Board's utilization standard, and no process exists to evaluate the space and remediate the facility.



**RECOMMENDATION 7-7:**

**Create a process to annually evaluate all classrooms that are below 50 percent of the Coordinating Board utilization standard to determine why particular utilization rates are low and to implement steps to either improve utilization or consider converting the room to other uses.**

Rooms with low utilization should be identified and a determination made regarding the factors affecting the use of the room. For example, is the room suitable for academic activity? What is the structural condition of the room? What technology is available in the room? What is the location of the room on campus? If the factors affecting the utilization of the room are such that the room will never approach the utilization standard, then a determination should be made as to whether the room should be converted for another use, as something other than a classroom.

**FISCAL IMPACT**

This recommendation can be implemented with existing resources, and will result in more effective use of low-performing assets.

**FINDING 7-8**

The Geographic Information System (GIS) Office does not report to the assistant vice president for Physical Plant. The GIS Office has been in existence since 1989, and its mission is to provide accurate, up-to-date, digital files of the campus infrastructure and to coordinate linkages from these graphics to electronic database information for the efficient management of university resources.<sup>4</sup> In essence, the office provides digitized floor plans for university facilities and a GIS system for the entire campus. The office staff, consisting of four full-time positions and five students, works closely with staff from the Office of Facilities Coordination and the Physical Plant. The GIS Office is located in leased facilities off the A&M campus.

As part of its duties and responsibilities, GIS staff must work closely with Physical Plant staff to ensure floor plans are kept up to date. In addition, coordination on campus space frequently occurs between the Office of Facilities Coordination and the GIS Office. Although these three offices are under the vice president for Administration, they each report to different associate/assistant vice presidents, except for the director of Facilities Coordination, who reports directly to the vice president for Administration.

Because of the reporting structure and the physical location of the GIS Office, changes to facilities are not always reflected in the facility floor plans or GIS campus maps. In discussions with the three offices, all agreed that the GIS Office would be more efficient if placed under the Physical Plant.

**RECOMMENDATION 7-8:**

**For organizational management and reporting purposes, the GIS Office should be moved under the assistant vice president for Physical Plant.**

By shifting the GIS Office under the assistant vice president for Physical Plant, administrative and accounting assistance that is currently lacking could be provided by the Physical Plant staff. In

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<sup>4</sup> [www.agis.A&M.edu/NonFlash/index.htm](http://www.agis.A&M.edu/NonFlash/index.htm)

addition, by becoming part of the Physical Plant, more flexibility for funding opportunities would be presented, including charge-backs, fees for service, and other entrepreneurial activities. Currently, one-half of the office is funded by auxiliary activities and the other half funded by E&G funds.

**FISCAL IMPACT**

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Move the GIS Office under the Physical Plant and eliminate the GIS director position through attrition.</b>	\$0	\$0	\$112,241	\$112,241	\$112,241

Since the need for a director level position would be eliminated, the compensation saved would be \$112,241 per year beginning in fiscal year 2007 (a salary \$89,793 plus benefits of 25 percent).

**C. MAINTENANCE AND CUSTODIAL PROGRAMS**

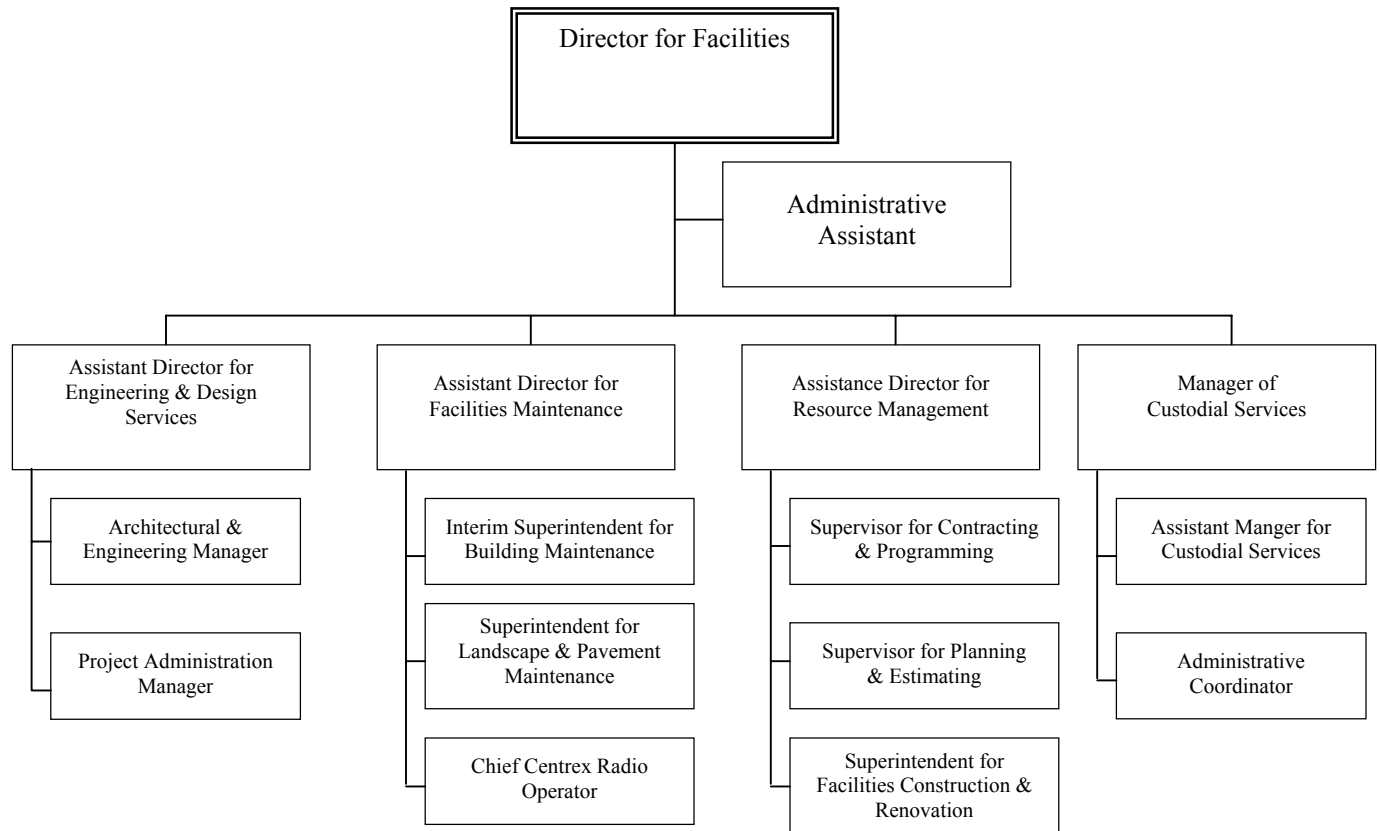
The maintenance and operation of facilities must be accomplished in an efficient and effective manner to provide a safe and secure environment that supports the institution’s strategic goals. Maintenance and custodial functions are responsible for keeping facilities in a safe, healthy, clean, and working order. The maintenance and custodial functions should have well defined priorities based on the strategic goals of the institution, policies and procedures that support those priorities, and the resources to meet the standards dictated by the goals.

