

An Audit Report on

University Formula Funding Reporting



Office of the State Auditor
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Key Points Of Report

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Key Facts and Findings

- The 15 universities audited are in compliance for 99.7 percent of their \$1.2 billion in biennium appropriations generated by semester credit hours.
- Our formula funding audit indicates that \$5,660,501 should be considered for reduction to the universities affected due to overreporting of semester credit hours. Consideration should also be given to underreporting of semester credit hours which should increase appropriations to the affected universities by \$2,532,354.
- Our review of the fiscal year 1994-1995 Requests for Legislative Appropriations noted that the actual fiscal year 1992 education and general revenue amounts were materially accurate.
- Controls over the reporting of formula funding data should be improved to prevent errors. Errors were noted in reporting class size, tuition payment, student semester credit hours based on add/drop dates, and students' classification.

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This compliance audit was conducted in accordance with Senate Bill 5, Article III, Section 25 (General Appropriations Act, 73rd Legislature, Regular Session).

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Executive Summary

The results of the formula funding audit indicate that the universities audited are in compliance for 99.7 percent of their \$1.2 billion in biennium appropriations generated by semester credit hours. Of these appropriations, \$5,660,501 should be considered for reduction to the universities affected due to overreporting of semester credit hours. Consideration should also be given to underreporting of semester credit hours, which should increase appropriations to the affected universities by \$2,532,354.

These proposed adjustments were represented by errors in the reporting of formula funding data, specifically eligible semester credit hours which generate 82 percent of dollars in the formula funding calculations. (The proposed adjustments are shown in Figure 1 in the Detailed Issues and Recommendations section of this report.) The proposed adjustments may result in actual adjustments to appropriations as determined by the Legislative Budget Board and the Texas Higher Education Coordinating Board (Coordinating Board).

Compliance errors generating proposed adjustments were noted in:

- reporting of class enrollment
- payment of tuition by the official reporting date
- documenting students' proper classification
- claiming of students for funding based on add/drop dates

The combination of these compliance errors were considered significant at the three universities mentioned below.

The University of Texas at Arlington Does Not Ensure Reported Student And Class Data Reflect Conditions As Of The Official Reporting Date

The University of Texas at Arlington does not ensure that student and class data reported to the Coordinating Board reflects conditions as of the official reporting date. The University adjusts student and class reports to include activity occurring after the official reporting date, which may result in the University receiving a disproportionate share of appropriations.

Prairie View A&M University Does Not Maintain Documentation To Support Class Sizes

Prairie View A&M University does not maintain sufficient documentation to support class sizes (the number of students in the class) reported for formula funding purposes. As a result, we could not determine whether errors noted were valid errors or errors that could be cleared with sufficient documentation.

Texas Southern University Does Not Maintain Documentation To Support Class Sizes

Texas Southern University does not maintain sufficient documentation to support class sizes (the number of students in the class) reported for formula funding purposes. As a result, we could not determine whether errors noted were valid errors or errors that could be cleared with sufficient documentation.

Executive Summary

Education and General Income In The Fiscal Year 1994-1995 Requests for Legislative Appropriations Was Materially Accurate

Our review of the fiscal year 1994-1995 Requests for Legislative Appropriations noted that the actual fiscal year 1992 education and general income amounts were materially accurate. The review consisted of analytical procedures and included tracing amounts to the universities' annual financial reports and performing trend analyses of net tuition and indirect costs.

Summary of Audit Objective And Scope

The primary objectives of the audit were to:

- Audit the accuracy of all variables of selected formulas used in making 1994 and 1995 formula appropriations.
- Report any differences from data submitted by the institutions to the Coordinating Board.
- Audit the accuracy of education and general income reported in the institutions' fiscal year 1994-1995 Request for Legislative Appropriations.

The scope of the audit focused on the accuracy of semester credit hours, the variable that drives 82 percent of the formula funding calculations. Our test work concentrated on the verification of student enrollment, classification, class size, semester credit hours, and tuition payments. Verifying those items allowed us to attest to the accuracy of reported

semester credit hour amounts. Test work concentrated on the base period semesters used to calculate funding for the 1994-1995 biennium. These semesters were summer and fall 1992 and spring 1993.

