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**State Auditor**

An Audit Report on

# **Enrollment Reporting by Texas Public Universities**

September 2009

Report No. 10-005



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## Overall Conclusion

Texas public universities' errors in enrollment data for the 2010-2011 base year (the Summer 2008, Fall 2008, and Spring 2009 semesters) were below the 2 percent error rate allowed by the General Appropriations Act (81st Legislature). Therefore, no adjustments to the universities' appropriations are necessary as a result of errors in the universities' reported enrollment data.

Identified errors in enrollment data totaled approximately \$532,000 in net under-funding of enrollment-based appropriations (see text boxes). All identified errors fell below the 2 percent allowable error rate. Enrollment-based formula funding appropriations to all universities for the 2010-2011 biennium total \$3,734,776,511.

### Enrollment Testing

The State Auditor's Office conducted on-site audits at eight universities. All Texas general academic higher education institutions were asked to self-report any known errors in enrollment data.

Testing of enrollment data included collecting data reported to the Higher Education Coordinating Board (Coordinating Board), testing that data against data in universities' student information systems, and examining controls at the universities to determine whether data is collected and reported correctly.

### Enrollment Audit Overview

The General Appropriations Act (81st Legislature), Rider 18, page III-231, specifies that the accuracy of enrollment data that Texas public institutions of higher education submit for use in formula funding is subject to audit by the State Auditor's Office.

The General Appropriations Act also specifies that: "The calculation of revised appropriation amounts shall allow each institution an error rate of up to 2 percent of the biennial appropriations related to the variables audited at that institution."

### Over- and Under-funding

In analyzing enrollment funding, auditors identified enrollment-based funding as Operations Support funding and Teaching Experience Supplement funding. The amounts of these types of funding are determined based on qualifying semester credit hours (SCH) reported by the universities.

"Over-funding" occurs when a university reports more qualifying SCH than it is entitled to report. This results in that university receiving more funding than it would have been allocated if those items had been reported correctly.

"Under-funding" occurs when a university reports fewer qualifying SCH than it is entitled to report. This results in that university receiving less funding than it would have been allocated if those items had been reported correctly.

## Summary of Information Technology Review

Auditors assessed the information technology (IT) controls over the universities' student information systems and other automated processes used for enrollment reporting. Auditors evaluated general IT controls, including access to student data, password management, and controls over the transmission of enrollment

*This audit was conducted in accordance with the General Appropriations Act (80th Legislature), Rider 8, Page III-188; Rider 9, Page III-199; and Rider 18, Page III-228.*

*For more information regarding this report, please contact Verma Elliott, Audit Manager, or John Keel, State Auditor, at (512) 936-9500.*

data to the Coordinating Board. Auditors also evaluated application controls, including input controls, process controls, and output controls.

Auditors identified issues related to controls over the student information systems and the reliability of certain universities' enrollment data. To minimize risks, auditors communicated details about these issues separately in writing to the universities.

### ***Summary of Objectives, Scope, and Methodology***

The audit objectives were (1) to enhance accountability for enrollment reporting by reviewing self-reported enrollment data from Texas public institutions of higher education and auditing the accuracy of the base year data used for formula funding and (2) to report on the use of distance education as a component of state-funded enrollment hours.

The scope of this audit included the universities' semester credit hour data for the 2010-2011 base year (the Summer 2008, Fall 2008, and Spring 2009 semesters). Each university is allowed up to a 2 percent error rate for enrollment-based appropriations related to the variables audited at that university. Auditors also selected eight universities for on-site audits based on a risk assessment. Auditors did not audit the accuracy of universities' self-reported errors or the distance education programs at the eight universities visited.

The audit methodology consisted of conducting interviews; collecting and reviewing information; and performing tests, procedures, and analyses against predetermined criteria. Auditors obtained the universities' reported information from the Coordinating Board and audited the accuracy of enrollment reporting.