A&M’s Physical Plant Department’s Facilities Division is responsible for maintaining and operating all facilities. The department is divided into four divisions—Design and Engineer Services, Custodial Services, Facilities Maintenance, and Resource Management. **Exhibit 7–7** presents an organizational chart of the Facilities Division.

The Facilities Maintenance Department has two types of maintenance crews. One type is located in the central Maintenance Office and provides specialized services to all facilities in the system. These crews or mechanics are typically more specialized, such as roofing specialists, duct sealing, and window specialists. The second type consists of regional crews, which are stationed at strategic locations throughout the university and provide services to a cluster of facilities. These crews perform the more common maintenance tasks, including HVAC, plumbing, and electrical.

University employees submit Work Order Requests to the Maintenance Department by telephone or e-mail. The Maintenance Department uses a work order software system that allows staff to submit work order requests and track the status of work orders using a computer.

**Exhibit 7-7  
Physical Plant Department  
Facilities Division**



Source: Texas A&M Physical Plant, July 2004.

The assistant director for Facilities Maintenance reports to the director for Facilities and has day-to-day responsibility for management of all maintenance functions. Day-to-day responsibilities include budget management and working with building maintenance and landscaping superintendents to ensure maintenance projects are completed in a timely manner and within budget. The assistant director for Facilities Maintenance also has day-to-day responsibility over the Chief Centrex Radio Operator. The superintendents have day-to-day responsibility for supervising the maintenance and landscape crews in their respective areas. The supervision involves issuing daily work assignments, ensuring that major and minor maintenance projects are finished properly, and inspecting all completed work. Maintenance representatives are assigned to non-mechanical related functions at various building locations for daily maintenance needs. Some mechanical system maintenance functions are outsourced through contracted services.

### **FINDING 7-9**

The maintenance work order system, which is currently used by the Physical Plant Department, has limited tracking capability and does not include deferred or preventive routine maintenance items. The Facilities Maintenance Department uses a comprehensive computerized maintenance management system (CMMS), developed by a third party provider. Although the CMMS has many features that are unique to the maintenance management industry including routine maintenance and

life-cycle management, remote wireless work order request and transmission, time to complete a specific task, and maintenance labor and materials costs databases, these features are not being used currently by the Physical Plant Department.

To be effective, maintenance departments need accurate and timely information on service levels, workload assignments, labor hours, and costs. Without this information, administrators must rely solely on their judgment in evaluating staff performance and responsiveness. This lack of information limits the administrator's ability to develop documented support for increasing preventive maintenance or addressing deferred maintenance.

### **RECOMMENDATION 7-9:**

#### **Improve the computerized maintenance management work order system to better address the institution's facilities issues.**

The improved system should have full functionality to support the Physical Plant Department and improve maintenance response time, allow for preventive maintenance scheduling and backlog reduction, and track costs and frequency of work order repairs by location and maintenance staff. The current CMMS has many of the needed features, however, without proper training, the software does not maximize its functional capability. Staff will need training on the use of all CMMS features. This training can be accomplished through professional development courses and through in-section training.

### **FISCAL IMPACT**

This recommendation can be implemented with existing resources. Training likely could be provided by the vendor at no cost to the university.

### **FINDING 7-10**

A&M has not implemented a comprehensive deferred maintenance plan that identifies all deferred maintenance and then budgets appropriately. Currently, A&M budgets about \$4,000,000 each year toward deferred maintenance. This amount varies from year to year and is based on budget issues rather than on a clear plan to identify all deferred maintenance and eliminate it within a set time period.

Deferred maintenance is maintenance work deferred to a future budget cycle or postponed until funds are available. The objective of addressing deferred maintenance is to restore facilities as close as is practical to the original constructed conditions and then continue with planned and preventative maintenance programs until replacement is required. Deferred maintenance projects are normally funded one time and generally span several years, depending on the total backlog of work and the resources that can be allocated annually. The normal budget process funds maintenance work performed only after funding for deferred maintenance.

The best practice deferred maintenance plan developed by higher education facilities managers consists of three basic steps: (1) identifying the current condition of buildings, equipment, and systems; (2) estimating the cost to correct all deficiencies; and (3) establishing a timeline to complete the work with a corresponding budget plan.

**RECOMMENDATION 7–10:**

**Develop a plan for addressing all deferred maintenance.**

The projects identified on the deferred maintenance plan would be funded from the facilities improvement and maintenance fees and included in the normal budgeting process. A&M should conduct condition assessments of all its facilities and enter those data into a facilities database. The database can then be updated annually as work is completed and the condition of the facilities improves.

**FISCAL IMPACT**

This recommendation will require an assessment of the condition of the A&M facilities and a projection of deferred maintenance. Facility condition assessments cost between \$0.04 and \$0.08 per gross square foot. A&M has approximately 14,206,333 square feet of facilities, and the condition assessment would cost \$852,380 if using the midpoint the \$0.06 per gross square foot. ( $\$0.04 \times 14,206,333 = \$568,253$ ,  $\$0.06 \times 14,206,333 = \$852,380$  and  $\$0.08 \times 14,206,333 = \$1,136,506$ ).

The preparation of a timeline and budget plan can be accomplished with existing resources.