Section 1:

**Non-Compliance With State Law And Texas Higher Education
Coordinating Board Rules May Result In Appropriation Adjustments**

Instances of non-compliance with state law and Coordinating Board rules resulted in overfunding of \$5,660,501 and underfunding of \$2,532,354 during the 1994-1995 biennium for the universities audited. These instances were errors in the reporting of formula funding data, specifically eligible semester credit hours, which generate 82 percent of the dollars in the formula funding calculations. (The proposed adjustments are shown in Figure 1 on the following page.) The proposed adjustments may result in actual adjustments to appropriations as determined by the Legislative Budget Board and the Coordinating Board.

Table 1

Proposed Adjustments In Semester Credit Hours and Dollars

University	1994-1995 Biennium Formula Funding Appropriations Generated by Semester Credit Hours	Net Semester Credit Hours	Adjustments to University Appropriations Based on Projections Increase/(Decrease)		
			Proposed Decrease in Appropriations	Proposed Increase in Appropriations	Net Adjustment-
Lamar	\$30,792,999	34	\$(31,255)	\$14,913	\$(16,342)
Midwestern State	\$16,061,381	0	\$0	\$0	\$0
Prairie View A&M	\$19,004,302	283	\$(6,909)	\$63,243	\$56,334
Stephen F. Austin	\$38,266,928	(1,936)	\$(228,781)	\$0	\$(228,781)
Southwest Texas State	\$59,278,740	185	\$0	\$24,590	\$24,590
Texas A&M	\$204,049,753	(3,366)	\$(1,478,806)	\$0	\$(1,478,806)
Texas A&M - Kingsville	\$20,330,007	0	\$0	\$0	\$0
Texas Southern	\$28,976,481	1,276	\$(171,935)	\$683,974	\$512,039
Texas Tech	\$101,108,184	0	\$0	\$0	\$0
The University of Texas at Arlington	\$88,592,517	(23,718)	\$(3,402,471)	\$296,571	\$(3,105,900)
The University of Texas at Austin	\$250,843,708	0	\$0	\$0	\$0
The University of Texas at El Paso	\$46,818,818	(10)	\$(123,281)	\$180,669	\$57,388
The University of Texas - Pan American	\$33,242,311	(391)	\$(79,421)	\$0	\$(79,421)
University of Houston	\$139,634,303	9,970	\$(137,642)	\$1,268,394	\$1,130,752
University of North Texas	\$95,480,369	0	\$0	\$0	\$0
Total	\$1,172,480,801	\$(17,673)	\$(5,660,501)	\$2,532,354	\$(3,128,147)

Exceptions generating proposed adjustments were noted in:

- the reporting of class enrollment
- the payment of tuition by the official reporting date
- documenting students' proper classification
- the claiming of students for funding based on add/drop dates

Section 1-A:

Class Size Reporting Errors

Errors in reporting class size were noted at 9 of the 15 universities audited. Class enrollment errors result from universities over- or underreporting the number of students in a class. For example, a university may report that 25 students were enrolled in a class when, in fact, 24 were actually enrolled. Enrollment information is used to allocate funding to the universities.

Recommendation:

Universities should establish an internal quality review process to minimize the possibility of erroneous enrollment reporting. A quality review process performed by knowledgeable personnel would help ensure the accuracy of information reported to the Coordinating Board.

Section 1-B:

Tuition Payment Errors

Four of the 15 universities audited did not collect the proper tuition from some students by the official reporting date. Students who have not paid the university-billed tuition by the official reporting date are not eligible to be claimed for state funding of their semester credit hours.

Recommendation:

Each university should ensure that a system exists which properly assesses and records the payment of tuition. The system should maintain, at a minimum, the tuition amount assessed and the actual dates of all tuition payments or refund-related transactions.

Section 1-C:

Student Classification Errors

Student classification exceptions were noted at 3 of the 15 universities audited. These errors involved the inappropriate classification of undergraduate, graduate, and doctoral students. Since student classification affects the formula funding process, appropriate student classifications should be reported.