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# Detailed Results

## Chapter 1

### *Errors in Universities' Enrollment Data Were Within the Allowable Error Rate*

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Identified errors in enrollment data totaled approximately \$532,000 in net under-funding of enrollment-based appropriations. All identified errors fell below the 2 percent allowable error rate.

#### Universities Selected for On-Site Audits

- Lamar University.
- Texas A&M International University.
- Texas A&M University.
- Texas A&M University-Kingsville.
- University of Houston.
- University of North Texas.
- The University of Texas at Austin.
- The University of Texas at Brownsville.

The State Auditor's Office conducted on-site fieldwork at eight universities that were selected based on a risk assessment (see text box for a list of the eight universities).

Auditors conducted interviews, tested reports, and obtained detailed data from the student information systems to further analyze the accuracy of these universities' enrollment reporting.

Auditors identified three errors, all at Lamar University, which were below the 2 percent allowable error rate. Lamar University under-reported three courses by one student each. When projected<sup>1</sup> across all three semesters, these three errors totaled approximately \$714,000 in under-funding, or 0.85 percent of Lamar University's 2010-2011 appropriations.

While conducting on-site audits at the eight universities, auditors also identified issues related to controls over the student information systems and the reliability of certain universities' enrollment data. Specifically:

- User access of former employees or whose job duties no longer require them to have access was not consistently removed in a timely manner.
- Universities granted update or modify capabilities to employees who did not need these capabilities to perform their job duties.
- Password controls did not force users to change passwords regularly or allow for the expiration of passwords.

Auditors communicated specific details about these weaknesses separately in writing to each university.

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<sup>1</sup> Auditors tested a sample of students and projected the error rates identified during testing across all students for the three terms comprising the 2010-2011 base year (the Summer 2008, Fall 2008, and Spring 2009 semesters). Auditors did not project the universities' self-reported errors because it was assumed that the universities reported all known errors.

The State Auditor's Office asked universities to self-report any known errors in enrollment data.

Table 1 lists the universities' enrollment errors, including errors found in testing and self-reported data. Specifically:

- Twenty-three universities (66 percent) over-reported semester credit hours that totaled approximately \$481,000 in funding. The largest over-reporting at a single university, the University of Texas at El Paso, resulted in over-funding of approximately \$158,000, or 0.12 percent of that university's 2010-2011 appropriations.
- Six universities (17 percent) under-reported semester credit hours that totaled approximately \$1,013,000 in funding. The largest under-reporting at a single university, Lamar University, resulted in under-funding of approximately \$821,000 (which consists of the errors identified during auditor testing totaling \$714,000 and other self-reported errors totaling \$107,000), or 0.98 percent of that university's 2010-2011 appropriations.
- Six universities (17 percent) reported that they identified no errors.

Table 1

University Enrollment Data Error Amounts <sup>a</sup> (Includes Both Self-reported Errors and Errors Identified by Auditors)			
University	Maximum Allowable Error Amount (Two Percent of Total 2010-2011 Biennium Appropriations)	Total 2010-2011 Biennium Self-Reported Errors and Errors Identified by Auditors	Errors as a Percentage of Total 2010-2011 Biennium Appropriations
<b>Universities That Over-reported Enrollment Data</b> (Note: Over-reporting results in over-funding)			
Angelo State University	\$ 654,622	\$ 4,736	0.01%
Midwestern State University	642,118	3,603	0.01%
Prairie View A&M University	1,098,280	30,703	0.06%
Sam Houston State University	2,023,316	10,498	0.01%
Stephen F. Austin State University	1,411,110	4,556	0.01%
Sul Ross State University	216,907	3,138	0.03%
Sul Ross State University Rio Grande College	99,236	2,569	0.05%
Tarleton State University	1,194,280	4,920	0.01%
Texas A&M International University	617,842	2,030	0.01%
Texas A&M University	9,787,309	37,704	0.01%
Texas A&M University at Galveston	323,086	600	0.00%
Texas A&M University-Commerce	1,281,267	27,767	0.04%
Texas A&M University-Corpus Christi	1,174,854	383	0.00%
Texas A&M University-Kingsville	1,044,744	5,834	0.01%