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Develop a plan for addressing deferred maintenance.</b>	(\$852,380)	\$0	\$0	\$0	\$0

***D. CONSTRUCTION PROGRAM MANAGEMENT***

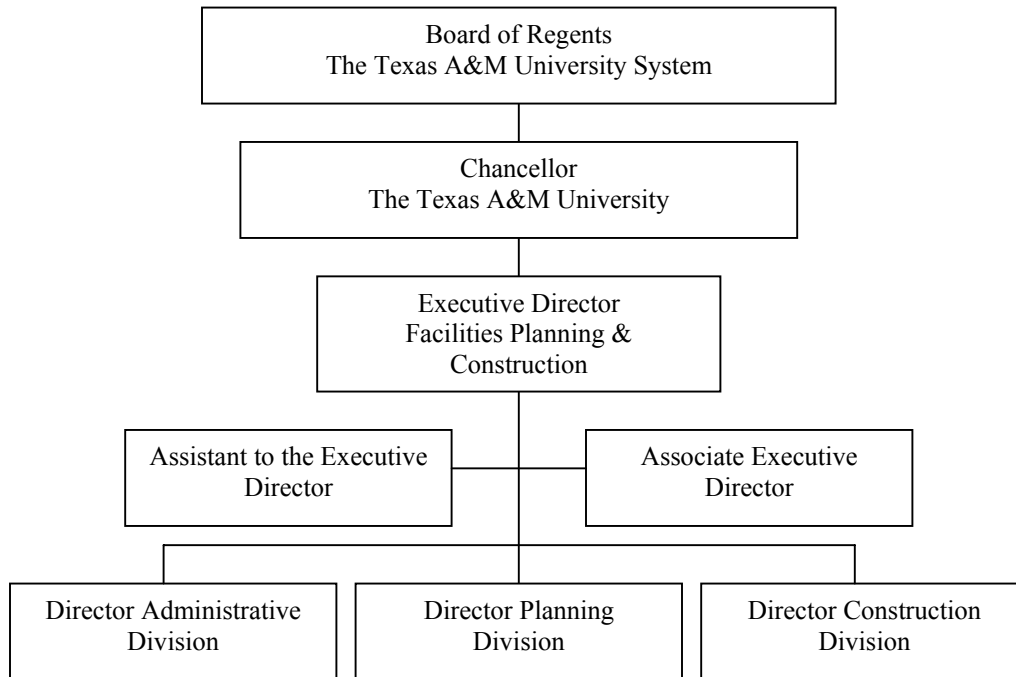
The management of design and construction programs for institutions like A&M is a multifaceted task that can make significant contributions to the institution. The process must have established policies and procedures that ensure cost effective practices are followed. In addition, a constant evaluation process should be implemented to test assumptions and provide the opportunity for improvement.

The responsibility for design, construction, and renovation projects at A&M is divided between two entities, based on the dollar amount of the project. Projects involving new construction that are \$1,000,000 and over and projects for renovations that are \$2,000,000 and over fall under the responsibility of the Texas A&M University System (A&M SYSTEM OFFICE) Facilities Planning and Construction Department. New construction and renovation projects under these cost thresholds are the responsibility of the A&M Physical Plant Department.

**The Facilities Planning and Construction Department – Texas A&M University System**

The Facilities Planning and Construction Department (FPC) of the A&M System Office reports directly to the chancellor and the Board of Regents. **Exhibit 7–8** presents an organizational chart of the FPC.

**Exhibit 7-8  
Facilities Planning and Construction Organization**



Source: MGT, 2004.

The Administrative Division is responsible for developing policy, rules, legislation, bookkeeping, and project close outs. The Planning Division is responsible for overseeing the planning and design of projects. All design work is done by outside consultants. The Construction Division is responsible for overseeing the construction phase of the projects.

The university identifies projects in its MP1 plan, which is submitted to the Texas Higher Education Coordinating Board (THECB). Once the university identifies funding, a project is established. Programming for the project is done by the Planning Division, which has developed extensive experience in programming institutional buildings through its work on nine campuses. The FPC works with A&M to establish a budget, and then a program is developed to identify the scope for the available budget. The program, site, and budget are approved by the Board of Regents and then by THECB.

The selection of an architectural/engineering firm is done by a committee made up of five members. Two members are from the university and three members are from FPC. The FPC project manager coordinates the design of the project with the user and representatives from the Physical Plant Department.

The construction phase is overseen by the Construction Division of the FPC. Monthly progress meetings are held to monitor progress.

The legislature has approved four alternate methods of project delivery in addition to the traditional design, bid, and build. These include the following:

- Construction Manager at Risk;
- Construction Manager Agent;
- Design Build; and
- Competitive Sealed Proposal.

As of June 15, 2004, A&M had the following number of projects under the supervision of the FPC:

- 8 projects in programming phase;
- 11 projects in the design phase;
- 2 projects in bidding/negotiation; and
- 5 projects in construction.

### ***Guidelines and Procedures***

The Facilities Planning and Construction Department has developed comprehensive guidelines and procedures to manage the design, construction, and renovation of A&M's facilities.

The FPC Department has developed design guidelines for university facilities. The book "Instructions to Architects and Engineers for the Preparation of Contract Documents," also known as the "red book," is a comprehensive compilation of established procedures and standards. The topics covered include the following:

- Architectural (design) Policy;
- Abbreviations and Definitions;
- Administrative Procedures and Requirements;
- Design Criteria;
- Preliminary Design;
- Detailed Design; and
- Bidding and Contract Award.

FPC has standardized the contracts it uses for architectural/engineering firms and for general contractors. While this review did perform a detailed analysis of these contracts, our high-level review noted that these contracts do contain standard components used throughout the industry.

Procedures used throughout the construction phase include progress reports, schedule of values and progress payment requests, and change order requests. The examples of these documents reviewed were detailed, complete, and followed industry standards.

In addition to these standard procedures, a task force was established in 1999 to identify ways to reduce construction project time. The task force identified fifteen procedural changes that could reduce the time spent on administrative tasks during the construction of a project. In March 1999, the board adopted nine of the propositions for implementation.

### ***Change Orders for New Construction***

The Facility Planning and Construction Department has been able to keep the change order rate on new construction projects to approximately three percent.

Costs per square foot and the rate of change orders can be measures of how well a construction project was designed and managed. Poorly designed or managed projects will often have excessive square footage costs and high change order rates. Change orders can be owner-initiated and are sometimes necessary. However, owner-initiated change orders should be minimized because changes to a design typically cost more during the construction phase of a project.

The Council of Educational Facility Planners International (CEFPI) recommends that a reasonable change order budget is three to four percent of the construction budget. Renovation projects will typically have somewhat higher rates due to the unknown conditions of existing facilities.