Recommendation:

We recommend that all universities ensure students are properly classified for reporting purposes according to their respective classification.

Section 1-D:

Post-Official Reporting Date Exceptions

Student and class reports submitted by 10 of the 15 universities audited included activity that occurred after the official reporting date. Because the official reporting date is used by the Coordinating Board as the precise date for counting semester credit hours, university reports should only reflect conditions as of the official reporting date.

Recommendation:

We recommend the universities ensure that activity occurring after the official reporting date does not impact the information in the student and class reports.

Section 2:

University Documentation Procedures Need To Be Improved

The combination of compliance errors were considered significant at the three universities mentioned below.

Section 2-A:

The University Of Texas At Arlington Does Not Ensure Reported Student And Class Data Reflects Conditions As Of The Official Reporting Date

The University of Texas at Arlington does not ensure that student and class data reported to the Coordinating Board reflects conditions as of the official reporting date. The University adjusts student and class reports to include activity occurring after the

official reporting date, which may result in the University receiving a disproportionate share of appropriations.

All universities submit student and class reports to the Coordinating Board for use in the formula funding process. The Coordinating Board requires that this data reported by the universities reflect conditions as of the official reporting date. However, the University reports activity occurring after the official reporting date such as adds/drops and late tuition payments. These activities occurred between the official reporting date and their submission of student and class reports.

Recommendation:

We recommend the University modify reporting procedures to ensure that student and class data reported to the Coordinating Board reflects conditions as of the official reporting date.

Management's Response:

The University will modify reporting procedures to ensure that student and class data reported to the Coordinating Board reflects conditions as of the official reporting date.

Section 2-B:

Prairie View A&M University Does Not Maintain Sufficient Documentation To Support Class Sizes

Prairie View A&M University does not maintain sufficient documentation to support class sizes (the number of students in the class) reported for formula funding purposes. As a result, we could not determine whether errors noted were valid errors or errors that could be cleared with sufficient documentation.

Since our audit results directly impact our proposed funding adjustments for the University, these adjustments may have been different had sufficient documentation existed.

Recommendation:

We recommend the University maintain sufficient documentation to support class sizes reported for formula funding purposes.

Management's Response:

We are in agreement that all official documentation should be maintained to support official reporting date class sizes and have taken appropriate actions to ensure that class rosters and drop/add slips will be retained and available for review. We also agree that the proposed funding adjustments may have been slightly different if sufficient documentation had been retained.

Section 2-C:

Texas Southern University Does Not Maintain Sufficient Documentation To Support Class Sizes

Texas Southern University does not maintain sufficient documentation to support class sizes (the number of students in the class) reported for formula funding purposes. As a result, we could not determine whether errors noted were valid errors or errors that could be cleared with sufficient documentation.

Since our audit results directly impact our proposed funding adjustments for the University, these adjustments may have been different had sufficient documentation existed.

Recommendation:

We recommend the University maintain sufficient documentation to support class sizes reported for formula funding purposes.

Management's Response:

Texas Southern University, through its Registrar's Office, will adopt the following documentation procedures in response to the recommendation in the audit:

- *Extract and freeze the computer data tape on the 12th class day.*
- *Review accuracy of appropriate CBM reports against class roll books.*
- *Retain the 12th class day roll books as specified by the TSU Document Retention Schedule.*
- *Coordinate the reconciliation and accuracy of 12th class day data with fiscal data.*

Section 3:

Education And General Income In The Fiscal Year 1994-1995 Requests For Legislative Appropriations Was Materially Accurate

Our review of the fiscal year 1994-1995 Requests for Legislative Appropriations noted that the actual fiscal year 1992 education and general income amounts were materially accurate. The review consisted of analytical procedures and included tracing amounts to the universities' annual financial reports and performing trend analyses of net tuition and indirect costs.

The fiscal year 1992 education and general income amounts contained in the requests may include estimates. Estimates may have been used since the requests were due at the beginning of the fiscal year, necessitating their preparation before the end of the fiscal year. The timing of the requests made it difficult to verify the accuracy of the amounts. Timing may further affect the amounts in the requests for the 1996-1997 biennium since they were due in July 1994.

