An Audit Report on

The Quality of the State's Public Education Accountability Information

May 2002

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State Auditor's Office

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State Auditor

Key Points of Report

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Overall Conclusion

Because of the vision and efforts of public education leaders and stakeholders since 1984, Texas has one of the most comprehensive and effective public education accountability information systems in the country. The system accommodates local district control and provides comprehensive, multi-year data for decision-making. This information system enables the Texas Education Agency (Agency) to prepare annual school accountability ratings and measure improvements over time. The Agency derives school accountability ratings from student assessment test results and attendance and dropout data reported by campuses and districts. The Agency also uses these indicators to report to the U.S. Department of Education on Title I, Part A program performance each year.

Agency information systems are currently protecting the integrity of accountability data as it is received from the districts, processed at the Agency, and ultimately reported to state and federal authorities and the public. However, data quality weaknesses remain at some campuses. This results in the Agency receiving data that is, to a measurable extent, unreliable. In addition, as both the State Auditor's Office and the Agency's Internal Audit Division have recommended in prior audit reports, the Agency needs to take specific steps to ensure the future quality of the data it reports. We found improvements that can be made at each data collection and reporting location: the campus, the school district, the student assessment test vendor, and the Agency.

Key Facts and Findings

- Texas is one of only nine states that have developed the assessment and information systems necessary to comply with the No Child Left Behind Act the U.S. Congress signed into law in January 2002.
- In general, we found that the Agency's management of accountability information is highly reliable, but the Agency needs to take steps to ensure the reliability of future information management. Under the Agency's Enterprise Data Management Program, data stewards and managers involved in collecting and reporting accountability information and in reporting Title I, Part A information to the Department of Education should develop and enforce formal standards for the data security and quality, documentation, and business continuity of their systems.
- Districts are steadily improving the quality of the accountability data they submit to the Agency. However, weaknesses in data collection, processing, and reporting at some campuses still result in the Agency receiving unreliable data from school districts. Accountability data stewards at the Agency and the districts should help focus training and supervision on identified weaknesses in attendance data, student assessment data, and school leaver data (which is used to calculate dropout rates).
- The Agency should maximize the value of its Special Data Inquiry Unit's data quality audits of districts and campuses.
- There are additional, specific steps Agency divisions can take to enhance the quality and public understanding of accountability data.

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This audit was conducted in accordance with Government Code, Section 321.013.

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Executive Summary

Texas Has a Strong Public Education Accountability Information System

Because of the vision and efforts of a wide range of public education leaders and stakeholders since 1984, Texas has one of the most comprehensive and effective public education accountability information systems in the country. Texas is one of only nine states that have developed the assessment and information systems necessary to comply with the No Child Left Behind Act the U.S. Congress signed into law in January 2002. The act increases the relationship between federal funding and school accountability.

These systems enable the Texas Education Agency (Agency) to prepare annual school accountability ratings and measure improvements over time. Through the 1999-00 school year, the Agency derived school ratings from three indicators based on student assessment results from the current year and attendance and dropout data reported by campuses and districts for the previous year. Beginning with the 2000-01 school year however (the 2001 ratings cycle), attendance was no longer used for school ratings. It was instead used to identify districts for supplementary recognition.

The Agency also uses these indicators to report to the U.S. Department of Education on Title I, Part A program performance each year. In the 2000-01 school year, Title I, Part A provided $665.8 million for 58 percent of Texas campuses (4447 of 7,621) in 93 percent of Texas districts (1,124 of 1,204). These funds are intended to help meet the educational needs of 2.1 million children who (1) are failing or most at risk of failing and (2) reside in areas with high concentrations of low-income families.

The quality of the data on which accountability ratings are based is critical because it can materially affect the distribution of resources and delivery of education services in Texas. A school receiving a low-performing rating risks a decline in the number of students and teachers and a decline in the property values in its area (the basis for its local tax revenues). In addition, although attendance is no longer a base accountability indicator, most of the State's $12 billion Foundation School Program funds are distributed to schools each year on the basis of districts' reported average daily attendance.

The State's Accountability Information Systems Accommodate Local District Control and Provide Comprehensive, Multi-Year Data for Decision-Making

Since 1984, the Agency has developed four major information systems that support and conduct school accountability and Title I, Part A program performance reporting:

- The Public Education Information Management System (PEIMS)
- The Student Assessment Database
- The Academic Excellence Indicator System (AEIS)
- The Title I, Part A Database

The Agency Continues to Improve Its Systems for Collecting, Analyzing, and Reporting Public Education Accountability and Title I, Part A Program Information

The modular structure for developing accountability information increases flexibility in system development and maintenance and facilitates the implementation of system improvements. This structure also allows for the development of in-depth staff expertise for collecting, processing, and reporting the different accountability indicators.

Dependence on the quality of the data submitted by 1,204 different districts, and the need for information consistency and integration across systems, however, present significant challenges to the managers and users of the information in these systems.

While Its Methods for Ensuring the Security and Quality of Accountability Data Are Comprehensive and Numerous, the Agency Has Opportunities for Improvement

The Agency has a number of methods in place to ensure the quality of accountability data. These methods include:

- A variety of strategic planning and monitoring activities for accountability information.
- Comprehensive published definitions, standards, and procedures.
- Automated tools.
- Ongoing oversight, review, and data correction.
- Data quality audits by the Agency's Special Data Inquiry Unit (SDIU) and the Agency's School Financial Audits Division.
- Continuous training and technical assistance.

Although its methods for ensuring accountability data quality are numerous, the Agency could further ensure quality by:

- Developing and implementing data security and quality standards and performing coordinated cyclical reviews of mission-critical enterprise information systems, including accountability systems.
- Maximizing the value of the SDIU's data quality audits of districts and campuses.
- Improving Agency data gathering, processing, and reporting for the three base accountability indicators.

Stewards Need to Develop and Implement Standards and a Cyclical Review Plan for Enterprise Information Systems, Including Systems Involved in School Accountability

Three State Auditor's Office audit reports since 1996 have noted the need for unified standards and executive oversight for the management of all the Agency's major information systems. In addition, the Agency's internal audits of the systems that manage accountability information have provided specific recommendations to sustain future data quality by improving manual and automated controls.

Documentation of automated applications and business continuity were inconsistent across the four information systems we reviewed. Data stewards for mission-critical, enterprise data (including accountability information), information policy and planning committees, the Department of Information Systems, and the Internal Audit Division should collaborate in the Agency's Enterprise Data Management Program to ensure the future security, reliability, and continuity of their information systems and the data they provide. They should also develop criteria and a coordinated plan for cyclical, comprehensive reviews and audits of data security, data quality, and methods in place to ensure consistent security and quality over time.

Additionally, the Internal Audit Division could enhance the value of its audits of information systems by developing additional staff expertise in information technology and systems auditing.

Executive Summary

The Agency Should Maximize the Value of Special Data Inquiry Unit Audits of Districts and Campuses

The Agency's Special Data Inquiry Unit audits districts and campuses with potential accountability data quality problems after the Agency's initial publication of accountability ratings. Such audits can result in the lowering of accountability ratings for districts or campuses that have significant data quality problems.

Currently, however, the Agency is not maximizing the value of this function. To take full advantage of SDIU audits, the Agency should improve SDIU's access to data, enable central coordination of audits and ongoing training and staff development, ensure collaboration between SDIU and accountability data stewarding divisions, and redesign the audit selection and reporting process to ensure highest value.

Stewards of Accountability Data Can Make Specific Improvements to Ensure the Quality of Base Accountability Indicators

In addition to the preceding recommendations, which would result in overall improvements to accountability data quality, there are specific steps that accountability data stewards can take to increase the quality of the data they use and report. For example:

- The Agency's Research and Evaluation Division could increase public understanding of and confidence in dropout reporting by providing a complete breakdown of the numbers and percentages of students reported, recovered, and finalized for all dropout and other leaver reason codes. It could also acknowledge the extent to which poor district data quality and underreported students could affect the statewide dropout rate.
- The Agency's Student Assessment Division and the assessment test vendor should implement additional procedures to monitor full participation by eligible students in student assessment testing and report the results of this monitoring. It should also revise its contract with the assessment test vendor to require that the Agency have access to regular reviews and audits of the vendor's management controls and information systems.
- The Agency's PEIMS Division should require an approved and signed reconciliation between teachers' rosters and campus reports for each PEIMS reporting period.
- The Agency's Student Support Programs Division can make specific improvements to strengthen Title I, Part A reporting to the U.S. Department of Education.
- All three divisions and the districts themselves could use audit results to help focus district and campus training on identified documentation and reporting errors in accountability data. Our tests of samples of data on school leavers, student assessment participation, and attendance found specific types of weaknesses in campus data quality. (A summary of the results of this testing is provided in Appendix 7.)

Summary of Management's Response

Management agrees with the recommendations. Management describes plans, provides timelines, and names parties responsible for ensuring implementation of needed improvements.

Executive Summary

Summary of Objective, Scope, and Methodology

The objective of the audit was to determine whether the Agency is developing accurate, complete, valid, and timely dropout rates, student assessment participation, and attendance rates for calculating school accountability ratings and reporting to the U.S. Department of Education on Title I, Part A performance results.

The audit covered the 1999-00 school year for attendance and school leaver records and the 2000-01 school year for student assessment records. Through the 1999-00 school year, the Agency derived school ratings from these three base indicators as reported by campuses and districts. Beginning in the 2000-01 school year however (the 2001 ratings cycle), attendance was no longer used for school ratings and instead was used to identify districts for supplementary recognition.

Attendance continues to be the basis for distribution to Texas public schools of most of the $12 billion in Foundation School Program funds each year. Our audit did not test the validity of student assessment tests or the reliability of test scoring by the assessment test vendor.

This audit was a collaborative effort of the U.S. General Accounting Office, the Inspector General of the U.S. Department of Education, the City Controller of Philadelphia, the Auditor General of Pennsylvania, and the State Auditor of Texas. The collaborative objective was to provide recommendations to the U.S. Department of Education for helping to ensure the quality of state accountability data used for reporting on Title I, Part A student and school participation and performance.

The scope of this audit covered the pathways for school leaver, student assessment, and attendance data. The pathways included each location at which this data is gathered, processed, and reported. The scope also included accountability school ratings and the Title I, Part A tables in the Agency's annual report to the U.S. Department of Education. Because most Texas charter schools are new and are currently developing data quality procedures, the scope did not include charter schools. The scope also did not include alternative and disciplinary education programs.

Because of the collaborative nature and overall objective of this audit, our report provides more background information than is usual in a Texas State Auditor's Office report.

Our audit methodology consisted of collecting information on the manual and automated procedures and controls for gathering, processing, and reporting leaver, student assessment, and attendance records. We collected this information at each transfer point for these three data records, from the individual campuses to the Agency's calculation of final accountability ratings for the 2000-01 school year (the 2001 ratings cycle). We did not test general or application controls of automated systems.

We performed compliance and data integrity tests at 45 randomly selected Title I, Part A campuses and at the Agency. We used a 10 percent margin of error and a 90 percent confidence level to determine our sample sizes. We reported according to the precision allowed by the error rates we found.

We used the 4,198 campuses that participated in the Title I, Part A program in both the 1999-00 and 2000-01 school years as the population. We randomly selected 45 campuses from this population and then randomly selected from each campus 30 students reported as enrolled at that campus in the PEIMS fall enrollment snapshot for 1999-00. We tested the full sample of 1,350 students for compliance with attendance recording and reporting requirements for the second six weeks of the 1999-00 school year.

From the 1350 students we also derived a sample of 47 students eligible for student assessment testing with a reported status of not tested for one or more of the spring 2001 tests. We tested that sample for compliance with student assessment documentation and coding requirements. Additionally, we identified all school leavers that were reported for the 1999-00 school year from the 12 secondary campuses in our sample of 45 campuses. We then tested a sample of 70 reported leavers for compliance with leaver documentation and coding requirements.

We conducted additional analyses of accountability data quality. We analyzed and evaluated all results against established criteria. This audit was conducted in accordance with generally accepted government auditing standards and standards for statistical analysis from the American Institute of Certified Public Accountants (*Audit Sampling*, NY 1999, pp. 96-99).

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Table of Results, Recommendations, and Responses	
Results and Recommendations	**Management's Response**
The State's Accountability Information Management Systems Accommodate Local District Control and Provide Comprehensive, Multi-Year Data for Decision-Making (Page 12)	
No recommendations.	
The Agency Continues to Improve Its Systems for Collecting, Analyzing, and Reporting Public Education Accountability and Title I, Part A Program Information (Page 13)	
No recommendations.	
Agency Data Stewards Should Develop and Implement Standards and a Cyclical Review Plan for Enterprise Information Systems, Including Systems Involved in School Accountability (Page 16)	
• Stewards of enterprise data (including attendance, assessment, accountability, and Title I, Part A data) should develop and implement standards for the management of enterprise information systems as part of the EDM program. Include standards for documenting business rules for automated programs, manual and automated data security and quality controls, change and test procedures, and business continuity planning.	Agrees
• In collaboration with information planning and policy committees, the Information Systems Department, and the Internal Audit Division, stewards of enterprise data also should develop a comprehensive, coordinated plan for cyclical review, audit, and follow-up of security and quality controls necessary for enterprise data. Reviews should be conducted at least every three years.	Agrees
• Additionally, the Internal Audit Division should further develop staff expertise in information technology and systems auditing.	Agrees
The Agency Should Maximize the Value of Special Data Inquiry Unit Audits of Districts and Campuses (Page 19)	
The Agency should:	
• Improve coordination and collaboration in audit planning and methodology between the SDIU and the primary stewards of assessment and accountability data to improve the efficiency and value of data quality audits.	Agrees
• Compare the benefits and costs of using a risk-based process for selecting districts and campuses for audit to the benefits and costs of using a statistically valid random selection process. Develop the chosen method to allow for the most efficient and effective use of SDIU resources to help ensure data quality.	Agrees
• Provide the SDIU with direct access to data so it can conduct data analysis and select districts for audit. Require programming and data processing skills for SDIU team members.	Agrees
• Ensure that the SDIU develops a format and procedure to provide district personnel and assessment and accountability data stewards with audit results—including types and percentages of data quality errors, recommendations, and trends—to help focus training and assistance on needed improvements and measure improvements over time.	Agrees
• Ensure that SDIU staff have a process for team coordination of fieldwork and that they participate in ongoing training and staff development, including training in fraud investigation and testimony.	Agrees
• Ensure that SDIU staff document their standard data quality audit procedures and update them as needed.	Agrees
• Determine what role the SDIU will play in district data quality training and allocate resources accordingly.	Agrees

Table of Results, Recommendations, and Responses	
Results and Recommendations	**Management's Response**
The Agency's Research and Evaluation Division Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of School Leaver and Dropout Data (Page 38)	
The Research and Evaluation Division is continually engaged in improving the procedures for district leaver reporting and its own reporting of dropout rates and analysis. It should also:	
• Use information gained from this audit and from future SDIU and independent audits to help focus training and technical assistance for district and campus personnel on reducing identified errors in documenting and reporting school leavers.	Agrees
• Encourage district administrators to improve resources and oversight for the leaver and dropout reporting process.	Agrees but notes that the decision to improve is a local one.
• Maintain up-to-date documentation of business rules, manual and automated security and quality controls, and change and test procedures for automated programs used to process leaver data and calculate dropout rates.	Agrees
• Update the Division's business continuity plan in the Agency's overall plan.	Agrees
• Continue to phase in additional types of analyses of districts' use of leaver reason codes as outlined in "Analyses of Specific Leaver Reason Codes" in the Leaver Data Work Group's May 2001 *Systems Safeguards for Leaver Data*.	Agrees
• Until independent audits of district dropout records are available and the SDIU's role can be reevaluated with regard to leaver data quality auditing, help ensure that both SDIU and independent audits develop and report the most useful audit information for improving leaver data quality. Reports should be in a consistent format that facilitates statewide summary and analysis of results. They should include, at a minimum:	
– District error rates for leaver and dropout reporting,	Agrees
– Numbers and percentages of types of errors (inadequate documentation and wrong coding) by leaver reason code (and by campuses if necessary).	Agrees
– Recommendations for corrective actions	Agrees
• Include the following additional useful information in the *School Completion and Dropouts In Texas Public Schools* report:	
– Summary results of an annual analysis by district of the use of all leaver codes for the school year. Indicate trends in use by district type or region and potential overuse in comparison with statewide benchmarks.	Agrees
– Results of SDIU or independent data quality audits (or both) of districts' leaver records. Include current error rates, numbers and percentages of types of errors by reason code, and needed corrective actions.	Agrees
– Acknowledgment of the extent to which underreported students and poor district leaver data quality could potentially affect the dropout rate and how these problems are improving over time.	Agrees
– A breakdown of all leaver reason codes to support the summary figures and tables in the body of the Secondary School Completion and Dropout in Texas Schools report	Agrees

Table of Results, Recommendations, and Responses	
Results and Recommendations	**Management's Response**
The Agency's Student Assessment and Performance Reporting Divisions Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of Student Assessment Data (Page 41)	
The Performance Reporting Division should develop and maintain documentation of business rules for automated programs, change and test procedures, and manual and automated data security and quality controls used to process and report student assessment passing rates and calculate school accountability ratings. This documentation should be modeled on the documentation this division currently maintains for its procedures for calculating and reporting attendance rates.	Agrees
The Student Assessment Division should implement the following improvements to help ensure the quality of student assessment data and reporting:	
• Update and maintain documentation of business rules for automated programs, change and test procedures, and manual and automated data security and quality controls used to process and report student assessment results.	Agrees
• Use information gained from this audit and from future SDIU audits to help focus training and technical assistance for district and campus personnel. Focus training on reducing identified errors in the documentation and coding of students' answer documents for the tested and not tested status for required tests.	Agrees
• Implement four needed controls to evaluate and help ensure full participation of eligible, qualified students in required tests:	Agrees
– Monitor district rates for voided student answer documents and provide the SDIU with the data it needs to identify and audit districts with excessive voiding.	Agrees
– Protect the original "O" codes on students' answer documents as a control for participation and for SDIU use in identifying and auditing districts with excessive use of this code.	Agrees
– Consider having the SDIU audit districts for administering required tests to all eligible, qualified students or include such a review in special education monitoring of districts.	Agrees
– Annually compare students' assessment records with PEIMS attendance reports for grade-eligible students during the testing period. Develop a method (algorithm) for the SDIU to use in identifying for audit those districts with excessive rates of students unaccounted for with regard to student assessment.	Agrees
• Consider reporting in the *Comprehensive Annual Report on Public Schools* the results of these four controls for participation to show improvement over time and increase public confidence in the validity of student assessment as a measure of accountability.	Agrees
The Agency's PEIMS Division Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of Student Attendance Data (Page 51)	
The PEIMS Division should:	
• Help focus training and technical assistance for district and campus personnel on proper procedures for recording, changing, reconciling, correcting, and reporting student attendance through PEIMS.	Agrees
• Enhance district administration training regarding the supervision and enforcement of attendance reporting.	Agrees
• Require an approved and signed reconciliation between teachers' rosters and the campus reports used for PEIMS submissions each reporting period.	Agrees
Additionally, the Agency should consider allocating sufficient resources for attendance audits to ensure timely recovery of funds from districts that have overreported their attendance data.	Agrees

Table of Results, Recommendations, and Responses	
Results and Recommendations	**Management's Response**
The Agency's Student Support Programs Division Can Make Specific Improvements to Strengthen Title I, Part A Reporting to the U.S. Department of Education (Page 55)	
The Student Support Programs Division should:	
• Routinely reconcile tables in the Title I, Part A Database to each other and to Title I, Part A information in PEIMS. Staff should make corrections as needed, document all adjustments, and eliminate causes for discrepancies.	Agrees
• Document business rules and automated programs, change and test procedures, and manual and automated security and data quality controls for preparation of all tables in the Title I, Part A section of the *Consolidated State Performance Report.*	Agrees
• Continue to work for improvement in the quality and usefulness of the Title I, Part A information the Agency provides to the U.S. Department of Education.	Agrees

Section 1:

Texas Has a Strong Public Education Accountability Information System

Because of the vision and efforts of a wide range of public education leaders and stakeholders, Texas has one of the most comprehensive and effective public education accountability information systems in the country. Texas is one of only nine states that have developed the assessment and information systems necessary to comply with the No Child Left Behind Act the U.S. Congress signed into law in January 2002. The act increases the relationship between federal funding and school accountability.

