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An Audit Report on Management Controls at The University of North Texas

March 1997

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Key Points of Report

An Audit Report on Management Controls at The University of North Texas

March 1997

Overall Conclusion

Opportunities exist for the University of North Texas (University) to make its control systems more efficient and effective. By taking advantage of these opportunities, management can further ensure that control systems already in place provide intended benefits. However, the University has implemented a system of management controls that generally provide reasonable assurance that the mission will be accomplished, goals will be met, and assets will be safeguarded.

Key Facts and Findings

- Weaknesses were noted in the Athletic Department. Since the University moved to National Collegiate Athletic Association (NCAA) Division I-A football competition and joined the Big West Conference, its self-generated revenue forecasts for intercollegiate athletics appear to be based more on desired outcomes than on prior-year performance. Both budgeted and actual Athletic Department expenditures have increased faster than revenues, leading to an increased reliance on Other Institutional Support to pay for the Athletic Department's operations. The University's athletics benchmarks do not measure the Athletic Department's performance against budgets or other specific departmental performance goals.
- Certain human resource-related controls need strengthening. Individual departments are largely responsible for screening applicants; however, no evidence of the screening results is contained in personnel files. Job descriptions containing minimum qualifications, knowledge, skills, and abilities are not available for all nonclassified/administrative and executive positions. Several appraisal factors in the current personnel evaluation system are subjective, not job-specific, and difficult to define and measure.
- The University faces a variety of challenges and opportunities. This would be an ideal time for the Board of Regents to refocus on its goals, its priorities, and its role in the University's future success.

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This economy/efficiency audit was conducted in accordance with Government Code §§ 321.0132.

Executive Summary

Opportunities exist for the University of North Texas (University) to make its control systems more efficient and effective. By taking advantage of these opportunities, management can further ensure that control systems already in place provide intended benefits. However, the University has implemented a system of management controls that generally provides management with reasonable assurance that the mission will be accomplished, goals will be met, and assets will be safeguarded.

The Athletic Department Should Employ More Accurate Revenue Forecasts, Focus on Cost Containment, and Improve Existing Benchmarks

Since moving up to NCAA Division I-A football competition and joining the Big West Conference, the University's self-generated revenue forecasts for intercollegiate athletics appear to be based more on desired outcome than on prior-year performance. Both budgeted and actual expenditures have increased faster than revenues, leading to an increased reliance on Other Institutional Support to pay for the Athletic Department's operations. The University's athletics benchmarks do not measure the Athletic Department's performance against budgets or other specific departmental performance goals.

Strengthen Human Resource Controls Over Recruitment, Appraisals, and Compensation

Individual departments are largely responsible for screening applicants (conducting interviews, contacting references, verifying past employment, and obtaining evidence of education or professional certification). However, no evidence of the results of these

screening procedures is contained in the employees' personnel files.

Job descriptions containing minimum qualifications and knowledge, skills, and abilities are not available for all nonclassified/administrative and executive positions. More than 68 percent of the job descriptions for nonclassified/administrative and executive positions reviewed did not include this information.

Several appraisal factors in the current evaluation system are subjective, not job-specific, and difficult to define and measure. Examples of subjective or nonspecific factors include quantity of work, attitude, and dependability.

During fiscal year 1996, the University made salary supplement payments to several individuals. Some supplements were unusually large, others appeared to be for normal job duties or for taking on the responsibilities of vacant positions. Similarly, a high concentration of the University's overtime payments have been made to a small group of individuals over the past two fiscal years. In addition, applicants have been hired at higher salaries than those listed on the job postings. Nine employees were hired at a salary or rate above the posted salary during the first 10 months of fiscal year 1996.

Human resource expenditures comprise the single largest use of the University's funds. Therefore, appropriate human resource controls have the greatest effect on the efficient and effective use of resources.

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Improve the Board Oversight Process

Members of the Board of Regents (Board) are highly committed to fund raising, promoting the University, and ensuring educational excellence for the students. However, there are a variety of challenges and opportunities facing the University. As the University is at a historical crossroad in many ways, this would be an ideal time for the Board to take the time to refocus on goals, priorities, and its role in achieving the University's future success.

Board members have, for the most part, been diligent in their commitment to attend quarterly Board meetings. However, one current member and another former member have missed a significant number of meetings. A recommitment of the full Board's energy to attend meetings would be appropriate.

Information provided to the Board in support of major decisions has in some instances been incomplete, formatted in a way that was not as easily understood as possible, or did not present a balance of benefits and risks.

The Board is the ultimate control over the University's long range direction and success. Effective Board processes will help to ensure the mission, goals, and priorities are achieved.

Add Necessary Elements to Complete the Strategic Plan and Develop Benchmarks to Measure Progress Toward Goals

While the strategic planning process is generally effective, opportunities exist to improve certain aspects of the process. The strategic planning process does not include well-developed operational planning or evaluation of plans to ensure quality of content and coverage of all University goals

and objectives. Performance measures have not been disseminated at all levels of the organization responsible for planning. With the exception of the Legislative Budget Board benchmarks and the performance targets developed for enrollment, no benchmarks or allowable deviation rates have been established to evaluate progress on the annual planning priorities.

Strategic planning and performance measurement are, respectively, the road map and the yardstick to determine the University's future direction and whether the mission is being achieved. Enhancements to these processes will aid in setting the correct course over the long term and determining if results are achieved.

Move Toward More Risk-Based Audit Planning and Budget Allocation and Specify Finding Elements in Audit Reports

The annual internal audit plan is primarily based on allowing the Internal Audit Department to respond to management requests and other administrative tasks rather than on risk assessment. Less than one-third of the available audit hours have been allocated as a result of planning in each of the last two years.

Audit reports sent to the Board do not contain enough detail to allow the reader to understand the results of the Internal Audit Department's audits. Professional standards dictate certain elements that should be contained in audit findings.

Internal audit is a key tool in management's efforts to detect and mitigate risk. Improvements to the internal audit process can

Executive Summary

assist management in ensuring control systems function as intended.

Improve Planning, Implementation, and Review Methodology Over Automated Resources

The University recently committed to obtain an Automated Purchasing and Accounts Payable system (APAP). In preparing comparative cost scenarios to determine whether to buy an existing vendor package, contract for custom development, or develop the system in-house, the University did not include the salary and benefit cost of in-house programming staff members.

The work plan for the APAP system also does not specify detailed assignments, test dates, deliverables, or review points. The System Development Methodology (SDM) employed by the University for APAP and all automated systems does not identify a time or responsible party to perform post-implementation review of new systems.

Other Opportunities

We have also identified opportunities for the University to improve documentation of the budget deliberation process and enhance control over fixed assets.

Included on page 51 is a consultant report on some enhancements that could be implemented over construction processes.

Summary of Management's Responses

We are pleased that this audit has found our management controls to be satisfactory. We appreciate the very careful attention the audit team has given to identifying opportunities for the University to make its control systems "more effective and efficient." In general, the University agrees with the recommendations and will make changes in policies and procedures where appropriate. In those few instances where the University disagrees with a recommendation, it will carefully consider it for possible inclusion in future changes to our policies and procedures.

Summary of Audit Objective and Scope

The objectives of this audit were to evaluate the existing management control systems within the University of North Texas and to identify both strengths and opportunities for improvement.

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Overall Condition

Opportunities exist for the University to make its control systems more efficient and effective. By taking advantage of these opportunities, management can further ensure that control systems already in place provide intended benefits. However, the University has implemented a system of management controls that provides reasonable assurance that the mission will be accomplished, goals will be met, and assets will be safeguarded.

Section 1:

The Athletic Department Should Employ More Accurate Revenue Forecasts, Focus on Cost Containment, and Improve Existing Benchmarks

Since moving up to National Collegiate Athletic Association (NCAA) Division I-A football competition and joining the Big West Conference, the University's self-generated revenue forecasts for intercollegiate athletics appear to be based more on desired outcome than on prior-year performance. Both budgeted and actual expenditures have increased faster than revenues, leading to an increased reliance on Other Institutional Support to pay for the Athletic Department's operations. The University's athletics benchmarks do not measure the Athletic Department's performance against budgets or other specific departmental performance goals. The University has historically used its Retirement of Indebtedness fund subgroup as a clearing fund to support a variety of activities unrelated to the servicing of plant-related debt, including the support of intercollegiate athletics. The use of Retirement of Indebtedness accounts in this manner is not the best application of fund accounting principles, and provides less than full disclosure to users of the University's financial statements.

Section 1-A:

Base Revenue Forecasts on Prior Realized Revenues Rather Than Desired Outcome

The University moved up to NCAA Division I-A football competition beginning with the 1995 football season (fiscal year 1996) and began conference play in the Big West Conference in the 1996 season (fiscal year 1997). In anticipation of the revenue-generating opportunities in Division I-A, the University projected self-generated revenue for the 1996 fiscal year of \$2,214,935, almost 2.5 times the \$893,611 in self-generated revenue that had been achieved in fiscal year 1995. Actual self-generated revenues of \$1,753,118 for fiscal year 1996 fell short of the projection by \$461,817 or nearly 21 percent. This revenue shortfall can be attributed in large part to fewer ticket sales than forecast for football, along with shortfalls in advertising, development activities, and other areas.

In light of this shortfall, it might be expected that the University would have drastically reduced the fiscal year 1997 projection. However, in the original budget for fiscal year 1997, the University projected self-generated revenue of \$2,034,549 for fiscal 1997 (\$281,431 more than was realized in fiscal year 1996). While this was a reduction of more than 8 percent from the prior year's projection, it would have required a 16 percent increase in realized revenues to achieve this goal. It appears the University originally forecast self-generated revenues more as a matter of desired outcome than based on prior performance.

Funding for the University's intercollegiate athletics program comes from three primary sources:

- Self-generated revenues (ticket sales, game guarantees, advertising, concessions, rentals, etc.)
- Student service fee allocations
- Supplemental funding from Other Institutional Support

Other Institutional Support is composed of General Use Fees, interest income, and reserves from other auxiliary enterprise activities. The largest portion of Other Institutional Support is derived from the General Use Fee.

Figure 1

Self-Generated Athletic Revenues Budgeted Versus Actual				
Fiscal Year	Original Budgeted Amount	Percentage Increase/ (Decrease) From Prior Year	Actual Amount	Difference
1993	\$768,230	20.68%	\$821,329	\$58,099
1994	\$683,882	(10.98%)	\$730,327	\$46,445
1995	\$875,370	28.00%	\$888,999	\$13,629
1996	\$2,214,935	153.03%	\$1,753,118	(\$461,817)
1997	\$2,034,549	(8.14%)	\$1,750,000*	(\$284,549)*

* These figures represent adjusted budget projections made to the fiscal year 1997 revenue budget after the November 22, 1996, Board meeting.

As noted above, one of the causes for the revenue shortfall in fiscal year 1996 was unmet ticket sale forecasts. In fact, unsold football tickets accounted for approximately \$211,000 (46 percent) of the revenue shortfall. The Athletic Department uses two revenue account line items to project football revenues, ticket sales, and game guarantees. Game guarantees exceeded projected revenue by \$2,000.

The original fiscal year 1997 budget was more dependent on ticket sales than on game guarantees, a reversal of the fiscal year 1996 budget that relied more heavily on game guarantees. Budgeted ticket sales were increased from \$410,300 for fiscal year 1996 to \$756,064 for fiscal year 1997. At the same time, budgeted net game guarantee revenues were dropped from \$715,000 for fiscal year 1996 to \$239,936 for fiscal year 1997.

As of December 15, 1996, the Athletic Department was able to achieve net football ticket sales of \$199,824, resulting in a shortfall of \$556,240. This amounts to more than 27 percent of forecast revenues for fiscal year 1997. Accordingly, the Board of Regents and University management reduced budgeted Athletic Department revenue by \$284,549. However, this still leaves a shortfall of \$271,691 that will have to be made up from other sources which have yet to be identified. It also increased the reliance on Other Institutional Support by a corresponding \$284,549.

In the University's annual budget, game guarantees are presented as a revenue item net of the guarantees to be paid to other institutions through the course of the season. The separate presentation of game guarantee receipts and game guarantee payouts would provide fuller disclosure and allow for a more meaningful analysis of the revenues and expenses related to athletics.

Recommendations:

- Budgeted revenue amounts should be realistically attainable and should have a basis in past performance.
- Game guarantee receipts and guarantees to be paid should be presented as separate revenue and expense items in the annual budget.

Management's Responses:

- *We agree that past performance should be a part of the basis for a revenue budget. However, it should also be noted that athletic revenue can fluctuate significantly from year to year based on other factors such as win/loss records, game guarantees, weather, scheduled opponents, etc. As we gain experience in the Big West Conference, we expect to improve on our revenue estimates.*
- *We agree with this recommendation and will implement such a procedure.*

Section 1-B:

Institute Stringent Cost Containment Measures to Limit Both Expenditure Growth and Reliance on Institutional Support

Expenditures for intercollegiate athletics have increased faster than revenues, leading to an increased dependence on Other Institutional Support to support the Athletic Department's operations. In fiscal year 1995, only one other state-supported institution had a greater reliance on supplemental funding for its athletics program. The University's requirement for supplemental funding, after allocating Student Service Fees, has grown from \$1,643,959 in fiscal year 1995 to an estimated \$2,170,428 in fiscal year 1997, an increase of 32 percent. The primary source of supplemental funding has been the University's General Use Fee. Figure 2 illustrates the Athletic Department's increasing reliance on supplemental funding.

Figure 2

Method of Funding for Intercollegiate Athletics						
Type of Funding	Fiscal Year 1992	Fiscal Year 1993	Fiscal Year 1994	Fiscal Year 1995	Fiscal Year 1996	Fiscal Year 1997 (Adjusted Budget)
Self-Generated Revenue	\$ 578,865 17.98 %	\$ 821,330 22.88 %	\$ 730,327 19.22 %	\$ 888,998 20.36 %	\$ 1,753,118 31.13 %	\$ 1,750,000 30.40 %
Student Services Fee	\$ 1,887,274 58.60 %	\$ 1,887,274 52.58 %	\$ 1,822,112 47.94 %	\$ 1,832,112 41.95 %	\$ 1,838,116 32.63 %	\$ 1,838,116 31.92 %
Prior Year Balances	\$ 7,106 0.22 %			\$ 2,317 0.05 %	\$ 4,958 0.09 %	
Other Institutional Support	\$ 747,239 23.21 %	\$ 881,014 24.54 %	\$ 1,248,382 32.85 %	\$ 1,643,959 37.64 %	\$ 2,036,466 36.15 %	\$ 2,170,428 37.70 %
Total	\$ 3,220,484 100.00 %	\$ 3,589,618 100.00 %	\$ 3,800,821 100.00 %	\$ 4,367,386 100.00 %	\$ 5,632,658 100.00 %	\$ 5,758,544 100.00 %

Our review of fiscal years 1990 through 1997 shows that in each of those years the actual supplemental funding required has exceeded the level contemplated by the annual budget. As of December 15, 1996, supplemental funding will exceed the anticipated level by \$284,549, as illustrated in Figure 3. However, as noted above, there is still a shortfall of \$271,691 in the self-generated revenue account that will have to be made up from as yet unidentified sources. If this amount is not generated elsewhere, or if a concurrent reduction in expenditures is not achieved, the amount of supplemental funding in excess of original budget could be as high as \$556,240. As of December 15, 1996, for fiscal years 1993 to 1997, the amount of supplemental funding in excess of budget required to support athletics is in excess of \$1.65 million.

Figure 3

Other Institutional Support Budgeted Versus Actual				
Fiscal Year	Amount Budgeted	Percentage Increase/ (Decrease) from Prior Year	Amount Actually Required	Difference
1993	\$ 664,023	6.98%	\$ 881,014	\$ 216,991
1994	\$ 696,765	4.93%	\$ 1,248,342	\$ 551,577
1995	\$ 1,545,175	121.76%	\$ 1,643,959	\$ 98,784
1996	\$ 1,529,722	(1.00%)	\$ 2,036,466	\$ 506,744
1997	\$ 1,885,879	23.28%	\$ 2,170,428	\$ 284,549

The increased reliance on Other Institutional Support has had a financial impact on the general student body as well. Since the majority of the supplemental funding is composed of the General Use Fee, increased use of Other Institutional Support can be equated to increased use of General Use Fee funds. Figure 4 illustrates the trend over the past four years:

Figure 4

Increasing Fee Levy on Students to Fund Intercollegiate Athletics					
Fiscal Year	Funding Received from Student Services Fees: Cost per Semester Credit Hour	Funding Received from Other Institutional Support: Cost per Semester Credit Hour	Combined Total Cost per Semester Credit Hour	Cost per 12 Hour Course Load	Cost per 30 Hour Course Load
1993	\$2.94	\$1.36	\$4.30	\$51.60	\$129.00
1994	\$2.88	\$1.97	\$4.85	\$58.20	\$145.50
1995	\$2.92	\$2.62	\$5.54	\$66.48	\$166.20
1996	\$2.98	\$3.30	\$6.28	\$75.36	\$188.40

To date, the University's spending has been conservative relative to other Texas public universities with Division I-A football. Total expenditures for athletics in fiscal year 1996, the University's first year in Division I-A football, totaled approximately \$5.6 million, while in the prior year other Texas institutions spent an average of \$12.8 million (see Figure 5).

Figure 5

Total Athletics Spending by Texas Institutions With Division I-A Football			
	Spending (in Millions)	Percentage of Highest Amount	Percentage of Average Texas Expenditures
Highest Amount Spent Fiscal Year 1995	\$19.4	100.00%	151.52%
Lowest Amount Spent Fiscal Year 1995 (excluding UNT)	\$6.3	32.73%	49.59%
Average Spent Fiscal Year 1995 (excluding UNT)	\$12.8	66.00%	100.00%
NCAA National Average Fiscal Year 1993	\$13.0	66.93%	101.42%
UNT Estimated Spending Fiscal Year 1996	\$5.6	28.98%	43.91%

It remains to be seen whether the University will be able to contain its spending for athletics. As management has noted in Figure 6 (see Section 1-C), additional spending will be required to add another women's sport and additional women's scholarships in order to address gender equity issues. Management also anticipates increased expenditures resulting from state mandated tuition increases, Board mandated fee increases, and inflation. It seems reasonable to assume that there will be pressure to spend more money on existing sports in order to for them to become or remain competitive. Travel costs may also rise since the other members of the Big West Conference are located in states such as California, Idaho, Utah, Nevada, and New Mexico.

Management has expressed an intent to cap, and eventually reduce, the Athletic Department's reliance on Other Institutional Support. To date, neither management nor the Board of Regents has set a limit on the extent to which they are willing to commit those funds to support athletics. The widening gap between expenditures and revenues, along with anticipated increases in spending noted above, underscore the need for stringent cost containment and the generation of additional revenues by the athletics program itself. As long as the Athletic Department's reliance on supplemental funding increases, opportunities may be lost to use those other institutional monies for activities more closely aligned with the University's mission.

Recommendations:

- Management should institute stringent cost containment measures for athletics and increase efforts to make athletics more self-supporting and less dependent on supplemental funding.

- Management and the Board of Regents should also establish specific limits on the use of Other Institutional Support to supplement athletic operations.

Management's Responses:

- *The Benchmarks recently approved by the Board of Regents provide appropriate controls for Athletics. Furthermore, we will continue our on-going efforts to make athletics more self-supporting and less dependent on supplemental funding.*
- *The Board has established specific limits on the use of other institutional funds to supplement athletics operations. Specifically, other institutional funds may not exceed 1% of the University's expenditure budget in any given year. In addition, no more than 40% of the Student Service Fee budget may be allocated to Athletics.*

Section 1-C:

Enhance Existing Benchmarks to Relate to Athletic Department Budgets and Achievements

In May 1996 the University was directed by a legislative subcommittee to develop benchmarks for its Athletic Department. The benchmarks represent the University's initial effort to relate Athletic Department expenditures and revenues to overall operations. However, these benchmarks could be improved by more directly relating them to assessments of the Athletic Department's cost effectiveness, adherence to budgets, relationship to other auxiliary enterprise operations, and other performance indicators.

The benchmarks are intended to be used to assist the University in determining whether the move to NCAA Division I-A football is successful from a financial standpoint and to assist in future determinations about changes that need to be made to athletic programs. Management developed five benchmarks measures (see Figure 6) which were approved by the Board of Regents on November 22, 1996.