University Enrollment Data Error Amounts <sup>a</sup> (Includes Both Self-reported Errors and Errors Identified by Auditors)			
University	Maximum Allowable Error Amount (Two Percent of Total 2010-2011 Biennium Appropriations)	Total 2010-2011 Biennium Self-Reported Errors and Errors Identified by Auditors	Errors as a Percentage of Total 2010-2011 Biennium Appropriations
Texas A&M University-Texarkana	202,920	2,246	0.02%
Texas Tech University	4,757,524	36,723	0.02%
The University of Texas at Arlington	3,733,034	78,625	0.04%
The University of Texas at Brownsville	508,061	32,276	0.13%
The University of Texas at El Paso	2,541,009	158,237	0.12%
The University of Texas of the Permian Basin	378,038	8,212	0.04%
University of Houston	5,709,926	22,984	0.01%
University of North Texas	4,522,503	1,810	0.00%
West Texas A&M University	877,100	722	0.00%
<b>TOTAL OVER-REPORTING UNIVERSITIES</b>	<b>\$ 44,799,086</b>	<b>\$ 480,876</b>	
<b>Universities That Under-Reported Enrollment Data (Note: Under-reporting results in under-funding)</b>			
Lamar University	\$ 1,676,853	\$ 820,825	0.98%
Texas State University - San Marcos	3,477,007	57,407	0.03%
Texas Woman's University	1,862,248	13,347	0.01%
The University of Texas at Dallas	2,984,047	25,872	0.02%
The University of Texas-Pan American	2,128,819	94,985	0.09%
The University of Texas at Tyler	717,161	231	0.00%
<b>TOTAL UNDER-REPORTING UNIVERSITIES</b>	<b>\$ 12,846,135</b>	<b>\$ 1,012,667</b>	
<b>Appropriation Information for Universities that Reported No Errors and for Which Auditors Did Not Identify Any Errors</b>			
Texas Southern University	\$ 1,235,787	\$ 0	0.00%
The University of Texas at Austin	9,772,817	0	0.00%
The University of Texas at San Antonio	3,365,852	0	0.00%
University of Houston-Clear Lake	1,177,812	0	0.00%
University of Houston-Downtown	1,061,795	0	0.00%
University of Houston-Victoria	436,246	0	0.00%
<b>TOTAL ALLOWABLE ERROR AMOUNT FOR UNIVERSITIES THAT REPORTED NO ERRORS</b>	<b>\$ 17,050,309</b>	<b>\$ 0</b>	<b>0.00%</b>
<sup>a</sup> The totals in this table were rounded to the nearest dollar.			

## *Distance Education Is a Component of State-funded Enrollment*

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All eight universities that auditors visited offer students distance education opportunities. Seven of the eight universities offer a degree using distance education. Auditors obtained information from each university regarding their distance education programs; however, auditors did not audit the distance education programs.

### Background Information

Title 19, Texas Administrative Code, Section 4.103, defines distance education as a course in which the majority of the instruction occurs when the students and instructor are not in the same physical setting. A course is considered to be offered by distance education if students receive more than one-half of the instruction at a different location than the instructor. The course may be formula-funded or offered through extension, and it may be delivered to on-campus students and to those who do not take courses on the main campus.

Title 19, Texas Administrative Code, Section 4.107, allows institutions of higher education to submit for formula funding the following types of academic credit courses:

- Distance education courses delivered to Texas and non-Texas residents located on-campus or at another location in Texas.
- Distance education courses delivered to Texas residents located out of state or out of the country.
- Study-abroad courses.
- Study-in-America courses.

The universities visited offer distance education courses in multiple ways. These include:

- Web-based or Internet broadcast courses.
- Courses offered on interactive video, videotape, DVD, or other types of electronic media.
- Off-campus, face-to-face courses.
- Courses offered through broadcast television or videoconferencing.
- Hybrid courses, which are combinations of some of the above methods and may also include on-campus, face-to-face components.