These information systems enable the Texas Education Agency (Agency) to prepare annual school accountability ratings and measure improvements over time (see Appendix 2 for trends in ratings changes from the 1998-99 school year to the 2000-01 school year). Through the 1999-00 school year, the Agency derived accountability ratings from student assessment results and the attendance and school leaver (including dropout) data the campuses, districts, and charter schools reported to it each year. Beginning in the 2000-01 school year however (the 2001 ratings cycle), attendance was no longer used for school ratings and instead was used to identify districts for supplementary recognition. Attendance data continues to serve as the basis for the distribution to public schools of most of the $12 billion in Foundation School Program funds each year.

The Agency also reports school accountability information in its annual report to the U.S. Department of Education on Title I, Part A school participation and performance in Texas (see textbox).

What is Title I, Part A?

Under the federal Title I, Part A law, the federal government grants funds for economically disadvantaged students to states that have established school accountability systems. States determine their own accountability criteria for measuring student and school performance.

In the 2000-01 school year, Title I, Part A provided $665.8 million for more than 2 million students in 1,124 districts (93 percent of the 1,204 Texas public school districts). Within these districts, 4,447 campuses (58 percent of the 7,621 campuses across Texas) received Title I, Part A funding.

We identified specific opportunities to further strengthen the current and ensure the future accuracy, completeness, validity, and timeliness of the data used to determine accountability ratings and report to the U.S. Department of Education. We also identified ways to improve the public's access to this information. Continuing to refine the precision and accessibility of accountability data is important because it serves as a basis for the state's public education decision-making and funding.

Student assessment in Texas public schools began in 1981 and results were reported in aggregate, not at the student level. The Legislature first called for the development of a comprehensive, coordinated database of public education information at district, campus, and student levels for school accountability purposes in 1984. Beginning in school year 1985-86, individual student assessment data files were built for each grade and year. Since that time, Texas has experienced a culture change in terms of public education information. In 1984, most educators were not trained in the use of technology, and many districts had no computers. Texas public schools were (and still are) based on the principle of local district control, and analysis of statewide public education depended on the submission of district information using more than 200 separate paper forms in differing formats.

Given the state of public education information in 1984, the Agency's development of an effective electronic infrastructure has been a notable accomplishment. The Agency's current system accommodates data from multiple software applications and is capable of managing the data definitions, standards, and procedures necessary to gather complex public education information from across the state. This has been possible only because of the combined efforts and continued commitment of a wide range of public education leaders and stakeholders, including:

- The Legislature and its staff
- The State Board of Education
- Succeeding state commissioners of education
- Business and technology professionals
- Concerned parents and other citizens
- Texas Education Agency staff
- Staff at the 20 regional Education Service Centers (ESCs)
- Administrators, teachers, and technical staff at over 1,000 school districts and 7,000 campuses
- Other state agencies

These people have conducted research, written and passed laws, designed and developed a statewide system, and provided ongoing training and technical assistance. As a result Texas has a comprehensive and effective public education accountability information system.

Accountability Information System Criteria

To fulfill the requirements of House Bill 72, the Agency developed a public education accountability information system that met the following criteria:

- Data must be available from district, campus, and individual student and staff levels.
- Definitions, standards, and time periods must be consistent across the entire state.
- All data reported for single entities (whether districts, campuses, students, or teachers) must be linked to unique identifying numbers to allow matching records across programs to evaluate outcomes and trends across time.
- Data must be linked to individual demographic and program information that allows disaggregation and reporting of outcomes and trends by population groups and by state and federal programs.

Source: Texas Education Agency

Section 1-A:

The State's Accountability Information Management Systems Accommodate Local District Control and Provide Comprehensive, Multi-Year Data for Decision-Making

In 1984, House Bill 72 (68th Legislature, Second Called Session) called for the development of a public education information system to allow accurate measurement, fair evaluation, and timely public reporting of individual student and school progress (see textbox).

To meet the requirements of House Bill 72 in a state in which public schools are based on the principle of local control, the Agency first developed the Public Education Information Management System (PEIMS). PEIMS is the central student, staffing, and financial component of the global collection of public education information required by House Bill 72. Through statewide outreach, advisory committees, and focus groups, the Agency designed PEIMS so

that much of the responsibility for reporting educational data would remain with the districts (see Texas Administrative Code, Title 19, Section 61.1025).

In designing PEIMS, the Agency developed technology and procedures to accommodate various data formats from the districts, which used software applications from 60 to 70 different vendors. (See Appendix 3 for the results of a survey of 450 district PEIMS coordinators on their collection and submission of PEIMS data.)

The ESCs provide initial and ongoing training and technical assistance to the districts in their regions. The ESCs also serve as clearinghouses for district data submissions. They apply electronic edit checks to enhance data integrity, and perform manual reviews to help ensure completeness and accuracy of data submissions. The Agency, districts, and ESCs continue to work together to improve data consistency, quality, and integration across the state. Their intent is to reach and maintain the confidence level required for reliable public education information.

Section 1-B:

The Agency Continues to Improve Its Systems for Collecting, Analyzing, and Reporting Public Education Accountability and Title I, Part A Program Information

The Agency has expanded beyond PEIMS to implement additional systems for the collection, analysis, and reporting of accountability data. One of the major strengths of the Agency's approach to information management is a reliance on multiple component systems for discrete functions. Each component system requires in-depth expertise and experience in technology and fiscal and program administration. Having separate information system components allows flexibility in system development and maintenance and facilitates the revisions and improvements that are necessary as conditions change over time.

While having separate system components helps to enhance flexibility, dependence on the quality of data submitted by 1,204 different districts and the need for information consistency and integration across modules present significant challenges to the managers, programmers, and users of the information. Since 1986 the Agency has addressed these challenges using a continuous improvement model. The Agency completed its most recent improvements in the 1999-00 school year when it introduced the Web-based data correction system Edit+ for districts and campuses, and in October 2001, when it completed the first phase of the Public Access Initiative (PAI). PAI involves the creation of an interagency, integrated data warehouse and resource for all public education stakeholders (for education from kindergarten through college [K-16]). The Agency also has contracted for a feasibility study to evaluate whether PEIMS should be changed from the current static record system based on four submissions per year to a transactional, dynamic database. Such a database would facilitate reconciliation among Agency databases and allow record matching and reporting on a daily basis.

The table on the next page summarizes the four primary components that support and carry out the Agency's calculation and reporting of school performance and

accountability ratings. It also illustrates how the Agency has expanded its systems over time. For more details on each component and the PAI, see Appendix 4.

Modules Within the Agency's Public Education Accountability Information System

Module	Year Implemented	Description	Other Information
Student Assessment Database	1981: aggregate results 1986: aggregate and student-level results	This database receives and reports to authorized users the summarized results of standard assessment tests. All children in grades 3 and 8 and at exit level (10th grade and higher) take reading and math tests. Students in grades 4 and 8 and at exit level take writing tests. Students in grade 8 also take tests in social studies and science.	The assessment system vendor provides test results to schools and students. It also provides results by tape cartridge to the Student Assessment Division for its database. To test the adequacy of the vendor's procedures, the Agency's Student Assessment Division includes in each annual test series a set of simulated districts and student batches. As an additional control, Performance Reporting Division staff match results reported from the Student Assessment Database with vendor-reported results.
Public Education Information Management System (PEIMS)	1986	PEIMS serves as the central database for Texas K-12 public education information. It includes data on student attendance, demographics, and program participation; staffing and administration; and fiscal activity. It is a multi-level, mission-critical enterprise database that complies with Agency standards for security and authorized access. It provides static routine and ad hoc reports to authorized users.	PEIMS is near the end of its life cycle. The 77th Legislature funded a feasibility study, to be completed in November 2002, to evaluate whether PEIMS should be changed from the current static record system based on four submissions per year to a transactional, dynamic database. This would reduce current differences among Agency databases and allow record matching and reporting on a daily basis.
Academic Excellence Indicator System (AEIS)	1991	AEIS serves as the basis for all accountability ratings, rewards, and reports. It is the system the Agency uses to calculate and report school accountability ratings required by state statute and the U.S. Title I, Part A statute. Accountability ratings are based on specific performance standards set forth by the Legislature, the State Board of Education, and the Commissioner of Education.	AEIS draws on both PEIMS and the Student Assessment Database for the information it needs to determine accountability ratings. The existence of PEIMS and the Student Assessment Database allowed Texas to be one of the first states to implement a public school accountability system.
Title I, Part A Database	1997-1999	This database is a subsidiary of the Agency's database for information on recipients of federal Title I programs funded under the Elementary and Secondary Education Act of 1965 (amended by the Improving America's Schools Act of 1994). It includes information on Title I, Part A recipient schools and students.	As required by law, the Agency prepares an annual *Consolidated State Performance Report* for the U.S. Department of Education for all federal title programs. To compile the Title I, Part A tables in this report, staff draw on the Title I, Part A database and all three of the information systems listed above: the Student Assessment Database, PEIMS, and AEIS.

Source: Texas Education Agency

Section 2:

While Its Methods for Ensuring the Security and Quality of Accountability Data Are Numerous and Comprehensive, the Agency Has Opportunities to Improve Quality by Enhancing or Expanding Specific Procedures

The requirements for the quality of accountability data are extremely high. Accountability ratings can materially affect students' and schools' futures. A school receiving a low-performing rating risks a decline in the number of students and teachers. It also risks a decline in the property values in its area, the basis for a school's local tax revenues. Additionally, most of the $12 billion in state funds the Foundation School Program distributes annually to schools is based on districts' reported average daily attendance.

The U.S. General Accounting Office's Perspective on Data Quality

In a May 2000 letter to a congressional committee, the U.S. General Accounting Office asserted that:

> Accuracy—the degree to which data are free from significant error—is only one of several important elements to consider when examining the quality of agency performance data . . . . No data are perfect . . . . The key is for agencies to be aware of the data quality limitations of performance data and reveal and discuss in performance reports the limitations and trade-offs.

The Agency's Perspective on Data Quality

In responding to a 1998 internal audit report, Agency management asserted that:

> Having 95% or even 99% of the [accountability] information correct is not good enough, especially to the districts or campuses falling in the remaining 5% or 1%.

Although perfect data is impossible to obtain, there is almost no room for error in the calculation and reporting of school accountability data. The Agency uses a broad range of methods to ensure that it gathers, processes, and reports accurate, complete, valid, and timely public education data. Among these methods are:

- Strategic planning and resource allocation for mission-critical, enterprise information assets
- Current, published data definitions, standards, and procedures
- Published and updated agency policies on security, confidentiality, and information resources
- Automated tools for reporting secure data and identifying and correcting errors
- Ongoing training and technical assistance
- Progressive oversight, review, and correction of data
- Data quality audits followed by sanctions when necessary

(See Appendix 5 for a detailed list of the specific methods the Agency uses to ensure data quality.)

In addition to the methods listed above, the vested interests of students, parents, teachers, and schools in the accuracy of accountability data help to ensure the quality of accountability data. There is also a high level of interest on the part of public education stakeholders and concerned citizens at the state and national level. These interests and public pressures have the effect of allocating resources toward improvement of data adequacy and quality.

While the Agency's methods for ensuring the security and quality of accountability data are numerous and comprehensive, additional improvements can still be made. Specifically, Agency data stewards should:

- Develop, implement, and enforce data security and quality standards and a coordinated plan for cyclical review for enterprise information systems, including those involved in school accountability.
- Maximize the value of Special Data Inquiry Unit audits at districts and campuses.

Section 2-A:

Agency Data Stewards Should Develop and Implement Standards and a Cyclical Review Plan for Enterprise Information Systems, Including Systems Involved in School Accountability

Developing and enforcing agencywide standards for the management of all mission-critical, enterprise information are essential to effective information management. Three State Auditor's Office audits at the Agency since 1996 have noted the absence of such standards and recommended including all of the agency's major information systems in unified requirements, review, and executive oversight. In addition, the Agency's internal audits of the systems that manage accountability information have provided specific recommendations to sustain future data quality by improving manual and automated controls.

The Agency's Information Systems Department provides development and data quality oversight for PEIMS and development support for other major information systems across the Agency. The data stewards and managers of the other major systems monitor the security and quality of their data. As a result, there is no systematic, agencywide plan for information management or for review and audit of all the Agency's mission-critical, enterprise information systems.

What is Enterprise Data?

Agency enterprise data is:

- Relevant to a major administrative or programmatic function of the agency as defined in state or federal law.
- Required for use by more than one organizational unit.
- Included in an official agency program report.
- Used to derive a data element that meets the above criteria.

Source: Texas Education Agency

The Agency's Enterprise Data Management (EDM) program, whose data stewardship policy received executive approval in February 2001, provides a vehicle for the needed agreement on and promotion of effective management of enterprise information agencywide. Because student assessment and school accountability ratings are mandated by law and have material effects on schools, Student Assessment, AEIS, and Student Support Programs data stewards should be key participants in the development of the standards and guidelines for enterprise data management.

Documentation of business rules and procedures, electronic programs, security and data quality controls, and change and testing procedures was inconsistent for the four accountability information systems we reviewed. The purpose of such documentation is to facilitate information management and protect against disruption when there is an interruption in staffing or systems. The absence of documentation makes review and oversight of information management extremely difficult and inefficient.

Business continuity planning was also inconsistent for the four systems we reviewed. Establishing standards and guidance for the development of such plans for mission-critical information systems and regularly reviewing and testing the adequacy of such plans should be a component of the Agency's EDM program.

Under the EDM umbrella, the various data stewards, information policy and planning committees, support units in the Department of Information Systems, and the Internal Audit Division should be collaborating to strengthen major information systems and ensure their ongoing security and quality. Together, they should also develop criteria and a coordinated plan for cyclical, comprehensive review and audit of data security and quality and of the methods in place to ensure consistent security and quality over time. The cyclical schedule should ensure timely review (at least every three years) of each component of each enterprise information system.

For example, internal audits of the major components of the accountability information system within the past five years have contributed useful information for controls management. Each internal audit report in this area provides one or more specific recommendations for improving data security and quality through improving manual and automated application controls.

Although the Internal Audit Division has not been able to follow up on all audits to determine the status of implementation of audit recommendations, it plans to follow up on previous audits of PEIMS and the Accountability Information System during fiscal year 2002. The coordinated, cyclical review of controls we are recommending would include internal audits and follow-up audits as key components. The Internal Audit Division can further enhance the value of its audits of information systems by developing additional staff expertise in information technology and systems auditing.

Recommendations:

- Stewards of enterprise data (including attendance, assessment, accountability, and Title I, Part A data) should develop and implement standards for the management of enterprise information systems as part of the EDM program. Include standards for documenting business rules for automated programs, manual and automated data security and quality controls, change and test procedures, and business continuity planning.
- In collaboration with information planning and policy committees, the Information Systems Department, and the Internal Audit Division, stewards of enterprise data also should develop a comprehensive, coordinated plan for cyclical review, audit, and follow-up of security and quality controls necessary for enterprise data. Reviews should be conducted at least every three years.
- Additionally, the Internal Audit Division should further develop staff expertise in information technology and systems auditing.

Management's Response:

- *Management agrees with the recommendation. The Enterprise governance structure has been defined and is currently being implemented. The committees and subcommittees included in this structure will be reviewing all information systems (automated and non-automated) and will be engaged in a three-year cycle of review. The Enterprise Data Management Program will define the cyclical process for review (and corresponding audit checklist) to ensure that security and quality controls of identified enterprise data are addressed. The governance structure is composed of three working subcommittees that will review external automated information collections, external non-automated collections, and internal systems. These working groups will report to an advisory committee with access to TEA senior staff.*

  Plan: *Our plan is to continue the work begun on implementing an enterprise-wide governance structure for providing oversight of agency information systems.*

  Timeline: *The previously defined structure approved by the Agency will be fully implemented and formal operating procedures will be developed by the end of 2002.*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees with the recommendation. The Enterprise governance structure has been defined and is currently being implemented. The committees and subcommittees included in this structure will be reviewing all information systems (automated and non-automated) and will be engaged in a three-year cycle of review. The Enterprise Data Management Program will define the cyclical process for review (and corresponding audit checklist) to ensure that security and quality controls of identified enterprise data are addressed. The governance structure is composed of three working subcommittees that will review external automated information collections, external non-automated collections, and internal systems. These working groups will report to an advisory committee with access to TEA senior staff.*

  Plan: *Our plan is to continue the work begun on implementing an enterprise-wide governance structure for providing oversight of agency information systems.*

  Timeline: *The previously defined structure approved by the Agency will be fully implemented and formal operating procedures will be developed by the end of 2002*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees with the need to further develop staff expertise in information technology and systems auditing.*

Plan:	*A staff auditor was hired this year with experience in information technology and systems auditing. This person plans on working towards becoming a Certified Information Systems Auditor (CISA) and will serve as the lead auditor for information systems audits. Development of future annual audit plans will appropriately consider coverage of information technology and systems auditing. In addition, the internal audit staff will be required to take information systems training courses each year to further enhance staff expertise.*
Timeline:	*November 2002*
Person Responsible:	*Director, Internal Audit Division*

Section 2-B:

The Agency Should Maximize the Value of Special Data Inquiry Unit Audits of Districts and Campuses

Currently the Agency is not realizing the full value of its Special Data Inquiry Unit (SDIU) audits for enhancing the accuracy, completeness, validity, and timeliness of district-reported data. The SDIU team does not operate with the independence it needs to plan, conduct, and report on the results of effective audits. To take full advantage of SDIU audits, the Agency should:

- Improve the SDIU's access to data.
- Redesign the SDIU's audit selection process to return the highest benefits to the Agency and public education stakeholders.
- Ensure collaboration between the SDIU and the stewards of accountability data.
- Strengthen the manner in which the SDIU reports its audit results.
- Enable internal coordination of SDIU audits and require ongoing training and staff development for SDIU team members.
- Clarify the SDIU's role in district and ESC training.