**Exhibit 7-9** presents the change order data for new construction over the last five years at A&M.

**Exhibit 7-9**  
**Five Year Change Order Rate**

<b>Project</b>	<b>Original Contract Amount</b>	<b>Amount of Change Orders</b>	<b>% Change Orders</b>
Dairy Products Teaching and Research Lab	\$2,840,000	\$40,199	1.4%
Parking Lot 50 Expansion	\$997,350	\$35,314	3.5%
Joe Routt Plaza and Mall	\$1,488,130	\$175,377	11.8%
University Apartments Community Center	\$1,956,400	\$46,233	2.4%
James B. Kelly Reviewing Stand	\$232,805	\$4,517	1.9%
Wellborn Road Pedestrian Passageway	\$12,090,476	\$404,747	3.4%
West Campus Parking Garage	\$27,856,200	\$729,866	2.6%
West Campus Training and Dressing Room Facility	\$4,317,133	\$108,127	2.5%
<b>Average</b>	<b>\$6,472,312</b>	<b>\$193,048</b>	<b>3.0%</b>

*Source: Facility Planning and Construction Department.*

This is a reasonable change order rate on an industry wide basis. The low change order rate indicates that the construction documents produced under FPC are complete and accurately detail the scope of work. It also indicates that the FPC is producing accurate construction documents and is managing the construction process in an effective manner.

## **FINDING 7-11**

The Facilities and Planning Construction Department does not perform a formal value engineering process, conducted by a third party consultant. Value engineering is the process in which the design of a facility is analyzed to determine if the best value is being received for the cost. Value engineers assess the functions performed by each building system and calculate if the same or greater value can be achieved through alternative means that cost less in initial and long-term costs.

The department makes decisions about the cost and performance of building systems based on their staff's professional experience. In addition, the department will ask a contractor for alternative construction solutions once a project is bid. However, the department does not have a formal process that uses professional value engineers and life cycle cost analyses.

According to the university, the Department of Facilities Planning and Construction maintains a staff of registered professional architects; civil, mechanical, and electrical engineers; and construction project managers with campus-specific experience and knowledge of the most successful construction procedures and building systems used on the Texas A&M University campus. For each project, these professionals provide ongoing reviews and assessments regarding life cycle cost analysis and



construction feasibility of the design team’s proposed solution. The use of in-house professional engineers, architects, and construction managers eliminates the cost of outsourcing for their professional services and the requirement to select and inform an unfamiliar third party consultant not familiar with a site’s conditions and performance issues that are specific and essential in best determining initial and life cycle cost benefits.

The advantage of using a third party professional is having a “fresh set of eyes” to evaluate the project. Many design professionals become comfortable with a particular solution and do not look at alternatives. A value engineer is trained to look at alternative solutions and develop life cycle cost analyses. A life cycle cost analysis is important because many times low initial costs are followed by high maintenance costs.

**RECOMMENDATION 7–11:**

**Institute a formal value engineering process.**

A formal value engineering process would include hiring certified value engineers to conduct a review of a project. The review can take place at the conceptual, schematic, or design development phase of the design process. Typically, the earlier the review takes place, the greater the return on the investment.

Typical industry standards for value engineering fees are 0.5 percent of the project costs. The return on investment is typically ten dollars for every dollar. In recent value engineering studies conducted for the Wyoming School Facilities Commission, return has averaged forty-five dollars for every dollar invested in fees.

**FISCAL IMPACT**

The fiscal impact of this recommendation will be based on the cost of the value engineering fees and the savings realized from the evaluation. Major construction projects at A&M have averaged \$43,114,822 per year for the last five years. Value engineering fees calculated at 0.5 percent would amount to \$215,574. If a savings ratio of 10 to 1 were realized, the average annual savings would equal approximately \$1,900,000 (\$2,155,741 - \$215,574 = \$1,940,167).

<b>Recommendation</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Institute value engineering process</b>	(\$215,500)	(\$215,500)	(\$215,500)	(\$215,500)	(\$215,500)
<b>Return on value engineering fees</b>	\$2,155,741	\$2,155,741	\$2,155,741	\$2,155,741	\$2,155,741
<b>Net Savings/(Costs)</b>	<b>\$1,940,167</b>	<b>\$1,940,167</b>	<b>\$1,940,167</b>	<b>\$1,940,167</b>	<b>\$1,940,167</b>

**A&M Physical Plant Department**

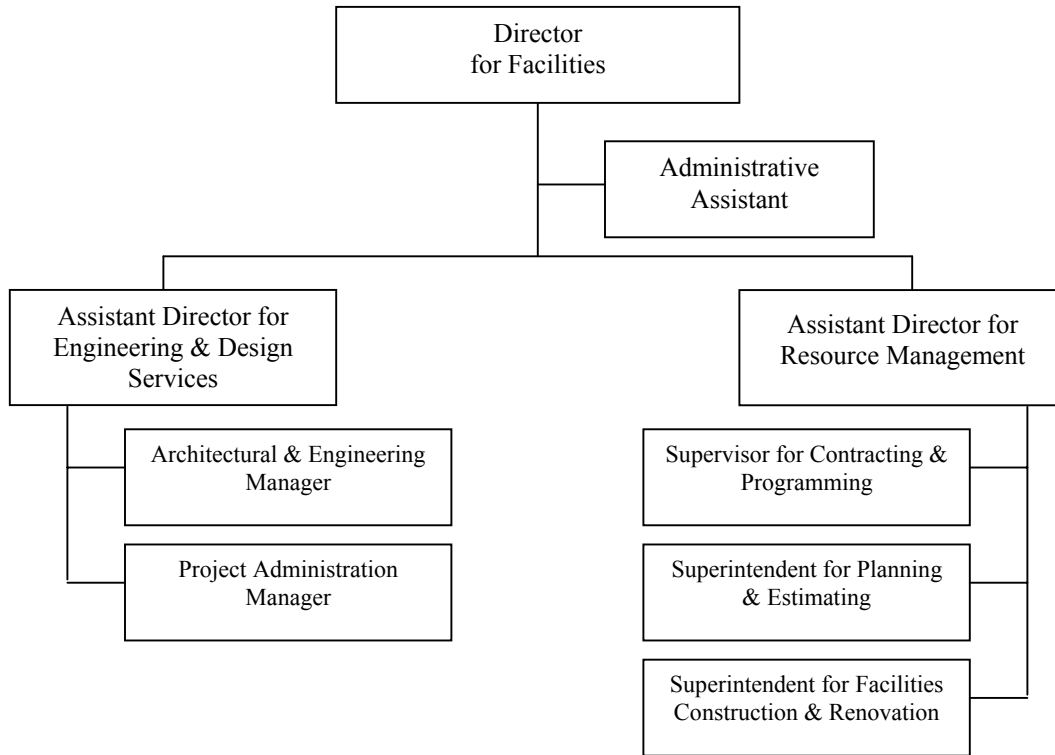
***Policies & Procedures***

The A&M Physical Plant Department is responsible for all new construction projects under \$1,000,000 and renovation projects under \$2,000,000. Occasionally there are exceptions to this guideline for specialized projects or for projects of special interest. An example of an exception is the \$5,000,000 Bonfire Memorial. To meet changing university needs, the Facilities Division of the