Figure 6

Benchmark Measures for Athletics						
<p>1. The total expenditure budget of athletics should be maintained at a reasonable level that does not exceed an acceptable proportion of the University's total expenditure budget. Accordingly, the athletic expenditure budget should not exceed 2.75 percent of the University's total budget. It should be noted that certain costs will continue to rise, including: more scholarships for women's sports to address gender equity; an additional women's sport will be added to address gender equity; state mandated tuition will increase; Board mandated fees will increase; inflation.</p>						
	1995	1996	1997	1998	1999	2000
University Budget	\$206,524,274	\$226,923,197	\$254,442,183			
Athletic Expended	\$4,367,386	\$5,627,700	\$5,758,544 (budget)			
Percent	2.11%	2.48%	2.26%			
<p>2. The University recognizes that Athletics is not the only reason that alumni and friends contribute funds to the University. However, the University also believes strongly that I-A level competition in all sports enhances exposure of the University, energizes alumni, and encourages more giving to the University. Accordingly, the University should expect annual giving to the University to rise by an average of no less than 10 percent per year. Furthermore, the amount of annual giving should be compared to the annual amount of other University resources put into the Athletics (Benchmark 5) to determine if the increased commitment of additional dollars to Athletics is showing a benefit.</p>						
	1995	1996	1997	1998	1999	2000
Annual Giving to the University Target			\$4,836,440	\$5,320,084	\$5,852,093	\$6,437,302
Actual	\$3,732,181	\$4,496,764				
Other University Resources Used to Fund Athletics Target			\$2,170,428			
Actual	\$1,643,959	\$2,036,466				
<p>3. Annual athletic revenue can fluctuate significantly from year to year based on game guarantees, win/loss records, etc. Regardless, over time Athletic Department revenue should show an increasing trend, as reflected below.</p>						
	1995	1996	1997	1998	1999	2000
Target				\$1,850,000	\$1,950,000	\$2,000,000
Budget			\$1,750,000			
Actual Income	\$888,999	\$1,753,118				

Figure 6 (concluded)

Benchmark Measures for Athletics						
4. The Higher Education Code specifically authorizes the use of Student Service Fee dollars to support Intercollegiate Athletics. The University expects to continue to rely on the Student Service Fee as a source of funding for Athletics; however, the annual allocations to Athletics from Student Service Fees should not exceed 40 percent of the Student Service Fee revenue budget.						
	1995	1996	1997	1998	1999	2000
SSF Revenue Budget	\$4,639,643	\$4,667,826	\$4,714,569			
Athletics Allocation	\$1,832,112	\$1,838,116	\$1,838,116			
Percent	39.49%	39.38%	38.99%			
5. Annual allocation to Athletics from other University resources (other than major capital improvements) should not exceed 1 percent of the University's total budget.						
	1995	1996	1997	1998	1999	2000
University Budget	\$206,524,274	\$226,923,197	\$254,442,183			
Allocation	\$1,643,959	\$2,036,466	\$2,170,428 (budget)			
Percent	0.80%	0.90%	0.85%			

Benchmark 1 is tied to total University spending rather than to the Athletic Department's expenditure budget or its ability to generate revenues. While the benchmark does limit the amount of the institution's total budget resources to be committed to athletics, the limit includes items, such as capital expenditures and educational and general funds, that do not relate to operating budgets and/or are not available as a resource to be expended on athletics. A better baseline for limiting the Athletic Department's expenditure budget would be a percentage of Unpledged Auxiliary Enterprise funds. These funds are both operational and can be expended on athletics. The same suggestion would apply to Benchmark 5 for the same reasons.

Benchmark 2 compares annual giving to the University to other resources (Other Institutional Support) used to fund the Athletic Department. However, it does not attempt to define a reasonable relationship between these two line items, nor does it correlate incremental increases between giving and other institutional support for the Athletic Department. While the benchmark recognizes that giving comes to the University for a variety of reasons, there is no attempt made to measure how much added giving is the direct result of athletics. Adding a third measure to this benchmark, increases in support for the Mean Green Foundation (the University's athletics booster club), might give a better picture of the support generated by the Athletic Department.

Benchmark 3 does not relate the revenues achieved by the Athletic Department to those budgeted or to increases required from Other Institutional Support due to

shortfalls in revenue projections. Including a measure of the Athletic Department's ability to achieve its own projections might improve accountability.

Recommendation:

Enhance existing benchmarks to focus on the Athletic Department's performance and its success in achieving specified, measurable goals. In particular, benchmark targets relating to revenues, expenditures, and supplemental funding should provide specific goals and target dates, and should be integrated with the department's budget. Benchmark measures should be designed to address management's stated goal of reducing the Athletic Department's dependence on supplemental funding from other areas of University operations. Example measures to consider would be:

- Percentage of growth in the Athletic Department budget
- Percentage of growth or reduction in the use of institutional support funds
- Percentage of growth in giving to the Mean Green Foundation (the Athletic booster foundation)

Management's Response:

We appreciate the Auditors recommendations and will continue to keep them at the forefront as we continue to review our controls over Athletics.

Section 1-D:

Conform to Standard Fund Accounting Principles

The University has historically used its Retirement of Indebtedness fund subgroup as a clearing fund to support a variety of activities unrelated to the servicing of plant fund debt. The use of Retirement of Indebtedness accounts in this manner is not the best application of fund accounting principles, and provides less than full disclosure to users of the financial statements.

The Governmental Accounting Standards Board has defined a fund as

a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources together with all related liabilities, and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

Accordingly, funds are usually available for only one designated purpose.

College and University Business Administration, published by the National Association of College and University Business Officers, states that the purpose of the Retirement of Indebtedness subgroup of an institution's plant funds is

to account for accumulated resources for interest and principal payments and other debt service charges, including contributions for sinking funds, relating to plant fund indebtedness.

Again, this fund subgroup is not anticipated to be used for purposes unrelated to servicing debt used to acquire, improve, or repair plant facilities.

The University has regularly transferred its total General Use Fee collections, as well as monies from Educational and General Funds, Auxiliary Enterprise Funds, and other sources, to the Retirement of Indebtedness fund subgroup. Transfers have then been made from the resulting pool of monies to support activities such as intercollegiate athletics, computer purchases, advancement, the University's capital campaign, and other areas of operation. Disclosure would be improved by directly transferring General Use Fee collections from the Designated Fund group to those operations the fee revenues support and showing these transfers on the primary financial exhibits.

Recommendation:

Only use the Retirement of Indebtedness fund subgroup to account for activities directly relating to plant fund indebtedness. Monies should only be transferred to this subgroup of accounts in an amount sufficient to meet those needs arising from such indebtedness. Other unrelated activities should be financed through direct transfers of funds from the original funding sources.

Management's Response:

After discussions with our Bond Counsel, we believe we can make the appropriate adjustments to our current year revenues to accommodate the Auditor's recommendation. The Auditor should be aware that excess amounts may be transferred to the Retirement of Indebtedness account to insure appropriate reserves are maintained for financial report presentation purposes.

Section 2:

Strengthen Human Resource Controls Over Recruitment, Appraisals, Compensation, and File Documentation¹

Improvement in recruitment and selection processes, job description development, overtime and supplemental compensation administration, performance appraisals, and employee file documentation would strengthen the University's human resource management system.

Human resource expenditures comprise the single largest use of the University's funds. Therefore, appropriate human resource controls have the greatest effect on the efficient and effective use of resources.

Section 2-A:

Require Hiring Managers to Provide Evidence That Candidate Qualifications Have Been Verified

Applicants who do not possess the education, experience, or other requirements necessary for their positions could be hired. The University has a decentralized recruitment and selection process. Individual departments are largely responsible for screening applicants (conducting interviews, contacting references, verifying past employment, and obtaining evidence of education or professional certification). However, no evidence of the results of these screening procedures is contained in the employees' personnel files. Human Resources is not involved in most of the screening process and there are no compensating safeguards to ensure that individual departments are administering the screening process with due diligence.

The University must ensure that applicant information is verified, including but not limited to, work and salary history, academic credentials, professional certifications and affiliations, and personal references. By ensuring screening procedures are performed, the University will help ensure that individuals possessing appropriate credentials fill all positions.

Recommendation:

Departments should be required to verify all applicant information including employment and personal references, education, and professional certifications or affiliations and submit evidence that the procedures have been performed. This

¹ Our review of human resource controls was limited to controls over staff positions and did not include faculty. Although some of the comments contained in this section may be applicable to the faculty, as there are overlapping controls for both faculty and staff, our work did not encompass faculty-related control systems.

information should be included in the selection documentation maintained by the Human Resources Office.

Management's Response:

The University concurs with this recommendation to the extent that it applies to the applicant who is selected to fill the position. Accordingly, appropriate procedures are being implemented.

Section 2-B:

Augment Nonclassified Job Descriptions to Include Minimum Qualifications and Knowledge, Skills, and Abilities

Job descriptions containing minimum qualifications and knowledge, skills, and abilities are not available for all nonclassified/administrative and executive positions. Over 68 percent of the job descriptions for nonclassified/administrative and executive positions reviewed did not include this information. Job descriptions for these positions are developed at the department level and are not monitored by Human Resources.

Analysis of the qualifications and knowledge, skills, and abilities needed for each job is necessary to ensure that the appropriate applicants are selected for positions. This is especially important for nonclassified/administrative positions that require more highly developed and specialized skills. Well-developed job descriptions also serve as a foundation against which to measure employee performance.

Job analysis and appropriate, pre-established criteria related to job dimensions and knowledge, skills, abilities, and other attributes required of the person filling the position should also be used when determining nonclassified positions.

The University currently determines nonclassified position status based on Optional Retirement Plan (ORP) eligibility requirements established in October 1987. Given the basis of the ORP criteria, this may not be the most appropriate system for determining nonclassified positions. The ORP criteria are driven by reporting relationships (report to chancellors, presidents, vice presidents, deans), the method of recruitment (positions advertised in national publications or national association newsletters, etc.), and specific job titles (attorneys, coaches, and librarians).

The University is allowed to make nonclassified position determinations based on internal criteria. An appropriate set of job-specific criteria should be used which recognizes that nonclassified positions represent decision makers. As an example, the University could require nonclassified positions to meet criteria such as, but not limited to:

- Possess specialized education, experience, and skills

- Make broad decisions that impact operations (e.g., budget authority, ability to hire/fire employees, write policy, make large acquisitions)
- Be involved in solving unstructured problems requiring the application of significant independent judgement

Recommendations:

- Augment job descriptions for nonclassified/administrative and executive positions to include minimum qualifications and knowledge, skills, and abilities. This includes the development of an appropriate basis for determining:
 - The roles and responsibilities of its most critical positions
 - The knowledge, skills, and abilities of individuals who will fill those positions
 - The performance of those individuals once they are in the positions
- Determine nonclassified positions supported by an appropriate job analysis and pre-established set of criteria related to job dimensions and the knowledge, skills, abilities and other attributes required of the person filling the position.
- Job analyses and job descriptions for all staff, including nonclassified/ administrative and executive positions should be monitored by Human Resources.

Management's Responses:

- *The University concurs with this recommendation and will implement appropriate procedures requiring the departments and units under each Vice President to have written job descriptions for the nonclassified positions in their area. The job descriptions will include minimum qualifications and knowledge, skills and abilities for the positions.*
- *Under the University's Classification of Jobs policy (Number 1.6.1) and established procedures, all staff positions, including nonclassified jobs, are analyzed, evaluated and monitored by Human Resources to determine proper classification and pay level. However, the University concurs with the Auditor that we can improve our written Classification of Jobs policy to include more specific criteria for determining nonclassified status. The criteria will include the ORP eligibility criteria as well as other appropriate job-specific criteria such as those suggested in the Audit Report.*

- *All job analysis and job descriptions are monitored by Human Resources.*

Section 2-C:

Delete Performance Appraisal Language That Is Difficult to Measure or Define

Several appraisal factors in the current personnel evaluation system are subjective, not job-specific, and difficult to define and measure. Examples of subjective or nonspecific factors include quantity of work, attitude, and dependability. Examples of language that are immeasurable include “uses wise judgement in dealing with students . . .” or “possesses and demonstrates upbeat, courteous behavior while in the public eye.” “Wisdom” and “upbeat” are difficult to define and almost impossible to measure.

The University requires periodic formal appraisals of employees through its Staff Development Program. The *Staff Development Manual* states:

The traditional approach to performance standards (attitude, dependability, cooperation, etc.) are difficult, if not impossible, to define and measure. This traditional method of evaluating an employee is usually too general and not directly related to the work being done. Consequently, the approach to performance management has shifted to the appraisal of performance in terms of results achieved.

These guidelines have not been sufficiently incorporated at the department level. According to University policy, departments are responsible for review and periodic updating of performance appraisals. However, as the department responsible for implementing the Staff Development Program within the University, the Human Resources Department should consider performing a performance appraisal audit. This would include reviewing samples of performance appraisals from several departments to determine what assistance is necessary to develop and maintain appraisals according to the criteria set by the Staff Development Program. The Human Resources Department may need to conduct specific training sessions and perform follow up reviews as well.

Performance appraisals are not always conducted on an annual basis as required by the Staff Development Program and University policy. Seventy-five appraisals (6 percent) were not completed by August 2, 1996, with one-third of all delinquent performance appraisals being concentrated in five departments. An employee from one of these departments had a gap of more than two years between performance appraisals.

Recommendations:

- Delete subjective, non-job specific performance appraisal language that is difficult to measure or define. This may necessitate a process of performing

departmental performance appraisal audits, training sessions, and follow-up reviews.

- Focus audits and training first in departments having a high performance appraisal delinquency rate to bring supervisors into compliance with University policy. Timely completion of staff appraisals should be a performance standard on each supervisor's performance appraisal.

Management's Responses:

- *The University concurs the performance language should be less subjective and job specific. Our Human Resources department will continue to provide performance planning instructions and training to departments to help the University improve in this area.*
- *The University will continue to stress the importance of each department having current performance appraisals. To further strengthen this particular issue the timely completion of staff appraisals will be made a performance standard on each supervisor's performance appraisal.*

Section 2-D:

Develop and Implement Policy to Control Salary Supplements and Monitor Accumulated Payments for Both Salary Supplements and Overtime

During fiscal year 1996, the University made salary supplement payments to several individuals. Some supplements were unusually large, others appeared to be for normal job duties or for taking on responsibilities of vacant positions. The University has no policy limiting the amount of or defining eligibility to participate in salary supplements, which may account for these unusual payments. Similarly, a high concentration of the University's overtime payments have been made to a small group of individuals over the past two fiscal years.

Supplemental/Task Payments - The University has no policy to regulate or monitor supplemental salary payments. There are no procedures to determine who can receive supplemental payments or for what purpose. There is no limit to the maximum amount an individual can receive as a salary supplement. Without a policy in place to regulate salary supplements, there is no consistent guideline to determine whether or not to approve salary supplementation.

In reviewing the explanation for some salary supplements paid to individuals, it appeared the tasks completed should have been part of the normal duties for their position. Three employees of 18 reviewed fell into this category.

Other employees were paid salary supplements to perform the duties of positions that had remained vacant for long periods during the year. When employees are required to perform additional duties for a vacant position, it brings into question when they have time to complete their own duties and how effectively they can function in their positions. Further, it raises questions about the staffing patterns within those departments.

Some supplemental payments to employees appear to be abnormally large. During fiscal year 1996, the combined supplemental payments to three individuals totaled in excess of \$57,000.

Overtime - As derived from Figure 7, overtime payments increased by almost 48 percent for eight positions between fiscal years 1995 and 1996. In general, large overtime payments appear to be concentrated in a few positions. During fiscal year 1996, these eight positions accounted for more than 25 percent of the University's total overtime payments. These same positions accounted for almost 20 percent in the prior fiscal year.

This concentration of overtime pay may be caused by an uneven distribution of extraordinary work opportunities requiring overtime. Excluding other employees in these departments from participating in overtime, with its commensurate 1.5 times normal pay rate, could be construed by the excluded employees as favoritism. This could increase the risk of the University being accused of discrimination.

In some cases, large overtime payments may indicate potential staffing problems. During fiscal year 1996, one employee worked a total of 546 hours of paid overtime, an average of approximately 11.6 additional hours per week. At the overtime rate, this equals being paid for more than two additional days per week for a period of almost one year. Overtime payments added almost 43 percent to this individual's base pay—the equivalent of another one-half full time equivalent employee.

Another employee was paid for 397.5 hours of overtime. At the overtime rate, this equals being paid for more than an extra day and a half per week for the year. Our review of the Human Resources Department's explanation for the overtime revealed the additional hours were expended for what appeared to be normal duties required for the position. This may be a trend for this position since the prior year reveals a similar amount of overtime paid to this individual.

Figure 7

Large Fair Labor Standards Act Non-Exempt Overtime Payments			
Position	Fiscal Year 1995	Fiscal Year 1996 (as of August 6, 1996)	Total
Facility Worker - Coliseum	\$ 4,033.60	\$ 4,321.92	\$ 8,355.52
Electrician II - Physical Plant	5,200.66	6,099.85	11,300.51
Electrician II - Physical Plant	425.13	6,414.47	6,839.60
Refrigeration Mechanic II - Physical Plant	6,127.83	6,965.12	13,092.95
Asst. Plumbing Supervisor - Physical Plant	6,402.32	8,981.64	15,383.96
Administrative Assistant I - Admissions	4,154.50	5,868.54	10,023.04
Admissions Specialist - Admissions	6,556.05	3,791.26	10,347.31
Accounting Technician - Claims Accounting	\$ 1,800.00	\$ 8,856.62	\$ 10,656.62
Total	\$ 34,700.09	\$ 51,299.42	\$ 85,999.51
Total Overtime Payments	\$ 204,556.36	\$ 192,615.01	\$ 397,171.37
Percentage of Total Overtime Payments	16.96 %	26.63 %	21.65 %

Recommendations:

- Develop and implement policy for payment of salary supplements to include such items as eligibility, limits, and authorization for payment.
- Charge the Human Resources Department with carefully monitoring overtime and supplemental payments to determine if payments appear to be excessive or indicate possible underlying problems.

Management's Responses:

- *The University concurs with this recommendation and will develop a written policy.*
- *The University concurs with this recommendation and will implement appropriate procedures.*

Section 2-E:

Discontinue the Practice of Hiring Individuals at Salaries Different From Postings

Applicants have been hired at higher salaries than those listed on the job postings. With approval from the Human Resources Department, departments can offer higher salaries to an applicant if they consider the applicant outstanding compared to the other

applicants, or as a negotiating tool to get the applicant to accept the job. Nine employees were hired at a salary/rate above the posted salary during the first 10 months of fiscal year 1996.

When individuals are hired at salaries in excess of those listed in the job posting, it increases the risk that a population of more highly qualified applicants was excluded from the hiring process. Individuals who may not have considered applying for a position at the lower posted salary may have applied at the higher salary. The University also increases its liability of being accused of discrimination. Posting jobs at a lower rate than the salary eventually offered can give the appearance of preselecting an individual candidate by soliciting a less qualified applicant pool for the individual to compete against.

Additionally, a classified staff position was downgraded from a higher position to the next lower position to hire a candidate not qualified for the position originally posted. This practice can have the same negative results as hiring at above the posted salary and should be reposted. A position range can be offered to provide more flexibility for the hiring department.

Recommendation:

Positions should be reposted at the desired salary or position resulting in a new applicant pool if a satisfactory candidate cannot be selected at the posted salary or position. Positions can be posted at a position range or salary range so that all candidates are aware of the floor and ceiling limits of the posted position.

Management's Response:

The University concurs with this recommendation and has already implemented the appropriate procedures.

Section 2-F:

Identify and Complete Documentation Necessary for Employee Personnel Files

The Human Resources Department is working toward achieving consistent documentation for personnel files. A checklist for required documentation in the personnel files has been in use for about three years. Additionally, controls over records containing sensitive or confidential information appear to be working properly. However, during testing it was observed that some personnel files do not contain all of the applicable documents according to the Standard Checklist (documents determined as necessary to the personnel files by the Human Resources Department) or University policy.

Additionally, according to University policy, documentation of disciplinary action should appear on a UPO-19 Counseling Memo form, be signed by the recipient of the action, and retained for one year in the employee file. Personnel file tests revealed the UPO-19 form was not consistently contained in the appropriate files as required by University policy. A memorandum was sometimes substituted for the required form and confirmation signatures of the disciplined staff members were missing from some of the UPO-19 forms or memorandums.

Inconsistent documentation in the personnel files results in less efficient retrieval of important information. This may lead to errors and/or incorrect decisions affecting personnel due to missing, inappropriate, or incomplete forms.

Recommendation:

Enhance efforts to consistently maintain personnel files according to University policy and Human Resources Department guidelines. Create a review cycle for the personnel files of staff having long service records whose files may not have been updated in several years. As necessary and feasible, supplement these files with required information.

Management's Response:

The University concurs with this recommendation and will implement the appropriate procedures.

Section 3:

Improve the Board Oversight Process

Board members are highly committed to fund raising, promoting the University, and ensuring educational excellence for the students. However, there are a variety of challenges and opportunities facing the University. This would be an ideal time for the Board to take the time to refocus on goals, priorities, and its role in the University's future success.

Board members have, for the most part, been diligent in their commitment to attend quarterly Board meetings. However, one current member and another former member have missed a significant number of meetings. A recommitment of the full Board's energy to attend meetings would be appropriate.

Information provided to the Board in support of major decisions has in some instances been incomplete, formatted in a way that was not easily understood, or did not present a balance of benefits and risks.

The Board is the ultimate control over the University's long range direction and success. Effective Board processes will help to ensure the mission, goals, and priorities are achieved.

Section 3-A:

Board Members Should Conduct a Retreat to Refocus on Their Role

In face-to-face interviews with seven of the Board members, as well as in written surveys completed by five members, these individuals expressed clearly their commitment to promoting and raising funds for the University. Their commitment to excellence in education at the University was also evident. However, there are a variety of diverse challenges and opportunities facing the University.