The Agency's Justification for Changing School Accountability Ratings After SDIU Audits Data Quality

In a January 2002 press release, the Agency explained its rationale for lowering 2001 school accountability ratings after SDIU data quality audits:

"...this news is disappointing to the campuses. But the ratings changes show that we are serious about our desire to keep students in school and receive accurate, reliable data."

The Agency is not usually able to audit the quality of the data districts or campuses submit *before* it determines school accountability ratings each year. This condition exists because of the timing of data submissions and the time required to process school leaver, student assessment, and attendance data.

However, the Agency's Special Data Inquiry Unit (SDIU) provides a valuable service by auditing districts and campuses with potential data quality problems *after* the Agency's initial publication of ratings. SDIU audits can result in the lowering of accountability ratings for districts or campuses that have significant data quality problems. (See Appendix 6 for a

summary of SDIU desk reviews and audits for the 1997-98 through 1999-00 school years.)

SDIU identifies districts and campuses for audit that meet the following risk criteria:

- Excessive underreported students (underreported students are students enrolled in grades 7-12 in a district in the fall of one year who are not reported as leavers or as enrolled in that district in the next fall's PEIMS submission).
- Excessive use of selected school leaver codes (school leavers are students who leave school by graduating, entering another accredited degree-granting program or home schooling, or dropping out. Districts must report a documented reason for the withdrawal of every school leaver).
- Excessive use of student assessment test exemptions, absences, and other reasons for not taking the student assessment test.

Each year, the SDIU selects four leaver codes to examine in response to current policy interests of the Agency and the Legislature. Beginning in the 2002-03 school year, SDIU will also identify districts and campuses that could be audited because they have excessive student personal identification (PID) errors (see Section 3-C for additional details on PID errors).

There are several specific issues the Agency must address to maximize the value of SDIU audits.

The SDIU Lacks Direct Access to Data. The SDIU has not had direct access to statewide data and, therefore, has not developed or performed its own data analyses to identify data quality risks and possible districts and campuses to audit. If the SDIU could access statewide data electronically, it could use its auditing expertise to perform additional kinds of analysis to identify district and campus data quality risks. It also could use such analysis to develop a more effective risk assessment process or statistical methodology for identifying districts and campuses to audit.

Current SDIU Audit Selection Criteria Produce Inefficiencies. SDIU criteria for selecting districts and campuses to audit is based on districts' and campuses' reporting of school leavers, student assessment test exemptions, and attendance records in percentages or absolute numbers above certain thresholds. Historically, however, the use of these criteria has identified some districts and campuses as relatively high-risk when further research would have revealed that these districts and campuses legitimately reported outside the established thresholds.

For example, the SDIU has conducted potentially unnecessary audits of excessive exemptions at special purpose schools for severely disabled students (by definition, these schools would be expected to have exemptions over threshold). The SDIU also conducted potentially unnecessary district audits for excessive use of a special-purpose, non-participation code (the "O" code) for student assessment. However, districts had been instructed that year to add a new use of that code for students who took an end-of-course exam instead of the standard assessment test. Both the assessment test vendor and the Agency have been adding "O" codes to student assessment records for their own data processing needs in specific instances. If these

added "O" codes are not removed from the dataset the SDIU uses to determine excessive district use of this code, the SDIU will continue to receive an inflated count and list of districts requiring audits. By auditing these entities, the SDIU is not maximizing its limited resources.

A More Refined Risked-Based or Statistical Selection Process Could Enhance the Value of SDIU Audits. The current criteria the SDIU uses to select districts and campuses to audit may be outdated and may not be based on the most effective selection system. SDIU reports that the current risk threshold it uses to select audits results in the identification of mostly small districts and campuses, which account for a relatively small percentage of data errors. A more refined risk assessment system for identifying necessary audits based on SDIU direct access to data, or a statistically valid random selection process, would result in more efficient audits and more valuable results for stewards and users of accountability data.

An improved risk-based system using updated criteria could more accurately identify for review and audit those districts and campuses with the highest risk of poor data quality. In addition, such a system would provide a highly effective incentive for districts and campuses to improve the quality of their data.

Alternatively, a random selection process set within statistically valid parameters could provide information for the Agency to use in determining the extent to which the statewide dropout, attendance, and student assessment participation rates may be affected by poor district data quality according to identified statistical error rates. A random selection system would not decrease the effect of data quality audits on campuses' and districts' desire to improve the quality of their accountability data. The SDIU and the Agency's School Financial Audits Division (SFAD), which audits district and campus attendance reporting, conduct enough audits each year to satisfy requirements for statistical inference. Therefore, the Agency has the capacity to develop a data quality audit system that takes full advantage of its potential for increasing the accuracy of statewide accountability rates.[1]

In either audit selection system, ongoing collaboration and coordination between the SDIU and the stewards of school leaver, student assessment, and attendance data would be essential to ensure maximum efficiency and benefits from data quality audits.

The SDIU Needs To Develop a Format and Regular Schedule for Reporting to the Agency on the Results of All its Audits. Currently, the SDIU reports to each district the results from its audit at that district. The letters to superintendents list the disposition of each record examined, but these letters do not provide a breakdown of percentages and types of data quality errors the audit found for district personnel to use in improving district data quality. Additionally, the SDIU was not able to provide any summary of statewide findings and recommendations from the 177 on-site audits it has conducted during the past three years. Therefore, neither the districts nor the Agency are receiving one of the most valuable results of SDIU audits: the information needed to help focus training, assistance, and oversight on the improvement of data quality. Such information would also provide a baseline to

[1] A random selection process offers efficiencies and values not realizable from the dropout audits that each individual district must independently obtain.

allow districts and the Agency to measure improvements over time in the quality of district data.

SDIU Internal Coordination and Training Requires Improvement. SDIU team members work in the field as much as half the year, without benefit of a team member to provide central coordination, ensure audit efficiency, provide consistent information in response to requests, or conduct additional data processing. To ensure adequate staff development, SDIU team members should participate in a regular training program that includes training in fraud investigation and testimony. Additionally, the team should complete documentation of its audit procedures and keep them regularly updated. The SDIU is a relatively small team that depends on in-depth expertise to conduct audits in three extremely complex areas. Therefore, the loss of team members would impose substantial interruption and risk to the quality of this valuable audit function. Adequate documentation of audit procedures would reduce this risk.

SDIU Role in Training ESC and District Personnel on Data Quality Improvement Needs to be Formally Defined. Currently, some members of the SDIU team are responding to requests from districts and ESCs to provide training on how to improve the quality of district data. This role has not been formally assigned to the SDIU, and this activity currently competes with time available for auditing district and campus data quality. The Agency needs to decide what role the SDIU most effectively plays in training and allocate resources to accommodate both that role and the SDIU's audit function.

Recommendations:

The Agency should:

- Improve coordination and collaboration in audit planning and methodology between the SDIU and the primary stewards of assessment and accountability data to improve the efficiency and value of data quality audits.
- Compare the benefits and costs of using a risk-based process for selecting districts and campuses for audit to the benefits and costs of using a statistically valid random selection process. Develop the chosen method to allow for the most efficient and effective use of SDIU resources to help ensure data quality.
- Provide the SDIU with direct access to data so it can conduct data analysis and select districts for audit. Require programming and data processing skills for SDIU team members.
- Ensure that the SDIU develops a format and procedure to provide district personnel and assessment and accountability data stewards with audit results—including types and percentages of data quality errors, recommendations, and trends—to help focus training and assistance on needed improvements and measure improvements over time.

- Ensure that SDIU staff have a process for team coordination of fieldwork and that they participate in ongoing training and staff development, including training in fraud investigation and testimony.
- Ensure that SDIU staff document their standard data quality audit procedures and update them as needed.
- Determine what role the SDIU will play in district data quality training and allocate resources accordingly.

Management's Response:

- *Management agrees with continually improving coordination and collaboration. The SDIU recognizes the need to receive information from and to share information with other key stakeholders in the Agency's assessment and accountability areas.*

  Plan: *Meetings between SDIU and various data stewards have taken place on an ad hoc basis. At least twice each year, meetings will be formally scheduled with data stewards to discuss standards, procedures, findings, trends, waivers, and other information that commonly affects all stakeholders.*

  Timeline: *Beginning school year 2002-2003*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees that the most appropriate system should be used.*

  Plan: *The Agency will consider the advantages of using a risk-based process, random sampling, or a combination of approaches for selecting districts and campuses to audit. The system that best addresses the problem of data anomalies and that establishes the most efficient and effective use of SDIU resources will then be used to select sites for investigation.*

  Timeline: *Beginning school year 2002-2003*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *In recognition of this need, the Agency has allocated 50% of a data analyst's time to accomplish this task. Direct access to the data is provided, but this additional .5 FTE will allow the SDIU the opportunity to receive information more quickly. It will also allow the data person the opportunity to communicate with other stewards about potential data irregularities. This person will be an important link with other data analysts in the Agency as he/she runs programs that expand investigations and communicates the SDIU findings.*

Timeline: *Beginning school year 2002-2003*

Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees with the recommendation. The Agency recognizes the need to provide both school districts and Agency stakeholders with meaningful and quantifiable feedback.*

  Plan: *We will review the format and structure of current reporting documents to ensure clarity and comprehensiveness. The SDIU will consider effective ways to report data quality errors, recommendations, and trends in a standardized format that is conducive to continual enhancement.*

  Timeline: *Beginning school year 2002-2003*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *One SDIU member is currently enrolled in training as a certified fraud examiner. The entire SDIU staff will begin receiving formalized training to become certified through the National Certified Investigator/Inspector Training Program (NCIT). This program focuses on investigation techniques.*

  Timeline: *Training will begin May 2002*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees with the recommendation. The SDIU recognizes the need to update its procedures and standards annually.*

  Plan and Timeline: *This practice began with the unit's inception and will continue to occur.*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *The Agency recognizes the value of training ESC representatives and district personnel on data quality improvement. This training is a needed follow-up activity and/or an ongoing precursor to the audit investigations. The Agency will determine the best use of its resources and will consider the role SDIU staff might play in training for data quality improvement*

  Timeline: *Beginning school year 2002-2003*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews.*

Section 3:

Stewards of Accountability Data Can Make Specific Improvements to Ensure the Quality of Base Accountability Indicators

Definitions of the Accountability Data Characteristics We Audited

We focused on auditing the following characteristics.

- Accuracy: The extent to which a data value is close to the real value.
- Completeness: Having sufficient, but not more than the necessary, data.
- Timeliness: Reflecting a time that is appropriate for a particular activity.
- Validity: Providing the right information for the intended purpose.

Other data characteristics we audited included availability, accessibility, clarity, and consistency.

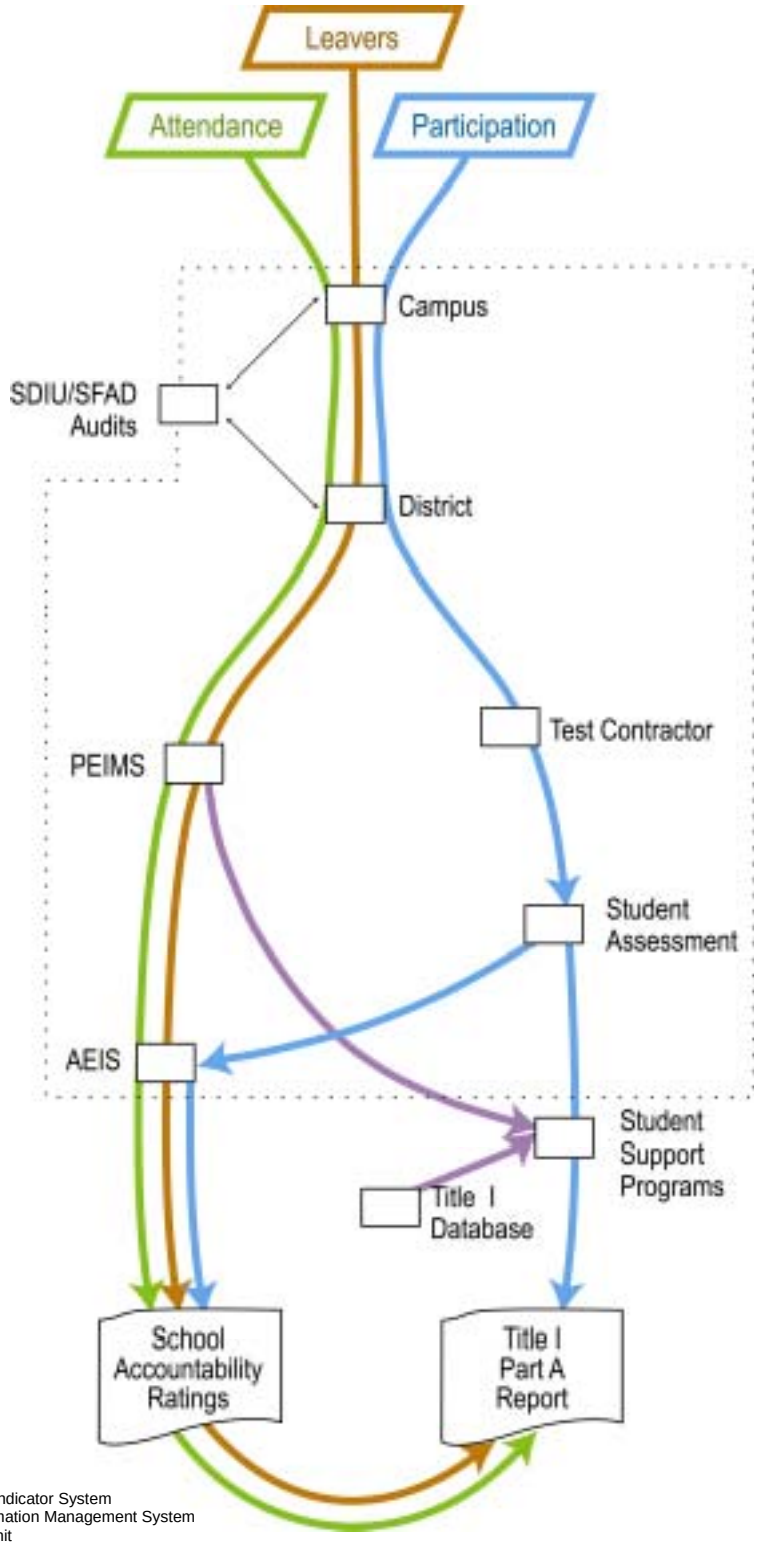
Source: Definitions of accuracy, completeness, and timeliness are from the Agency. Definition of validity is from the U.S. Department of Education.

Districts and Agency divisions involved in collecting and reporting accountability data can further assure the quality of accountability data by addressing specific weak points in the collection, processing, and reporting pathways for school leaver (including dropouts), student assessment, and attendance data. (See Appendix 7 for a high level summary of the errors we found in leaver, assessment, and attendance data.) The Title I, Part A reporting process can also benefit from certain improvements to ensure the future quality of reports sent to the U.S. Department of Education.

As Figure 1 on the next page illustrates, school leaver, student assessment, and attendance data flows through a variety of points along the way from campuses to the Agency and, eventually, back to the campuses and the U.S. Department of Education. Figure 2 on page 27 highlights the weak points we identified in this process. These weak points are outlined in more detail in Sections 3-A through 3-D.

Figure 1

Accountability Data Pathways

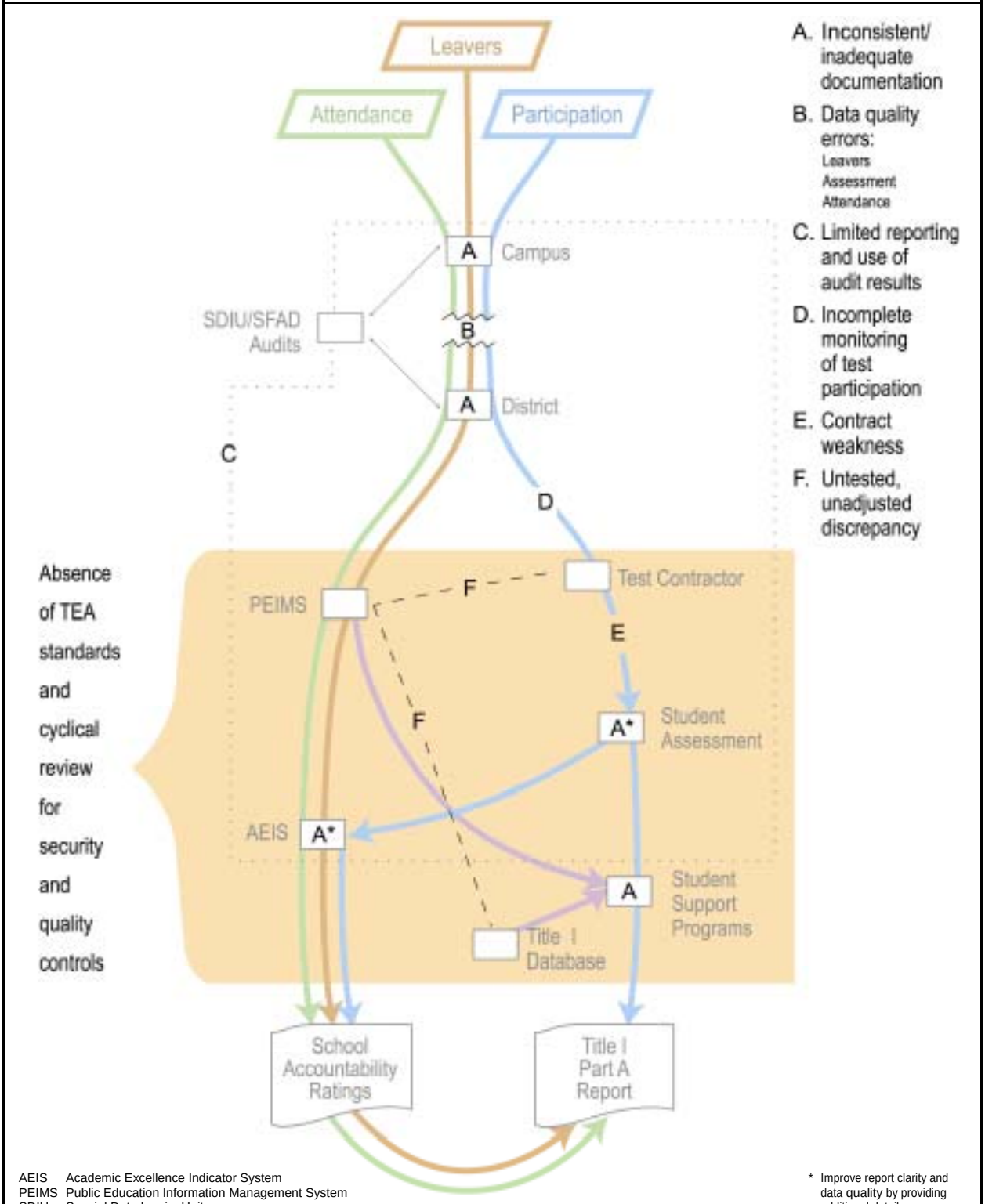


AEIS Academic Excellence Indicator System
PEIMS Public Education Information Management System
SDIU Special Data Inquiry Unit
SFAD School Financial Audits Division

Source: Interviews with Agency management and review of automated programs

Figure 2

Weak Points in Accountability Data Pathways



AEIS Academic Excellence Indicator System
PEIMS Public Education Information Management System
SDIU Special Data Inquiry Unit
SFAD School Financial Audits Division

* Improve report clarity and data quality by providing additional detail

Source: Interviews with Agency management, fieldwork test results, and review of information systems and test publisher contract

Section 3-A:

The Agency's Research and Evaluation Division Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of School Leaver and Dropout Data

School leaver reporting and calculation of the various dropout rates used for planning and decision-making are extremely complex operations that are difficult to understand without lengthy analysis. Staff within the Agency's Research and Evaluation Division are committed to the quality, comprehensiveness, and transparency of the information they report on school leavers and dropout rates each year in the *Secondary School Completion and Dropouts in Texas Public Schools* report. Additionally, staff are continually engaged in improving the accuracy and usefulness of the information they develop and report.