A&M Physical Plant Department has developed comprehensive policies and procedures that meet or exceed industry standards.

There are five subdivisions under the Facilities Division of the Physical Plant Department that are responsible for new construction and renovation projects. **Exhibit 7–10** presents an organization chart of these subdivisions.

**Exhibit 7–10  
Facilities Division Organization**



Source: MGT, 2004.

Work requests from users are received by the Contracting and Programming Office. This office decides what services the request will require and routes the request accordingly. Projects requiring engineering and/or architectural design are routed to Engineering and Design Services. Less complicated projects are routed to the Planning and Estimating Office for development of a task list and preparation of requisitions, or they will sometimes go directly to Facilities Construction and Renovation.

The Engineering and Design Office operates in a similar manner to the A&M System Office Facilities Planning and Construction Department. The office uses outside professionals for most architectural and engineering (A&E) design and has a formal A&E selection process. The office utilizes the system’s “Instructions to Architects and Engineers for the Preparation of Contract Documents,” in addition to an in-house checklist based on previous “lessons learned.” The building user for the project is involved in the A&E selection process and the design phase.

Once a project is bid out by the Resource Management Office, the Project Administration Office oversees the construction process. A pre-construction meeting is held with the following participants:

- building user;
- general contractor;
- project manager from Engineering and Design;
- outside architect/engineer;
- the Safety and Health Department;
- the Parking and Traffic Department;
- area maintenance staff; and
- construction project manager.

The procedures and forms used during the construction process meet industry standards and provide the construction project managers with the tools needed to effectively manage projects.

The procedures used by the Physical Plant Department are inclusive of all stakeholders and can be considered a best practice. In addition, the department has created tools, such as their in-house checklist, which increase the cost-effectiveness and quality of their projects.

### ***Work Order Requirements Contracting***

Since 1992, the Physical Plant Department has contracted with an outside contractor to effectively perform new and renovation construction projects. Work Order Requirements Contracting (WORC) is a process used by the A&M Physical Plant Department to meet its annual workload requirements. Construction and renovation workloads vary throughout the year, while the number of in-house staff remains constant. To meet this workload variation, the Physical Plant Department contracts with an outside contractor.

The department has developed a Uniform Pricing Book that contains 35,000 line item tasks, such as “paint 100 square feet of wall.” Contractors are asked to submit pricing for the line items and a contract is awarded for a specific time period.

The process is straightforward. A user submits a work request, which is then submitted to the WORC contractor for pricing. The contractor submits a proposal and cost estimate that is reviewed by Physical Plant staff. Once approved, a delivery order is established with pricing based on the Uniform Pricing Book. The Physical Plant Department reviews any shop drawings and the contractor performs the work. In a typical project ranging from \$25,000–\$50,000, the project can be commenced within two weeks of the user’s submission of a work request.

### ***Building Recommissioning Program***

The Physical Plant Department has instituted a cost effective building recommissioning program in conjunction with the university’s Texas Engineering Experiment Station Energy Systems Lab. Building recommissioning involves new building systems being tested to ensure they meet the design intent of the architect/engineer. Mechanical heating and cooling systems are a common subject of recommissioning. While at first glance it may be assumed that this process is an automatic procedure in the construction process, new buildings are often accepted by owners without assurance that building operations are performing to design specifications.

The department began the recommissioning program in 1996 and has recommissioned more than 70 buildings. The program is credited with cutting the university’s utility bill by a total of \$24.5 million, or about \$3.5 million annually.





# Appendices

**Texas A&M University College Station**



*Appendix A*  
***BIBLIOGRAPHY ON FACULTY WORKLOAD  
AND PRODUCTIVITY***

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*Appendix B*  
**COORDINATING BOARD FACULTY WORKLOAD  
POLICY GUIDELINES FOR TEXAS  
PUBLIC UNIVERSITIES**

*(Endorsed by the Coordinating Board, July 14, 1978 and updated fall 1992)*

The following general policies are recommended to the governing boards of each Texas institution of higher education for their use in developing and adopting rules and regulations in accordance with Section 51.402 (b), (c), and (d) of the Education Code. Copies of those rules and regulations must be submitted to the Coordinating Board and included in the operating budget of each institution.

**1. Basic Assumptions**

- A. The state of Texas requires a productive and cost-effective faculty employment environment, where each level of administrative responsibility for faculty workload is appropriately identified, and where measurable public accountability always is present. The Coordinating Board recognizes, however, that each college and university in Texas has its own pattern of academic programs and that it is in the best interest of the state to recognize and preserve such diversity.
- B. A faculty member is defined as an employee of a public institution who is directly responsible for the production of any semester credit hours during the course of an academic year or is paid any portion of his or her salary from faculty salaries, excluding teaching assistants or those pursuing degrees at the institution. For these excluded personnel who are compensated from faculty salaries each institution must develop and implement separate rules and assure proper supervision and workload criteria.
- C. Workload assignment must be primarily the responsibility of an academic unit and its department or college head. These administrators must be held accountable for individual compliance with institutional rules and for distributing the duties in their academic unit so that each faculty member contributes maximally to the department program according to his or her capabilities and experience. The chief academic officer of the institution must be responsible for implementing the institution's workload policy and, therefore, for reviewing college and department assignment patterns and monitoring compliance with institutional regulations. Each governing board will provide specific faculty workload rules, regulations, and standards within which the chief academic officer will carry out his or her responsibility.