To reduce the risk that the tests or work submitted for distance education courses were completed by someone other than the enrolled student, the universities assign distance education students unique identification numbers or names and passwords that they must use to log in to online courses. Some

universities also require students to take exams on campus or to use a proctored testing site. Some use various forms of software to detect plagiarism or to limit the amount of time that students can use to complete examinations or quizzes.

The State Auditor's Office attempted to compare distance education programs across the eight universities. However, the universities do not collect the same information in the same ways, and some information was not available. Table 2 on the next page lists summary information about the distance education offerings at the eight universities visited.



Table 2

Summary of Distance Education Offerings at the Eight Universities That Auditors Visited							
University	Methods Used to Offer Distance Education	Number of Course Sections Offered <sup>a</sup>	Number of Courses Offered <sup>b</sup>	Number of Credit Hours Offered <sup>c</sup>	Number of Degree Programs Offered <sup>d</sup>	Number of Subject Areas Offered <sup>e</sup>	Number of Students in Tested Sample with at Least One Distance Education Course <sup>f</sup>
Texas A&M University	Web-based; Interactive Video; Off-campus; and Hybrid (combination of two or more methods)	703	368	2,660	24 (Graduate only)	71	1
University of Houston	On Campus (Hybrid); Off Campus; Web-based; Broadcast Television; Videotape/DVD Purchase; and Internet Broadcast	930	396	Information Not Available	7	48	12
University of North Texas <sup>g</sup>	Off-campus; Web-Based; Videoconferencing	Information Not Available	Information Not Available	Information Not Available	18	40	6
The University of Texas at Austin <sup>h</sup>	Web-based	Information Not Available	88	3,927	None	23	1
Texas A&M University-Kingsville	Off-campus; Videoconferencing; Web-based; and Correspondence	215	140	643	6 (Graduate only)	31	4
Texas A&M International University	Web-based; Interactive Videoconferencing	125	85	Information Not Available	6 (Graduate only)	25	3
The University of Texas at Brownsville	Web-based; Videoconferencing	Information Not Available	162	1,233	16	11	10
Lamar University	Off-campus; Interactive Video; and Web-based	469	164	1,115	11	43	13

<sup>a</sup> The Number of Course Sections Offered is the total number of sections offered for a course by distance education. There may be multiple sections offered per course.

<sup>b</sup> The Number of Courses Offered is the total number of courses offered by distance education.

<sup>c</sup> The Number of Credit Hours Offered is the total number of semester credit hours offered by distance education. This number is the sum of the number of semester credit hours for each course section offered.

<sup>d</sup> The Number of Degree Programs Offered is the total number of degree programs available using distance education.

<sup>e</sup> The Number of Subject Areas Offered is the total number of different subjects for which a distance education course is offered.

<sup>f</sup> During testing, auditors identified the students who were taking at least one distance education course.

<sup>g</sup> The information provided by the University of North Texas is for the Spring 2008 semester, which was the most recent semester for which the University gathered this information.

<sup>h</sup> The University of Texas at Austin does not have a centralized office that coordinates distance education information. The information included in this table pertains to distance education offered through the University Extension program.

# Appendices

Appendix 1

## **Objectives, Scope, and Methodology**

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### Objectives

The objectives of this audit were:

- To enhance accountability for enrollment reporting by:
  - ♦ Reviewing self-reported enrollment data from Texas public institutions of higher education.
  - ♦ Auditing the accuracy of the base year data used for formula funding.
- To report on the use of distance education as a component of state-funded enrollment hours.

### Scope

The scope of this audit included the universities' semester credit hour data for the 2010-2011 base year (the Summer 2008, Fall 2008, and Spring 2009 semesters). Each university is allowed up to a 2 percent error rate for enrollment-based appropriations related to the variables audited at that university. Auditors also selected eight universities for on-site audits based on a risk assessment. Auditors did not audit the accuracy of universities' self-reported errors or the distance education programs at the eight universities visited.