Because the Research and Evaluation Division depends on district data for its leaver analysis and dropout reporting, the quality of this division's reports is affected by the quality of district data. Our statistical testing of campus school leaver records identified improvements that can be made at the district level in data collection, processing, and reporting to provide the Agency with the accurate and complete data it requires. Our review of division procedures and documentation highlighted steps the Research and Evaluation Division can take to efficiently ensure the future and ongoing quality of the data it reports and to enhance public understanding of the complex nature of dropout reporting.

Campus and District Submission of Leaver Data

We randomly selected 70 reported leavers (excluding leavers who had graduated from school) from the 12 secondary campuses in our statistical sample of 45 Title I, Part A campuses. We reviewed district documentation to support the leaver reasons reported for these leavers. We used the leaver definitions and documentation requirements in the *PEIMS Data Standards 1999-00* as our testing criteria. The records for 19 of these leavers did not support the leaver reason the districts reported through PEIMS. This results in a 27 percent error rate for leaver documentation and reason coding.[2]

It is important to note that, because the Agency conducts a leaver recovery process (see Appendix 9 for a description of this process) the 27 percent error rate does not apply to the *dropout rates* reported for the 1999-00 school year.

Almost all (95 percent) of the inadequate documentation or incorrect reason coding we found occurred at campuses in major urban or other central city districts, where student mobility is high.

It is also important to note that the largest urban campus we visited accounted for 14 (74 percent) of the 19 errors we found. The Agency reports that the district in which this campus resides is experiencing unusually severe problems with data quality. If this campus is, indeed, not statistically representative, then the 27 percent error rate

[2] We oversampled for our original sample of 70 based on a 10 percent margin of error and a 95 percent confidence level. We reported the error rate with an 8.74 percent margin of error and 90 percent confidence level.

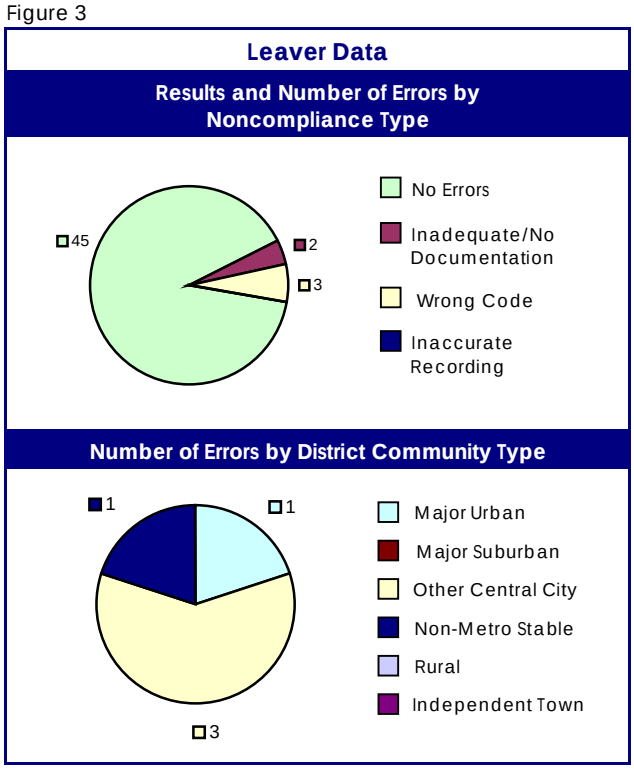
we found could be overstated. If we eliminated this campus from our sample, the error rate would be reduced to 10 percent.

The specific errors we identified are summarized as follows:

- Including the large urban campus, we had a random sample of 70 leavers. Fourteen of the 19 errors we identified were leavers reported without documentation to support the leaver reasons provided.
- Excluding the potentially anomalous large urban campus from our sample reduced the sample size to 50 leavers. Two of the five errors we identified were the result of inadequate documentation. The other three were fully documented but the district had reported a leaver code that did not match the supporting documentation.

Figure 3 illustrates the results and specific errors we identified (excluding the 14 errors we identified at the largest urban campus we visited) by type of noncompliance and district community type.

Figure 3



Source: Agency PEIMS, campus student files, and teachers' rosters

The leaver reasons for which we observed inadequate documentation included withdrawal for home schooling, intent to enroll in public school outside of Texas, and no declared intent but documentation received of transfer to another school. Inadequate and missing documentation for our sample leavers indicated there is a risk that the reported annual state dropout rate is understated (the dropout rate calculation is derived from school leaver data). If reported non-dropout leaver reasons are inaccurately documented or not documented at all, there is no acceptable basis for the district to have reported them as non-dropout leavers. The possibility exists that for these cases the district lacked a documented non-dropout leaver reason and should have reported at least some of these students as "reason unknown," which is a dropout code.

Agency Processing of District Leaver Data

We also tested the records of the four school leavers in a second statistical sample of 270 students selected from teachers' 1999-00 attendance rosters at the 13 secondary schools among our 45 sample Title I, Part A campuses. Our test confirmed that these records progressed successfully through the data pathway from the district, through each successive data transfer point, and on to the Agency's final calculation of dropout rates for the 1999-00 school year. This means that the Agency adequately protected the accuracy, completeness, validity, and timeliness of the district records for our sample as it collected, processed, and reported school leaver and dropout rates for that year.

However, the sample error rate we found for district documentation and coding of leaver reasons does not allow us to provide complete assurance regarding the quality of these records. If we extended the 27 percent error rate to the entire record of leavers (excluding graduates) reported from Title I, Part A campuses for the 1999-00 school year, it would indicate that those campuses did not adequately or accurately document, code, or report between 18,978 and 37,003 Title I, Part A student leaver records for that year. As stated previously, excluding the potentially anomalous urban campus from our results leaves a 10 percent error rate, which, extended statewide, would indicate that between 1,739 and 18,885 Title I, Part A leaver records were inadequately documented or incorrectly reported. This raises a significant level of concern about the reliability of Title I, Part A campus and district leaver reporting. The Agency may want to use SDIU audits to determine a more precise estimate of the error rate and number of misreported leavers for all campuses, not just Title I, Part A campuses (there were 4,447 Title I, Part A campuses in a total of 7,621 campuses in school year 2000-01). As noted previously, because the Agency conducts a leaver recovery process, this error rate does not apply to the *dropout rates* the Agency reported for the 1999-00 school year.

Complexity of Leaver Reporting

Procedures for documenting school leavers, including dropouts, are extremely complex (see textbox). These procedures are designed to cover all the possible reasons for a student's departure from a district. By requiring specific types of documentation and attestation from districts to support assigned leaver reasons, the Agency attempts to manage the risks of misunderstanding, misinterpretation, changed minds, errors, and fraud. Nevertheless, inadequate documentation and miscoding of leaver reasons can occur for several reasons:

Procedure for School Leaver Documentation

District personnel are required to follow up on each student withdrawal during the school year and document 1 to 3 of 43 different possible reasons for the student's departure. (To improve data quality, beginning in the 2002-03 school year, districts will report only one leaver reason code.)

The validity of reported leaver reasons depends on an authorized district person receiving the information orally or in writing from another school or diploma-granting entity, the parents, the adult student, or one of a number of other destination entities. All undocumented leavers must be reported in the "reason unknown" dropout category.

- Documentation depends on authorized district personnel reliably recording information provided by parents or adult students.
- Some districts may not have allocated sufficient resources to leaver investigation, reason documentation, and reporting.
- District and campus personnel may be uncertain about leaver reasons and documentation requirements.
- Some districts may not be enforcing reporting requirements.
- Staff responsible for documenting and reporting leavers are often working at the low end of the pay scale and experience high turnover.
- Because a district's dropout rate affects its accountability rating, there is a potential for intentional manipulation of the leaver record.

We reviewed data quality for only one of the possible dropout rates, the annual event rate for students in grades 7-12 who stop their education before receiving a high school diploma. (See Appendix 8 for differences between the Agency's and the

National Center for Education Statistics' (NCES) definitions of dropouts and annual event dropout rates for Texas in the 1999-00 school year.) Other dropout rate calculations include longitudinal completion and dropout rates (derived by tracking one class or student cohort through several grades until graduation) and attrition rates (the difference between enrollment and graduation numbers over a specified period of time). The Agency has recently redefined the longitudinal completion and dropout rates to complement each other. In the 2003-04 school year, Texas public schools will receive accountability ratings on the basis of school completion/student status rates (including graduates, General Equivalency Diploma (GED) recipients, and continuing students).

Improvements to Ensure Future Reliability of Leaver and Dropout Data

In 1998, the Agency's Internal Audit Division identified documentation weaknesses in the components of the AEIS system, including the Research and Evaluation Division, which calculates and reports dropout rates. The internal audit report recommended more thorough documentation of automated applications, change and test procedures for those applications, and data quality controls (including supervisory review procedures). These recommendations were made in an effort to meet minimum standards for the documentation of information technology and to achieve maximum efficiency and effectiveness in the management of accountability information.

The Research and Evaluation Division reports that it has formally and comprehensively documented in a central location its rules and procedures for the longitudinal dropout rate calculation. It reports that it is in the process of doing the same for the automated processes it uses to calculate the other dropout rates. We reviewed documentation for the PEIMS leaver recovery process, which provided detailed business rules and described thorough security and quality controls. To obtain the business rules and manual and electronic procedures for processing and ensuring the quality of annual event dropout data, we conducted numerous interviews with Division staff and reviewed program code. The Division reports that it performs careful manual and automated tests to verify the accuracy, completeness, validity, and timeliness of the data it imports from PEIMS, processes, and reports. However, the Division has not currently documented these tests. In addition, the Division has not included an adequate business continuity plan for its operations in the Agency's overall business continuity plan.

Management and staff of the Research and Evaluation Division are knowledgeable, experienced, and committed to presenting quality data within their annual report on school completion and dropouts. Maintaining comprehensive and regularly updated documentation of their automated processes will facilitate information management. It will reduce the risk of interruption of an essential Agency function and loss of critical institutional knowledge in the event of staff departure or a disaster. It will also expedite routine reviews and audits and reduce the time required for such reviews. Finalizing implementation of internal audit recommendations and incorporating the Division's business continuity plan in the Agency's overall business continuity plan will ensure the future quality of the Research and Evaluation Division's processing of leaver and dropout records.

Opportunities for Developing and Reporting Additional Useful Information on the Annual Event Dropout Rate

The Annual Secondary School Completion and Dropouts in Texas Public Schools Report

In its August *2001 Secondary School Completion and Dropouts in Texas Public Schools* report, the Research and Evaluation Division:

- Provided a full view of the various dropout rates in Texas.
- Explained dropout rate definitions, calculation methods, and the dropout and leaver recovery processes.
- Explained the differences between the calculation of the Texas annual event dropout rate and the dropout rate calculated by the National Center for Educational Statistics at the U.S. Department of Education (see Appendix 8 for more detail).
- Described the advantages and disadvantages of each dropout rate definition for evaluating schools, evaluating school leaver information, and making policy decisions.
- Explained the leaver and dropout data gathering, processing, and reporting process in detail with useful graphs and charts.

Source: *2001 Secondary School Completion and Dropouts in Texas Public Schools*, August 2001.

In its annual *Secondary School Completion and Dropouts in Texas Public Schools* report, the Research and Evaluation Division provides comprehensive coverage of dropout rates and detailed information on its calculation of those rates (see textbox). This is the primary published source for information on leaver and dropout reporting and calculations. We believe this report could be improved if the Research and Evaluation Division developed and reported the following additional information:

- Summary results of an annual analysis of the use of all leaver codes at the district, region, and statewide levels.
- Results of SDIU audits or independent audits (or both) of districts' leaver records.
- Acknowledgment of the extent to which underreported students and poor quality district leaver data could potentially affect the dropout rate and how those problems are improving over time.
- Additional supporting detail on the results of the Agency's leaver recovery process and on official other leavers.

Analysis of the Use of All Leaver Codes by District, Region, and State

The *Secondary School Completion and Dropouts in Texas Public Schools 1999-2000* report provides a summary of all reported leaver reasons, before recovery, for the past three years. This information allows monitoring of state trends in reason code use. Phasing in additional analyses of leaver data as described in "Analyses of Specific Leaver Reason Codes" in the Agency's May 2001 *System Safeguards for Leaver Data* will provide important additional information for managing leaver data quality. The following two procedures would be especially helpful in understanding use patterns and identifying district data quality problems:

- Comparison of districts' patterns in use of leaver reason codes to state or regional norms.
- Evaluation of district trends in use of leaver reason codes by district community type and other categories.

Conducting the procedures described above will allow districts and data stewards at the Agency to identify risk and more effectively address leaver and dropout data quality problems. Providing a summary of this statewide analysis of leaver reason codes in the *Secondary School Completion and Dropouts* report will give valuable information to districts and other constituencies interested in understanding school leavers.

Results of SDIU Audits

During the 2001-02 school year, the SDIU was auditing districts in which the use of four leaver codes exceeded certain thresholds. However, SDIU team members assert that the thresholds, even when lowered, were not necessarily identifying districts with the highest risk of poor data quality (see Section 2-B). They recommend considering a different methodology for selecting districts for leaver data audits, such as a random selection process. The Agency's May 2001 *System Safeguards Leaver Data Audit Plan* calls for both a risk-based and a random selection of districts.

After the results of the first year of independent audits of district dropout reporting are available, in the fall of 2003 the Agency intends to revisit its plan for leaver data auditing and determine the optimum role for the SDIU in relation to district leaver data quality.

In the meantime, the SDIU could improve its audit reporting to provide more useful information to districts and to leaver and dropout data stewards at the Agency. The SDIU reported on its audits of districts during the 2000-01 school year by describing the ways the SDIU auditors corrected or resolved inaccurate leaver records. However, these reports did not provide results in a format that would allow districts to easily identify the types or causes of leaver data problems and correct them in the future. For example, the reports did not provide:

- District error rates.
- Numbers and percentages of types of errors (inadequate documentation or wrong coding) by leaver reason code (and by campus, if necessary).
- Causes and needed corrective actions.

Such information would help districts improve their data quality. It would also allow leaver and dropout data stewards to focus guidance and training on the areas of greatest weakness.

Leaver Recovery and Official Other Leavers

Districts are required to provide a documented reason for every student's departure, including "reason unknown," if that is the case. The leaver record is not necessarily a record of the actual *final* destination of school leavers. Neither districts nor the Agency are required to *locate* every school leaver. Inevitably, some of the reported leavers, including dropouts, change their minds or their circumstances change after districts document their reasons for leaving. Some of them undoubtedly do drop out. But many of them return to or complete a diploma-granting education program.

The Agency's leaver recovery process is designed to identify and recover reported leavers who have enrolled in approved public or alternative education institutions in the state, or who receive a diploma or GED before early March (when the recovery process is complete). The leavers remaining after the recovery process is complete are designated either as "official dropouts" or "official other leavers," depending on the leaver reason with which they were reported (see Appendix 9 for a detailed description of this process). However, their actual whereabouts remain unknown and is, in many cases, indeterminable.

The reported category of "official other leavers" can be confusing to people not involved in the complexity of dropout reporting. These are students with documented, non-dropout reasons for leaving public school whom the Agency's recovery process has not found in enrollment or attendance in Texas public schools or in receipt of a diploma or GED by March of the following school year. The reliability and validity of the reported official dropouts, the reported official other leavers, and the published dropout rates depend on the accuracy and completeness of district leaver reporting. As we noted above, the campus rate for unsupported leaver reasons was 10 percent in our statistical sample (excluding the potentially anomalous large urban campus).

Analysis of the types of leaver reason codes that are not being adequately documented may indicate which codes are most vulnerable to careless or purposeful misuse to avoid dropout attribution. Currently, the Division addresses leaver data quality risk by requesting SDIU audits of districts flagged for overuse of one of four leaver codes. If SDIU begins reporting district error rates and provides numbers and percentages of types of errors by code, more precise information on risk will be available. Leaver data stewards can use these audit results to identify highest-risk codes and focus SDIU and Agency resources on improving leaver data quality.

Underreported Students

"Underreported students" is another category of students that evokes questions. The Division thoroughly explains this group of students in its *Secondary School Completion and Dropouts* report. Underreported students are students who are enrolled in grades 7 through 12 in a Texas school district during one school year, but who are unaccounted for in their district's fall PEIMS submission the following year. Districts have almost three months to determine a leaver reason for these underreported students. After the January 2001 final resubmission of district leaver records for the 1999-00 school year, 19,718 leavers remained underreported.