The University is at a historical crossroad in many ways. It is about to embark on a major fund raising campaign, it has moved up to NCAA Division I-A football competition, it has the largest construction program in 35 years currently underway, enrollment projections predict an increasing student body, and the commitment to address cultural diversity is more pressing than ever. This would be an ideal opportunity for the Board to take the time to review its goals, priorities, and role in achieving the University's future success.

National training groups exist to assist university boards perform self-assessments, conduct retreats, and provide mentoring/facilitation for discussion of future plans. This approach might be of great benefit to the University of North Texas Board of Regents.

Recommendations:

- Consider engaging an outside facilitator to assist the Board in refocusing its role and responsibility in discharging the oversight over the two component institutions. A retreat or some other forum for conducting a self-assessment and reviewing priorities may assist in achieving this end.
- Commit to periodically review Board roles with the objective in mind that the Board stays current on institutional priorities and the changing operating environment.

Management's Responses:

- *The Board has held retreats in the past, and will continue to do so in the future to help strengthen its ability to provide appropriate oversight over the University and the Health Science Center. The use of a facilitator will be considered by the Board.*

- *The Board fully recognizes the importance of this issue and will continue to provide appropriate oversight relative to institutional priorities and operating environment.*

Section 3-B:

Board Members Should Reaffirm Their Commitment to Attend Meetings

Over a five year period from fiscal year 1992 to fiscal year 1996,² the Board members were, for the most part, diligent in attending the quarterly Board meetings. Four current members had perfect attendance, two attended more than 90 percent of the meetings, and two others attended 85 percent of the meetings. However, one current member has attended 57 percent of the meetings. In addition, a former member, part of whose term was included in our review, attended 69 percent of the meetings during that period.

In face-to-face interviews with the Board, several members recognized the key role the public meetings play in carrying out their duties. Members also pointed out the activities they participate in to both govern and promote the University. Board members attend fund raising events; host gatherings for the purpose of garnering support for the University; attend events on campus to recognize outstanding faculty, students, and friends of the University; and communicate frequently with the administration on matters of concern to the University. From these comments it is clear that much of the members' work takes place outside the formal Board meetings.

However, Board meetings are the setting in which Board members exercise their oversight by deliberating in committees and voting in full session on measures proposed by the University's administration. It is also the setting in which the Board hears the concerns and input of the public. In their absence, no record exists of their deliberation of decisions, or their voice in selecting those measures that will be approved. A Board member's absence signifies a void in both the public record and in the actual governance of the institution.

Recommendation:

The Board should consider including in its by-laws specific recognition of the importance of attending Board meetings and the commitment of each Board member to attend the greatest number possible.

² We reviewed both full Board meetings and teleconference meetings. Both types are Open Meetings. Because of the staggered terms Board members serve, our review encompassed 12 Board members: 9 current members and 3 former members.

Management's Response:

The Board concurs with this recommendation and will add the appropriate language to the by-laws.

Section 3-C:

Improve Information Provided to the Board

Information provided to the Board in support of major decisions has in some instances been incomplete, formatted in a way that was not as easily understood as possible, or did not present a balance of benefits and risks. We reviewed three major decisions to determine the level of analysis and information the University's administration would normally provide to the Board in support of major new initiatives:

- The decision to move up from NCAA Division I-AA football competition to Division I-A competition
- The decision to increase the General Use Fee from \$12 per semester credit hour to \$19.75 per semester credit hour
- The decision to construct a Music and Fine Arts Education Building containing two large performance facilities

The comments and analysis that follow are not intended to imply that information provided to the Board was not on the whole adequate to base decisions on. It is presented to assist University management in beginning to think about new and better ways to provide information. We are also not questioning the decisions undertaken by the Board. We do not doubt that a good deal of thought was put into these decisions.

Decision to Move to NCAA Division I-A Football - On October 18, 1993, the Board was asked by the University administration to approve a measure to add 10,500 seats to the Fouts Field football stadium. As recognized by the Board in survey responses, approval of this measure was tantamount to approval for the University to pursue moving up to NCAA Division I-A football.

Virtually no financial analysis was presented to the Board in support of this decision. The only "financial analysis" provided to the Board was a one-page statement projecting revenues and expenditures for the 1995 football season under a Division I-AA scenario and a Division I-A scenario. The projection dictated \$503,000 in self-generated revenues and allowed for \$1,057,236 in expenditures, thus requiring \$554,236 in other support. Actual revenues and expenditures for the calendar 1995 football season were \$913,704 and \$1,589,789 respectively. This equate to \$676,085 (22 percent higher than projected) that had to be made up in other support.

We found no evidence to indicate the University provided the Board with any review of revenues and expenditures for other Division I-A football programs, either in Texas

or elsewhere, prior to recommending the move to Division I-A to the Board. In addition, there is no evidence that the University provided the Board with a review of the financial impact on other Athletic Department programs over time of moving to Division I-A football. Overall expenditures for the Athletic Department were \$3.5 million the year before the decision was made. Overall expenditures increased 57 percent to over \$5.5 million last year. Therefore, the fiscal impact of this decision has been considerable.

We found no evidence that the University provided the Board with any market studies to indicate the availability of advertising revenue, corporate sponsorship, alumni support dollars, or other sources of potential revenue for the program. We found no evidence that the University provided the Board with any time frame for making the football program or other elements of the Athletic Department self-sufficient or limits on the amount of other support that would be required.

The University joined the Big West Conference and began conference play in the 1996 football season. Again, we found no evidence that the University provided the Board with a review of revenues and expenditures of the other schools in the conference.

Decision to Increase the General Use Fee - On May 31, 1996, the Board was asked to approve a \$7.75 per semester credit hour increase in the General Use Fee charged to students. The increase would generate an additional \$4.65 million in annual revenues. In support of this decision the Board was given an analysis of how the additional revenues figure was derived as well as narrative descriptions of several uses to which the added revenue would be applied. However, the University did not provide the Board with a statement clearly displaying both the amount of added revenue and the concurrent amount of line item expenditures to be made with the additional revenue.

The Board was asked to approve the fiscal year 1997 University budget at the same meeting. The Board did receive an executive summary of the proposed budget containing areas of increased expenditure anticipated in fiscal year 1997. The executive summary contained nine areas of increased expenditure to be covered by the additional General Use Fee revenue. For eight out of nine of these areas the source of funding was not identified in the executive summary. One proposed use of the added General Use Fee revenue, \$89,000 to be dedicated to advancement, was completely omitted from the document.

Although Board members did not express difficulties with the information as presented, a one-page financial statement displaying estimated revenues and budgeted expenditures would have more clearly and concisely advised the Board of fee uses. This format would not only have been simpler to use but would have ensured the advancement item was not omitted.

Decision to Construct a Music and Fine Arts Education Building³ - On February 10, 1995, the Board was asked to approve a motion to construct a Music and Fine Arts Education Building with a total project cost of approximately \$15 million. The main source of information provided to the Board in support of this motion was a document known as a Program Statement. The Program Statement lacked an appropriate needs or utilization analysis to support one of the main justifications for building the new facility.

One of the primary reasons to build the Music and Fine Arts Building is to add two large performance venues to the campus—these venues would be the centerpiece of the new building. The Program Statement notes in several places that the University lacks a performance venue capable of holding a large ensemble concert.⁴ The Program Statement also states that the Music Department offers over 1,000 concerts and recitals per year.

As defined in the Program Statement, a large ensemble includes such groups as the University Band, Concert Band, Symphonic Band, Wind Ensemble, Chamber Winds, Marching Band, Basketball Band, Drum Line Percussion Ensemble, University Orchestra, Chamber Orchestra, and Opera Theatre. Clearly, some of these groups, such as the Marching Band, Basketball Band, and Drum Line Percussion Ensemble would rarely, if ever, perform in the new building. Why these groups are included in the justification for the new facility is unclear.

To try to determine the frequency of large ensemble performances, we reviewed program books (lists of performances) and the most recent calendar of events provided to members of the University community to alert them to upcoming concerts on campus. In reviewing these documents, we found that somewhere between 125 and 155 of the on-campus performances might be considered “large ensembles.” The remainder of the 1,000 concerts and recitals represent student performances, most of which may not have the size or drawing power of a large ensemble.

The two performance venues in the Music and Fine Arts Education Building account for 31,000 square feet of the 72,500 square foot facility (approximately 43 percent of the total). Allocating construction and other related costs based on square feet, the price of the two performance venues is \$6.4 million. (This allocation is probably conservative given that performance areas are more costly to build than classrooms or office space.) As such, the performance areas are a significant investment of resources. Despite the size of the investment, the Board was not provided with a detailed analysis of the need for or use of this space. Our review suggests that the information provided to the Board was incomplete.

³ There is an additional level of review over construction projects in higher education. The Higher Education Coordinating Board reviews all submissions for new buildings and holds hearings to determine the need for these facilities.

⁴ The lack of a large ensemble venue had previously been noted in two accreditation review reports by the National Association of Schools of Music.

Use of Independent Sources of Information by the Board - Four out of five of the Board members surveyed indicated they only consult University administrators when they have to make decisions involving areas where they have no training or experience. While there is no question of the honesty of the University's administration, there may be a natural bias toward information that supports its recommendations for action. Use of Board members' outside contacts as an additional source of information and guidance would provide the Board with greater assurance the benefits and risks associated with major decisions are adequately balanced.

Recommendations:

- Improve the quality of information and analysis provided to the Board to include market analysis, potential revenue alternatives, ranges of revenues and expenditures, comparative analysis with peer institutions, need and use analysis, and full cost data as appropriate.
- The University should present financial information to the Board in a clear and concise format that minimizes possible confusion and omissions.
- Board members should use the expertise of outside contacts to increase access to independent information.

Management's Responses:

- *The University works diligently to provide the most pertinent and relevant information to the Board. We appreciate the Auditor's suggestions and will keep them in mind as we prepare future presentations.*
- *The University consistently strives to provide accurate and concise financial information to the Board. We appreciate the Auditors recommendation and will work on improving presentation materials.*
- *The Board always considers the use of individual contacts and outside consultants when circumstances warrant.*

Section 3-D:

Improve Documentation and Retention of Materials Related to Board Decisions

In reviewing the available materials to support both the decision to move up to NCAA Division I-A football competition and to build the new Music and Fine Arts Education Building, we encountered a lack of support documents that would have been given to the Board. In addition, we encountered a lack of documentation of the Board's

questions or other deliberations related to these decisions. Board minutes do not contain any indication of the discussions among Board members.

Management reports that information was supplied to the Board through numerous telephone calls, electronic mail messages, and face-to-face conversations during the time frames when these two decisions were being considered. However, none of the conversations or electronic mail messages appear to have been documented. Since these are major decisions, and ones that will have long-term impact, it would seem reasonable to create and retain sufficient documented support of the decision-making process.

Recommendations:

- Board minutes should contain reasonably detailed information to preserve discussions and analyses that address important decisions.
- Verbally and electronically communicated information with Board members concerning important decisions should be documented and distributed for the benefit of all Board members whenever possible.

Management's Responses:

- *The Board will review its procedures to insure that appropriate minutes are maintained.*
- *The University does not communicate with the Board by e-mail. In any case, the University will review its documentation procedures relative to communications with the Board, to determine if certain areas can be improved.*

Section 4:

Add Necessary Elements to Complete the Strategic Plan, and Develop Benchmarks to Measure Progress Toward Goals

While the strategic planning process is generally effective, opportunities exist to improve certain aspects of it:

- The strategic planning process does not include well-developed operational planning or evaluation of plans to ensure quality of content and coverage of all University goals and objectives.
- Performance measures have not been distributed to all levels of the organization responsible for planning.

- No benchmarks or allowable deviation rates have been established to evaluate progress on the annual planning priorities, with the exception of the LBB benchmarks and the performance targets developed for enrollment.
- Some standard forms are currently in use, but no comprehensive documented procedures exist for departments to use in drafting their plans.

In its efforts to refine the strategic planning process, the University has identified most of the gaps within the system and has already begun to develop and implement improvements to the process.

Strategic planning and performance measurement are, respectively, the road map and the yardstick to determine the University's future direction and whether the mission is being achieved. Enhancements to these processes will aid in setting the correct course over the long term and determining if results are achieved.

Section 4-A:

Include Time Lines, Responsibility Assignments, and Needed Resources to Achieve Strategic Goals and Objectives

Only four of the seven strategic plans tested included any of the operational details necessary to accomplish goals and objectives. For example, one departmental plan included approximate cost data, but only for 2 of the 18 objectives listed. Another plan had a target implementation date, but only for 1 of the 63 action items listed. In addition, two other plans included time lines for 46 percent or less of the strategies listed. Other than the few operational items mentioned above, these plans did not specify the resources, responsible parties, or time frames for accomplishing intended outcomes.

An effective operational plan should specify resources to be used, procedures and tasks to be performed, sequence of steps to be followed, individuals to perform the tasks, and timetables for completion. However, University planners appear to believe that formalizing and documenting operational planning on this level would be unnecessarily cumbersome and too time consuming to maintain. For plans to be effective, they must be well thought out, documented, and they must contain enough operational detail to ensure that all divisions and departments are held accountable to meet their stated goals.

Recommendation:

To the greatest extent possible, require that all divisional and departmental operational plans specify resources to be used, procedures and tasks to be performed, sequence of steps to be followed, individuals to perform the tasks, and timetables. As future iterations of plans are developed, divisions and departments should include a greater level of detail based on past experience.

Management's Response:

Additional ways to provide greater specificity on action steps will be considered and incorporated as determined feasible.

Section 4-B:

Create Strategies That Will Accomplish Objectives, Goals, and Priorities

The quality and content of the strategic planning items—strategies, objectives, goals, and priorities—varied greatly within the University. Some plans contained strategies and objectives that did not relate to or adequately address the goals and/or priorities. For example, one academic planning objective is “to recruit, develop, reward and retain at all program levels a distinguished and diverse faculty who achieve a balance among teaching, research/creative, and service activities.” However, none of the plans tested (that would have responsibility to address this objective) contained strategies directly addressing recruitment.

Other divisional/departmental plans contained goals which did not link to the University strategic plan. For example, one plan contained the goal to “improve athletic fields for physical development of the students.” Improving the physical development of the students is not a goal, objective, or priority of the University. Another plan described resource needs of a department and the risks to the University if those needs are not met. However, the plan did not describe means to accomplish the objective for which those resources would be required. Without quality plans the University cannot ensure achievement of departmental and institutional goals, objectives, and strategies.

Recommendations:

- Provide department heads or others responsible for drafting plans with additional training on appropriate planning elements as well as the necessity to address institutional goals and priorities.
- Enhance the review process at the provost, vice president, and dean level. If this is not practical, delegate additional review responsibilities to individuals within the University who are knowledgeable about the planning process.

Management's Responses:

- *Additional training sessions will be provided through the Offices of University Planning and Human Resources.*

- *To the extent practical, time tables set for submitting unit planning initiatives and budgets will be set to provide more time for review at the provost, vice president, and dean level.*

Section 4-C:

Disseminate Plans to All Levels and Review Departmental Plans to Ensure Coverage of All University Goals and Objectives

Discussions with line managers and a review of the institutional strategic plan assessment for fiscal year 1995 indicate the institutional performance measures are not communicated to some managers and supervisors below the vice president and dean level. Since all divisions/departments are not aware of the institutional performance measures, they may not collect all the pertinent data needed to make performance assessments. Annual assessment reports prepared by different departments were in a variety of formats, and some reports were more comprehensive than others. As a result, the University Planning Council (Council) task force had difficulty compiling an accurate and comprehensive institutional assessment report. Internal memos from the task force state that several measures included in the institutional assessment contained missing or incomplete data.

The University uses a top-down, bottom-up approach in its strategic planning process. Institutional information is conveyed up from the departments to the University Planning Council. The Council is composed of a representative cross section of the University community. The Council members disseminate instructions and institution-wide measures to their staffs and/or departments through a variety of avenues, using their own judgement about the most appropriate means. Some Council members apparently do a more thorough job of distributing this information than others.

The University has made appropriate adjustments to enhance the strategic planning process. For example, the Council task force adopted a uniform annual report format for the upcoming reporting period. However, additional controls are necessary to keep the strategic planning process moving forward, especially in the assessment area.

Members of the University Planning Council report that the subcommittee on "Progress Toward Meeting University Goals and Objectives" does not perform a detailed review of departmental plans to determine if all the University's goals have been adequately covered. Members of the University Planning Council and the subcommittee with responsibility to review institutional progress reports state that the question of reviewing departmental plans to determine adequate coverage has never been brought up.

Many of the divisional and departmental reports do not contain an assessment of every strategic planning item the unit is responsible to accomplish (i.e., strategies, objectives, goals, and priorities). Most of the reports consist of highlights of each division's accomplishments and/or actions taken related to the broad institutional priorities.

However, there is no assessment at the detail level. In the absence of a detail-level assessment, the University cannot determine the quality of the original strategic plan, progress toward completing institutional goals, or how to effectively plan for the future.

The State Auditor's Office audit of the University's Legislative Budget Board mandated performance measures and the verification of these measures performed by the Higher Education Coordinating Board function as "quality assurance" work over measurement data. This data represents University-wide information and is used in conjunction with other externally "certified" data (such as Higher Education Coordinating Board enrollment data) to measure institution-wide progress in a variety of areas.

However, qualitative data reported by departments is not routinely, independently reviewed for accuracy or completeness. Therefore, it cannot be determined if the institution is reporting reliable performance measurement information. The chair of the task force to review institutional progress and the chair of the Council both state that responsibility for performing quality assurance over reported assessment data has never been brought up. The Planning Office primarily relies on the vice presidents, deans, and other management to accurately and completely report necessary departmental data.

Recommendations:

- Further develop the strategic planning process as follows:
 - Disseminate necessary information to all relevant personnel involved in the strategic planning process.
 - Institute a comprehensive monitoring and assessment system to review strategic plans, for example:
 - Each department should produce a report that states how well it has met every goal, objective, and strategy in its strategic plan.
 - The divisions should take the department reports and put all of the department results (accomplished or not) into the division plan and produce a similar report summarizing the results of the divisions, with the department plans as backup.
 - Assign responsibility of ensuring quality assurance of strategic and assessment plans to an appropriate level of management.
- Conduct a comprehensive review of the current data collection and information system. All systems that support performance measure data

collection should have effective controls to provide reasonable assurance that the information is properly collected and accurately reported. An effective internal control system contains checks and balances to ensure the integrity and accuracy of the information produced and should be designed at the time measures are developed. The extent to which particular controls should be developed is determined through a balance of the controls needed to ensure accurate information and the cost of developing the controls. Consider the following when developing these controls:

- Prepare written guidelines which detail who is responsible for reviews and at what frequency reviews are to be performed.
- Conduct periodic reviews or control assessments of information submitted by third parties.
- The registrar or a manager should review calculation of the performance data to ensure that the calculation is consistent with the measure definition and to check for mathematical errors.
- Evidence should exist to prove that reviews were conducted (i.e., initial/date of the review).

Management's Responses:

- *The University's current method of distributing information on planning will be maintained and the effectiveness of that method of distribution will be continually assessed. Beginning in 1995, the planning system required that units submit plans with budget requests and prepare annual reports to show progress toward implementing planning initiatives. Since this process has been in place for a short time, it will be continued and monitored for effectiveness and appropriate changes will be made as required.*
- *The committee of the University Planning Council that uses data to assess progress toward meeting planning goals and priorities has begun to review the selected measures. Those that produce data that cannot be verified will be considered secondary. Since the majority of quantitative data used in making those assessments are enrollment data already verified by an outside source, no additional controls are needed for some measures. The Planning Office will work to establish other review processes as needed.*

Section 4-D:

Develop Measures and Benchmarks to Assess Progress Toward Meeting Goals and Objectives

With the exception of the Legislative Budget Board benchmarks and the performance targets developed for enrollment, no benchmarks or targets have been established to evaluate progress on the annual planning priorities. Some departments have attempted to establish benchmarks or performance targets; but no data has been collected to show actual results. Furthermore, other than the deviation rates set by the Legislative Budget Board, no other allowable deviation rates have been formally established for either institutional or departmental measures. Management reports that measures are reviewed over time for possible trends. Management believes that since it knows the history of the measures, unusual fluctuations would be noticed and questioned. However, without pre-established allowable deviation rates for measures, management is relying on institutional memory rather than a standard to evaluate performance.

Management reports that data gathered in fiscal year 1996 will be the basis for developing benchmarks in the future. Management also acknowledges that accepted benchmarks for institutions of higher education have not been widely adopted. We commend University management for its efforts to begin to develop these tools.

Recommendation:

Improve program evaluation by identifying and documenting specific benchmarks and targets for measures used to assess the University's progress. In addition, identify, document, and set standards for deviation rates. In evaluating results, consider the following questions:

- Is the variance relevant to successful achievement of the goal or strategy?
- Do external factors affect performance to the extent that targets may not be met?
- Is the variance due to a faulty projection of performance?
- Are there unanticipated effects resulting from the variation?