**2. Guidelines for Institutional Rules, Regulations, and Standards**

- A. Each institutional governing board is required to submit to the Coordinating Board its comprehensive rules, regulations and standards for the interpretation of full and part-time instructional workload requirements and for the range of acceptable assignments within its definitions of faculty workload. These institutional rules must be included in the operating budget of the institution.
- B. Institutional rules, regulations and standards must indicate the means by which an academic unit assures that persons paid from faculty salaries work a proportionate percentage of time on instructional activities (as defined in III below).

- C. Institutional rules, regulations, and standards must state the basis for how the institution's faculty workload requirements relate directly to its role and scope, and must explain any variations in workload patterns among disciplinary areas or internal organizational units.
- D. The institutional rules and regulations should clearly delineate administrative responsibility for monitoring compliance. The organizational structure and assignment of administrative duties in each institution must clearly identify each level of administrative authority and responsibility for faculty workloads, and the administrative mechanisms for monitoring compliance with workload requirements. These statements of authority and procedures should delineate
- The primary responsibility and accountability of the department or college head of each academic unit for equitable and effective distribution of workload assignments and for assuring individual compliance with institutional rules.
  - The responsibility of the chief academic officer for reviewing college and departmental assignment patterns and for monitoring compliance.
  - Procedures for determining that the proportion of time devoted to instructional activities is the same as the proportion of salary being received from faculty salaries.
  - Procedures for reporting to the institutional chief executive officer and to the governing board regarding compliance with institutional rules and regulations, including copies of any forms the institution may develop for individual faculty workload reporting. Reporting the mechanism for monitoring compliance and stating publicly the institutional workload rules will insure that the method which individuals use to assure compliance is available to any concerned official.

## 2. Faculty Workload Assignments and Professional Activities

In defining instructional activities which are acceptable for fulfillment of workload requirements and which are to be funded from faculty salaries, institutions must adhere to the definitions of elements of cost and address the following points:

- A. The following professional activities are specifically identified in the elements of cost as faculty assignments, which can be funded from the faculty salary element of cost.
- Direct instructional activities, which include interaction with students, related to instruction, preparation for such instruction, and evaluation of student performance. The various types of instruction include: lecture, laboratory, practicum, seminar, independent study, private lessons, self-paced instruction, televised instruction, supervision of thesis, and dissertation.
  - Administrative assignments which directly supplement the institution's teaching function, such as heads of teaching departments, coordinator of special programs of multisection courses, etc.
- B. Any other professional assignments that an institution considers to be directly related to the teaching function, and which it funds from faculty workload, and the allocation of faculty members' time and salary to such activities must be reported on the standard report form. These professional assignments would be in addition to research, scholarship, creative work, and other professional activities that the institution describes as an integral part of faculty members' responsibilities for their direct instructional assignments and that

contribute to their remaining valuable and effective instructors in their specialized fields. Although these recommendations recognize that the categories above may be used by institutions in the determination of full-time faculty responsibilities, the major portion of assigned time, within each academic department, must be within the area of direct instructional activities.

- C. The following professional activities, which may be valid faculty assignments, are to be funded from sources other than the faculty salaries element of cost:
- teaching in self-supporting, income-generating extension courses;
  - administrative duties above the level of department chairperson or equivalent position; and
  - research, scholarship, and creative work related to separately organized research divisions or which are separately budgeted or financed from other sources.

### 3. Other Considerations Proposed

In view of the public and legislative concern expressed in regard to full-time faculty of public universities assuming “additional employment,” it is recommended that each governing board adopt policies and procedures regarding acceptance by a full-time faculty member during his or her regular contract period of:

- regular teaching responsibilities with another institution of higher education; and
- consulting positions or assignments with private industry and other organizations or agencies external to the university.

Such policies and procedures should be reported to the Coordinating Board.

### 5. Standard Reports

Institutions will report to the Coordinating Board in machine-readable form as part of the Board’s uniform reporting system all information mandated in Sec. 51.402(c) and Sec. 51.403(b), (c), and (d) of the Texas Education Code.

The Coordinating Board shall furnish such summaries of information required by the legislation as are requested by the Governor’s budget office and the Legislative Budget Board.

Each institution shall submit printed reports to its governing board, which include as a minimum all the following information mandated in the legislation. Copies of such institutional reports would be available to the Coordinating Board, the Legislature, and the Governor’s Office upon request. Information reported will include:

- A. Report of academic duties and services performed by each faculty member for the fall and spring semesters showing evidence of compliance with requirements established by the governing board and indicating
- All appointments held by the faculty member in the employing institution.
  - Salary paid to each appointment.
  - Percent of time of each appointment.
  - Sources of funds from which salary payments were made.

- B. A report for each fall and spring semester indicating
  - identity and rank of each faculty member;
  - courses taught (prefix, number, type, level);
  - number of students enrolled in each class (12th day and last class day);
  - number of semester credit hours accrued to each course; and
  - department in which the course is offered.
  
- C. A small class report, excluding individual instruction courses, indicating
  - department
  - course number
  - title of course
  - name of instructor

**Faculty Appointment Codes And Funding Sources**

Code	Appointment
<b>The following four appointment codes indicate those activities funded by the institution from the Faculty Salaries element of cost.</b>	
01	Direct instructional activities which include interaction with students related to instruction, preparation for such instruction, and evaluation of student performance. The various types of instruction include: lecture, laboratory, practicum, seminar, independent study, private lessons, alternative learning activities, thesis, and dissertation.
02	Administrative assignments which directly supplement the teaching function, such as heads of teaching departments, coordinator of special programs or multi-section courses, etc.
03	Any other professional assignments which an institution considers to be directly related to the teaching function.
04	Represents an “exchange” faculty member who is on loan to teach a course at another institution; use of code requires prior notification to the Coordinating Board.
<b>All other faculty activities not funded from Faculty Salaries are to be shown under the following appointment codes. Codes 10 through 17 indicate those activities funded from all elements of cost other than Faculty Salaries.</b>	
10	Extension and Public Service
11	Instructional Administration
12	Organized Research
13	General Administration and Student Services
14	General Institutional Expense
15	Library
16	Special Items
17	Any element of cost not listed above
Codes 20 through 23 indicate those activities funded from all other sources.	
20	Intercollegiate Athletics
21	Other Auxiliary Enterprises
22	Sponsored Projects
23	Any source not listed above