According to Agency policy, the Research and Evaluation Division addresses the existence of this subset of students who are missing at the time of fall enrollment as a district data quality problem to be addressed through audits and sanctions (see Section 2-B above on SDIU audits). By definition, these students are not part of the districts' leaver records. The Research and Evaluation Division estimates that as many as half of the underreported students are actually the result of misreported student identification information, which prevents the records for these students from being matched with other school records such as attendance and enrollment. The Research and Evaluation Division does not put these students through the leaver recovery process (because they are not reported as leavers), and it reports these students in its *Secondary School Completion and Dropouts* report as a separate category.

Based on the numbers of underreported students for the 1999-00 school year, SDIU audits of excessive underreported students found 13 campuses that had significantly understated the number of dropouts from their schools. The Commissioner of Education lowered the 2001 accountability ratings of these schools to "Not Rated: Data Quality." These ratings stand until the campuses' 2002 accountability ratings are determined, and the SDIU will conduct data quality desk audits of their leaver records for the 2000-01 school year. As a result of audits and sanctions, the statewide number of underreported students has decreased from 67,281 in the 1997-98 school year to 19,718 in the 1999-00 school year.

If the Research and Evaluation Division puts underreported students through the recovery process, it would probably find a percentage of them enrolled or in attendance, in receipt of a GED or diploma, ineligible for funding based on average daily attendance (ADA), or reported with questionable data. The remainder would be missing from public education records. It would not be accurate, however, to automatically designate these remaining students as dropouts after the recovery process because they could not be proven to be dropouts.

The Research and Evaluation Division could provide a fuller understanding of the extent of the statewide problem of underreported students by using actual percentages from the previous year's leaver recovery process to estimate how many of the underreported students could reasonably be considered to be dropouts. It could then use this estimate to show a worst-case effect on the statewide dropout number and rate. Reporting this information would not affect district and campus dropout rates or school accountability ratings. Nor would it interfere with the Agency's treatment of underreported students as a district data quality problem to be addressed by audits and sanctions.

For example, a simulated recovery process we conducted using the net 19,718 underreported students for the 1999-00 school year resulted in an increase in the number of dropouts from 23,457 to 24,971. This would, in turn, have increased the *statewide* annual event dropout rate by only 0.1 percent, from 1.3 to 1.4 percent.

Acknowledgment of Extent to Which Poor District Data Quality Could Affect Annual Event Dropout Rate

It would be useful for the Research and Evaluation Division to give some kind of indication in the *Secondary School Completion and Dropouts* report of the extent to which underreported students and poor district leaver data quality could potentially affect the statewide annual event dropout rate. The effect of poor district data quality could be estimated from SDIU audits, especially if the audits are randomly selected to allow statewide generalization (see "Limitations and Possibilities of District Leaver and Dropout Audits" on the next page). The potential effect could also be estimated from the results of the independent audits of district dropout reporting. Discussing the possible effects of underreported students and poor district data quality on the statewide dropout rate would enhance procedural transparency and full disclosure in the Agency's dropout reporting.

Breakdown of all Leaver Reason Codes in Annual Report

In the *Secondary School Completion and Dropouts in Texas Public Schools 1999-2000* report, a number of figures and tables present information in a summary format. For example, Table 2 in that report provides a summary of returning students and reported leavers, including the results of the leaver recovery process and the final figures for excluded and official other leavers, dropouts, and underreported students:

Excerpt from Secondary School Completion and Dropouts in Texas Public Schools, August 2001

Year-to-Year Reporting of Students in Grades 7-12, Texas Public Schools, 1997-98 Through 1999-00			
	1997-1998	**1998-1999**	**1999-00**
Returning Students	1,325,546	1,345,536	1,364,125
Graduates	197,186	203,393	212,925
Official Other Leavers	114,421	118,488	116,644
Excluded Other Leavers	122,980	149,096	157,818
Official Dropouts	27,550	27,592	23,457
Excluded Dropouts	10,312	9,189	7,566
Underreported Students	67,281	21,432	19,718

This table provides a useful summary of the results of the leaver and dropout recovery and calculation process. Using the same summary numbers, Figure 4 in the report diagrams the sequence and flow of the process. If the supporting tables in Appendix B of the report provided a breakdown by numbers and percentages of *all* leaver reason codes, they could be linked to and support these summary tables. Having this breakdown and support would allow the reader to follow the leaver and dropout calculation process more easily. Relating the summary and supporting tables and figures to each other and linking their titles in the report would further improve the accessibility and clarity of information about the leaver and dropout recovery calculation process. Additionally, providing an accessible way to compare the reported, recovered, and final numbers for all students who do and do not return to school in the *Secondary School Completion and Dropouts in Texas Public Schools* report will increase transparency and, therefore, public confidence in the Agency's dropout reporting.

Limitations and Possibilities of District Leaver and Dropout Audits

The December 2000 *Dropout Study: A Report to the 77th Texas Legislature* (prepared by the Legislative Budget Board, the State Auditor's Office, and the Agency) recommended treating data quality, dropout definition, and dropout rate calculation as separate processes. Moreover, the report concluded that the audit and sanctions procedures in place for addressing poor district leaver data are effective, resulting in a steady improvement in district data quality. The report recommended additional analyses of leaver data as part of the desk audits of district leaver data submissions. It also recommended lower thresholds for auditing excessive underreported students. Additionally, House Bill 1144 (77th Legislature), now codified in Texas Education Code, Section 39.055, mandates that school districts obtain an annual independent audit of the accuracy of their leaver records. The intent of this legislation was to verify the accuracy of state leaver and dropout reporting, as well as to improve the quality of district submissions through identification of weaknesses and recommendations for improvements.

In conducting our audit of leaver records from our sample of 45 Title I, Part A campuses, we found that separate audits of district leaver records can identify and quantify the extent of specific, current weaknesses in campus and district leaver reporting. However, we also learned that it was not possible to determine or adjust a *statewide* error rate for dropout reporting by auditing district leaver records alone.

Determination of the annual dropout rates at campus, district, county, region, and state levels takes place only after the Agency performs the leaver and dropout recovery and exclusion process on leaver records at the statewide level after the January PEIMS final resubmission. Local campus or district errors may or may not affect the calculation of a campus's or district's final dropout rates. Therefore, the 10 percent leaver documentation and coding error rate we found at our sample campuses (excluding the potentially anomalous urban campus) does not allow us to draw numerical conclusions for district or statewide leaver and dropout rates.

Our audits at campuses also emphasized the importance of consistency across all leaver record audits in order to arrive at information useful to the Agency and all districts across the state. Inconsistencies in audit procedures and reporting produce audit results that are useful only at the district and campus level.

However, our statistical approach leads us to believe that it may be possible to use statistical sampling to conduct consistent, cost-effective leaver audits that could identify the extent to which a statewide rate may be affected by poor leaver data quality. The Agency would need to continue conducting ad hoc audits in response to identified data quality problems and deal with severe district data quality problems through existing penalties and sanctions.

To use statistical sampling to report the extent to which the statewide dropout rate may be affected by poor district data quality, several conditions would have to be met:

- The Agency would need to develop a sound statistical methodology for sampling and auditing districts and campuses for leaver reporting.
- The audit program would have to be carefully detailed and consistently implemented across the entire sample.
- The Agency would need to develop a formula for applying an adjustment (derived from an analysis of the trend in dropout recovery for the past several years) to the statewide error rate in district dropout reporting that is determined by these audits.

The Agency will need to evaluate the results of the first year of independent audits of all district leaver and dropout records before deciding on the best approach to auditing and managing district leaver data quality. Regardless of which audit approach the Agency decides on—audits of all districts, statistical sampling, risk-based auditing, or a combination of these—audits of campus and district leaver records provide a valuable control to help ensure the quality of leaver data reported from those levels.

The Research and Evaluation Division should continue to provide guidance in determining an audit plan and methodology for reporting that produces maximum value for the Agency. Data quality audits should provide the information that districts and the Agency need to (1) identify specific problems with leaver data quality, root causes, and improvements over time, (2) design and target district training, (3) understand and acknowledge the extent to which the statewide rate could potentially be affected by poor district data quality, and (4) provide additional useful information for reporting on school completion and dropouts.

Recommendations:

The Research and Evaluation Division is continually engaged in improving the procedures for district leaver reporting and its own reporting of dropout rates and analysis. It should also:

- Use information gained from this audit and from future SDIU and independent audits to help focus training and technical assistance for district and campus personnel on reducing identified errors in documenting and reporting school leavers.
- Encourage district administrators to improve resources and oversight for the leaver and dropout reporting process.
- Maintain up-to-date documentation of business rules, manual and automated security and quality controls, and change and test procedures for automated programs used to process leaver data and calculate dropout rates.
- Update the Division's business continuity plan in the Agency's overall plan.
- Continue to phase in additional types of analyses of districts' use of leaver reason codes as outlined in "Analyses of Specific Leaver Reason Codes" in the Leaver Data Work Group's May 2001 *Systems Safeguards for Leaver Data*.
- Until independent audits of district dropout records are available and the SDIU's role can be reevaluated with regard to leaver data quality auditing, help ensure that both SDIU and independent audits develop and report the most useful audit information for improving leaver data quality. Reports should be in a consistent format that facilitates statewide summary and analysis of results. They should include, at a minimum:
  - District error rates for leaver and dropout reporting
  - Numbers and percentages of types of errors (inadequate documentation and wrong coding) by leaver reason code (and by campus if necessary)
  - Recommendations for corrective actions
- Include the following additional useful information in the *School Completion and Dropouts In Texas Public Schools* report:
  - Summary results of an annual analysis by district of the use of all leaver codes for the school year (indicate trends in use by district type or region and potential overuse in comparison with statewide benchmarks)
  - Results of SDIU or independent data quality audits (or both) of districts' leaver records (include current error rates, numbers and percentages of types of errors by reason code, and needed corrective actions)
  - Acknowledgment of the extent to which underreported students and poor district leaver data quality could potentially affect the dropout rate and how these problems are improving over time

– A breakdown of all leaver reason codes to support the summary figures and tables in the body of the *Secondary School Completion and Dropout in Texas Schools* report

Management's Response:

- *Management agrees with using audit information to improve training for district and campus personnel.*

  Plan: *The Division of Research and Evaluation will continue to collaborate fully with Agency staff in SDIU and the Division of Financial Audits and with ESC personnel responsible for these activities.*

  Timeline: *Ongoing*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

- *Management agrees district leaver and dropout data quality should be improved. However, as noted by SAO, the system in Texas is one of local control, and therefore it is more appropriate for local resource allocation and oversight decisions to be made by school districts.*

- *Management agrees.*

  Plan: *The Research and Evaluation Division will continue to update and maintain detailed documentation for the various leaver data reporting programs and data files and for the quality control systems for those files. The division will rely on the Agency's Enterprise Data Management (EDM) program to provide standards and guidelines for appropriate documentation of business rules and procedures.*

  Timeline: *Ongoing*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

- *Management agrees.*

  Plan: *Agency policy is to update the plan annually.*

  Timeline: *Ongoing*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees.*

  Plan: *As outlined in the May 2001 plan, the SDIU will continue to phase in additional analyses of specific leaver reason codes.*

  Timeline: *Analyses are currently being planned, and implementation will occur beginning Fall 2002.*

Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *During the period prior to the availability of the independent audits, the SDIU will break down audit information by district error rates and by number and percentage of error type for reason code. Additionally, the SDIU will provide recommendations for improving leaver data quality, and follow-up will occur during the desk audits required of districts the following year.*

  Timeline: *Beginning Fall 2002*

  Person Responsible: *Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *The Research and Evaluation Division will incorporate the summary of SDIU leaver analysis into the 2001-02 dropout report.*

  Timeline: *Beginning with the 2001-02 dropout report and annually thereafter*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

- *Management agrees it would be useful to expand reporting on results of SDIU audits and, beginning in 2003, the results of district leaver audits required by new state legislation.*

  Plan: *The Research and Evaluation Division will incorporate independent audit and additional SDIU audit information into the dropout report.*

  Timeline: *Beginning with the 2001-02 dropout report and annually thereafter*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

- *Management agrees.*

  Plan: *The annual dropout report will continue to report detailed information on data quality issues. Data quality indicators will continue to be tracked, updated, and reported each year.*

  Timeline: *Ongoing*

  Person Responsible: *Associated Commissioner, Accountability Reporting and Research*

- *Management agrees that it is useful to provide information concerning use of all leaver codes and will continue to do so in the annual dropout report.*

  Plan: *Management will evaluate the format used to report this information prior to issuing the 2000-2001 dropout report.*

  Timeline: *March-June 2002 for the 2000-01 dropout report and annually thereafter*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

Section 3-B:

The Agency's Student Assessment and Performance Reporting Divisions Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of Student Assessment Data

The assessment test vendor and the Agency's Student Assessment Division describe comprehensive and detailed methods they use to safeguard the accuracy, completeness, timeliness, and confidentiality of student assessment data. The Agency's Performance Reporting Division also reports careful methods it uses to ensure the accuracy and completeness of the records it imports from the Student Assessment Database for calculating and reporting accountability ratings.

Like leaver reporting, the administration and documentation of student assessment data are complex processes that require secure procedures. In 2001, the assessment test vendor and the Student Assessment and Performance Reporting divisions gathered, processed, and reported on approximately 6.8 million test documents for 2.2 million eligible students. We did not test the validity of the assessment tests or the reliability of the assessment test vendor's scoring of the tests. Therefore, our assurances regarding assessment data do not extend to the validity of the tests or the accuracy of the test scores. See Appendix 10 for a summary of the test administration and exemption process.

We identified specific improvements that can be made to further enhance data collection, processing, and reporting for student assessment records and results and for the calculation and reporting of passing rates for accountability purposes.

Campus and District Coding and Reporting of Student Assessment Participation/Nonparticipation Data

Our statistical testing of campus and district documentation and coding of student assessment answer documents identified opportunities for improvement in complying with statutory and Agency requirements. We used instructions and procedures in the *2001 TAAS Coordinator Manual* as our testing criteria. We tested the assessment records of 47 students coded as not participating (exempt, absent, or not tested for one of five special circumstances coded as "O") in one or more of their required spring 2001 tests from our random sample of students from Title I, Part A campuses. These 47 students were eligible by grade to take a total of 128 student assessment tests

(reading, math, and writing) that would be counted for accountability purposes. We found nine errors (7 percent of the sample)[3] in documenting or coding student answer documents for the tests these students were eligible to take:

- Three errors were because of the absence of documentation supporting an answer document coded as exempt.
- Two errors occurred because a teacher coded a special education student's answer documents as exempt from all three tests although the student's Admission Review and Dismissal (ARD) Committee Report required the student to take the reading and writing tests.
- Four errors occurred because teachers wrote incorrect Social Security numbers on student answer documents. This created invalid data for matching purposes.

Errors like these affect students' opportunities to participate in and receive feedback on an assessment of their academic performance. Additionally, the errors would be carried over into accountability calculations if they occur for students included in those calculations. (Student assessment results are included in accountability calculations only for students who tested in the same districts in which they were reported as enrolled in the October snapshot report for the school year of the tests.)

We found 22 additional errors in required test fields for the 47 sample students. These 22 errors were recognized and corrected through standard compensating controls during data processing by the test vendor and the Student Assessment Division. These errors occurred because campuses submitted Texas Assessment of Academic Skills (TAAS) test answer documents for students instead of voiding them because the students were taking the State Developed Alternative Assessment (SDAA) for special education students. The 2000-01 school year was the first year for administration of the SDAA, so these errors should decrease in the 2001-02 school year.

Agency Processing and Reporting of District Student Assessment Participation/Nonparticipation Data

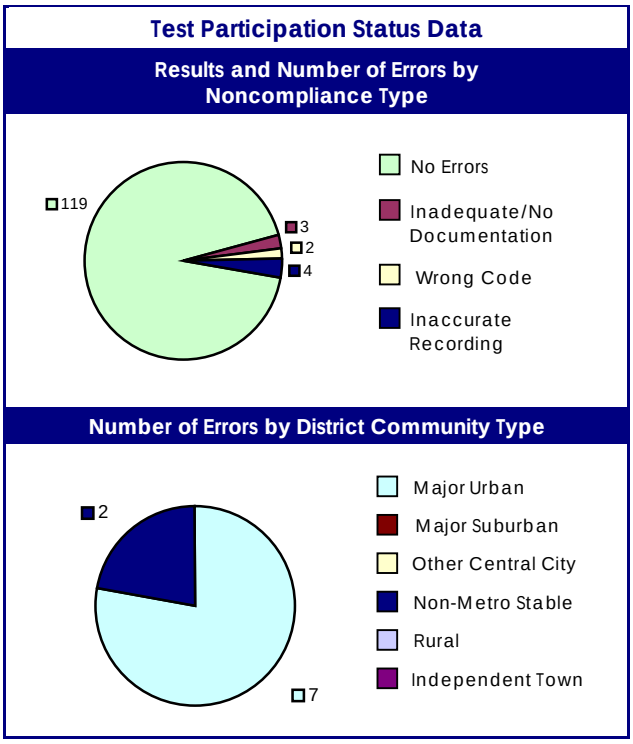
Our completeness test for participation records of a second sample of 138 randomly selected students allowed us to perform another test. Specifically, it allowed us to confirm that the assessment records of these students progressed successfully through the data pathway from the district, through each successive data transfer point, and on to the Agency's final calculation of student assessment passing rates and accountability ratings for the 2000-01 school year. This means that the assessment test vendor and the Student Assessment Division adequately protected the accuracy, completeness and timeliness of the records of our sample students as it collected, processed, and reported assessment results. The Performance Reporting Division also protected the quality of the data it imported from the Student Assessment Database and used to calculate passing rates and accountability ratings for that year.

However, the 7 percent sample error rate described above does not allow us to provide complete assurance regarding the quality of these records. The entire population for

[3] We calculated our sample based on a 10 percent margin of error and a 90 percent confidence level. We are reporting our results at a 4.43 percent margin of error and 95 percent confidence level, so our precision constraint was met.

our sample of 128 test fields would have been 272,276 possible test fields for eligible Title I, Part A students who were reported as not tested for one or more tests in the 2001 student assessment test administration. Extending a 7-percent documentation and coding error rate to this population would indicate that the districts did not accurately document or code between 7,088 and 31,201 test fields for eligible Title I, Part A students who were marked exempt, absent, or "other" for at least one of the 2000-01 school year assessment tests. This raises a significant level of concern about the reliability of student assessment participation and nonparticipation coding data. The Agency may want to use SDIU audits to determine a more precise estimate of the error rate and number of miscoded documents for the population of all students who are eligible by grade to take assessment tests.