In addition, the reasons for the variances between planned and actual performance should be determined and used as a basis to adjust the strategies used to accomplish the University's goals and objectives.

Management's Response:

The University will continue to work toward improving its benchmarking process and will take into consideration the Auditor's suggestions.

Section 4-E:

Develop Consistent Policies and Procedures for Developing, Implementing, Monitoring, and Evaluating Strategic Plans

The University Planning Office has not developed a comprehensive set of policies and procedures for departments to use in drafting their plans. There are some standard forms currently in use. Additionally, the criteria set by the University Planning Council subcommittee in developing the performance measures were not documented. Documented policies and procedures are integral to the University's planning and evaluation process to ensure consistent quality of departmental and institutional plans and assessments.

Recommendation:

The University should develop and document policies and procedures for departments to use in drafting their strategic plans. These policies and procedures must be effectively communicated to staff and routinely monitored to ensure that policies are consistently implemented.

Management's Response:

Formats for submitting plans are communicated through appropriate management channels. Future changes in procedures will be appropriately shared and documented.

Section 5:

Move Toward More Risk-Based Internal Audit Planning and Budget Allocation, and Specify Finding Elements in Audit Reports

The annual internal audit plan is primarily based on allowing the Internal Audit Department (Internal Audit) to respond to management requests and other administrative tasks rather than on risk assessment. Less than one-third of the available audit hours have been allocated as a result of planning in each of the last two years. Audit reports sent to the Board do not contain enough detail to allow the reader to understand the results of Internal Audit's work. Professional standards dictate that certain elements should be contained in audit findings.

Internal audit is a key tool in management's efforts to detect and mitigate risk. Improvements to the internal audit process can assist management in ensuring control systems function as intended.

Section 5-A:

Allocate More of the Internal Audit Plan and Hours to Direct Service Based on Risk Assessment

Internal Audit's annual audit plan is based on allowing the maximum "flexibility" to respond to management requests and other administrative tasks rather than on the annual risk assessment. In fiscal year 1996, only 3,000 person-hours out of a total available hour budget of 13,018 were based on risk assessment. This equates to approximately 24 percent. In fiscal year 1997, 4,490 person-hours out of a total available hour budget of 12,651 represent planned audit activities. This is approximately 36 percent.

Moreover, in fiscal year 1996, 5,369 hours (41 percent of total available) were budgeted to administration. In fiscal year 1997, 5,309 hours (42 percent of total available) are budgeted to administration. The administration time includes the director's time, approximately one-third of the audit manager's time, and approximately 85 percent of the quality assurance individual's time. These time allocations are devoted to the running of the Internal Audit Department, response to peer review, production of quarterly audit reports to the Board, and other duties that benefit Internal Audit.

However, each of the four staff auditors is also allocated administrative time. In fiscal year 1996 this allocation equaled an average of 25 percent of the staff auditors' available hours. In fiscal year 1997, this allocation equates to an average of 26 percent of the staff auditors' available hours. Consequently, the staff auditors are expected to spend more than a full day each week on administrative tasks. These tasks include reading technical materials, attending meetings, and other duties intended to provide background knowledge on the University's operations.

Internal Audit has made a conscious decision to leave open to management request a large portion of the available hours. In fact, these hours are allocated first, and only the remaining available hours are allocated based on risk assessment. The Institute of Internal Auditors states in its *Standards for the Professional Practice of Internal Auditing*:

Risk assessment is a process that is crucial to the development of effective audit work schedules. The risk assessment process includes identification of auditable activities, identification of relevant risk factors, and an assessment of their relative significance.

This view is supported by the Texas Internal Auditing Act (Act). The Act states that a program of internal auditing will include "an annual audit plan that is prepared using risk assessment techniques and that identifies the individual audits to be conducted during the year." While Internal Audit is using risk assessment in its annual plan, the risk assessment does not account for a majority of Internal Audit's resource allocation.

When audit resources are not allocated based on risk, audit resources may be spent in areas of less importance, maximum value may not be obtained from those resources, and significant risks may go unaddressed. In addition, Board members may not have information about the trade-offs being made when management requests require Internal Audit to delay reviews of areas identified in the risk assessment process.

Recommendation:

- In advance of the annual audit planning cycle, the Board, University management, and Internal Audit should collectively agree on risks the University faces. Those risks should be evaluated, and consensus reached among these parties as to which risks are considered the most significant. The annual audit plan should then be established directing audit resources to the areas of most significant risk. The audit plan should specify each audit to be performed, the type of audit, and the estimated number of hours to complete the audit work.
- A formal procedure should be established for the handling of audit requests after the audit plan has been formulated and approved by the Board. All requests should be subjected to risk evaluation using the same process that gave rise to the audit plan. Any substitutions to the audit plan should be formally approved and documented. The Board and University management should formally acknowledge that they are aware of and accept the risks inherent in approving those substitutions. A process should also exist for disposing of requests not acted upon by Internal Audit.
- The allocation of available hours between direct audit activities and administrative activities should be reassessed, particularly with respect to field audit staff. Consideration should be given to charging more hours directly to specific audits where possible, rather than to the administrative function.

Management's Responses:

- *We will develop and implement a method to document the collective agreement by Internal Audit, University management and the Board on the universe of risks the University faces. The Audit Plan will reflect those areas determined by consensus of these parties to be of most significant risk. The Audit plan will continue to specify audits to be performed, the type of audit, and the estimated number of hours necessary to complete the assignment.*
- *A more formal procedure will be established and documented to evidence the review and collective approval of Internal Audit, University management and the Board for audit requests after the Audit Plan has been approved by the Board. These requests will be subjected to the same risk evaluation used in developing the Annual Audit Plan. Changes, additions, substitutions and*

deletions, to the Audit Plan will be formally documented and approved by University management and the Board, thus acknowledging their acceptance of the risks inherent in making such changes.

- *Although we do monitor and review the allocation of available hours between direct audit and administrative activities, we will reassess and redesign our methodology to maximize the number of hours charged to direct audit activities.*

Section 5-B:

Ensure Written Findings Contain Attributes Required Under Professional Standards

Reports provided to the Board do not contain information to allow the reader to understand the results of the Internal Audit Department's audits. Many of the reports simply state that work has been performed, concerns have been identified, and recommendations have been made, with no further elaboration. One report had a recommendation that did not relate to the condition noted in the report. The following specific examples illustrate the concern:

- Internal Audit conducted a review of software in use at various departments. Internal Audit reviewed software loaded on computer devices and asked for proof of licensing or ownership of the software as maintained by the users. However, the report simply mentioned that the University did not have a policy regarding the use and ownership of software and did not reveal the results of the review. As piracy and use of unlicensed software has potential legal liability implications, this information would have been useful to the Board.
- Internal Audit reviewed a \$900 cash loss at the Bursar's Office. The audit report stated that Internal Audit had identified contributing factors to the loss, had discussed cash handling control criteria with the Bursar's Office, and had made several recommendations. The report concluded that certain procedural changes had been implemented and a further review would be conducted. The report did not state whether or not Internal Audit had been able to identify the cause of the loss or what the contributing factors had been.
- In an audit report from a review of the Accounting Department, Internal Audit noted purchase orders and interdepartmental orders that were given approval by someone other than the account holder. This is contrary to University policy. However, none of the ensuing recommendations addressed approvals by individuals without signature authority for accounts.

The *Standards for the Professional Practice of Internal Auditing* (Standards) state that a signed, written report should be issued after an audit examination is completed. The Standards state that findings should be based on criteria, the condition the auditor

found, the cause (the reason for the difference between the expected and actual conditions), and the effect (the risk or exposure the organization and/or others encounter because the condition is not the same as the criteria.). The Standards state that recommendations are to be based on the auditor's findings and conclusions.

In addition to the requirements imposed by the *Standards*, written reports must contain a minimum amount of information in order to be useful. Written reports can provide valuable information to readers beyond the immediate auditee and the Board if written thoroughly.

Recommendation:

Internal Audit should devote more effort to ensuring that Board reports contain all required elements. At the minimum, written reports should provide sufficient detail to allow an uninformed reader to understand the procedures performed and the significance of the results obtained, along with sufficient additional detail to provide a compelling argument for the recommendations offered.

Management's Response:

We will meet with the Board and University management to review our reporting strategies and methodologies to assure the Board is properly informed of audit activities and results.

Section 6:

Improve Planning, Implementation, and Review Methodology Over Automated Resources

The University recently committed to obtain an Automated Purchasing and Accounts Payable system (APAP). In preparing comparative cost scenarios to determine whether to buy an existing vendor package, contract for custom development, or develop the system in-house, the University did not include the salary and benefit cost of in-house programming staff.

The work plan for the APAP system also does not specify detailed assignments, test dates, deliverables, or review points. The System Development Methodology (SDM) employed by the University for APAP and all automated systems, does not identify a time or responsible party to perform post-implementation review of new systems. The University invested over \$25 million in information technology during fiscal years 1994 and 1995.

Section 6-A:

Perform More Complete Cost Comparisons When Making Acquisition Decisions

The University has recently decided to develop an Automated Purchasing and Accounts Payable system (APAP) using internal programming staff rather than purchasing a vendor package or contracting for custom development. The University estimates the system will cost \$527,000 to develop and implement in-house. However, the University did not complete a detailed cost analysis to include staff programmer time that will be committed to the project. The University estimates it will require between 64 and 90 person months to program the new system. Using an average salary and benefit cost of \$4,000 per month, this equates to a commitment of \$256,000 to \$360,000. With salary and benefit cost included, the project cost rises to between \$783,000 and \$887,000.

According to the Department of Information Resources' *How to Conduct a Feasibility Study*, an organization should include the following in its analysis of alternatives:

It is important to include the costs of any internal agency resources, such as personnel and processing time, that would be required to implement an alternative. Be consistent in defining the costs associated with each alternative, as you will need to be able to compare the costs of one alternative with those of another Once you have identified the costs associated with each alternative, you must do a detailed cost analysis. This analysis will allow you to compare the costs of the alternatives.

The reason the University did not include programmer time in analyzing the options of building the system in-house, purchasing a vendor package, or contracting for custom development is that management made the assumption that the programmer time commitment would be the same in all three scenarios. The University believed that prior experience in purchasing vendor systems and developing new systems in-house suggested there would be no recognizable savings of programmer time in either scenario. Similarly, the University has assumed that the time spent familiarizing custom development consultants with the University's current operating environment (i.e., the other systems APAP must be compatible with) would equal the time to create a new system.

This assumption was made without the support of having first analyzed the specific in-house programming needs for all three scenarios (i.e., what tasks would be necessary in each scenario) and the timing of the "intervention" of University programmers in modifying vendor packages or assisting a custom programmer. The assumption was also made without first having determined the level of vendor support in implementing an off-the-shelf package or obtaining proposals from interested custom developers.

The University made its decision without reference to all the available cost information. It cannot be ascertained whether or not the most cost effective alternative

has been selected. It should be noted that the University does not believe there are any mature purchasing and payables vendor-developed systems currently available.

Recommendations:

- In preparing cost information related to new system acquisition, all cost elements should be determined and formally reviewed. Assumptions about incremental cost should be justified by first determining every cost element and adding these to a full cost statement of each alternative.
- Opportunity costs should be weighed when considering in-house development projects.
- Proposals from software vendors and custom development consultants should be obtained when feasible. These proposals should be compared with internal development alternatives.

Management's Responses:

- *The University normally presents the incremental costs that will be incurred when recommending a new system. For future presentations, the University will add fixed costs when appropriate.*
- *Opportunity costs are considered relative to in-house development projects; however, the process has not always been documented. Appropriate documentation will be provided in the future.*
- *When there are realistic possibilities that software vendors and custom development consultants can provide the product we are expecting at a reasonable cost, the University always seeks proposals.*

Section 6-B:

Specify Deliverables, Project Steps, and Review Points in Implementation Plans

As of August 30, 1996, the work plan developed for APAP does not include:

- Detailed work assignments for individuals assigned to the project
- A review process to assess progress toward milestones, test, or review points for work completed
- A project implementation time frame

- Specific deliverables

The work plan only identifies project work committees, project subsystems, and development phases for each subsystem. A time line has been associated with each subsystem development phase.

The work plan for a new system should ensure that it is completed on time, within budget, and with the functionality intended. To achieve these results the work plan should:

- Specify individual assignments.
- Incorporate a method for assessing when and how well those assignments have been completed.
- Project time allotted to develop specific products for each major milestone.
- Allow for the testing of products.

In the absence of a well-developed work plan, the project team may not be able to easily identify events early in the project life that can take it off track. By having a well-developed work plan, the project team will more likely identify these events, thus leaving time and resources to develop compensating measures.

Recommendations:

- Develop a work plan for APAP that specifies assignments, individuals responsible for completing assignments, time frames for completing tasks, deliverables and milestones, testing procedures and time lines, user acceptance points, and implementation review procedures.
- Develop a standard process for the design and execution of specific work plans in support of new system development projects.

Management's Responses:

- *Such a plan is developed for APAP at the appropriate time in the system development process.*
- *The University will document the standard process it follows for the design and execution of specific work plans.*

Specify Post-Implementation Review Procedures

The University uses a commercially developed System Development Methodology (SDM) to guide the design, development, and maintenance of information systems. The SDM does not formally incorporate post-implementation review procedures. Such procedures would normally include the timing, review steps, and responsible parties to review new systems once they are operational. The University does employ, by custom rather than policy or formal methodology, ongoing reviews of automated systems by user oversight groups such as the Student Information Management System Committee and the Administrative Information System Users Group.

Post-implementation reviews are intended to achieve the following results:

- Determine what worked or did not work in the development and implementation of new systems. The benefit is to identify and achieve repeatable results.
- Provide management with accountability that personnel implementing new systems met cost constraints and calendar deadlines.
- Provide management and users with assurance that the benefits intended to be achieved by the new system were indeed achieved.

The reviews by the user groups do provide the University with some assurance that systems have met the users' needs. However, without a consistent set of procedures, timing, and responsibility for performing the reviews, the University may not have a sound basis for determining how to achieve repeatable results or to assess whether cost and calendar limits were maintained.

Recommendation:

Incorporate a more formal post-implementation review procedure in the existing SDM. The post-implementation review procedures should identify the timing for the review, the steps in the review process, the parties responsible to perform the review, the reporting mechanism for communicating the results of the review, and follow-up procedures as necessary.

Management's Response:

Documenting a process that, in the opinion of the University, never stops, would be difficult. Regardless, post-implementation review will include those steps that are consistent in nature and can be documented in a formal procedure.

Section 6-D:

Continue Efforts to Enhance Support for End Users

Based on user feedback, as well as a formal study report provided by an automation consultant, the University added 12 new positions during the current fiscal year to support distributed computing. Part of the responsibilities these new positions will have is to support network users in the University community.

Network users have voiced concerns on a variety of support issues, including:

- Training for network administrators in user departments
- Timeliness of response from the Computer Center help desk
- Timeliness in receiving requested network access accounts

The additional positions should alleviate some of these user concerns. The University may want to identify other user concerns so a priority order of actions can be taken to address potential problems and increase user satisfaction.

Recommendation:

Consider administering a wide-spread network user satisfaction survey to determine areas for improving network support services. Establish a priority list of actions to address potential problems based on the survey results.

Management's Response:

The University will consider such a survey as described.

Section 7:

Document the Budget Deliberation Process

No documentation is generated or maintained regarding the deliberations and decisions of the University Budget Committee (Budget Committee). During the annual budget process, each of the University's units prepares and submits a budget request. These requests are consolidated into division plans, which are in turn compiled by the Budget Office into a draft budget for the University as a whole.

Once the draft budget is compiled, the Budget Committee, composed of the Chancellor, the Provost, and the Vice President for Finance and Business Affairs, meets with deans and vice presidents to discuss the budget requests for their respective areas. At the conclusion of these meetings and ensuing deliberations, the Budget

Committee prepares a final budget to be presented to the Board of Regents for approval.

The University maintains a substantial amount of documentation with respect to original budget requests and related supporting data. However, no formal minutes or other records are kept of the Budget Committee's activities. As a result, it is not possible to determine the substance of the Budget Committee's discussions with various parties during the hearings process, the nature of its deliberations, or the grounds on which it ultimately makes decisions in preparing the University's final budget. Such information is necessary in order to provide a record of past decisions, to hold budget managers accountable for results in accordance with funding decisions, and to ensure that new initiatives are tied to the University's strategic plan.

In our review of the University's budgeting controls, we also noted that the budgeting process appears to run smoothly overall and receives no major complaints from University constituencies. In most areas budget execution and monitoring appear to be effective, and the University as a whole appears to keep its expenditures within budget.

Recommendation:

The Budget Committee's activities should be documented in the form of meeting notes, minutes, memoranda, successive budget drafts with annotations or other appropriate means. Regardless of the means employed, such documentation should adequately record the substance of significant communications with other parties, and provide sufficient information to allow a review of the Budget Committee's deliberations and the bases for its decisions.

Management's Response:

The University will implement appropriate procedures to insure that significant Budget Committee activities are documented.

Section 8:

Perform Independent Verification of Fixed Assets During Annual Inventory and Conduct Risk-Based Spot Checks on a Periodic Basis

Property and Inventory Control (PIC) does not currently perform independent verification of fixed assets in the custody of University departments. According to University Policy 4.3.05.01 issued September 1, 1996, the annual physical inventory will be conducted by each department assigned personal property. The PIC office will provide a current list and inventory instructions (inventory packet) to each department. The list will include all capital and controlled property.

Departments conducting the inventory are responsible for assessing the condition of the property and reporting any discrepancies found in the list while conducting the inventory. Upon completion of the inventory, department heads sign and return the completed inventory packet to the PIC office.

According to State Property Accounting (SPA) Policy and Procedures Manual, Chapter 7, "Inventory Control - Physical Inventory":

Agencies may use any acceptable means to conduct an inventory of property. However, an agency should assign persons who have no normal responsibilities for the entering and reporting of personal property to conduct the inventory. Inventory should be conducted by a team of two or more individuals.

The current University policy allows the physical inventory to be conducted solely by the Custodial Department, which includes personnel under the authority of the department head, who has responsibility for the property. The independence of personnel conducting the inventory becomes jeopardized when the Custodial Department is required to verify the property for which it is responsible. Additionally, this process reduces, rather than increases, the Custodial Department's accountability for property.

Therefore, the University may want to consider an alternative control that various other institutions have employed to achieve compliance with SPA. These other institutions pair departments together on a rotating basis to witness the count/physical inspection of fixed asset inventories each year. Outside departments are required to provide a positive assertion that inventory exists as indicated on the inventory verification sheet.

In conjunction with this control, PIC should develop a list of high-dollar/high-risk items and perform additional independent verification of these items on a periodic basis. An example of items that might be considered high-dollar/high-risk is the Microcomputer Maintenance Center's inventory of computer parts (motherboards, processing chips, etc.) used in the repair and assembly of personal computers.

The need for performing "surprise" inventories is also addressed in the SPA manual (Chapter 7) which states that "in addition to the required annual physical inventory, agencies are encouraged to conduct more frequent inventories to assure the accuracy of reported personal property information."

Recommendations:

- Develop an acceptable means for independent verification and attestation of property during the annual physical inventory to comply with the requirement of the State Property Accounting Policy.

- Develop a list of high dollar/high risk items for additional independent verification by a member of the Property and Inventory Control staff. These additional verifications should be performed on a periodic basis, the frequency of which is to be determined by the Director of Property and Inventory Control.

Management's Responses:

- *The University now requires two individuals, from outside the custodial department, to verify inventory.*
- *The University has approved staffing so that this function can now be performed.*

Consultant's Report

Attached is the executive summary of a report from the construction audit firm of R. L. Townsend & Associates. The State Auditor's Office contracted with R. L. Townsend & Associates to perform a construction controls review at the University. A full copy of the report has been provided to the University and is available upon request from the State Auditor's Office.

The University's roster of construction projects under way during fiscal year 1997 will amount to an investment of over \$48 million when completed. University management reports that this represents the largest construction program at the University in over 35 years.

R. L. Townsend & Associates (consultant) has experience with many other university and public works clients throughout the United States. Overall, the consultant appears to have found areas the University could improve existing controls rather than a lack of controls or controls that do not function. The consultant has provided the University with suggestions regarding contracting, additional reviews to ensure value, bid procedures, inspections, safety, and change orders.

The consultant's recommendations are divided into two sections. The first section deals with specific improvements the University can attain and the second section contains suggestions for changing the construction contracting process in Texas. This second section might require the intervention of oversight bodies responsible for regulating construction and purchasing as well as interpretations of law. The State Auditor's Office appreciates the work of the consultant and puts forward this second section of recommendations for the State's leadership and oversight bodies to consider.

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Consultant's Report
Executive Overview

The State Auditor's Office of the State of Texas (**TxSAO**) requested our assistance in evaluating and assessing the overall level of effectiveness and efficiency of the policies, procedures and controls of the University of North Texas (**UNT**) which relate to the procurement and administration of design and construction services. More specifically, the objectives of our review were to:

- ▶ Evaluate the planning process to ensure that project objectives are developed, adhered to and are properly aligned with the University's strategic objectives and construction master plan.
- ▶ Determine that the procurement process is designed to maximize cost effectiveness of both design and construction.
- ▶ Determine that the contract selected for both design and construction adequately protects the University's interest.
- ▶ Determine that proper contract administration procedures are sufficient to ensure that contractors are in compliance with the contract.
- ▶ Determine that on site monitoring and inspection procedures are sufficient to ensure that the University gets what they pay for.
- ▶ Determine if the change order review and approval process is designed to maximize control and minimize the cost impact to the University.