### Methodology

The audit methodology consisted of conducting interviews; collecting and reviewing information; and performing tests, procedures, and analyses against predetermined criteria. Auditors obtained the universities' reported information from the Higher Education Coordinating Board (Coordinating Board) and audited the accuracy of enrollment reporting using the following procedures:

- Tested the accuracy of the information provided by the universities to the Coordinating Board by comparing the information reported by universities to the data in the universities' student information systems. The testing was designed to cover the necessary information for enrollment reporting, such as whether the student was enrolled by the census date, whether tuition was paid by the official payment date, the number of semester credit hours reported per student, the number of students reported for a

course, and other student information (classification, residency, and tuition status).

- Identified and assessed the access controls and the output processes for the systems providing information for enrollment reporting. These systems included the student information and reporting systems.
- Determined whether the primary factor (semester credit hours) used as the basis of the formula funding appropriations by the 81st Legislature was consistent with (1) the number of hours in the Coordinating Board's database and (2) the number of hours reported by individual universities.
- Reviewed universities' self-reported errors in semester credit hours.
- Calculated funding adjustments (if any) due to inaccurately reported semester credit hours.

Criteria used included:

- The General Appropriations Act (81<sup>st</sup> Legislature).
- Texas Education Code, Chapters 51, 54, 61, and 130.
- Title 19, Texas Administrative Code, Chapters 4, 9, 10, and 13.
- The Coordinating Board's *Reporting and Procedures Manual for Texas Public Universities*.

### Project Information

Audit fieldwork was conducted from April 2009 through August 2009. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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

- Jennifer Brantley, CPA (Project Manager)
- Robert Bollinger, CPA, CFE (Assistant Project Manager)
- Erin Cromleigh
- Michael Gieringer, CFE
- Michele Pheeny

- Jeremy Schoech
- Lisa Thompson
- Charles P. Dunlap, Jr., CPA (Quality Control Reviewer)
- Verma Elliott, MBA, CIA, CGAP (Audit Manager)

## Statewide-Enrollment Data

Enrollment steadily increased for public higher education institutions from the Fall 2004 semester through the Fall 2008 semester. Table 3 lists statewide enrollment by the type of higher education institution during this time period.

Table 3

Statewide Student Enrollment by Type of Higher Education Institution					
Type of Institution	Fall 2008	Fall 2007	Fall 2006	Fall 2005	Fall 2004
Public University	509,136	497,195	491,140	484,999	482,124
Independent College or University <sup>a</sup>	115,048	114,042	113,400	112,715	113,451
Public Two-year College <sup>b</sup>	617,507	587,244	575,712	566,071	557,373
Independent Two-year College	615	651	702	698	697
Public Health-related Institution	17,684	16,735	16,103	15,536	15,089
Independent Health-related Institution	2,737	2,759	2,757	2,783	2,671
<b>Totals</b>	<b>1,262,727</b>	<b>1,218,626</b>	<b>1,199,814</b>	<b>1,182,802</b>	<b>1,171,405</b>
<sup>a</sup> Amberton University does not receive Tuition Equalization Grant (TEG) funds and is not included.					
<sup>b</sup> Headcount enrollments in public two-year colleges include only students enrolled in credit courses.					

Source: Higher Education Coordinating Board Web site.

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The Honorable Joe Straus III, Speaker of the House, Joint Chair  
The Honorable Steve Ogden, Senate Finance Committee  
The Honorable Thomas “Tommy” Williams, Member, Texas Senate  
The Honorable Jim Pitts, House Appropriations Committee  
The Honorable Rene Oliveira, House Ways and Means Committee

### **Office of the Governor**

The Honorable Rick Perry, Governor

### **Entities mentioned in this report**

Members of the Board of Regents, Chancellor, and President of each university listed in this report



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