Figure 4



Source: Agency Student Assessment database, and campus student files

Figure 4 shows details on the results and errors we found by type of error and district community type, respectively.

Improvements to Ensure Consistent, Ongoing Reliability of Assessment Data

Experienced and knowledgeable staff in the Agency's Student Assessment and Performance Reporting divisions have developed and documented numerous controls to ensure the quality of student assessment data. For each test administration, the Student Assessment Division develops and submits to the student assessment test vendor data for simulated districts including student identification, demographics, and test answer documents. Division staff review the results on each report generated by the assessment test vendor to ensure the quality of assessment data and identify any type of data processing errors. Performance Reporting staff also manually compare imported student assessment datasets for six purposefully selected actual districts each year with the original records sent by tape cartridge to the Student Assessment Database. This comparison ensures the accuracy and completeness of the imported record.

These divisions can further ensure consistency and continuity in reporting student assessment and accountability ratings by maintaining and regularly updating comprehensive documentation of their manual and electronic procedures and their security and quality controls. The documentation that Performance Reporting Division staff maintain for calculating and reporting statewide and local attendance rates is a model for such documentation, as is the PEIMS documentation of the leaver recovery process.

Need for Agency Monitoring of the Assessment Test Vendor's Data Security and Quality Controls

The assessment test vendor denied our request to review the vendor's internal audit reports on its information technology and information systems. Student assessment results are an essential component of the State's accountability system, and the quality of that data has a material effect on schools. As a result, the Student Assessment Division may want to revise its current contract (or modify its next contract with an assessment test vendor) to explicitly require periodic internal and external audits of management and information system controls. It should require such audits of all operations and information systems that affect the processing of Texas student assessment information. The contract should stipulate that these audits, as well as the audited financial statements of the test vendor, be forwarded to the Agency for review and that they be subject to review by the State Auditor's Office.

Improvements to Monitor and Ensure Participation of All Eligible, Qualified Students

Districts must return to the assessment test vendor answer documents for all students enrolled in a district at the time of a student assessment test. Teachers code each student's answer document to indicate what test the student is taking or that the student is exempt, absent, or otherwise not tested on the day of the test (indicated by the use of an "O" code). District TAAS coordinators are instructed to manually void and return all unused answer documents to the assessment test vendor. Some documents remain unused because districts order answer documents in the fall when it is not possible for them to know the exact number or type of tests each student will be taking. It also is not possible to know which students will have left the district by test time.

Voided Documents. The assessment test vendor creates an electronic scanned file of manually voided documents to allow more efficient retrieval of these documents when there are questions from the district or parents. However, the vendor currently does not provide to the Agency a count or report of voided documents per district. Unmonitored voided documents leave open a risk of careless or purposeful misuse of voiding, resulting in less than full participation of all eligible students in assessment testing. The Agency should receive a report of the number of voided documents by district in order to identify districts with significantly greater numbers of voided documents than the state average. The SDIU should then audit districts whose number of voided documents exceeds an agreed-upon threshold number. As long as voided documents remain unmonitored, the voiding of documents remains a procedure that is vulnerable to fraud.

Use of the "O"(Other) Code for Student Not-Tested Status. The Student Assessment Division has instructed teachers to use the "O" code only for a student who was eligible and present but who, because of one of five specific circumstances, did not take the test. However, to most efficiently separate out answer documents not to be scored or counted for accountability in each additional processing of the data, the data processors at the test vendor and the Agency may add their own "O" code in certain situations. These added "O" codes can mask the use of the code as a control and measure for full participation by eligible students who are present the day of the test.

These added "O" codes also interfere with the identification of districts to audit for excessive use of this code.

For our audit, these additions resulted in our initially identifying a higher error rate for teacher coding of answer documents than was the actual case (24 percent instead of 7 percent). To determine the extent to which our initial error rate was overstated, we requested answer documents and test results labels from the assessment test vendor. From these records, we reconstructed the original records submitted by the campuses.

Compliance With Testing Requirements for Eligible Qualified Students. Because there is currently no Agency review to determine if each student took the tests he or she was eligible and qualified to take, it is possible for students not to take the tests they are required by law to take. Our test identified one such student, in our sample of 47 students, who was exempted from two tests the student should have taken. This is an error rate of 2.0 percent, which does not allow us to infer what the statewide incidence might be. Nevertheless, this error highlights a risk and the need to consider cost-effective ways of addressing it. The risk is to the validity of the state's accountability system, but it is also a risk to individual students' ability to participate in and gain feedback from student assessment. This is an area of risk that could be addressed by the SDIU's development of a methodology for selecting and auditing districts for compliance with statutory requirements regarding student participation in assessment testing.

Completeness Testing for Participation. Districts are required to submit a participation, exemption, absence, or not tested record for each grade-eligible student who is enrolled or in attendance at the time of the tests. Currently, the Student Assessment Division reports the number and percentage of students who took assessment tests along with the number and percentage of students who were exempted, absent, or not tested for one of the five "O" code reasons.

In the past four years the percentage of students being tested has increased (from 91.1 percent of students enrolled in the spring of the 1997-98 school year to 96 percent in the 2000-01 school year) as the number of exempted students has declined. During the same period, the number of student test results included in accountability rating calculations has increased from 76 percent to 85 percent.

However, this analysis does not include a comparison of reported test participation, exemption, absence, or not tested status with PEIMS attendance records for grade-eligible students at the time of the tests to identify students potentially unaccounted for with regard to student assessment. Because of student mobility, there will always be a discrepancy between attendance records and student assessment records. However, comparing district discrepancies with the statewide average discrepancy would allow the SDIU to identify and audit districts with significantly higher numbers of students unaccounted for.

We conducted two tests for completeness of participation records (including exemption, absence, or not tested status): one global test and one random sample test. In the global test, we compared student assessment participation records from the Student Assessment Database for the spring 2001 test administration with students reported in attendance by PEIMS from the test-eligible grades (3-8 and 10) during the sixth six weeks of the 2000-01 school year. Results of this test indicated that:

- Of the 2,173,187 student attendance records with unique Social Security numbers for that period, 59,480 (2.74 percent) had no corresponding records of student assessment test participation. Some of these students may have been in attendance in the sixth six weeks but left Texas public schools before the actual test dates. For some of them, the student identification information in PEIMS differed from that in the Student Assessment Database.
- Of the 59,480 students who were in attendance but had no record of assessment test participation, 35,429 (60 percent) were in 440 districts (including 135 charter schools) that exceeded the statewide average discrepancy of 2.74 percent. Major urban districts had 24 percent of these students, and charter schools had 9 percent.
- Of the 2,156,695 student assessment participation records for spring 2001, 44,169 (2.05 percent) had no corresponding attendance records for the sixth six weeks of that school year. Some of these students undoubtedly tested and left Texas public schools before the sixth six weeks of the 2000-01 school year. When we compared student assessment records with attendance records for the fourth, fifth, and sixth six weeks of the 2000-01 school year, only 1.52 percent of the assessment records were not matched by an attendance record. We found an additional 4,340 of these students reported in attendance during the fourth, fifth, and sixth, six weeks in grades other than the grades eligible for testing, which resulted in an unmatched record rate of 1.32 percent.

Our random sample test focused on 135 students eligible for testing in spring 2001 (selected from teachers' attendance rosters for the second six weeks in the 1999-00 school year) and reported in the PEIMS attendance record for the sixth six weeks of the 2000-01 school year. Specifically, we compared this list of students with the answer documents and test results labels the assessment test vendor provided to us for these students. We found a participation record for each student in our sample. We did not review the district coding of the students' participation status for accuracy or compliance.

Designing and conducting a completeness test each year—a global test, a random sample test, or both—would allow the SDIU to establish a baseline and identify districts for audit that have significantly larger rates of students unaccounted for than the statewide average. Without regular monitoring of participation completeness, the risk that students are being carelessly or purposefully excluded from student assessment remains unaddressed. Such monitoring would also increase public confidence in full participation.

SDIU Audits of Student Assessment Participation

The Student Assessment Division should work with the SDIU to develop data processing procedures to monitor and identify for audit those districts with potentially incomplete participation in student assessment. The following activities would close the remaining gaps in the Agency's management of full participation in student assessment tests:

- Compare district rates for voided answer documents with the statewide average in order to identify high-rate districts for possible audit.

- Protect the initial teacher use of the "O" code as a measure of test participation and as an SDIU audit trail for districts with excessive use of the code.
- Consider including in SDIU audits a test to determine if students took the tests they were eligible and qualified to take.
- Compare district rates of grade-eligible students unaccounted for in assessment records with the statewide rate in order to identify districts for possible audit.

Regularly monitoring the results of these procedures would increase the Agency's assurance regarding test participation and allow trend analysis over time. Reporting the results of this monitoring each year would further increase public confidence in the validity of student assessment as a measure of school performance.

Recommendations:

The Performance Reporting Division should develop and maintain documentation of business rules for automated programs, change and test procedures, and manual and automated data security and quality controls used to process and report student assessment passing rates and calculate school accountability ratings. This documentation should be modeled on the documentation this division currently maintains for its procedures for calculating and reporting attendance rates.

The Student Assessment Division should implement the following improvements to help ensure the quality of student assessment data and reporting:

- Update and maintain documentation of business rules for automated programs, change and test procedures, and manual and automated data security and quality controls used to process and report student assessment results.
- Use information gained from this audit and from future SDIU audits to help focus training and technical assistance for district and campus personnel. Focus training on reducing identified errors in the documentation and coding of students' answer documents for the tested and not tested status for required tests.
- Implement four needed controls to evaluate and help ensure full participation of eligible, qualified students in required tests:
  - Monitor district rates for voided student answer documents and provide the SDIU with the data it needs to identify and audit districts with excessive voiding.
  - Protect the original "O" codes on students' answer documents as a control for participation and for SDIU use in identifying and auditing districts with excessive use of this code.
  - Consider having the SDIU audit districts for administering required tests to all eligible, qualified students or include such a review in special education monitoring of districts.

- Annually compare students' assessment records with PEIMS attendance reports for grade-eligible students during the testing period. Develop a method (algorithm) for the SDIU to use in identifying for audit those districts with excessive rates of students unaccounted for with regard to student assessment.

- Consider reporting in the *Comprehensive Annual Report on Public Schools* the results of these four controls for participation to show improvement over time and increase public confidence in the validity of student assessment as a measure of accountability.

Management's Response:

- *Management agrees.*

  Plan: *Documentation and rules are in place to ensure that results match those the Division of Student Assessment processes and reports. Rules for calculating accountability ratings are also documented and dual-processing is conducted within the division to ensure that the rules are properly programmed and implemented. The division will rely on the Agency's Enterprise Data Management (EDM) program to provide standards and guidelines for appropriate documentation of business rules and procedures.*

  Timeline: *Ongoing*

  Person Responsible: *Associate Commissioner, Accountability Reporting and Research*

- *Management agrees.*

  The Student Assessment Division will continue to update and maintain detailed documentation for the various reporting system functions, such as the procedures for verifying student-level data files and the documentation of the quality control system to monitor the test contractor's scoring and reporting systems. The division will rely on the Agency's Enterprise Data Management (EDM) program to provide standards and guidelines for appropriate documentation of business rules and procedures.

  Timeline: *Ongoing*

  Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology*

- *Management agrees.*

  Plan: *The Student Assessment Division will include the information gained from this audit and future SDIU audits with the current ongoing review of our test administration manuals, policies, and procedures to ensure continuous improvement of training to districts and campuses. The adoption of new rules by the*

SBOE in September 2001, effective on November 2001, marked the most recent modification of the assessment rules. Two components of the new rules addressed enhancements to training requirements. These include specifying the responsibility of the superintendent for maintaining the integrity of test administration, giving greater emphasis to the penalties for testing and data reporting irregularities, revising the penalties to follow those listed in the State Board for Educator Certification (SBEC) rules, and including parents or legal guardians in rules concerning notification by superintendents of testing requirements.

Regarding training in administrative procedures, the new rules emphasized training for every test administrator in the state, which is provided annually by the Agency through education service centers and test administrator manuals. During the training session given to the education service centers personnel for the Spring 2002 test administrations, the division incorporated feedback from districts about the 2001 test administration and provided additional training and emphasis on the appropriate submission of TAAS and SDAA answer documents

Timeline: *Ongoing*

Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology*

- *Management agrees.*

Plan: *The new state assessment program, Texas Assessment of Knowledge and Skills (TAKS), will be administered for the first time in Spring 2003. Since the TAKS tests represent a complete redesign from the TAAS tests, the Student Assessment Division and the test contractor will be developing all new reports and data file formats for the new program. As part of this development, the Student Assessment Division, the test contractor, and the SDIU will collaborate to evaluate how the current process used to retrieve the voided documents could be modified in order to generate a count by district and campus that could be appropriately used in an audit by the SDIU. The Agency will also evaluate whether other audit measures could allow for resources to be used otherwise. For example, an audit to show whether all students required to test were actually tested may make an audit of voided answer documents moot.*

Timeline: *School year 2002-2003*

Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology*

- *Management agrees.*

Plan: *Since the Spring 1996 administration, the test contractor has included an indicator for the grades 4 and 8 student records on the electronic student data file that indicates whether the student's answer document submitted for the reading/mathematics administration in April has been matched with the student's answer document submitted for the writing administration in February. Since the 'O' score code is the default code used when the writing document is not matched to the reading/mathematics document, this indicator was available to programmers to delete the additional 'O' codes created by the mismatched records to produce a count of student documents actually coded as 'O' by the district. As part of the new TAKS reporting system in Spring 2003, the test contractor will continue to generate the mismatch indicator but will also use a new score code value for the subject areas where the student's score code is unknown due to a mismatch. As a result, the 'Other' score code on the student data file will represent only the 'O' codes actually gridded on the answer document by districts.*

Timeline: *School year 2002-2003*

Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology*

- *Management agrees.*

  Plan: *The Student Assessment Division will work with the SDIU to develop a method for SDIU to use as an additional audit of excessive rates of unaccounted students based on the sixth six-weeks attendance data.*

  Timeline: *Beginning 2002-2003*

  Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology; and Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees to consider this recommendation.*

  Plan: *The Student Assessment Division will discuss with SDIU what types of monitoring systems are possible to evaluate the accuracy and completeness of the local documentation to ensure that all students required to test were tested.*

  Person Responsible: *Associate Commissioner, Curriculum, Assessment, and Technology; and Associate Commissioner, Quality, Compliance, and Accountability Reviews*

- *Management agrees.*

  Plan: *The Agency will consider including a summary of analyses from one or more of the above audits as an additional section of the Comprehensive Annual Report on Public Schools or another appropriate report.*

Timeline:	*Reporting would occur after controls were developed and implemented.*
Person Responsible:	*Associate Commissioner, Curriculum, Assessment, and Technology; and Associate Commissioner, Quality, Compliance, and Accountability Reviews*

Section 3-C:

The Agency's PEIMS Division Can Make Specific Improvements to Help Ensure the Accuracy, Completeness, Validity, and Timeliness of Student Attendance Data

The methods used by the Agency's PEIMS Division, campus and district personnel, the School Financial Audits Division, and the Performance Reporting Division for ensuring the quality of attendance records and rates have been effective in ensuring a high level of data quality. We identified additional improvements that can be made to enhance data collection and data processing (see Appendix 3 for a summary of the results of a survey we conducted of district PEIMS coordinators).

Campus and District Reporting of Attendance Data

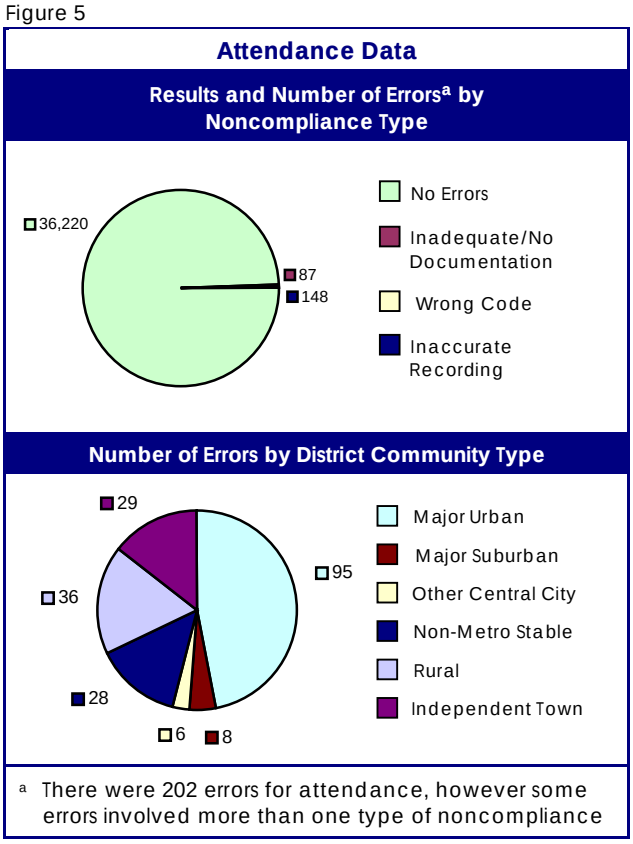
We found an error rate of 0.55 percent in our statistical testing of the accuracy, completeness, validity, and timeliness of students' attendance records at 45 randomly selected Title I, Part A campuses.[4] The sample spanned 1,350 randomly selected students (equating to 36,455 student membership days associated with the 1,350 students) for the second six weeks of the 1999-00 school year. We based our testing on the requirements and guidance the Agency provided to districts and campuses in its *1999-00 Student Attendance Accounting Handbook* (adopted by reference as part of the Texas Administrative Code, Title 19, Section 129.1025).

Although 0.55 percent is a low error rate, it has an effect on the State's spending for public education. The Foundation School Program (FSP) annually awards $12 billion in state funds to schools. Most of this funding is distributed on the basis of the average daily attendance reported by districts. Our sample error rate includes attendance documentation errors that result in both under- and over-reported absences at Title I, Part A schools. The net error rate for Title I, Part A schools is an underreported absence error rate of 0.41 percent. This indicates that an estimated $27 million (0.41 percent of the estimated $6.6 billion allocated to Title I, Part A schools in the 1999-00 school year) was allocated to Title I, Part A schools that did not have adequate documentation to support the attendance they reported as the basis for FSP funding.[5]

[4] We oversampled for a 10 percent margin of error and a 99 percent confidence level by using our full random sample of 1350 students. Because of the sample size, we are able to report our test results based on a 0.1 percent margin of error and a 99 percent confidence level.