When examining the effectiveness and efficiency of any program, total cost is inevitably and ultimately considered as one of the most important evaluating criteria. This is obvious considering the myriad of laws, rules, regulations and general overall concerns regarding the spending of public funds. Hence, we placed a significant emphasis on the procurement process which is inextricably tied to the manner in which funds are spent for design and construction services.

Understanding that the procurement process is controlled by the General Services Commission (**GSC**) of the State of Texas, we examined relevant sections of the GSC Procurement Manual which contains Texas Government Code (**TGC**), Title 10, Subtitle D. Title 10, Subtitle D completed the General Government Title of the Government Code by codifying the State Purchasing and General Services Act (Article 601b) of Vernon's Texas Civil Statutes (**V.T.C.S.**). We also reviewed the GSC Rulebook (Texas Administrative Code Title 1 - Administration) which supplements and clarifies Title 10, Subtitle D of the Government Code.

Consultant's Report
Executive Overview, continued

Furthermore, we have supplemented our review by comparing and contrasting those rules that govern Texas with the Federal Acquisition Regulation, which is the federal counterpart of the Texas GSC Procurement Manual. In our opinion, the FAR is a much "stricter" procurement document and much more comprehensive than GSC Procurement Manual. We believe that compliance with FAR guidelines and provisions would be within the best interest of the state and would satisfy most, if not all, state statutes, rules and regulations (see expanded discussion of the Federal Acquisition Regulation in the next section of this report).

We believe there are many opportunities for improving the overall level of effectiveness and efficiency of the policies, procedures and controls of the University of North Texas which relate to the procurement and administration of design and construction services. We have made several specific recommendations for improvement. Those recommendations have been subdivided into the following two broad categories: (1) those that the University of North Texas can implement and (2) those that the State of Texas should consider. The latter category is intended to help all state entities procure design and construction services that are in "the best interests of the state."

Many public sector entities, including federal, state and local, believe that applicable procurement regulations unduly restrict them from doing business in a prudent manner that would otherwise be available to private sector entities. This perception has perpetuated itself to the point where many individuals believe they are truly prohibited from conducting business in any way except for the prescribed manner. It has been our experience that, when the big picture is considered and the applicable procurement regulations are taken as a whole, departmental or agency heads typically have more discretion and latitude in making strategic decisions than are often believed.

The development and testing of new techniques and methods of acquisition should not be stifled simply because such action would require a deviation from state regulations. The fact that deviation authority may be required, should not, of itself, deter alternative procurement methodologies (see FAR Part 1.402). In that context, we believe that entities should continually look for ways to improve the entire contracting process and the objective of such improvements should be to conduct business in a manner that is in the best interests of the state.

Our recommendations are intended to improve the contracting process and we believe they are in the best interests of the state. We further believe that such recommendations are within all applicable state statutes, rules and guidelines. We have not nor would we attempt to make any recommendations that would conflict with applicable procurement laws. We are not policy makers and we do not provide legal opinions relating to any federal, state or local statute. However, we do review and evaluate the content of those statutes and make recommendations that we believe are consistent with the intent of such statutes.

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The specific recommendations provided should be considered merely as tools for potential use by both the University of North Texas and the State of Texas. If they make sense to a prudent business person in the conduct of competitive business, then the recommendations should be considered for implementation.

The Federal Acquisition Regulation

The U.S. Government, within applicable laws under the joint authorities of the Administrator of General Services, the Secretary of Defense and the Administrator of NASA, has issued the Federal Acquisition Regulation (**FAR**) under the broad policy guidelines of the Office of Federal Procurement Policy, Office of Management and Budgets and the Administrator of General Services. The FAR is the primary regulation for use by all Federal Executive Agencies in their acquisition of supplies and services using federal funds.

The Federal Acquisition Regulation is essentially the reference point by which federal agencies procure goods and services such as construction. It is intended to provide uniform guidance for federal agencies by providing fundamentally sound business practices that protect the integrity of the procurement process. To that end, it is dedicated to providing specific guidance relating to virtually any and all types of procurement including contracting policies, procedures, methodologies and strategies.

The primary objective of the FAR is to ensure that the fiduciary responsibility of public spending is accomplished in the most prudent and economical manner. The guiding principles of the FAR are to fulfill public policy objectives which include, maintaining the public's trust, promoting competition and conducting business with integrity, fairness and openness.

Although applicable federal laws of the United States are not included in the FAR, they are incorporated by reference within to ensure that the objectives of the FAR are consistent with statutory laws (United States Code) enacted by lawmakers. The FAR is issued as Chapter 1 of Title 48 in the Code of Federal Regulations (CFR).

Scope and Objective of Audit

We conducted a performance audit of The University of North Texas relating to their policies, procedures and controls when contracting for design and construction services. Such review included a thorough review and understanding of the State of Texas procurement statutes, rules and regulations, since UNT is considered a public entity under the jurisdiction of the State of Texas. The primary objective of our review was to evaluate and assess the overall level of effectiveness and efficiency relating to UNT's procurement and administration of design and

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construction services. As a secondary objective, our review was conducted to ensure that UNT was in compliance with state laws, rules and regulations.

In order to accomplish our objectives, we interviewed various UNT representatives in the Physical Plant and Planning and Construction department. We also interviewed Mr. Fred Pole, Vice President for Administrative Affairs. In addition to conducting interviews, we reviewed various construction related documents relating to ongoing construction projects. Such projects included the "Student Services Center", the "Music and Fine Arts" project and the "Chemistry and Biology Renovations".

The scope of our review placed a much greater emphasis on identifying new methods and techniques for improving the overall process of contracting for design and construction services. Consequently, we placed less emphasis on compliance with existing laws, rules, policies or procedures. Accordingly, we did not perform comprehensive tests of compliance to the overall system of internal control, which includes both accounting and administrative control. If desired, TxSAO can perform tests of compliance to the overall system of internal control.

Scope Clarification

Audits of construction projects are intended to identify errors, oversights and omissions in the contract documents and related contract billings. Many organizations, including UNT, have developed administrative policies and operational procedures that are designed to minimize the likelihood that such problems will occur. While we recognize the importance of having such policies and procedures in place to establish and provide overall control to the environment, it is equally important to recognize that construction project contract compliance audits provide an independent means of evaluating the effectiveness and efficiency of the overall control level within an organization.

However, we did not perform a contract compliance audit of any specific construction project. Therefore, we did not look for or expect to find errors, oversights or omissions by contractors or designers. Such errors, oversights or omissions may have potentially resulted in overcharges to the University, if they occurred. Such audits were never intended to be included in the overall scope of work for a performance audit. The TxSAO or UNT may want to consider performing contract compliance audits of selected construction projects in the future. Contract compliance audits are the most effective way to determine if overcharges have occurred.

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I. Recommendations for the University of North Texas

A. Develop and maintain a "policies & procedures" manual.

UNT does not currently maintain a policies and procedures manual. We believe that UNT should develop and maintain a fairly detailed and/or comprehensive document. This type of document is considered standard for any group that is responsible for design and construction services. The objective of such document would be three-fold: (1) to form policy and provide uniform guidance to UNT employees in the discharge of their duties (2) to provide a control oriented environment that operates with effectiveness and efficiency and (3) to ensure that UNT operates within the best interests of the state and in compliance with all state statutes, rules and regulations.

B. Strongly consider alternative types of contracts (basis of compensation) for both design and construction.

1. Construction (Guaranteed Maximum Price)

UNT currently uses lump sum (fixed price) type contracts for construction. We believe that the GMP contract structure is better suited to help an organization minimize its construction cost. Specifically, the cost plus fixed fee with a guaranteed maximum price contract provides the owner with an ideal situation. The contract maximum amount is capped by the GMP, yet the contractor is only entitled to bill for actual costs that are defined as reimbursable in the contract. Therefore, the owner pays the lesser of (1) the actual cost incurred plus the fixed fee or (2) the guaranteed maximum price. This provides the following two advantages: (1) the guaranteed maximum price offers the same protection as does the lump sum contract - it limits the owner's risk and (2) unlike the lump sum contract, the owner has an opportunity to share in contract savings.

In addition, the GMP type contract provides more "accountability" than the lump sum contract. Payments made on lump sum contracts are a function of "perceived" compliance, since there is no other basis by which to measure. If the contractor "cuts any corners" in performing their work and the owner fails to "catch" it, the contractor will unfairly benefit. Under lump sum contracts, the contractor does not have to "account" to the owner for anything. They must only "convince" an owner that the work was performed in strict accordance with plans and specifications. Cost is

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I. Recommendations for the University of North Texas (continued)

essentially irrelevant, regardless of the work actually performed, since the contractor will receive the entire lump sum amount.

Therefore, to effectively manage and control lump sum contracts, an owner must dedicate knowledgeable or experienced construction personnel to ensure that all contract requirements are complied with. This requires a significant amount of contract administration and includes all inspection, testing and other techniques to verify that the specified quality, quantities and services are performed. However, under lump sum contracts, the owner usually does not have access to contractor records for the purpose of verifying strict compliance with all aspects of the contract. Obviously, the owner must then rely on its own controls and construction management to ensure compliance. This situation provides less "accountability" for the contractor.

Conversely, GMP contract payments made are merely a function of actual costs incurred and submitted. This submission is in the form of detailed invoices and time sheets for labor, materials, equipment and subcontracts. The owner must still perform a compliance function.

However, because GMP contracts provide more "accountability," this function can be streamlined to provide reasonable assurance that compliance is achieved. Additionally, the contractor can not unfairly benefit if they "cut corners", because they are only entitled to bill for actual costs incurred that are defined as reimbursable in the contract. This reduces the incentive for them to make extra margin by cutting corners. Thus an owner can still achieve its primary task objectives of cost and quality without prohibitive administrative costs or sacrificing schedule.

GMP contracts have several common traits with lump sum contracts. Most importantly, the guaranteed maximum price amount is intended to provide the same benefit to the owner as the lump sum amount. It is intended to "cap" the maximum amount payable to the contractor. The GMP amount may be established through the competitive bid process in a manner identical to a lump sum competitive bid process. Furthermore, contractor's will develop their detailed estimates in much the same manner for both GMP amounts and lump sum amounts. Also, both the GMP amount and the lump sum amount are subject to upwards or

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I. Recommendations for the University of North Texas (continued)

downwards adjustments for changes in scope. However, GMP contracts offer the following significant advantages over lump sum contracts:

- (1) Contingency is normally included in both types of contracts; however, unspent contingency reverts back to owner on GMP contracts. Owner "controls" contingency on GMP contracts.
- (2) Owner participates in savings (usually a majority). Owner **never** participates in savings on lump sum contracts.
- (3) Contractor has an incentive to control costs (savings "bonus").
- (4) Owner retains more decision making power.
- (5) Owner can still maintain a high degree of quality while providing a reasonable control of costs.
- (6) Allows owner to assess "actual costs" whereas lump sum does not.
- (7) Provides a better mechanism to control change order costs.
- (8) Suited for both "conventional" and "fast-track" construction, whereas lump sum is inappropriate for fast-track.
- (9) Provides for greater control over all subcontractors.
- (10) Owner can more easily perform verifications or compliance audits, if desired.
- (11) Provides more "accountability" than the lump sum contract

The state procurement manual does not prohibit the use of cost-reimbursement contracts. Furthermore cost-reimbursement contracts are suitable for use under FAR Part 16.3 and Part 36.403. We believe the GMP contract is truly in the best interests of the state.

2. Design (Fixed Fee or DPE with a Not-to-Exceed Maximum)

UNT currently uses a "percentage of construction cost" method for compensating design firms. Furthermore, if change orders increase the fixed price construction contract, the design fee is increased as well. We believe that this type of agreement is the least desirable for design firms. In fact, FAR Part 16 prohibits fees based on "percentage of cost" type contracts. First and foremost, the percentage of cost approach provides a disincentive to provide designs that would result in the lowest possible cost to the owner. Second, not only does it provide an incentive to increase construction costs (by adding change orders), it provides

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I. Recommendations for the University of North Texas (continued)

absolutely no incentive for cost saving alternatives (value engineering) to be considered. This is clearly not in the best interests of the state.

The percentage of construction cost is suitable for establishing not-to-exceed maximum design fees, provided however, that the compensation basis is either fixed or based upon a time & materials methodology such as DPE (Direct Personnel Expense times a multiplier). The objective is to maintain an overall control mechanism (not-to-exceed maximum) while providing appropriate incentives to achieve the lowest possible cost for both design and construction.

The DPE method of compensation, with a not-to-exceed maximum, would be similar to the GMP contract. It would provide for paying the lower of (1) actual costs incurred or (2) not-to-exceed maximum amount. In that regard, we would recommend the DPE over a fixed fee approach because the owner would have an opportunity to spend less money, which we believe would be in the best interests of the state.

The DPE method is a standard form of compensation for architects and is commonly used in both the public and private sectors. Engineers have a identical form of compensation that is commonly used although it is referred to by a different name (salary cost times a multiplier). We do **not** recommend entering into any type of time and material contract without the use of a not-to-exceed maximum.

C. Develop and implement changes in the contract language (substance of content) for both design and construction contracts.

Merely changing to alternative contract types may not necessarily translate into lower costs or improvements in effectiveness or efficiency. Appropriate language must be developed and incorporated into the contract to match the risks associated with the respective contract type selected. Failure to do so may shift potential problems in one area to potential problems in other areas. Simply stated, whereas fixed price contracts may be subject to "corner cutting", time and material or cost-reimbursement contracts may be subject to cost overcharging. See Exhibit "A" for sample design contract language enhancements and Exhibit "B" for a modified AIA A111 construction contract and AIA A201 general conditions document, including an eight page change order pricing attachment.

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I. Recommendations for the University of North Texas (continued)

D. Include effective "right of audit" provisions in all contracts.

UNT contracts do not currently provide for the right to audit vendors. However, we believe that the right to audit should exist, regardless of the type contract entered into. This right should also extend to subcontractors and subconsultants, as well. The right to audit provides owners with convenient access to vendor records without having to litigate or conduct other legal proceedings (See Exhibits "A" and "B" for sample audit provisions for both design and construction).

We believe it makes good business sense and it is prudent for owners to include audit provisions in their contracts. However, the right to audit should not be confused with the need to audit. It simply provides an owner with the right to conduct audits if a need or concern warrants such a review. Audits should be used as management tool, at their discretion, to establish or supplement their control objectives.

E. Implement pre-construction services program, including constructability reviews and value engineering.

UNT does not currently employ a comprehensive constructability review process. Constructability reviews and value engineering are the most effective ways to ensure that construction dollars are spent in the most efficient manner or as often quoted, to get "the biggest bang for the buck." Constructability is a term used to describe a process where knowledgeable construction people review design criteria from a functional, technical and cost perspective for the purpose of achieving a finished project that meets all project objectives, including the desired level of quality, at the lowest possible cost.

Ideally, constructability reviews would begin at the schematic design phase and continue through the design development and final construction documents phase. This process is supplemented by value engineering. Value engineering (also known as VE for short) is a process where final construction documents (plans and specifications) are reviewed by knowledgeable construction people for the purpose of identifying additional cost saving alternatives (from plans and specifications). It is a systematic change or substitution from that which has already been specified.

While owners and designers, to some extent, normally participate in these processes, it is contractors and subcontractors who provide the most effective

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I. Recommendations for the University of North Texas (continued)

contribution toward accomplishing the intended objective. Contractors and subcontractors typically have a much better understanding of labor efficiencies, construction techniques, materials availability and the associated costs of each.

Contractors normally provide constructability reviews as part of pre-construction services. This can be accomplished with a contractor who is already under a contract for construction or it can be performed as a separate service for a fee. In fact some contractors will provide preconstruction services for "free" if they are selected as the general contractor to do the work. Any fee arrangement that makes good business sense, should be considered, as long as it is in the best interests of the state.

F. Require bidders to submit detailed estimates along with their bids including quotations from subcontractors.

UNT does not currently require bidders to submit detailed estimates along with their bids. A long held belief in the construction industry is that all information used to prepare bids, in a sealed competitive bid environment, is not available for review. It is often considered "none of the owner's business." While that may be true in a theoretical sense, as a practical matter, we believe an owner has many valid reasons for examining how bid prices are determined. Some of those reasons include:

1. Comparison and analysis of prices for reasonableness (See FAR Part 14.408-2 and related Part 15.805-2).
2. Look for and identify indicators of fraud or collusion.
3. Determination and comparison of bidders understanding of the work to be performed.
4. ** Method for independently verifying "errors" or omissions in arriving at bid prices.

Such requirements should be clearly spelled out in the Instructions to the Bidders. Additionally, the time frame for award should be clearly spelled out and should allow for a reasonable period to review such bid information. Award should only be made after careful consideration and analysis. Bids may be rejected for a variety of reasons, including unreasonable prices (See FAR Part 14.404-2). The only way to determine if a price is unreasonable is to analyze how the price was determined. Simply comparing all bid prices submitted does not necessarily ensure that the prices submitted are reasonable.

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I. Recommendations for the University of North Texas (continued)

**** Note:** During our review, we identified a project (Chemistry & Biology) where one bidder rescinded their bid after the bid opening. They were the low bidder and still would have been the low bidder even if the error (\$329,000) was allowed to be added to the bid price submitted. See additional detail in Section II. D.

G. Implement procedures to ensure contractor compliance with prevailing wage requirements and HUB participation goals.

UNT currently allows contractors and subcontractors to "police" themselves with respect to prevailing wages and HUB participation goals. UNT should take collective steps to ensure that prevailing wage rates are actually paid by contractors and subcontractors. Similarly, UNT should take collective steps to ensure that good faith efforts are made to achieve HUB (Historically Underutilized Businesses) participation goals. The HUB Certification Program and the specific policy, purpose, utilization goals and other requirements of the program, are specifically enumerated in TAC 111.11 - .24. and Section 5.0 of the GSC Procurement Manual.

One of the easiest ways to help ensure compliance is to require contractors and subcontractors to submit certified payrolls and certified HUB participation statements along with their applications for payment. Contractor compliance can be supplemented by conducting audits on a random basis.

H. Require contractors and subcontractors to submit partial lien waivers with each application for payment.

UNT currently requires final lien waivers to be submitted at the completion of a project. While we concur with this requirement, as an added level of protection, we recommend that UNT require contractors and subcontractors to submit "partial" lien waivers with each application for payment. While labor and material payment bonds offer protection in the event of non-payment, we consider bonds to be remedies or correction actions to problems that have already occurred. Partial lien waivers are intended to be preventative in nature, so that potential problems can be detected at their earliest stage.

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I. Recommendations for the University of North Texas (continued)

- I. Implement inspection procedures that more clearly document the contractor's strict compliance with plans and specifications.

UNT maintains a staff of two inspectors that are tasked with the responsibility of ensuring that contractors are in strict compliance with plans and specifications. While it appears that UNT inspectors have taken steps to provide reasonable assurance that contractors are in compliance, there is not a systematic procedure that documents such compliance. Recognizing that there is an inherent risk for contractors to increase profit margins by delivering less than that which is specified, it is equally important to recognize that inspection and testing procedures are critical to minimizing that risk.

However, if the inspection process is not working as designed or is otherwise ineffective, then an organization has not minimized its risk and if the inspection process does not have a systematic process for documenting compliance, then its effectiveness can not be gauged and the primary point of control can be lost. Furthermore, because inspectors are a vital member of the management team and represent the primary point of quality control, organizations should invest in training their inspectors and provide such training on a continuing basis.

- J. Implement contract close out procedures that more clearly document compliance with contract provisions, including designers.

UNT does not currently maintain any systematic procedure for managing the close out process. The contract close out process is a fairly straightforward process, yet it is often taken for granted. Obviously, there is no reason to unduly complicate or unnecessarily extend the close out process. However, a systematic approach should be used to identify and develop a detailed list of all obligations and requirements in the contract documents. Such "checklist" should be professionally managed and properly coordinated with all members of the organization to ensure that all items are appropriately addressed.

Furthermore, all too often, owners are concerned with contractors fully complying with all aspects of their contract. While this is a valid concern, often overlooked in the process is the designer's full compliance with all requirements in their contract. There are often many specific requirements included within design contracts. If the contract is based on a form of compensation other than a time and material basis, then the same inherent risk that exists for contractors on fixed price contracts also exists for designers. We believe that the close out process

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I. Recommendations for the University of North Texas (continued)

for design contracts should be professionally managed in the same manner as construction contracts.

During the contract close out phase, if items are omitted or are determined to not be in compliance with the requirements of the contract, then a potential overcharge exists for the organization. Such potential overcharges represent a risk to the organization. A systematic and well documented contract close out procedure would greatly minimize this risk.