Audit Objectives, Scope, And Methodology

Objectives

The primary objectives of the audit were to:

- Audit the accuracy of all variables of selected formulas used in making 1994 and 1995 formula appropriations.
- Report any differences from data submitted by the institutions to the Coordinating Board.
- Audit the accuracy of education and general income reported in the institutions' fiscal year 1994-1995 Requests for Legislative Appropriations.

Scope

The scope of the audit focused on the accuracy of semester credit hours, the variable that drives 82 percent of the formula funding calculations. Our test work concentrated on the verification of student enrollment, classification, class size, semester credit hours, and tuition payments. Verifying those items allowed us to attest to the accuracy of reported semester credit hour amounts. Test work concentrated on the base period semesters used to calculate funding for the 1994-1995 biennium. These semesters were summer and fall 1992 and spring 1993.

Methodology

Risk analysis was used to select 15 of the 35 universities funded by formulas. This analysis considered materiality, financial condition, and audit history in the selection for testing. The four health science centers were not included since they are not materially funded by formulas. Our selection of universities through risk analysis was developed in consultation with the Legislative Budget Board and the Coordinating Board.

There are 15 funding formulas, each driven by variables reported by universities. We selected four formulas for audit: faculty salaries, departmental operating expenses, library, and instructional administration. A single variable, semester credit hours, accounts for 82 percent of the \$2.5 billion funded by formula in the 1994-1995 biennium.

A statistical sample of 300 classes, including one student from each class, was selected at each university. To select a sample, all semester credit hours taught by a specific program area were multiplied by recommended funding rates to arrive at the total number of dollars associated with a university's semester credit hours. Populations were stratified based on semester credit hours within each of the program

areas, such as liberal arts, engineering, etc., and their related recommended dollar amounts. Dollar-unit sampling was then used to randomly select samples of 300 "dollars" from a stratified population. These "dollars" were related back to specific classes and students within those classes. Attribute testing was applied to the specific classes and students selected through this sampling process.

Attributes were developed to fully test the accuracy of semester credit hours reported to the Coordinating Board. These attributes were tested by verifying semester credit hour data collected from university records to semester credit hour data as reported to the Coordinating Board. Registrars' offices and internal audit departments at all 15 universities assisted in gathering data and testing these attributes.

Our audit examined appropriate reporting of student enrollment, payment of tuition, student classification, student semester credit hours, and class size. For purposes of projecting audit results, two projection methodologies were used. The dollar-unit methodology was used to project errors to the population for compliance/non-compliance type attributes. The Horovitz-Tompson methodology was used to project errors resulting from partial over- or underreporting of actual amounts. The table on the following page illustrates projection methodologies according to the attributes that were tested:

Projection Methodology	Attribute	Error type	Projection Method
Dollar-Unit	Student Enrollment/ Registration	Exception to attribute requirements due to inconsistencies between class rosters and university supporting data. Any deviation from attribute requirements resulted in a sample error.	Projected error rate for university is calculated and applied against total funding.
	Proper Tuition Payment	Exception to attribute requirements due to nonpayment of proper tuition. Any deviation from attribute requirements resulted in a sample error.	
Horovitz-Tompson	Student Semester Credit Hours	Incorrect reporting of student semester credit hours. A deviation from reported student semester credit hours was considered an error to the extent student semester credit hours reported exceeds/is less than actual.	The proposed adjustment is determined by dividing the dollar amount over/under for each student semester credit hour error by the probability of the sampled <i>student</i> being selected.
	Student Classification	Incorrect reporting of student classification. Errors considered to the extent dollar funding rate for the classification reported varies from the actual rate.	The proposed adjustment is determined by dividing the dollar amount over/under for each student classification error by the probability of the sampled <i>student</i> being selected.
	Class Size	Incorrect reporting of university class sizes. An error in reported class size was considered only to the extent that class size reported exceeds/is less than actual.	Determined by dividing the number of students over/underreported for each class by the probability of the sampled <i>class</i> being selected. This amount is then multiplied by the appropriate funding rates to arrive at the proposed dollar adjustment.