*Last Updated: May 13, 1999*

*Appendix C*  
***GLOSSARY OF TERMS***

<b>AAA</b>	—	American Accounting Association
<b>AACSB</b>	—	American Assembly of College Schools of Business, the accrediting body for Business
<b>ABET</b>	—	Accreditation Board for Engineering and Technology, the accrediting body for Engineering and Technology programs
<b>ABOC</b>	—	Academic Business Operations Committee, a 29-member group of A&M administrators
<b>ACCT</b>	—	Accounting
<b>AERO</b>	—	Aerospace Engineering
<b>AFS</b>	—	Association of Former Students, the Texas A&M University alumni association
<b>AGEC</b>	—	Agricultural Economics
<b>AGED</b>	—	Agricultural Education
<b>AICPA</b>	—	American Institute of Certified Public Accountants
<b>ANSC</b>	—	Animal Science
<b>ANTH</b>	—	Anthropology
<b>ARCH</b>	—	Architecture
<b>ATMO</b>	—	Atmospheric Sciences
<b>BAEN</b>	—	Biological and Agricultural Engineering
<b>BCBP</b>	—	Biochemistry and Biophysics
<b>BIOL</b>	—	Biology
<b>BLA</b>	—	Bachelor of Landscape Architecture
<b>BMEN</b>	—	Biomedical Engineering
<b>BPP</b>	—	Budget and Planning Protocol, the budget system used by Texas A&M University.
<b>BUSH</b>	—	George Bush School of Government
<b>CEFPI</b>	—	Council of Education Facility Planners International, the professional organization for physical plant professionals
<b>CEO</b>	—	Chief executive officer; in a university, the CEO generally is the president.
<b>CFO</b>	—	Chief financial officer; in a university, the CFO is usually a vice president, executive vice president, vice provost, or treasurer.
<b>CHEM</b>	—	Chemistry
<b>CHEN</b>	—	Chemical Engineering

<b>CIO</b>	—	Chief information officer; generally in a university, the CIO is a vice president for Information Technology or Management Information Systems.
<b>CIS</b>	—	Computing and Information Services, an A&M office responsible for technology support.
<b>CMMS</b>	—	Computerized Maintenance Management System
<b>COO</b>	—	Chief operating officer; in a university, the COO may be the provost or an executive vice president.
<b>COSC</b>	—	Construction Science
<b>COSO</b>	—	Committee of Sponsoring Organizations of the National Commission of Fraudulent Financial Reporting (the Treadway Commission)
<b>CPA</b>	—	Texas Comptroller of Public Accounts
<b>CPSC</b>	—	Computer Science
<b>CSBA</b>	—	Council of Senior Business Administrators, a 41-member group of A&M staff
<b>CTE</b>	—	Center for Teaching Excellence, a Texas A&M office that provides services to faculty to improve teaching.
<b>CVEN</b>	—	Civil Engineering
<b>EAHR</b>	—	Educational Administration and Human Resource Development
<b>EBS</b>	—	Educational Broadcast Services, an A&M office responsible for public broadcasting.
<b>ECON</b>	—	Economics
<b>EEO</b>	—	Equal Employment Opportunity
<b>E&amp;G</b>	—	Education and General; Education and General Revenues or Expenditures are those revenues or expenditures made in support of the primary missions of the university, teaching, research, and public service. Included in the category of E&G Expenditures are those expenditures categorized as for instruction, research, public service, academic support, institutional support, operation and maintenance of physical plant, student services, and scholarships and fellowships. Excluded are expenditures for auxiliary enterprises and hospitals. Included in the category of E&G Revenues are those funds derived from state, federal, and local appropriations; state, local, federal, and private gifts, grants, and contracts; endowment income; and sales and services of educational activities (such as library fines and parking fees). Excluded are revenues derived from auxiliary enterprises, hospitals, and independent operations.
<b>ELEN</b>	—	Electrical Engineering
<b>ENGL</b>	—	English
<b>ENTC</b>	—	Engineering Technology and Industrial Distribution
<b>ENTO</b>	—	Entomology
<b>EPSY</b>	—	Educational Psychology
<b>EURO</b>	—	European and Classical Languages

<b>EVP/P</b>	—	Executive vice president and provost, Texas A&M University’s chief operating officer
<b>FAMIS</b>	—	Financial Accounting Management Information System, the accounting system used by the Texas A&M University System.
<b>FCOR</b>	—	Office of Facilities Coordination
<b>FEI</b>	—	Financial Executives Institute
<b>FERPA</b>	—	Family Educational Rights and Privacy Act
<b>FINC</b>	—	Finance
<b>FPC</b>	—	Facilities Planning and Construction Department
<b>FRSC</b>	—	Forest Science
<b>FTE</b>	—	Full-time equivalent
<b>FTEE</b>	—	Full-time-equivalent employee; a full-time-equivalent staff person or employee is calculated as the number of full-time employees, plus one-third the number of part-time employees.
<b>FTSE</b>	—	Full-time-equivalent students; a full-time-equivalent student is calculated by the National Center for Education Statistics as the number of full-time students, plus one-third the number of part-time students.
<b>GACD</b>	—	General Academics
<b>GASB</b>	—	Governmental Accounting Standards Board, which sets accounting rules for public entities.
<b>GELP</b>	—	Geology and Geophysics
<b>GEOG</b>	—	Geography
<b>GIS</b>	—	Geographic Information System
<b>GLIB</b>	—	Galveston Library
<b>HISP</b>	—	Hispanic Studies
<b>HIST</b>	—	History
<b>HLKN</b>	—	Health and Kinesiology
<b>HRSC</b>	—	Horticultural Sciences
<b>ICR</b>	—	Indirect cost recovery; ICR represent revenues in a grant or contract that are intended to Reimburse the university for certain “indirect” costs such as the costs of the payroll and human resources offices, purchasing, physical plant, the president’s and vice presidents’ offices, and other administrative functions.
<b>IIA</b>	—	Institute of Internal Auditors
<b>IMA</b>	—	Institute of Management Accountants
<b>IMS</b>	—	Instructional Media Services, an A&M office responsible for instructional equipment.
<b>INEN</b>	—	Industrial Engineering