[5] Reported student membership days at Title I, Part A campuses during the 1999-00 school year accounted for 55 percent of student membership days for all students during that year. Assuming that this percentage is an accurate measure of the percentage of FSP funds allocated to Title I, Part A schools results in an allocation of $6.6 billion to those schools for the 1999-00 school year.

Figure 5



Source: Agency PEIMS database, campus student files, and teachers' rosters

Figure 5 shows the results and errors we found by error type and district community type respectively.

Agency Processing and Reporting of District Attendance Data

Our test of attendance records for a random sample of 86 students selected from teachers' rosters confirmed that these records progressed successfully through the data pathways from the district, to each successive data transfer point, and on to the Agency's final calculation of attendance rates for the 1999-00 school year. This means that the Agency adequately protected the accuracy, completeness, validity, and timeliness of the records for our sample as it collected, processed, and reported school attendance rates for that year.

However, the 0.55 sample error rate we found for district documentation and reporting of attendance does not allow us to provide complete assurance regarding the quality of these records. Extended to the entire state, a 0.55 percent error rate would indicate that Title I, Part A campuses did not accurately document or report between 1.7 million and 2.5 million student attendance days.

Errors in Reporting Student Personal Identification Information (PID)

A continual threat to the quality of student attendance data is district reporting of a subset of students in each data submission with errors in their personal identification information (Social Security number or alternative identification number, first and last name, and date of birth). These errors are referred to as PID errors. Upon initial enrollment in a Texas public school, each student is assigned a unique PEIMS student identification number. In subsequent reports for that student, two of the three components of the students' personal identification information must match the personal identification record already established for that student. A mismatch produces a record flagged with a "Z," which designates a student record that cannot be electronically matched with any other student records. The Agency has implemented a phased-in PID error reduction policy requiring districts to report PID errors for less than 3 percent of their students by the 2003-04 school year. Because PID errors often occur when students transfer, districts have access to statewide data to correct the PID errors in their PEIMS submissions.

Agency Methods in Place to Ensure Consistent, Ongoing Quality of Attendance Data

Both the PEIMS Division, which collects attendance data, and the Performance Reporting Division, which calculates and reports attendance rates, use input, processing, and output controls to ensure the quality of attendance data. The Performance Reporting Division also develops and maintains thorough documentation of business rules and procedures for attendance rate calculation and reporting, electronic applications, changes to and tests of such applications, and routine manual and electronic data quality controls.

Data Auditing

The School Financial Audit Division (SFAD) identifies schools with attendance reporting anomalies for each school year by running automated queries against PEIMS attendance records for each district. Districts exceeding a threshold for attendance data anomalies are selected for desk or on-site attendance audits.

Attendance audits result in the annual recovery of approximately $6 million in FSP funds from schools that misreport attendance data related to program eligibility, enrollment dates, and days present and absent. Recovered funds are returned to the State's General Revenue Fund. Additionally, if SFAD auditors determine that a campus or district has significant data quality problems for attendance reporting, the commissioner of education may reduce the accountability rating of the campus or district, or both.

In the fall of 2001, SFAD auditors completed more than 600 of 917 electronic desk reviews of data from flagged districts. They also conducted three on-site audits of district attendance data for the 1998-99 school year. As reported in a prior State Auditor's Office report (*An Audit Report on the Texas Education Agency's Monitoring of School Districts,* SAO Report No. 02-030, March 2002), the SFAD is behind schedule in conducting attendance audits because it devoted much of the 2000-01 school year to conducting initial audits of new charter schools. SFAD auditors planned to implement a risk-based system for selecting schools to audit for 1999-00 school year data and begin auditing districts for that school year in March 2002. Providing more timely attendance auditing will expedite the recovery of misallocated school funds and provide a more effective control for ensuring reliable district attendance reporting.

Recommendations:

The PEIMS Division should:

- Help focus training and technical assistance for district and campus personnel on proper procedures for recording, changing, reconciling, correcting, and reporting student attendance through PEIMS.
- Enhance district administration training regarding the supervision and enforcement of attendance reporting.

- Require an approved and signed reconciliation between teachers' rosters and the campus reports used for PEIMS submissions each reporting period.

Additionally, the Agency should consider allocating sufficient resources for attendance audits to ensure timely recovery of funds from districts that have overreported their attendance data.

Management's Response:

- *Management agrees with the recommendation.*

  The PEIMS Division is the primary Agency contact for data reporting requirements associated with PEIMS data collections, and the School Financial Audit Division is the primary contact for the rules and procedures relating to attendance accounting. The Agency supports the efforts of the education service centers (ESCs) in providing technical assistance to districts. Using a "train-the-trainer" model, the Agency expands local training capabilities far beyond the limitations of a more centralized training approach.

  Plan: *The PEIMS Division will facilitate an internal workgroup to develop a plan for enhancing ESC training to school district and campus personnel. Focused training products will be developed, with the involvement of ESCs, as an additional resource for enhancing training sessions with school districts. The ESCs will also be encouraged to provide training employing innovative training strategies and consider staff turnover in school districts in scheduling training activities.*

  Timeline: *The internal workgroup will develop recommendations to the Commissioner by the end of 2002.*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees with the recommendation. Again, the Agency supports the efforts of the ESCs in providing technical assistance to districts.*

  Plan: *The internal workgroup created by the PEIMS Division will propose district administration training focused on the supervision and enforcement of attendance reporting. Training modules could be developed that utilize current technology, especially the Internet. The Agency will continue to encourage the ESCs to expand district training activities and to support distance-learning activities.*

  Timeline: *The internal attendance audit workgroup will provide recommendations to the Commissioner by the end of 2002.*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees with the recommendation with stipulation.*

  Although the PEIMS Division does not have the authority to audit district procedures, the Student Attendance Accounting Handbook, produced in collaboration with other divisions, lists the documentation requirements for attendance audit purposes and details the responsibilities of all district personnel involved in student attendance accounting.

  Plan: *The PEIMS Division will involve the ESCs and the Financial Audits Division in developing quality assurance procedures, including reconciliation processes. The ESCs will be encouraged to provide specific recommendations in the context of software systems that are distributed and supported by ESCs.*

  Timeline: *Preliminary examples of procedures will be provided in the 2002-2003 Student Attendance Accounting Handbook (available July 2002) and expanded in later editions.*

  Person Responsible: *Managing Director, Information Systems Department*

- *Management agrees with the recommendation.*

  Plan: *The School Financial Audits Division has implemented a risk-based system for the 1999-00 school year and will begin desk audits in Summer 2002. The division has initiated mailing letters to the school districts requesting information for the desk audits. The division will maximize resources by concentrating efforts on the most serious deviations. The division will continue to provide support to districts to help ensure they are reporting accurate attendance data through PEIMS.*

  Timeline: *The School Financial Audits Division has implemented the risk-based system and plans to be back on schedule within the next 18 months.*

  Person Responsible: *Managing Director, Division of School Financial Audits*

Section 3-D:

The Agency's Student Support Programs Division Can Make Specific Improvements to Strengthen Title I, Part A Reporting to the U.S. Department of Education

We identified several improvements that the Agency's Student Support Programs Division can make to improve data quality through the collection, processing, and reporting of Title I, Part A information.

Title I, Part A Data Collection from Districts

The Title I, Part A Database contains the Agency's official list of funded Title I, Part A districts and campuses. However, we identified errors in this list. Specifically:

- For the 2000-01 school year, we found 31,452 students reported by 456 campuses in the PEIMS fall enrollment snapshot as participating in the Title I, Part A program that were *not* part of the official list of campuses receiving Title I, Part A funds in the Title I, Part A Database.
- We found 110 campuses, with a total fall enrollment of 45,413 students, listed in the official Title I, Part A Database that were not reported through PEIMS as participating in the Title I, Part A program.

These differences create a maximum number of 566 campuses and 76,865 students potentially misreported in regard to their participation in the Title I, Part A program (from a total of 2.1 million Title I, Part A students). Additionally, we found two campuses in district Title I, Part A applications that were not listed in the Title I, Part A Database and one campus in the Title I, Part A Database that was not listed in the district Title I, Part A application.

Some of these discrepancies are inevitable. As long as PEIMS is a static database, providing student program data on an "as of" date, its data will not match the campus data in the Title I, Part A Database. Additionally, through amendments to their Title I, Part A applications, districts may change the status of a campus during the school year.

Student Support Programs Division administrators attribute the errors in the Title I, Part A Database to unreconciled tables in this database that are manually prepared from hard copy district applications and evaluations. They attribute the errors in the PEIMS database to inaccurate reporting by campus and district personnel on Title I, Part A student participation at the beginning of the school year, when there may be uncertainty regarding a student's status. These discrepancies create a potential for misreporting to the U.S. Department of Education the number of participating campuses and students.

Student Support Programs Division staff point to another risk from district and campus misreporting of Title I, Part A students. If districts are miscoding as many as 76,865 students (and, therefore, indirectly not reporting Title I, Part A campuses correctly), they may be incorrectly reporting a significant number of other Title I, Part A information, including fiscal reports and program evaluations.

The Student Support Programs Division reports that it has begun automating the district Title I, Part A application. The program evaluation process for Title I, Part A funds was automated in the 2000-01 school year. As a result, program administrators in the Student Support Programs Division will be able to gather, process, and report Title I, Part A data with greater accuracy, completeness, validity, and timeliness. Full automation of these processes, which is expected to be complete in the 2003-04 school year, and regular reconciliation of database tables will help ensure consistency among the Title I, Part A tables that staff use to prepare the annual report to the U.S. Department of Education.

The Student Support Programs Division has also implemented a new PEIMS record for districts to use to report Title I, Part A student participation in the 2001-02 school year. Districts will use this record in their data submission at the end of the school year, when student participation should be known. This new PEIMS record should

reduce the numbers of students, campuses, and districts that are currently misreported with regard to Title I, Part A participation. Additionally, the Division has added misreporting of title program information through PEIMS as a risk factor to identify districts for District Effectiveness and Compliance monitoring visits in the 2002-03 school year.

Needed Documentation of Data Processing and Security and Quality Controls

The Student Support Programs Division uses several different programs to extract and process data from four different databases to prepare the Title I, Part A tables in the *Consolidated State Performance Report.* The procedures are numerous and complex, and the data programmer/processer is knowledgeable and experienced. Staff also conduct a number of electronic and manual data quality control checks, tests, and reviews as they prepare the report. However, the Student Support Programs Division does not document these programs and procedures to ensure accountability, consistency, and business continuity for its Title I, Part A reporting process. To analyze this process, we compiled the business procedures and data quality controls through numerous interviews with staff and reviews of program code. Because of the lack of documentation, it was difficult to determine which database and data sets provided the source data for tables in the report.

Title I, Part A Reporting

We planned to trace our random sample of 270 students from teachers' rosters for the second six weeks of the 1999-00 school year to the Title I, Part A tables in the 2001 *Consolidated State Performance Report.* However, the Office of Management and Budget (OMB) postponed the December 1, 2001, reporting deadline for 2000-01 title programs in order to reformat the report structure. When the new format was finalized, it did not require results at the student level, only at the campus level. Therefore, we were unable to trace our sample students to the tables in the report. We did, however, trace the sample students to the data used to prepare the student assessment passing rates that were used to determine campus accountability ratings (see page 42, Agency Processing and Reporting of District Student Assessment Participation/ Nonparticipation Data).

The Student Support Programs Division has not been able to meet the U.S. Department of Education's December 1 deadline for submitting the *Consolidated State Performance Report*. There are two primary reasons for this:

- Agency student assessment data is not final and available until the end of November following administration of the spring series of assessment tests.
- School leaver and attendance records for the previous school year are not final until late January.

Using preliminary data is not useful because the report calls for final accountability calculations for Title I, Part A schools and a final statewide dropout rate. Therefore, Student Support Programs staff report Title I, Part A information based on dropout and attendance data from the previous year, as do AEIS staff in calculating school accountability ratings. However, student assessment results from the report year are not final until the end of November. Therefore, given the additional time required to aggregate, disaggregate, and verify final accountability data and to review the

Consolidated State Performance Report for all title programs, the final report is not ready by December 1. The Division submitted the 1998-99 report on December 30, 1999, and it submitted the 1999-00 report on December 21, 2000.

The U.S. Department of Education originally set the December 1 deadline because the U.S. Congress wants to receive annual performance reports on federal education programs no later than March 31 of each year. This date coincides with the U.S. Department of Education's submission of its annual financial report to the Office of Management and Budget. But the U.S. Department of Education's *State ESEA Title I Participation Information for 1998-99: Final Summary Report* (2001) reports that many states did not meet the December 1 deadline, and one-fifth of the states reported more than 18 months late.

See Appendix 11 for additional concerns that Student Support Programs Division staff have about the structure and requirements of the *Consolidated State Performance Report*.

Recommendations:

The Student Support Programs Division should:

- Routinely reconcile tables in the Title I, Part A Database to each other and to Title I, Part A information in PEIMS. Staff should make corrections as needed, document all adjustments, and eliminate causes for discrepancies.
- Document business rules and automated programs, change and test procedures, and manual and automated security and data quality controls for preparation of all tables in the Title I, Part A section of the *Consolidated State Performance Report*.
- Continue to work for improvement in the quality and usefulness of the Title I, Part A information the Agency provides to the U.S. Department of Education.

Management's Response:

- *Management agrees that the databases should not be discrepant. The Division of Student Support Programs wants to clarify that the official database used for reporting to the USDE is the Title I database. The discrepancies with the PEIMS database regarding student participation may occur as a result of district miscoding to PEIMS.*

  Plan: *In an effort to resolve this issue, the instructions for the Application for Federal Funding for 2002-2003 will ask that districts ensure that the classification of a campus as a Title I campus in the application corresponds to the classification of the campus when reporting in PEIMS. The Division will begin comparing the Division Title I, Part A database to PEIMS submission 3 during the month of November 2002 to determine if this guidance has reduced the number of discrepancies.*

  Timeline: *School year 2002-2003*

Person Responsible: *Associate Commissioner, Special Populations*

- *Management agrees with the recommendation.*

  Plan: *The Division of Student Support Programs is in the process of developing documentation procedures for all automated programs that will clearly show how data for the Consolidated State Performance Report was acquired and used for reporting.*

  Timeline: *This process will be completed December 2002.*

  Person Responsible: *Associate Commissioner, Special Populations*

- *Management agrees to continue improvements in the information provided to the USDE.*

  Plan: *The Division is adjusting the Application for Federal Funding for 2002-2003 to include student participation on Targeted Assistance Campuses for funding under the School Improvement Program and for reporting to the USDE. In addition, the Division will continue to evaluate data to determine the needs of Title I students and campuses for providing technical assistance.*

  Timeline: *Ongoing*

  Person Responsible: *Associate Commissioner, Special Populations*

Appendix 1:

Objective, Scope, and Methodology

Objective

The objective of the audit was to determine whether the Texas Education Agency (Agency) is developing accurate, complete, valid, and timely dropout, student assessment, and attendance rates to determine school accountability ratings and to report to the U.S. Department of Education on Title I, Part A performance results.

The audit covered the 1999-00 school year for attendance and school leaver records and the 2000-01 school year for student assessment records. Through school year 1999-00, the Agency derived school ratings from three base indicators: student assessment results from that year and attendance and dropout data reported by campuses and districts for the previous year. Beginning in the 2000-01 school year however (the 2001 ratings cycle), attendance was no longer used for school ratings and instead was used to identify districts for supplementary recognition.

Attendance continues to be the basis for distribution to Texas public schools of most of the $12 billion in Foundation School Program funds each year.

Our audit did not test the validity of student assessment tests or the reliability of test scoring by the assessment test vendor .

This audit was a collaborative effort of the U.S. General Accounting Office, the Inspector General of the U.S. Department of Education, the City Controller of Philadelphia, the Auditor General of Pennsylvania, and the State Auditor of Texas. The objective of the collaborative project was to provide useful information and recommendations to the U.S. Department of Education for helping to ensure the quality of state accountability data used for reporting on Title I, Part A student and school participation and performance.

Scope

The scope of this audit covered the pathways for school leaver, student assessment, and attendance data. The pathways included each location for gathering, processing, and reporting that data. The scope also included accountability school ratings and the Title I, Part A tables in the *Consolidated State Performance Report* submitted annually to the U.S. Department of Education. Because most Texas charter schools are new and are currently developing data quality procedures, the scope of this audit did not include charter schools. It also did not include alternative and disciplinary education programs.

Because of the collaborative nature and overall objective of this audit, our report provides more background information than is usual in a Texas State Auditor's Office report.

Methodology

We collected information on the manual and automated procedures and controls for gathering, processing, and reporting leaver, student assessment, and attendance records. We collected this information at each transfer point for these three data records, from individual campuses on through to the Agency's calculation of final accountability ratings for the 2000-01 school year. We did not test general or application controls of automated systems.

We performed compliance and data integrity tests at 45 randomly selected Title I, Part A campuses and at the Agency. We used a 10 percent margin of error and a 90 percent confidence level to determine sample sizes. We reported according to the precision allowed by the error rates we found.

We used the 4,198 campuses that participated in the Title I, Part A program in both the 1999-00 and 2000-01 school years as the population. We randomly selected 45 campuses from this population and then randomly selected from each campus 30 students reported as enrolled at that campus in the PEIMS fall enrollment snapshot for 1999-00. We tested the full sample of 1350 students for compliance with attendance recording and reporting requirements for the second six weeks of school year 1999-00.

From the 1,350 students we also derived a sample of 47 students eligible by grade to be tested with a reported status of not tested for one or more of the spring 2001 tests. We tested that sample for compliance with student assessment documentation and coding requirements. Additionally, we identified all school leavers reported for the 1999-00 school year from the 12 secondary campuses in our sample of 45 campuses. We then tested a sample of 70 reported leavers for compliance with leaver documentation and coding requirements.

We conducted additional analyses of accountability data quality. We analyzed and evaluated all results against established criteria.