K. Develop a more systematic approach to the process for selecting design firms.

UNT does not employ a systematic selection process for selecting design firms. Procurement of professional services are exempt from GSC oversight. However, the Texas Professional Services Procurement Act, enacted in 1971 and amended in 1989, (V.T.C.S. 601b, Section 5.22) governs the process for selection of an architect or engineer. Section 8 of the Act emphasized the concern of the legislature which led to the passing of the bill. A portion of section 8 reads as follows:

...the selection of certified public accountants, architects, physicians, optometrists, surgeons and professional engineers on the basis of the lowest bid places a premium on incompetence and is the most likely procedure for selecting the least able or qualified and the most incompetent practitioner for the performance of services vitally affecting the health, welfare and safety of the public...

The Act provides for a two-step process to be utilized. The first step is to make an initial selection based on demonstrated competence and qualifications. TAC Section 123.15 spells out a ten-step procedure to be used for selection of an architect or engineer. This process may be supplemented by using procedures outlined in a document entitled "A Guide to the Selection and Negotiation Process" published jointly by the Consulting Engineers Council of Texas and the Texas Society of Professional Engineers.

Although the selection procedures for professional services currently employed by UNT are not consistent with TAC 123.15, that does not necessarily mean that the selection procedures used are not in the best interests of the state. However, we believe that UNT would be better served by developing specific selection

Consultant's Report

I. Recommendations for the University of North Texas (continued)

procedures and selection criteria that are consistent with TAC 123.15. Such procedures and the overall selection process should be well documented to ensure compliance with the intent of the Texas Professional Services Procurement Act. UNT does not currently have a well documented selection process.

L. Develop and implement a more comprehensive safety program.

UNT does not have a well-defined safety program relating to construction. While UNT may recognize safety as an important issue, it has taken a passive, rather than active role in developing an implementing a safety program. The TxSAO construction module states that "merely requiring the contractor to have a safety plan is not enough." We agree with that statement and recommend that UNT develop and adopt a comprehensive safety program. Many safety-conscious organizations have adopted policies that are designed to manage all operations in a manner that protects the environment and health and safety of employees, customers, contractors and the public. The success of any safety program can be measured directly against management's commitment to the program and is related to the responsibility of management, employees and contractors. The Occupational Safety and Health Administration (OSHA) can provide more detailed information on specific elements that should be included in a safety program.

M. Implement a more comprehensive change order control and review process.

We examined the change order process at UNT on two separate projects (See Exhibit "C"). Our examination was conducted to determine the following: (1) why changes have occurred and (2) how change order prices are developed (3) what process does UNT employ for reviewing change orders. Success in controlling change orders and their related costs involve two fundamental objectives. The first objective is to minimize the likelihood that change orders will occur. The second objective is to minimize the cost of change orders that do occur.

To minimize the likelihood that change orders will occur, it is important to first recognize and understand the reasons why changes do occur. The following is a list of why most change orders occur:

1. Design errors and omissions
2. Change in designer preference

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I. Recommendations for the University of North Texas (continued)

3. Owner desired changes in scope
4. Field Conditions
 - a. Uncovering of undisclosed conditions
 - b. Uncovering of unknown conditions
 - c. Coordination of work in the field
5. Discrepancies in the contract documents
6. Value engineering alternates
7. Change in market conditions
8. Change in external requirements

The next step is to identify those reasons that the owner could "control" and then develop strategies to minimize their occurrence. Obviously, not everything can be anticipated or prevented. However, we believe that the following strategies can be implemented to minimize or avoid the occurrence of change orders:

1. Make architects and engineers responsible for design errors, omissions, discrepancies in the contract documents or changes in designer preference. While designers may continually strive toward providing construction documents that are thorough, complete, high quality, free from errors or omissions, etc., they may be more diligent if they understand that they will be held accountable.
2. Design the planning process to place significant emphasis on the initial planning process. This involves obtaining critical input and feedback not only from decision-makers, but also users. The completeness, thoroughness and understanding of properly defined user requirements is absolutely critical to the success in preventing change orders later on.
3. Implement and maintain a disciplined approach to owner desired design changes. The owner's "wish list" is their own worst enemy.
4. Emphasize completed construction documents but understand and determine appropriate relationship between the cost of design and the cost of construction. UNT currently emphasizes completed construction documents, which we believe is good. However, this should translate into fewer change orders.

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I. Recommendations for the University of North Texas (continued)

The second fundamental objective of controlling change orders is to minimize the cost of change orders that do occur. That objective can be further sub-divided into the following two areas:

1. Develop and incorporate enhancements to the contract that specifies how change orders should be priced.

UNT incorporates the Uniform General Conditions (**UGC**) document into all of their construction contracts as specified section 2166.302 of the GSC Procurement Manual. This is the document that governs and specifies how change orders should be priced. While the section of the UGC relating to changes is considered good, significant improvements can be made. Specifying the method and manner in which change orders shall be priced is critical to the success of minimizing change order costs. If an organization does not fully grasp this concept, then they are not planning for success, rather they are planning for failure.

We have developed significant improvements in the change order pricing specifications that are designed to minimize the owner's exposure. We believe that these enhancements are clearly in the state's best interest. The specific change order pricing language recommendations are included in Exhibit "A" attached to this report. Specifically, they are an eight page attachment to the AIA A201 sample General Conditions document included as part of the AIA A111 GMP sample contract package.

One concept that is conspicuously absent from the change order pricing provisions in the UGC, is a contractual remedy that provides for downward adjustment of a change order price if the *cost or pricing data* submitted is inaccurate, noncurrent or incomplete. This concept is based on the Truth in Negotiations Act which is discussed further in Section II. E. of this report.

2. Implement more comprehensive change order review procedures.

We identified several instances where the UNT approved changes were either (1) unsupported by detailed pricing estimates, as required by the UGC; (2) the change orders were not priced in accordance with the UGC; and (3) there was no attempt to verify cost or pricing data to ensure that

Consultant's Report

I. Recommendations for the University of North Texas (continued)

the data is accurate, current or complete. Specific examples of findings are contained in our working papers.

UNT's current change order review process should be strengthened to ensure that contractors and subcontractors submit properly documented changes orders, that the change orders are priced in accordance with the contract and that the pricing information submitted is accurate, current and complete.

The following elements should be included in any comprehensive change order review process:

Scope Review - The first step in the change order review process is to determine if a change in scope has actually occurred and if so, to what extent. While this may sound like a simple task, there are times when changes are of such complexity, considering the additions and deletions involved, that it is not always easy to accurately assess the full impact of the change. Regardless of the complexity of the change, a written determination should be made to document the facts surrounding the change. This determination is most often made by those individuals who are most familiar with the contract documents.

Require Submission - The contractor and subcontractors should be required to submit detailed cost or pricing data that supports their proposed change order price. Ideally, the submission would be certified that the data submitted is accurate, complete and current (these are the same principles espoused by the Truth in Negotiations Act). Requiring the submission of detailed cost or pricing data is the most critical element of controlling change order costs. Without this submission, no analysis of the pricing methodologies or data elements can be performed. Without this analysis, the contractor maintains "superior knowledge". Consequently, the contractor always negotiates from a position of strength and the owner from a position of weakness.

Analysis of Cost or Pricing Data - The purpose of requiring the contractor to submit detailed cost or pricing data is to analyze the data. The owner should first analyze the pricing methodology to ensure that the change order is priced in accordance with the contract. The data elements should then be separated into objective and subjective

Consultant's Report

I. Recommendations for the University of North Texas (continued)

elements. Objective data elements include labor rates, labor burdens, material prices, equipment rental rates and subcontractor quotations. Subjective data elements may include labor hours or labor units, material quantities or material units and equipment hours or units.

Objective data elements should be audited or verified, not negotiated. They are generally "black and white" issues. For example, a labor rate of \$25 per hour either is or is not. There is nothing to negotiate. Subjective data elements, on the other hand, may not be verifiable because they are estimates. Engineers should first perform quantity "take-offs or surveys" of material quantities or units to determine the validity of these estimates. Engineers should also examine labor hours or units with respect to the material quantities derived from the take-off. If the contractor's estimate is materially different than the engineer's take-off, then the owner may want to negotiate some of those items. Once a cost and pricing analysis is performed, then the owner can negotiate from a position of strength or, at a minimum, negotiate at equal strength.

The change order review process and the change order language enhancement process are complementary in nature. Collective strength is provided and control is maximized when emphasis is placed equally on both processes working together. Another key element to the overall success of the review process is timing. Questions concerning who, when and how long are common when considering the magnitude of the review process. While they are important questions to consider, it is equally important to point out the review process should be set to succeed rather than fail.

For example, in an ideal situation, the review should be performed prior to the execution of a change order. That would be the best control. However, that may not always be possible or practical because of schedule. Therefore, an alternative approach may be more desirable. In other words, if the review can be performed quickly, fine. If not, then the review should take place at a later time. Therefore, effective cost and pricing data reviews can be performed whenever it is convenient to do so and schedule does not have to be impacted. The key element to the latter approach is that a contractual remedy should be included in the contract. UNT contracts do not currently contain such a remedy, but we recommend that such provision be included in future contracts.

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I. Recommendations for the University of North Texas (concluded)

The specific remedy (which we have included in the sample change order pricing document) requires the contractor to submit cost and pricing data and to certify that the data submitted is accurate, current and complete. Furthermore, it provides a provision that allows the owner the right to reduce the change order price (contractual remedy) if the data submitted is found to be inaccurate, noncurrent or incomplete. Additional discussion of this concept and the Truth in Negotiations Act are contained in Section II. E. of this report.

Consultant's Report

II. Recommendations for the State of Texas

- A. Re-evaluate the effectiveness of the competitive sealed bid process and consider alternative procurement strategies that allow for the purchase of construction services that are in "the best interests of the state"

The phrase "best interests of the state" are described in Section 111.2 of the Texas Administrative Code (TAC) as most advantageous to the state in light of all relevant circumstances. UNT currently uses the competitive sealed bid process to procure all construction services. The competitive sealed bid process is used predominantly throughout the public sector and is considered to be one of the "pillars" of public construction law. In fact, competitive bidding laws predate the American Civil War and were a major reform to the public procurement process. They were enacted to deter public officials from favoritism and to prevent fraud by government employees in the award of contracts for public works.

"Although it may have succeeded in reducing favoritism and bribery in the contract award process, the competitive bidding system has facilitated fraud, waste and abuse by undermining government efficiency." This quote was included in the Final Report by the New York State Organized Crime Task Force to New York state Governor Mario M. Cuomo. That report is now available in published form in a book entitled "Corruption and Racketeering in the New York City Construction Industry."

It is obvious to most observers that the intent of the competitive bid system was to provide public confidence and integrity to the procurement process. To that end, we think it is well intentioned. However, we believe there are significant fallacies in the so called competitive/low bid process that far outweigh their intended benefits. This is especially true in the public sector. Consider the following fallacies of the competitive bid process. Also, consider them not only individually, but collectively working together against the owner:

1. Lowest price is often the most tempting way to select the least qualified offeror. That is why most states have enacted legislation similar to the Texas Professional Services Procurement Act. The same is true for it's federal counterpart, The Brooks Act (Public Law 92-582).
2. The singular importance of tendering the lowest bid encourages contractors to underbid, while counting on change orders or other "add ons" such as claims to compensate for low bids. Only the lowest price

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II. Recommendations for the State of Texas (continued)

will result in winning the award of a contract. All other factors, because of their subjectiveness, become irrelevant for all intents and purposes. Any subjective determination that an award shall go to someone other than the low bidder may create a perception of favoritism which will lead to other undesirable problems.

3. Provides incentive for contractors to cut corners, bribe officials and inspectors, cheat on specifications and commit other fraudulent acts designed to maximize profits. This situation is exacerbated when competitive bidding is combined with fixed price contracts. Contractors recognize that submitting the lowest bid is the only way to win the award and that such bid may not contain the desired profit margins.
4. Does not reward contractors, through repeat business, for prior work performance on the basis of cost, quality or timeliness. By definition, the critical elements of sealed competitive bidding include evaluating bids without conducting any discussions with the bidders and making an award to the responsible bidder considering **only** price and price-related factors (FAR 14.101). On the next project, the government simply has no choice but to award to the lowest responsible bidder, regardless of how well a contractor may have performed.
5. Does not consider the past performance of potential qualified contractors. A prequalification review process should be used to develop bidder master lists. In a theoretical sense, all qualified bidders are considered "equal" (see TAC 111.2). As a practical matter, while there may be some merit to that argument, we believe it is unrealistic. Hopefully if it is working as designed, unqualified, unscrupulous or otherwise undesirable contractors would not make it through the prequalification process. In any event, it is price that will ultimately determine the contract award.
6. Places total reliance on the process to work in the owner's favor! This is perhaps the biggest fallacy. It assumes that nothing has contaminated the bid process such as collusion, bid rigging or other fraudulent price fixing schemes. It would be naive to think that this type behavior would not or does not occur, especially in construction. Some observers may consider it "willful blindness." They recognize that it probably happens, but they do not care. More importantly, they are not willing to take steps to develop solutions to known or anticipated problems.

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II. Recommendations for the State of Texas (continued)

Competition, in its purest state, is arguably one of the most effective ways to obtain the lowest price. We support and encourage competition in the procurement process. We believe that the use of the competitive bid process in its strictest interpretation is not always in the state's best interest. This is especially true in construction, since construction is not a commodity item nor a product, rather it is a service. Competition can be achieved through other means such as competitive sealed proposals which is a combination of competitive and negotiated procedures (See FAR Part 6).

Furthermore, TAC 113.1(b)(3) provides for the specific use of competitive sealed proposals in the procurement process. More specifically, TAC 113.7(a)(5) provides for this specific procurement method for the acquisition of routine services costing \$100,000 or more. In addition TAC 113.7(b) states that competitive sealed proposals shall be used if it is determined that competitive bidding is not practical or is disadvantages to the state. TAC 113.7(d) specifies factors that would support a finding that competitive bidding is disadvantageous to the state.

In addition to eliminating the fallacies described previously, the use of competitive sealed proposals provide the following distinct advantages over the competitive sealed bid process:

1. It allows for discussions and/or negotiations with offerors to achieve a best and final offer (TAC 113.7(m) and FAR Part 6 and 15).
2. It provides an opportunity to negotiate with the bidder or bidders to ensure that lowest price is actually achieved. TAC 113.7(d)(i) supports a finding that competitive bidding would be disadvantageous to the state if there is a "potential for inflated bid prices." In construction, a potential for inflated bid prices exists all the time. TAC 113.7(d)(ii) also supports a finding that competitive bidding would be disadvantageous to the state if there is a "potential for inadequate bid responses compared with the administrative burden of issuing a second bid invitation." Negotiation is really a process of understanding, analyzing and verifying how prices are determined. In its purest form, negotiation is not permitted using competitive sealed bidding.
3. It allows for an award to be made to the offeror whose proposal is the most advantageous to the state (TAC 113.7(d)(iii) and TAC 113.7(n)). In

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II. Recommendations for the State of Texas (continued)

fact, that is the same goal and intent of the competitive bid process. TAC 113.6(b)(1) states that all awards shall be made to the bidder submitting the lowest and best price. While those two objectives may not be mutually exclusive, they may be incompatible. TAC 113.6(b)(1) further states that in addition to price, other factors set out in V.T.C.S. Article 601(b), Section 3.11(e) shall be considered and evaluated (see discussion below).

As indicated earlier in our report, V.T.C.S 601(b) is currently codified in TGC Title 10, Subtitle D and is specifically enumerated in the GSC Procurement Manual. Section 2156.007(d) of the procurement manual (formerly V.T.C.S. Article 601(b), Section 3.11(e)) lists ten specific factors that, in addition to price, shall be considered in determining the lowest and best bidder. The problem is that the competitive bid process, in its strictest interpretation, rarely considers and evaluates those other factors. For example, item (5) states that "the bidder's character, responsibility, integrity, reputation and experience" shall be considered. Clearly, those things are important. They are also very subjective.

Bidders that typically "score" high marks in these areas do not usually submit the lowest bid. Additionally, these characteristics are the very same things that private sector owners consider when they determine who will be invited to participate in the bid process. Even though the competitive sealed bid process allows for other considerations, it is price that generally determines the award. By comparison, the competitive sealed proposal process provides for a more realistic chance of evaluating bids on a basis other than price. See Exhibit "D" for a list of the ten specific factors set forth in TCG 2156.007.

Texas Education Code 51.907 states that "all contracts for construction at an institution of higher education are void unless made after advertising for bids thereon in a manner prescribed by its governing board, receiving sealed competitive bids, and awarding of the contract to the lowest responsible bidder by the governing board." While the legislative intent of this particular statute is unknown, it appears that it is fairly consistent with TAC and Texas Government Code with the exception using competitive sealed proposals.

51.907 further states that "if a contract is to be recommended for award to other than the lowest bidder, any bidder making a lower bid than the recommended bid shall be notified of the recommendation for award and shall be allowed an opportunity prior to the award to present evidence to the board or its designated

Consultant's Report

II. Recommendations for the State of Texas (continued)

representative as to the responsibility of that bidder." The emphasis continues to be on lowest price, and it should be. The obvious needs to be stated at this point. **The objective of using competitive sealed proposals is the same as using competitive sealed bids - to obtain the lowest and best price.** If 51.907 is the only "obstacle" preventing UNT and other similar entities from using alternative procurement methodologies for construction, then perhaps the intent and objectives of this statute should be re-evaluated so that the spending of public funds can be accomplished in the state's best interest.

Although the competitive sealed bid process can be used effectively, it is generally recognized that it is far from the perfect solution. In fact, the book entitled "Corruption and Racketeering in the New York City Construction Industry" raises questions about whether the system should be abolished altogether. While it stops just short of saying that, it does state that "the disadvantages of competitive bidding have become so great that other options must be seriously explored." The solutions offered by the book include various forms of competitive sealed proposals and while there may not be a perfect solution, we believe that competitive sealed proposals offer more flexibility to meet the unique and specific objectives for procuring construction services.

The Federal Acquisition Regulation provides the most comprehensive guidance and understanding to the procurement process and its intended objectives. We believe that serious consideration should be given to implementing alternative acquisition methods that are clearly in the best interest of the state and consistent with the intent of the TGC and TAC.

Finally, this recommendation is made with the understanding that all procedures and objectives of competitive bidding continue to be adhered to. Specifically, bids should be advertised, competition should be stimulated, favoritism should be prevented, public corruption should be eliminated and services should be secured at the lowest possible price. In that context, the any procurement method that can accomplish those objectives should be considered.

- B. Provide more definitive guidance on the type of contract (compensation basis) that may be used for both design and construction services, regardless of the procurement method used.

Section I. B. of this report discussed alternative contract types. The selection of the type contract to be used is an integral part of the procurement process. The

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II. Recommendations for the State of Texas (continued)

GSC Procurement Manual does not adequately address various contract types and does not recommend what type of contract to use in certain situations. FAR Part 16 provides an in-depth discussion of the various contracts available to the government, the factors to consider in selecting contract types and specific guidance on how to use them. We recommend that TxSAO and the State of Texas provide for more specific guidance in this area for all state entities.

C. Encourage value engineering prior to bidding by inviting bidders to suggest cost saving alternatives from the "bid set" of plans and specifications.

Section I. E. of this report discusses the importance of using constructability reviews and the value engineering process to achieve the lowest possible cost when contracting for construction services. UNT does not currently solicit value engineering alternatives because they do not believe it is allowed as part of the competitive sealed bid process. We are not aware of any state provision that would limit state entities from their ability to use this technique.

One often occurring problem in the competitive bid environment is where final bids exceed the authorized spending level for construction. The common solution to this problem is to re-design the project and then re-bid. While this may seem like a good idea, as a practical matter, it is an inefficient use of resources. First and foremost, it is time consuming and costly. Plus, additional time is not always available. Secondly, the re-design process may be inefficient (see Section II. F.). Inevitably, desirable components, features and/or systems are deleted as part of the re-design process. The problem is further compounded when such previously deleted items are added back into the scope at premium prices via change order. That situation normally occurs when the new bids are now substantially under budget and previous deletions are added back.

The value engineering process is a systematic, cost effective and efficient way to accomplish the same objectives of re-design and re-bid. Entities should be encouraged to use these costs saving techniques. While bids should be based strictly on plans and specifications, cost saving alternatives should be actively solicited as part of the bid process and should be included in the instructions to the bidders. Soliciting cost saving alternates does not obligate an owner to accept them. It merely affords them an opportunity to make cost effective decisions. Value engineering should continue during the construction phase of the project as well. However, simply asking contractors and subcontractors to

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II. Recommendations for the State of Texas (continued)

find ways to save money may not be enough of an incentive. Most of the time, they are not motivated to save money. Therefore, incentives should be provided to encourage contractors and subcontractors to "scrub" the project and look for cost savings, both prior to award and during construction.

D. Implementation of a procedure that would allow for the conversion from competitive sealed bidding to negotiated procedures that would be in the "best interests of the state."

Section II. A. of this report discussed the competitive sealed bid process in detail. If the state determines that the competitive sealed bid process is still the preferred method of procurement, then they should provide specific guidance that would allow for the conversion to negotiated procedures when it is in the state's best interest to do so. FAR Part 15.103 provides for a specific procedure allow for such conversion. Such procedure could then be implemented in those specific situations where it is in the state's best interest such as those that occurred on UNT's Chemistry & Biology renovation project.