<b>INFO</b>	—	Information and Operations Management
<b>IPEDS</b>	—	Integrated Postsecondary Education Data System. The National Center for Education Statistics collects information from every post-secondary educational institution each year in a system called IPEDS. Information collected includes data on enrollments, graduation, tuition and fees, finance, endowments, libraries, and staff. IPEDS is the only national source for longitudinal comparative data on higher education finance, faculty salaries, student enrollments, graduation and degrees, staff employment, library holdings, and other statistics.
<b>ISU</b>	—	Iowa State University
<b>ITS</b>	—	Instructional Technology Services, an A&M office that serves as an instructional technology resource for faculty.
<b>JOUR</b>	—	Journalism
<b>KSU</b>	—	Kansas State University
<b>LAUP</b>	—	Landscape Architecture and Urban Planning
<b>LBB</b>	—	Legislative Budget Board
<b>MARA</b>	—	Maritime Administration
<b>MARB</b>	—	Marine Biology
<b>MARE</b>	—	Marine Engineering
<b>MARS</b>	—	Marine Science
<b>MART</b>	—	Marine Transportation
<b>MASE</b>	—	Marine Systems Engineering
<b>MATH</b>	—	Mathematics
<b>MEEN</b>	—	Mechanical Engineering
<b>MGMT</b>	—	Management
<b>MKTG</b>	—	Marketing
<b>MLA</b>	—	Master of Landscape Architecture
<b>MSU</b>	—	Michigan State University
<b>NACUBO</b>	—	National Association of College and University Business Officers
<b>NCATE</b>	—	National Council for Accreditation of Teacher Education, the accrediting body for teacher preparation programs.
<b>NCES</b>	—	National Center for Education Statistics. NCES is a unit of the federal Department of Education.
<b>NCHEMS</b>	—	National Center for Higher Education Management Systems
<b>NFSC</b>	—	Nutrition and Food Sciences
<b>NUEN</b>	—	Nuclear Engineering
<b>OCNG</b>	—	Oceanography



<b>ODE</b>	—	Office of Distance Education, an A&M office that provides leadership on distance education.
<b>OVPR</b>	—	Office of the Vice President for Research; the vice president for Research is the senior university officer for matters related to contracts, grants, and research.
<b>OhSU</b>	—	Ohio State University Main Campus
<b>OkSU</b>	—	Oklahoma State University
<b>PETE</b>	—	Petroleum Engineering
<b>PFIA</b>	—	Public Funds Investment Act, Chapter 2256 of the Texas Government Code
<b>PHUM</b>	—	Philosophy and Humanities
<b>PHYS</b>	—	Physics
<b>PLPM</b>	—	Plant Pathology and Microbiology
<b>POLS</b>	—	Political Science
<b>POSC</b>	—	Poultry Science
<b>PRFM</b>	—	Performance Studies
<b>PSYC</b>	—	Psychology
<b>PU</b>	—	Purdue University Main Campus
<b>PUF</b>	—	Permanent University Fund, which is the fund from which Texas A&M University System receives revenues.
<b>QEP</b>	—	Quality Enhancement Program, a component of the A&M strategic plan, <i>Vision 2020</i>
<b>RLEM</b>	—	Range Land Ecology and Management
<b>RPTS</b>	—	Recreation, Parks, and Tourism Sciences
<b>SACS</b>	—	The Southern Association of Colleges and Schools; SACS is the regional accrediting body for Texas A&M, as well as all colleges, universities, and schools in Texas and 12 other states.
<b>SAGO</b>	—	Texas A&M University System Administrative and General Offices
<b>SBEC</b>	—	State Board for Educator Certification, the Texas body that certifies teachers and other school administrators.
<b>SCOM</b>	—	Speech Communications
<b>SCSC</b>	—	Soil and Crop Sciences
<b>SOCI</b>	—	Sociology
<b>SPSS</b>	—	Statistical Package for the Social Sciences; SPSS is a computer software package that enables calculations of various statistics, such as mean, average, correlation, and standard deviation.
<b>STAT</b>	—	Statistics
<b>TAES</b>	—	Texas Agricultural Experiment Station, one of the agencies affiliated with Texas A&M University.

<b>A&amp;M</b>	—	Texas A&M University, located in College Station, Texas
<b>TAMUG</b>	—	Texas A&M University–Galveston, which was not included in the study
<b>TAMUS</b>	—	Texas A&M University System, which is comprised of 9 universities located across Texas, the System Office in College Station, medical centers, and various agencies such as Texas Cooperative Extension, Engineering Experiment Station, and others.
<b>TCE</b>	—	Texas Cooperative Extension, one of the agencies affiliated with Texas A&M University.
<b>TEC</b>	—	Texas Education Code
<b>TEES</b>	—	Texas Engineering Experiment Station, one of the agencies affiliated with Texas A&M University.
<b>TEEX</b>	—	Texas Engineering Extension Service, one of the agencies affiliated with Texas A&M University.
<b>TFS</b>	—	Texas Forest Service, one of the agencies affiliated with Texas A&M University.
<b>THECB</b>	—	Texas Higher Education Coordinating Board, the coordinating board for all Texas higher education.
<b>TLAC</b>	—	Teaching, Learning, and Culture
<b>TTI</b>	—	Texas Transportation Institute, one of the agencies affiliated with Texas A&M University.
<b>TVMDL</b>	—	Texas Veterinary Medical Diagnostic Laboratory, one of the agencies affiliated with Texas A&M University.
<b>TWDMS</b>	—	Texas Wildlife Damage Management Service, one of the agencies affiliated with Texas A&M University.
<b>UC–B</b>	—	University of California–Berkeley
<b>UCOA</b>	—	University and College Ombuds Association
<b>UF</b>	—	University of Florida
<b>UIUC</b>	—	University of Illinois at Urbana–Champaign
<b>UMD</b>	—	University of Maryland–College Park
<b>UN</b>	—	University of Nebraska–Lincoln
<b>UNC</b>	—	University of North Carolina–Chapel Hill
<b>UT</b>	—	University of Texas–Austin
<b>UW</b>	—	University of Wisconsin–Madison
<b>VIBS</b>	—	Veterinary Integrative Biosciences
<b>VLAM</b>	—	Large Animal Clinical Sciences
<b>VSAM</b>	—	Small Animal Clinical Sciences
<b>VT</b>	—	Virginia Polytechnic Institute and State University, also known as Virginia Tech

<b>VTPB</b>	——	Veterinary Pathobiology
<b>VTPP</b>	——	Veterinary Physiology and Pharmacology
<b>WFSC</b>	——	Wildlife and Fisheries Science
<b>WVU</b>	——	West Virginia University