This audit was performed by the following members of the State Auditor's staff:

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Background

State financing of higher education programs for public universities totaled more than \$2.5 billion for the 1994-1995 biennium appropriations. The appropriation is allocated to each university based on formulas recommended by the Coordinating Board. Texas will provide funding to 35 universities and four health science center nursing programs during the 1994-1995 biennium.

Each public university must qualify under, and comply with, the rules and regulations of the Coordinating Board, the provisions of the General Appropriations Act, and the Texas Education Code in order to receive funding. Senate Bill 5 (General Appropriations Act), 73rd Legislature, Regular Session, Article III, Section 25 (*Formula Variable and Educational and General Income Audits*) requires the State Auditor to audit the accuracy of all variables of selected formulas used in making the 1994 and 1995 formula appropriations.

Previous formula funding audits conducted limited procedures on the variables. This year's audit covered 15 universities. Future audits may include other universities based on a risk assessment of all universities.

Reference List

The books and reports listed below are relevant to the Formula Funding Process:

1992 Annual Financial Reports for all universities audited.

Request For Legislative Appropriations For Fiscal Year 1994 and 1995 for all universities tested.

State of Texas. General Appropriations Act, 72nd Legislature (First Called Session), House Bill 1, 1991.

_____. General Appropriations Act, 73rd Legislature (Regular Session), Senate Bill 5, 1993.

_____. Texas Higher Education Coordinating Board. *Definitions of Elements of Institutional Cost For Fiscal Years 1994 and 1995.*

_____. Texas Higher Education Coordinating Board. *Funding Formulas - Texas General Academic Institutions For Fiscal Years 1994 and 1995.*

_____. Texas Higher Education Coordinating Board. *Funding Formulas - Texas Health Science Centers (Nursing Faculty Salaries) For Fiscal Years 1994 and 1995.*

_____. Texas Higher Education Coordinating Board. *Texas Public Universities - Summary of Fall 1993 Database.*

_____. Texas Higher Education Coordinating Board. *Reporting and Procedures Manual for Public Universities.* September 1992.

Results Of Formula Funding Audit Tests

The formula funding audit tests were performed to determine the accuracy of selected variables and formulas used in calculating 1994 and 1995 formula appropriations. The following attributes were tested against the Student Report (CBM 001) and the Class Report (CBM 004) to determine the accuracy of the enrollment reports submitted by each university to the Coordinating Board:

- Student Enrollment/Registration was tested to determine if the sample student was enrolled in the sample class as of the official reporting date.
- Tuition Payment (by Official Reporting Date) was verified. The university must collect the proper amount of tuition, or have a valid accounts receivable, by the official reporting date.
- Semester Credit Hours were tested to determine whether the sample student's total semester credit hours as shown in university records matched to what was reported on the Student Report.
- Student Classification was tested to determine whether the university's documented student classification for the sample student agrees with the Student Report data.
- Class Size was tested to determine if the number of students reported on the Class Report to the Coordinating Board was the eligible number of students documented on a certified class roll, or other appropriate documentation.

The table on the following page indicates areas where exceptions were noted during our testing:

University	Attributes Tested - "X" = Exception				
	Student Enrollment/Registration	Tuition Payment	Semester Credit Hours	Student Classification	Class Size
Lamar					X
Midwestern State					
Prairie View A&M			X		X
Stephen F. Austin	X	X	X		X
Southwest Texas State			X		X
Texas A&M		X	X		X
Texas A&M - Kingsville					
Texas Southern			X	X	X
Texas Tech					
The University of Texas at Arlington	X	X	X		X
The University of Texas at Austin					
The University of Texas at El Paso				X	X
The University of Texas - Pan American		X			X
University of Houston			X	X	
University of North Texas					

Copies of this report have been distributed to the following:

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Honorable Bob Bullock, Lieutenant Governor, Vice Chair
Senator John Montford, Chair, Senate Finance Committee
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Representative Robert Junell, Chair, House Appropriations Committee
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