UNT's rigid adherence to the prescribed competitive bid procedure resulted in paying an additional \$182,521 more than what they could have paid for construction (See Exhibit "C" for additional details relating to that transaction).

If a procedure was in place, UNT could have examined evidence or verified the mistake submitted by the low bidder who ultimately rescinded their bid because of the error. If the error were allowed to be corrected (as allowed per FAR 14.407-3(b)), the bidder who rescinded their bid would have still been the low bidder by \$124,250. Furthermore, UNT could have, and should have, exercised their bid bond rights. However, they decided not to act upon the threat of legal action by the contractor. This whole scenario clearly illustrates the inefficiency and waste of the competitive sealed bid process.

Furthermore, the problem was compounded when additional savings could have been realized because a substantial change order (\$508,271) was added to the contract. The specific change order item was included as an add alternate in the invitation to bid and the subsequent prices were determined by the original bid process. The original low bidder included a bid price of \$450,000 for the same change order item. In fact, every other bidder had a price lower than \$508,271 for the alternate item. This situation illustrates another problem with competitive bidding. It is common perception among contractors that owners should accept

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II. Recommendations for the State of Texas (continued)

all other prices (labor rates, unit prices, alternate prices) that are submitted along with the original bid. While owners should have a right to accept such prices, they should not be obligated to accept them. Such prices should be subject to audit or negotiation.

- E. Implement policies and procedures, or enhancements to statutory laws, that would provide for greater control and accountability when contracting for design and construction services by negotiation.

As previously discussed in Section II. A. of this report, the competitive bid system has been used predominantly since its inception. However, during World War II, the government recognized the need to acquire equipment, ammunition and supplies quickly to support the war effort. This precipitated a need to alter the federal procurement policy of open competition, low bid to one that limited competition to those offerors capable of meeting stringent delivery schedules. Consequently, the War Powers Act of 1941 was passed and granted the Department of Defense (DoD) authority to negotiate and limit competition in the acquisition process.

The usefulness of this alternative to open competition became evident even during peace time. Accordingly, the Armed Services Procurement Act granted exceptions to formal advertising and permitted negotiation on a limited basis. However, perception of abuse by government contractors led to a congressional examination by the General Accounting Office (GAO). The GAO report, issued in 1959, confirmed that contractors were indeed overcharging the government on negotiated contracts. This was further confirmed by additional reports and findings.

As a result of those findings, in 1962, Congress passed Public Law 87-653, the Truth In Negotiations Act (TINA). It is currently codified at 10 U.S.C. 2306(a). TINA required government contractors to submit cost or pricing data and certify that such data are accurate, complete and current. More importantly, TINA required a downward adjustment to the contract price, including profit or fee, if it was subsequently determined that the data submitted was inaccurate, noncurrent or incomplete. Such data was referred to as "defective" cost or pricing data.

Defective pricing is the government term used to describe situations when contractors submit defective cost or pricing data and such data causes increased contract prices. Primary responsibility for ensuring compliance with TINA by

Consultant's Report

II. Recommendations for the State of Texas (continued)

conducting audits is the Defense Contract Audit Agency (DCAA). TINA was enacted to place the government negotiator on equal footing with the contractor at negotiations. The legislative intent was to give the government informational parity with contractors and subcontractors during price negotiations so that the payment of excess prices could be avoided.

The concepts espoused by TINA and all other provisions relating to contracting by negotiation are more fully described and contained in Part 15 of the FAR. The principles contained in this section are imperative for successful contracting by negotiation. We recommend that TxSAO and the State of Texas provide for more specific guidance in this area for all state entities.

F. Re-evaluate the requirement to have design firms re-design (with no additional compensation) projects where bids exceed the construction cost limit.

UNT currently requires designers to redesign, with no additional compensation, projects where bids received exceed the budgeted construction cost limit. It does not appear that this is a state requirement. However, the entities do not have the ability to award construction contracts, in a sealed competitive bid environment, where the contract amount exceeds the authorized spending limit. Therefore, it is understandable why there is a need to make designers accountable for designing within authorized spending limits.

Although this seems like a good idea, we believe it is a tradeoff that can, and often does, lead to problems in other areas. The concept of performing redesign services, due to bids not being favorable, is essentially asking to receive value for nothing. Designers, like any provider of services, do not relish the concept of working for free. While designers should be held accountable, providing services for free will inevitably lead to sloppiness, incompleteness and an otherwise less than professional attitude in producing high quality and thorough construction documents. Such situations typically lead to unnecessary change orders on the construction contract due to the reasons enumerated in Section I. M., including errors and omissions.

Designers must obviously work with and satisfy clients to ensure that client objectives are met. These type of considerations should be specifically addressed in the designer selection process and probably should include establishing specific selection criteria relating to redesign objectives. We believe UNT and the state should seek alternative solutions that collectively work

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II. Recommendations for the State of Texas (concluded)

together, in concert, to achieve the lowest possible total costs for both design and construction services. Holding designers responsible by backcharging them for design errors and omissions is one method used to make them more accountable. UNT does not currently consider the use of such procedures.

G. Provide Accountability Module relating to Construction from the Texas State Auditor's Office Methodology Manual

The Accountability Module relating to Construction should be provided to all state entities that are responsible for overseeing their own construction programs to ensure that all state objectives are effectively communicated. We believe that the module developed by TxSAO is an excellent starting document to establish guidelines and procedures for effective control in this environment.

Management's Response to Consultant's Report

The University is indebted to Mr. John Wisz of R. L. Townsend & Associates for his review of our design and construction operations. He brought a fresh approach and has forced us to reevaluate many procedures that were done a certain way, "just because that is the way we always do it".

The majority of the recommendations are in the process of being incorporated into our procedures. We are reviewing the recommendation to move away from our lump sum (fixed price) type contract for construction to a cost plus fixed fee with a guaranteed maximum price contract. This is a major change and we will probably try it on a small project in the near future.

We have used a Direct Personnel Expense times a multiplier with a not-to-exceed maximum for some of our design contracts. We will expand the use of this procedure in accordance with the recommendations of the audit review.

Our only exception to the recommendations is in the area of assuming an active role in developing and implementing a safety program for construction projects. We feel that with the assumption of a responsibility, we would also assume the liability. We believe that the responsibility of safety on the construction site belongs to the contractor. We will continue to require our contractors to have a comprehensive safety program on each of our projects. Our construction administration staff will continue to monitor safety practices on the site and will immediately bring any potentially unsafe practices or conditions to the attention of the contractor's superintendent.

Objectives, Scope, and Methodology

Objective

The audit objective was to assess the efficiency and effectiveness of the key accountability control systems over areas of policy management, information management, resource management, and performance management.

Accountability controls are policies, procedures, and processes used to carry out an organization's objectives. They should provide reasonable assurance that:

- Goals are met
- Assets are safeguarded and efficiently used
- Reliable data is reported
- Laws and regulations are complied with

Accountability controls, no matter how well designed and operated, can only provide reasonable assurance that objectives will be achieved. Breakdowns can occur because of human failure, circumvention of control by collusion, and the ability of management to override control systems.

The assessment of the key accountability controls at University of North Texas focused upon answering the following questions:

- Is there an adequate strategic planning process?
- Is the organizational structure aligned with the strategic plans?
- Are there adequate policies and procedures?
- Is the process well-defined, including adequate controls over the collection, classification and reporting of information?
- Are resources managed efficiently and effectively, such as cash, investments, fixed assets, and revenues?
- Are Board members, management, and staff receiving and using performance information for monitoring and decision-making?
- Is the mission of the University being achieved?
- Is feedback from students and faculty being used by management and the Board to make changes?

Scope

The scope of this audit included consideration of the University's overall management control systems: policy management, information management, resource management, and performance management; and areas that were shown to be of greater risk based on completed management control audits at several universities across the State. We have observed a consistent pattern of universities having more problems in certain operating segments (auxiliary enterprises, human resources, fixed assets) than others. The following areas were noted as areas that can be improved and were considered in our planning/approach of this audit:

- Oversight by boards of regents and information used by regents to make decisions
- Budgeting process and execution of budgets/budget monitoring
- Auxiliary enterprise activities and the achievement of revenue/expenditure projections
- Safeguarding and accountability over the acquisition and ongoing custody of fixed assets
- Human resource management processes over hiring, training, timekeeping, evaluation, and termination
- Construction and/or the acquisition of physical plant assets, including real property
- Strategic planning and the communication and integration of entity plans at lower organizational levels
- Benchmarking and the measurement of achievements toward the accomplishment of strategies, goals, and objectives
- Use of information to make decisions and to take corrective actions when operations do not achieve expected results

Consideration of the University's policy management systems included a review of:

- Processes used to create, monitor, and evaluate University strategic and operating plans
- Processes used to create, monitor, and revise University budgets
- Processes used to create, implement, evaluate, and revise University policies and procedures

Consideration of the University's information management systems included a review of:

- Processes for identifying, collecting, classifying, evaluating, maintaining, and updating information
- Existing management reports
- Timeliness, accuracy, and availability of information

Consideration of the University's resource management systems included a review of:

- Processes used to select, train, evaluate performance, and compensate University employees
- Investment policies and practices at the University
- Processes used to ensure that fixed assets and infrastructure are economically purchased and used and adequately protected against waste and abuse
- Maintenance and protection of computers and computer applications

Consideration of the University's performance management system included a review of:

- Processes used to develop, track, and use performance measures
- Processes used to evaluate programs and to ensure quality products and services

A review of each of the control areas revealed some specific issues that were examined further.

Methodology

The audit methodology consisted of gaining an understanding of how each control system was supposed to work. In select areas, tests were then performed to determine if the control systems were operating as described. Finally, the results were evaluated against established criteria to determine the system's adequacy and identify opportunities for improvement.

An understanding of control systems was gained through interviews with members of the University of North Texas Board of Regents, the University President, Vice Presidents, management, and staff. An understanding was also gained by using written questionnaires and then reviewing numerous University and System documents. Control system testing was conducted by comparing the described and

actual processes. The testing methods primarily consisted of document analysis, process and resource observation, and employee interviews.

The following criteria were used to evaluate the control systems:

- Statutory requirements
- System rules
- University of North Texas policies and procedures
- General and specific criteria developed by the State Auditor's Office Inventory of Accountability Systems Project
- State Auditor's Office Project Manual System: The Methodology
- Other standards and criteria developed through secondary research sources both prior to and during fieldwork

Other Information

Fieldwork was conducted from May 1996 through August 1996. We did not verify or review the accuracy of the data provided by University of North Texas. The audit was conducted in accordance with applicable professional standards, including:

- Generally Accepted Government Auditing Standards
- Generally Accepted Auditing Standards

No significant instances of noncompliance with these standards occurred.

The following members of the State Auditor's Staff performed the audit work:

- William Hirsch, CPA (Project Manager)
- Robert Bollinger, CPA
- James Story, CIA, CISA
- Jan Engler
- Ester Jayme
- Paul Hagen, CPA (Audit Manager)
- Deborah L. Kerr, Ph.D. (Audit Director)

Accountability Systems Assessment

Key accountability systems are the controls a university uses to ensure that what should happen does happen. Accountability systems are established by management to achieve expected results, to establish and maintain an environment that protects against inappropriate/illegal uses and financial disasters, and to ensure that resources are used economically and effectively.

Accountability systems are grouped into four major management areas. These are policy management, performance management, information management, and resource management. Generally, the systems related to policy, information, and resources will cut across all aspects of the University's operations. Performance management systems may often be associated with specific strategies of the University.

Figure 8

Key Accountability Control Systems of State Agencies and Universities



Planning and Budgeting

Policies and Procedures

Human Resources and
Organizational Structure

Effectiveness: Goals,
Objectives, Strategies

Information
Flow/Communication

Automation

Performance Measurement
Systems



Cash	Bonds	Taxes	Personnel	Transfers In
Investments	Payables	Fees	Program	Transfers Out
Loans and Contracts	Other	Grants, Contracts	Operating	
Receivables		Operating		
Inventories		Miscellaneous		
Property and Equipment				
Plant and Other Assets				

Themes Pervading All Control Systems:

★ Integrity and Ethical Values	★ Commitment to Competence
★ Management Philosophy and Operating Style	★ Compliance

The following is the assessment of the control systems at the University of North Texas. Thirteen of the accountability areas appear to have control systems that provide reasonable assurance that intended benefits will be achieved. However, eleven of these areas do have aspects of the control systems that could be improved. Two areas do not appear to provide reasonable assurance that they are functioning as intended.

An extensive review of every accountability area was not performed to determine if the control systems are adequate. Risk assessments performed indicated that certain areas were not necessarily material to the current environment. One accountability area, taxes, was not applicable to this audit.

Key Accountability Systems	
Policy Management	
Planning and Budgeting	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Policies and Procedures	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Human Resources and Organizational Structure	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Performance Management	
Effectiveness: Goals, Objectives, Strategies	The design or implementation of the control system does not appear to provide reasonable assurance that it is functioning as intended.
Information Management	
Information Flow and Communication	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Automation	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Performance Measurement Systems	The design or implementation of the control system does not appear to provide reasonable assurance that it is functioning as intended.

Key Accountability Systems	
Resource Management - Assets	
Cash	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Investments	The design of controls appears to provide reasonable assurance that intended benefits will be achieved.
Loans and Contracts	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Receivables	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Inventories	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Property and Equipment	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Plant and Other Assets	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Resource Management - Liabilities	
Bonds	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Payables	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Other	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Resource Management - Revenues	
Taxes	Not applicable.
Fees	Design of controls appears to provide reasonable assurance that intended benefits will be achieved.
Grants and Contracts	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Operating	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Miscellaneous	Extensive review of this area was not performed, therefore, there is not enough information to assess.

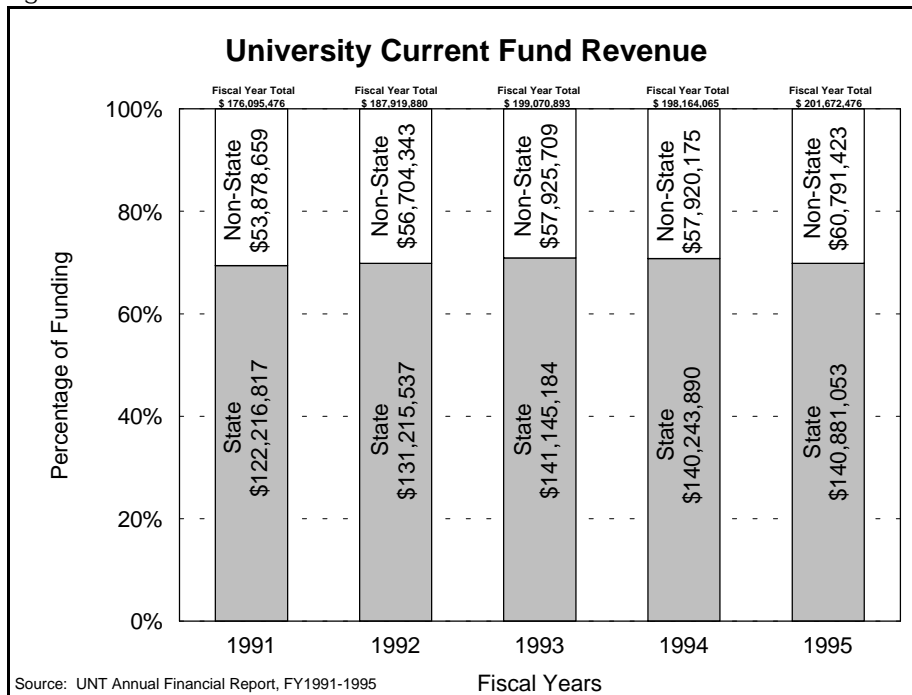
Key Accountability Systems	
Resource Management - Expenditures	
Personnel	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Program	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Operating	The design of controls appears to provide reasonable assurance that intended benefits will be achieved. However, aspects of the control system could be improved.
Transfers	
Transfers In	Extensive review of this area was not performed, therefore, there is not enough information to assess.
Transfers Out	Extensive review of this area was not performed, therefore, there is not enough information to assess.

Financial Information

The University of North Texas had current fund revenues totaling \$201,672,476 and current fund expenditures totaling \$191,580,975 in fiscal year 1995. As expected, the largest amount of revenue and expenses were in the Education and General Fund.

Current fund revenues and selected current fund expenditures for fiscal years 1991 through 1995 are segregated into various categories in the following graphs. Current fund expenditures are further divided to illustrate the approximate cost per full-time student equivalent (FTE) and semester credit hour (SCH) for the category.

Figure 9



Current fund revenues are shown divided by state and nonstate funding sources. A breakdown of state and nonstate funding over the past five years is also included.

Figure 9 (repeated)

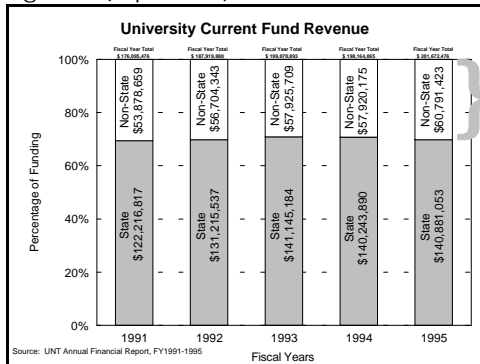
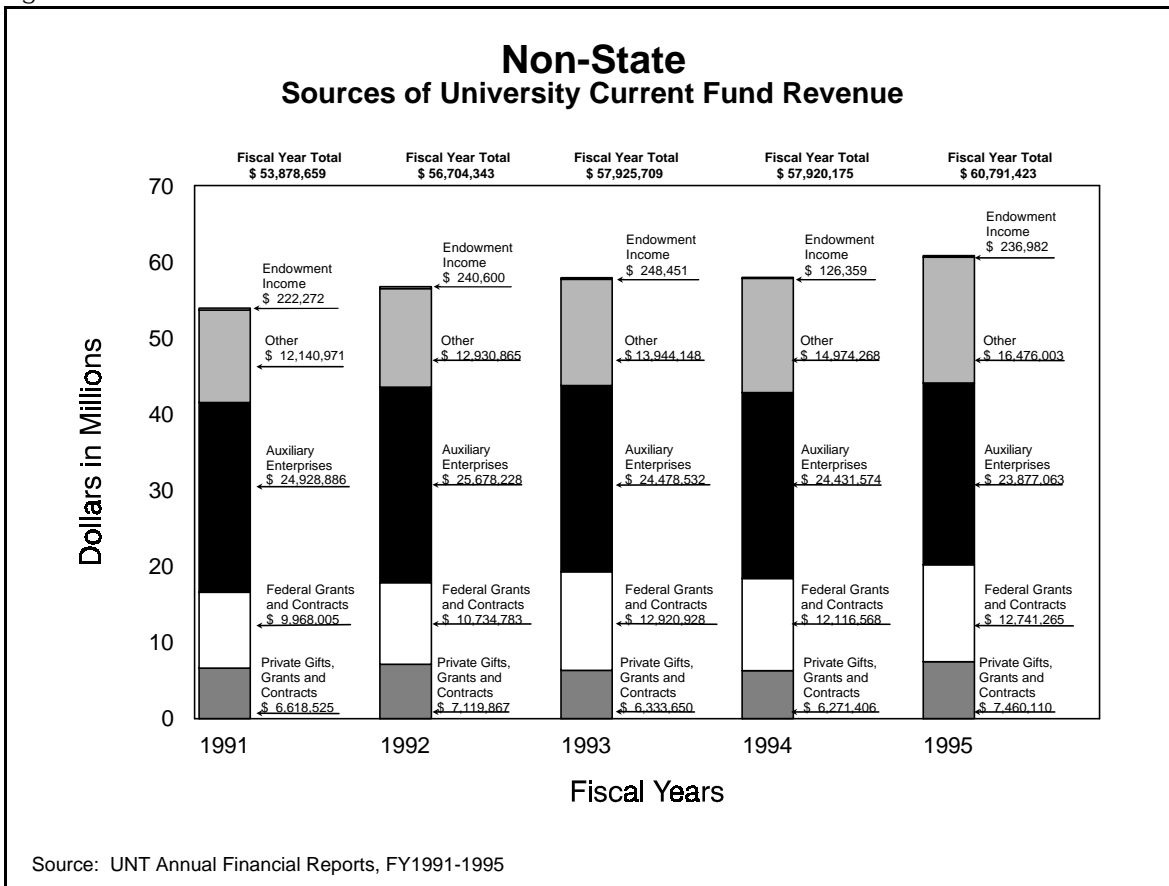


Figure 10



During the past five years, current fund revenues have increased overall with consistent increases primarily in tuition and fees. State appropriated funding peaked in 1993 with decreases since that time. Revenues have fluctuated in the areas of private gifts and contracts, state grants and contracts, and auxiliary enterprises. Higher Education Assistance Fund (HEAF) revenue, as expected, remains constant.

Figure 9 (repeated)

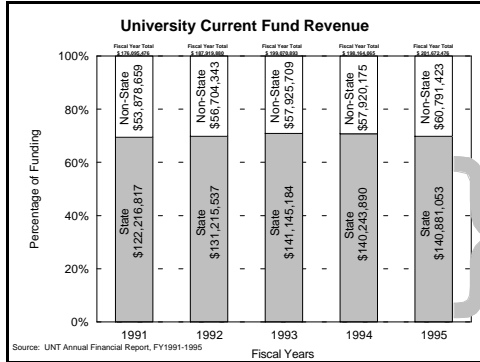
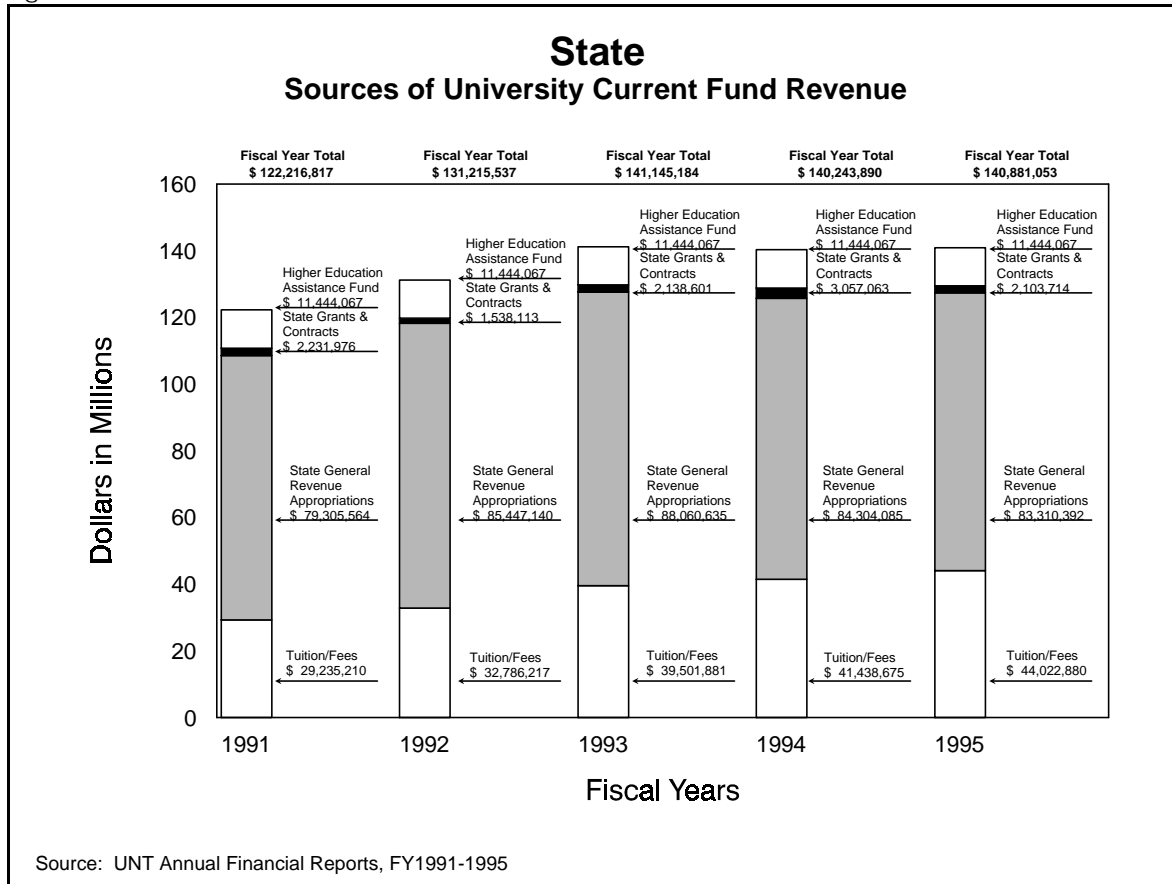
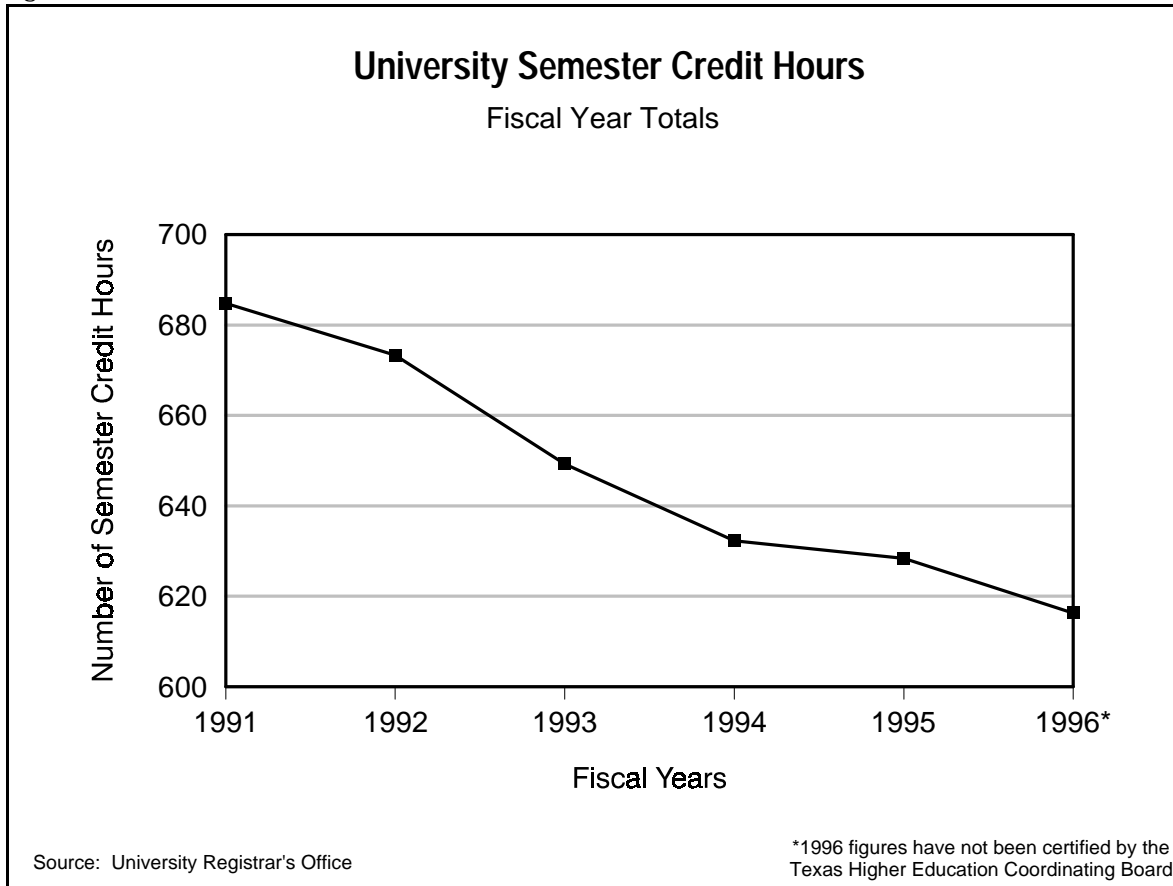


Figure 11



While the University has experienced overall increases in University spending in recent years, gradual decreases in student enrollment have occurred as reflected in the downward trend in SCH.

Figure 12



Selected current fund expenditures have been separated by functional and services areas and divided by the number of SCH and FTE for five fiscal years. The SCH equals the total credit hours taken during each long semester and summer I and II sessions for the fiscal year. Related to this, FTE students are determined by dividing the SCH by 30 (e.g., 12 hours for each long semester and 6 hours for the summer I and II sessions).

Figure 13

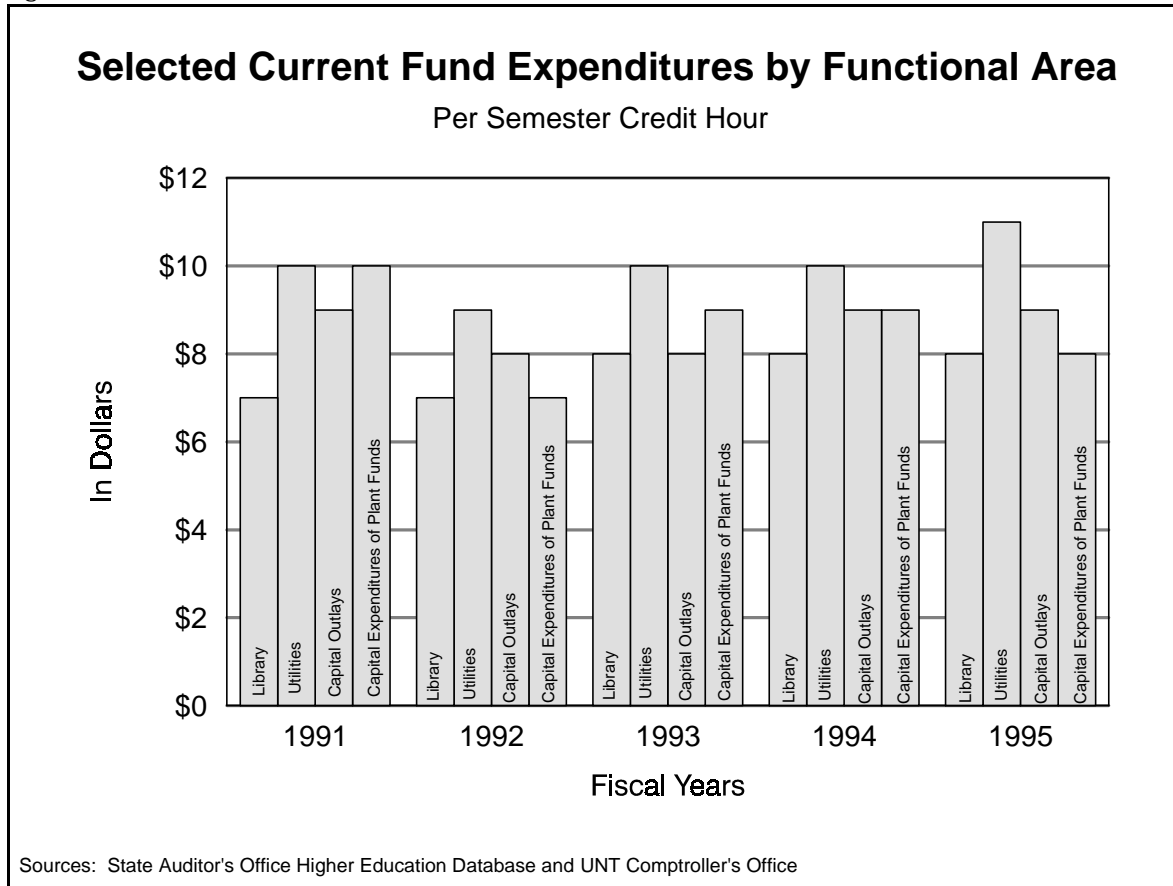
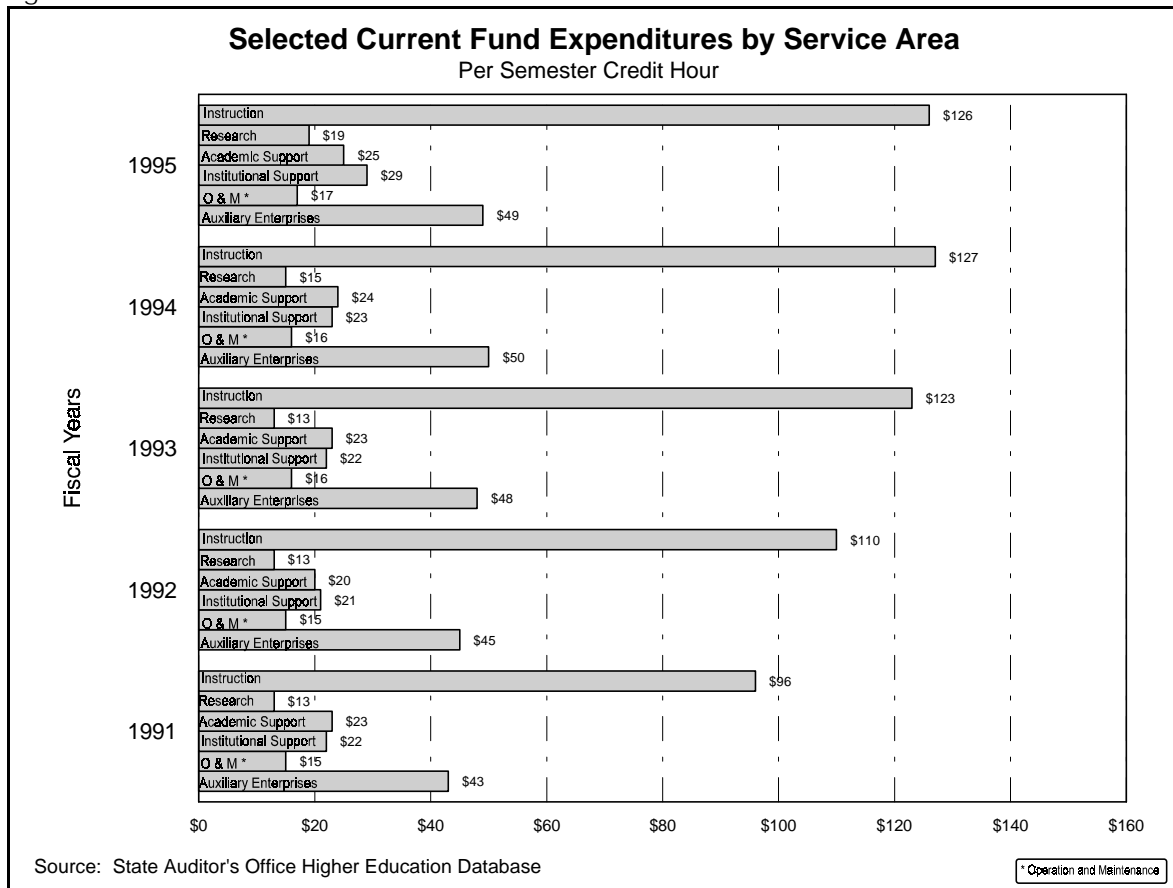


Figure 14



Increased spending occurred mainly for utilities, and in the areas of research, institutional support, and academic support. Instruction, by far the largest service area expenditure, decreased slightly in 1995 after significant increases the previous four years. Library expenditures, along with expenditures for auxiliary enterprises, peaked in 1993 and 1994 respectively, and since that time have decreased slightly. Expenditures for capital outlays, capital expenditures of plant funds, and operation and maintenance have fluctuated mildly from year to year.

Figure 15

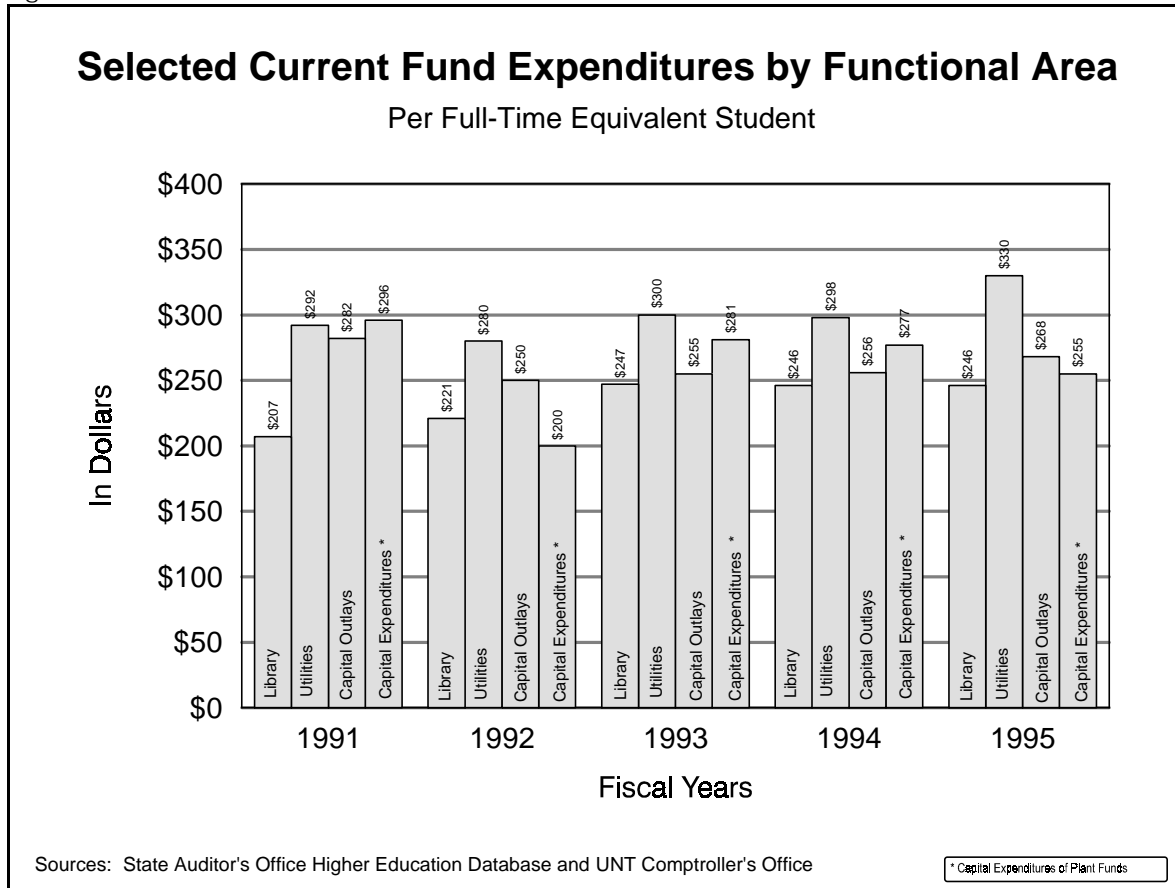
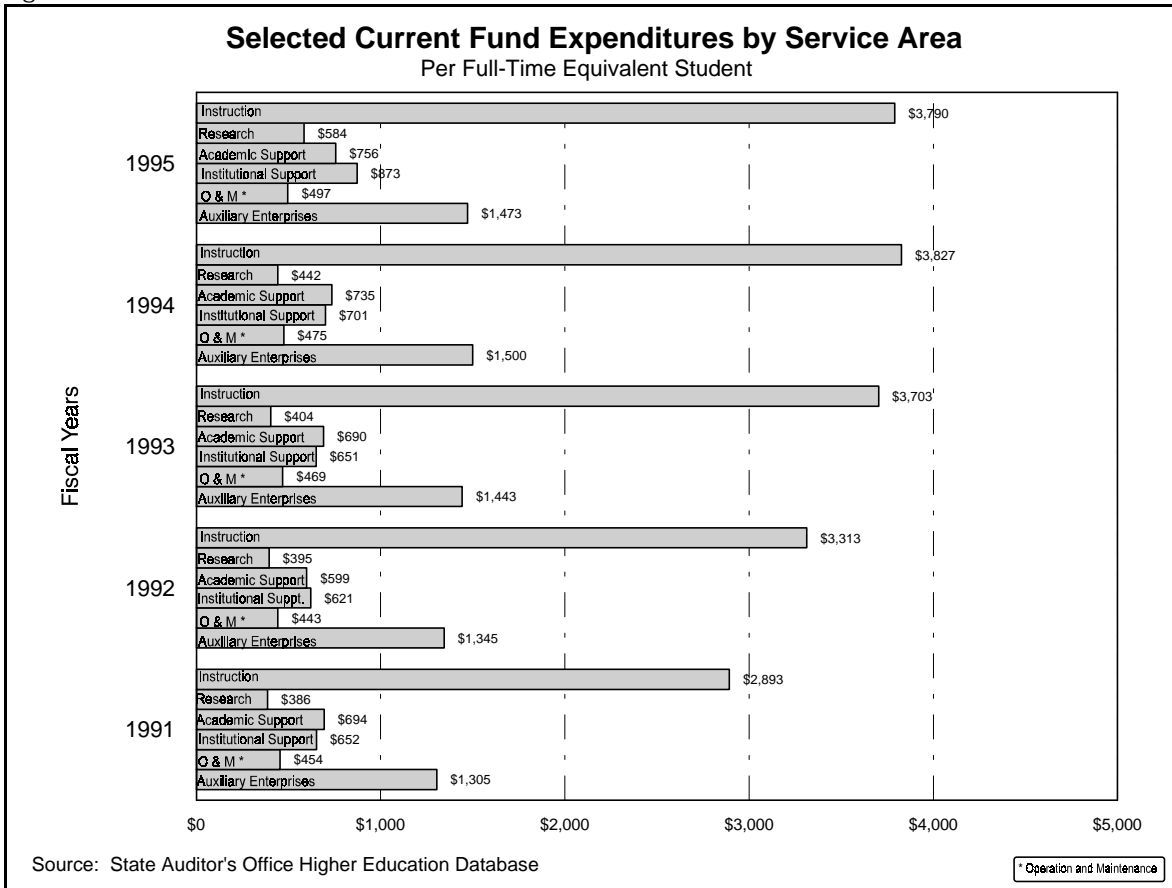


Figure 16



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