Information collected to accomplish our objectives included the following:

- Federal and state statutes, rules, and regulations
- U.S. Department of Education and Agency data quality definitions
- Agency policies and procedures governing school leaver, student assessment, and attendance reporting (*PEIMS Data Standards 1999-00, PEIMS Data Standards 2000-01, Attendance Accounting Handbook, Accountability System 2001, TAAS Coordinator Manual 2001)*
- Agency policies and procedures ensuring the quality of these data records
- Agency policies governing data security and confidentiality and business continuity
- Agency contract with the student assessment test vendor
- Business rules and automated programs for calculating dropout, attendance, and student assessment passing rates

- The Agency's *Consolidated State Performance Report* for title programs for 1998-99 and 1999-00.
- *Secondary School Completion and Dropouts In Public Education 1999-00* (Research and Evaluation Division, Texas Education Agency, August 2001)
- *2001 Comprehensive Annual Report on Texas Public Schools* (Texas Education Agency, December 2001)
- School accountability ratings for 1998-99 through 2000-01
- State Compensatory Education (SCE) law and Agency procedures for administering and reporting on SCE programs
- Agency internal audits of the Academic Excellence Indicator System (AEIS), the Public Education Information Management System (PEIMS), the Student Assessment Division, and the Student Support Programs Division
- Previous State Auditor's Office reports of Agency information systems: *A Review of Management Controls at the Texas Education Agency* (SAO Report No. 97-024, December 1996), *An Assessment of the Texas Education Agency's Monitoring Systems for Public Education* (SAO Report No. 96-072, August 1996), and *A Combined Report on the Texas Education Agency (*SAO Report No. 98-021, February 1998)
- Interviews with Agency, Education Service Center, district, campus, and assessment test vendor staff
- Physical observation and walk-through of the assessment test vendor's Austin operations center
- Survey of district PEIMS coordinators

Procedures, tests, and analysis performed included the following:

- Statistical tests (at 45 randomly selected Title I, Part A campuses) of source data for student records recorded in PEIMS and the Student Assessment Database. The tests determined campus compliance with Agency requirements for documenting and reporting attendance, student assessment participation and non-participation, and school leavers (including dropouts). Our sampling margin of error was 10 percent and confidence level was 90 percent.
- Statistical test of 270 student attendance and leaver records randomly selected from teachers' attendance rosters at 45 randomly selected Title I, Part A campuses. We tracked these records through the Agency data pathways for school leavers, student assessment, and attendance. The test determined the accuracy, completeness, validity, and timeliness of the final outputs. Our sampling margin of error was 10 percent and confidence level was 90 percent.
- Reconciliation of specific records between databases used for accountability calculating and reporting.
- Discrepancy test to compare attendance records of grade-eligible students in spring 2001 with assessment participation records in the Student Assessment Database.

- Completeness test to determine the percentage of 135 randomly selected students reported in attendance in teachers' rosters in spring 2001 for whom the assessment test vendor provided a student assessment participation record for that test series.
- Analysis of student exemptions from student assessment tests in spring 2001.
- Analysis of the adequacy of data quality and security controls required of the assessment test vendor by the Agency.
- Analysis of the adequacy of Agency documentation of business rules, automated applications, data quality controls, and change and test procedures.
- Analysis of the adequacy of Agency management of security and data quality controls.
- Analysis of Agency controls for full student assessment participation.

Information resources reviewed included the following:

- Public Education Information System (PEIMS)
- Student Assessment Database
- Academic Excellence Indicator System (AEIS)
- Assessment test vendor student assessment scoring and reporting system
- Title I, Part A Database

Criteria included the following:

- State and federal law
- Agency and U.S. Department of Education data quality definitions
- Agency rules
- Agency standards, requirements, policies, and procedures
- *Management Planning Guide for Information Systems Security Auditing* (National State Auditors Association and the U.S. General Accounting Office, December 2001)
- *Information Security Policies Made Easy*, 8th Edition, by Charles Cresson Wood (PentaSafe, 2001)
- *Audit Sampling*, American Institute of Certified Public Accountants (New York, 1999)

Other Information

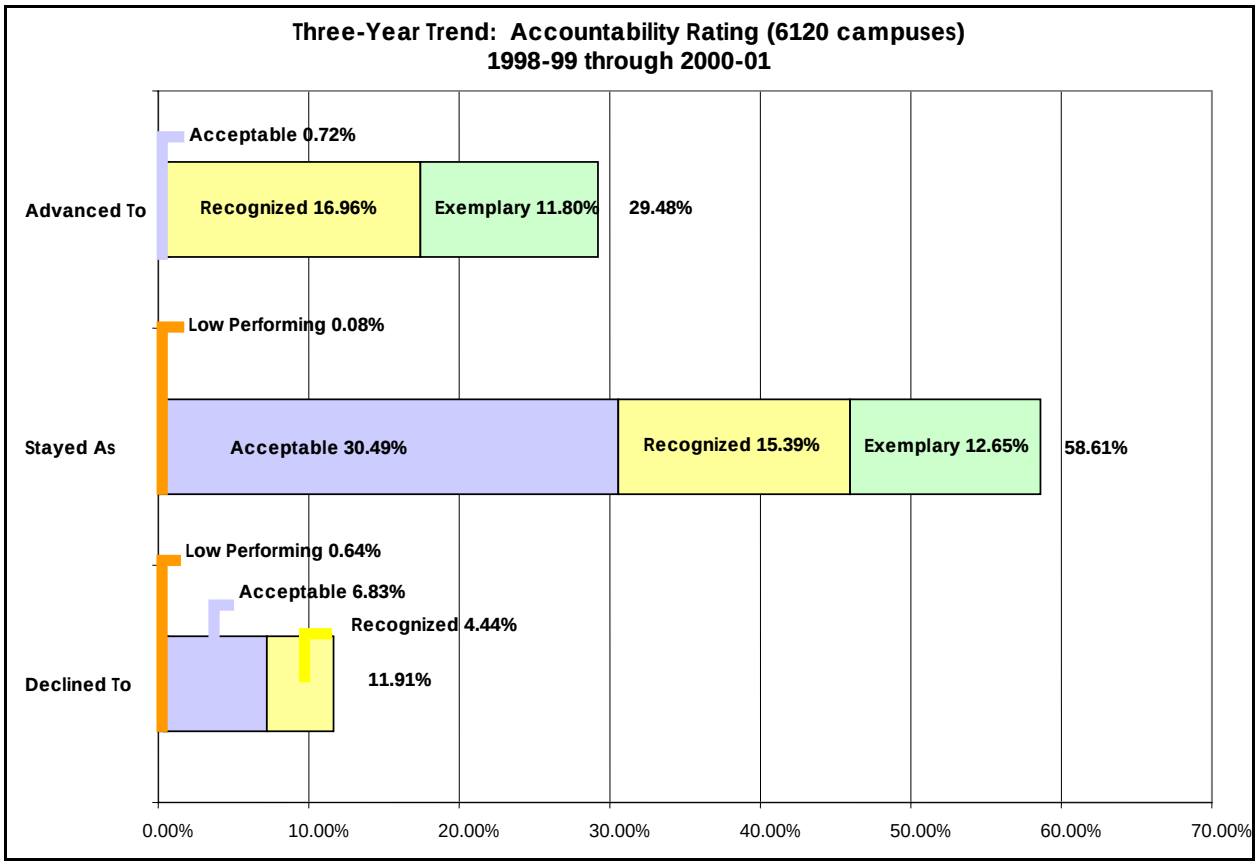
Fieldwork was conducted from September 2001 through March 2002. This audit was conducted in accordance with generally accepted government auditing standards and standards for statistical analysis from the American Institute of Certified Public Accountants.

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

- Virginia Carmichael, Ph.D., MPAff (Project Manager)
- Dana Musgrave (Assistant Project Manager)
- Olin Davis
- Kelton Green, CPA, CFE
- Natasha Boston, MPAff
- Dean Duan, CISA
- Clay Newman, CPA
- Ed Santiago
- Chuck Dunlap, CPA (Quality Control Reviewer)
- Carol Smith, CPA (Audit Manager)
- Frank Vito, CPA (Audit Director)

Appendix 2:

Three-Year Trends: Accountability Ratings For School Years 1998-99 Through 2000-01



Source: Texas Education Agency

Three-Year Trend: Accountability Rating (6120 campuses)
1998-99 through 2000-01

Change	Performance Level							
	Low Performing		Acceptable		Recognized		Exemplary	
	Title I	Non-Title I	Title I	Non-Title I	Title I	Non-Title I	Title I	Non-Title I
Advanced to	N/A	N/A	0.90%	0.41%	18.10%	14.93%	10.73%	13.67%
Stayed as	0.10%	0.05%	35.52%	21.70%	15.26%	15.61%	7.17%	22.28%
Declined to	0.82%	0.32%	7.45%	5.73%	3.94%	5.32%	N/A	N/A

Source: Texas Education Agency

Appendix 3:

Results of a Survey of District PEIMS Coordinators

We received responses to our web-based survey on PEIMS reporting and data quality controls from 183 of 1,204 (15.2 percent) district PEIMS coordinators. (We sent this survey to the 537 district PEIMS coordinators with e-mail addresses in the Texas Education Agency's automated district directory, AskTED. We estimate that approximately 80 of these addresses either were not current or were incorrect.)

The external survey validity may not be high enough to assert full survey representation of the population. However, under survey industry standards, the response rate of 15.2 percent provided enough observations to make suppositions and assertions about control weaknesses in district PEIMS reporting statewide. We offer these assertions as prioritized, initial identification of areas for further research and response by the Agency.

Control Weaknesses

The first control weakness we encountered was the limited availability (less than 50 percent) of e-mail addresses for district PEIMS coordinators and the estimated 20 percent of incorrect addresses.

Additionally, although 92 percent of the responding PEIMS coordinators report that their campus attendance clerks are reconciling the campus attendance reports to teachers' attendance rosters, 63 percent of the attendance reporting errors we found in our statistical testing of attendance reporting were because of failure to conduct such reconciliations (see note under the first survey question on page 68).

Responding PEIMS coordinators identified the following additional risks to data quality in processing and reporting PEIMS data:

- Manual instead of electronic attendance submissions.
- Absence of district and campus formal policies and procedures to guide PEIMS data gathering and reporting in order to comply with Agency standards and requirements.
- Delegation of superintendent's data review and attestation authority.

Control Strengths

Responding PEIMS coordinators identified the following strengths in managing the quality of PEIMS data:

- Twenty-nine percent of the responding coordinators have been providing that function for more than 10 years. Experience and tenure in this position provide greater assurance of data quality. Sixty-seven percent of the responding coordinators have been in that function for more than three years.
- Documentation of leaver reasons is occurring at both campus and district levels in 33 percent of responding districts. In 66 percent of the responding districts the district registrar oversees the leaver reason documentation process.

- Ninety-five percent of the responding coordinators are highly satisfied or satisfied with the vendors for the software applications they use for PEIMS reporting.
- Ninety-seven percent of the responding coordinators are highly satisfied or satisfied with the technical support and assistance their districts are receiving for making PEIMS submissions.
- Seventy-five percent of the responding coordinators report that their campuses report data electronically for merging into district PEIMS submissions.
- Seventy-nine percent of the districts have centralized computer systems for campuses to use in reporting PEIMS data.
- Eighty-six percent of the responding coordinators believe campus personnel are comparing district reports to their campus reports to identify errors.
- Ninety-nine percent of the responding coordinators are comparing PEIMS reports with the data they submitted to identify errors.
- Eighty-one percent of the responding districts have district attendance reporting procedures manuals to guide campus personnel.

Survey Questions and Responses

Table 1 below presents the individual survey questions and related responses. The responses in this table are arranged in descending order of greatest material control risk and highest probable correlation between our sample and the statewide population. Some PEIMS coordinators did not answer some of the questions. The percentages in each response do not always equal 100 percent because we have highlighted only the most significant responses.

Survey Questions and Responses (arranged in descending order of greatest material control risk)	
Question	**Responses**
Does the person who recorded attendance for the campus routinely compare the campus report with teacher records to reconcile any difference? (180 responses)	94 percent – yes 4 percent – no 2 percent – do not know [Note: The high number of respondents who answered "yes" to this question indicates that district PEIMS coordinators may not be supervising or informing themselves of campus procedures for recording and reporting attendance. Sixty-three percent of our attendance reporting errors at campuses and districts occurred because of failure to reconcile campus attendance reports to teachers' attendance rosters.]
How do campuses record attendance in your district? (181 responses)	76 percent – teacher records on paper 24 percent – teacher enters directly into computer
Does your district have formal policies and procedures detailing the PEIMS data collection process at both the campus and district levels? (180 responses)	48 percent – verbal only 33 percent – written at campus and district 9 percent – none 6 percent – written at district only
Who is the designated reviewer/approver/signer for PEIMS data at the district level? (179 responses)	58 percent – superintendent 31 percent – PEIMS coordinator 6 percent – principal/secretary 5 percent – program directors
Does leaver documentation occur at the campus or district levels, or both? (183 responses)	66 percent – campus 32 percent – both 3 percent – district
Who is responsible for documenting leaver reasons? (175 responses)	38 percent – district registrar 30 percent – attendance clerks 15 percent – principal or superintendent's secretary 11 percent – principal 6 percent – PEIMS coordinator
Does the same person document the leaver reason and record leaver information electronically for PEIMS reporting? (183 responses)	78 percent – yes 22 percent – no
How long have you been responsible for reporting PEIMS data for your district? (183 responses)	29 percent – more than 10 years 28 percent – 1-3 years 20 percent – 5-10 years 18 percent – 3-5 years 5 percent – less than one year
Has your software vendor for PEIMS reporting met your level of expectation for service? (167 responses)	57 percent – satisfactory 37 percent – highly satisfactory 5 percent – unsatisfactory
How do you rate the Education Service Center (ESC) service and support you received for PEIMS reporting? (178 responses)	58 percent – highly satisfactory 39 percent – satisfactory 3 percent – unsatisfactory
Who is the designated review/approver/signer for PEIMS data at the campus level? (178 responses)	72 percent – principal 9 percent – special program coordinators 8 percent – campus PEIMS coordinator or clerk 6 percent – superintendent 5 percent – secretary/clerk
How do your district campuses merge attendance information into a campus report? (181 responses)	76 percent – electronically 24 percent – manually

Survey Questions and Responses (arranged in descending order of greatest material control risk)	
Question	**Responses**
Do all your district's campuses work off the district's central computer for PEIMS reporting? (182 responses)	79 percent – yes 21 percent - no
Does your district have a published attendance accounting system policies and procedures manual? (180 responses)	82 percent – yes 18 percent – no
Do you generate PEIMS reports to compare that data with the data you reported? (181 responses)	99 percent – yes 1 percent – no
Does the campus PEIMS coordinator routinely compare the district report with the records to reconcile any difference? (182 responses)	86 percent – yes 14 percent – no
What challenges or obstacles do you encounter in collecting and reporting PEIMS data? (132 responses)	28 percent – no response 17 percent – software problems, especially after changes in PEIMS requirements; also slow Internet connection 12 percent – resources insufficient to meet extensive training and expertise requirements 9 percent – sudden changes to PEIMS data standards requiring software changes 8 percent – process is well established and functions well on the whole 8 percent – too much data requested 8 percent – lack of time to verify data 5 percent – difficulty in collecting accurate student information from parents 3 percent – PEIMS data standards too complex 2 percent – ESC not able to provide adequate assistance during submission period
Are ESC and Agency PEIMS submission deadlines reasonable? (182 responses)	90 percent – yes 10 percent – no
Did you use an ESC not in your geographic area for PEIMS assistance or software last year (2000-01)? (180 responses)	77 percent – no 23 percent – yes
How many PEIMS training sessions did you attend at an ESC last year (2000-01)? (181 responses)	82 percent – 1-5 13 percent – 6-10 4 percent – none
How many PEIMS consultations and on-site visits did an ESC perform for you last year (2000-01)? (142 responses)	33 percent – 1-5 23 percent – 6-10 18 percent – 20-25 10 percent – 11-15 10 percent – 30-60 6 percent – 0
What data collection software application do you use for reporting PEIMS data? (210 responses)	40 percent – RSCCC 16 percent – WinSchool 11 percent – EDP Software 7 percent – Sungard Pentamation 9 percent – TECS, CIMS by NCS 6 percent – STMRPC, SchoolAssyst 2 percent – NCS SAS III 2 percent – ESC mainframe 1 percent – Total School Solution, Inc. 1 percent – application developed in-house 1 percent – Program Delta, SchoolMaster, Daystar (one district each) 4 percent – Other

Source: Special Data Inquiry Unit, Division of School Governance, EEO Compliance, and Complaints Management

Appendix 4:

Primary Components of the Agency's Public Education Accountability Information System

The Texas Education Agency (Agency) collects, maintains, calculates, and reports public education accountability information in four primary systems. The following presents detailed information on each of these four systems and on the development of a warehouse for public access to data from these and other systems.

The Student Assessment Information System

The Agency's Student Assessment Division began reporting on aggregated student assessment test results for the 1980-81 school year. It added individual student results beginning in the 1985-86 school year. The Student Assessment Division administers the Student Assessment Information System and manages assessment information on the Agency's mainframe computer in a high security environment.

Students are eligible for the required reading and math tests in grades 3 through 8 and again at the 10th grade exit level or higher. Students in grades 4 and 8 and at the 10th grade exit level are eligible for required writing tests. Students in grade 8 are also eligible to take required tests in social studies and science. In the 2000-01 school year, more than 2 million students were tested; 82,040 (3.8 percent) were exempted by review committees or excused from testing because of special circumstances (such as illness) on the day of the test.

Using secure measures, the assessment test vendor provides tests and answer documents to districts for each student enrolled in the district that year. Trained teachers administer the tests and review and revise, if necessary, the required demographic, program, and participation (or exemption) information on each student's answer documents. Using secure measures, districts return all answer documents to the assessment test vendor for test processing and scoring. To test the adequacy of the vendor's procedures, the Student Assessment Division includes in each test series a set of simulated student batches.

Student Assessment Division staff also conduct input tests for data completeness and accuracy when the vendor sends test results. The vendor submits this data to the Agency on cartridge tapes each year. Division staff then format summary and disaggregated data sets. Staff store these summary data sets on the Agency's mainframe computer so that the data can be queried when the Agency prepares school accountability ratings and other evaluations and reports.

Public Education Information Management System (PEIMS)

Implemented in 1986, PEIMS is the central coordinated database of Texas K-12 public education information. It was developed as a multi-level, mission-critical enterprise database and complies with Agency standards for security and authorized access. Texas Education Code, Section 42.006, requires districts to participate and provide useful, accurate, and timely information on student demographics and academic performance, personnel, and school district finances. A commissioner's rule requires districts to follow the *PEIMS Data Standards* in submitting information

required by law and by the Agency. Each year's updated *Data Standards* are included by reference in the commissioner's rule (see Texas Administrative Code, Title 19, 61.1025).

Currently more than 23 professionals maintain this database and produce static and ad hoc reports for internal and external users. The Agency trains PEIMS coordinators at the Education Service Centers (ESCs). These coordinators then provide training, technical assistance, and data quality reviews to the districts for their four PEIMS data submissions each year.

The first PEIMS data collection in 1987 included organizational, financial, and staff information. In 1988, dropout records became the first individual student data records submitted. Soon after, the Agency implemented a personal identification database (PID) system that provides a unique control number for each student at the time of his or her initial enrollment in a Texas public school. This number is linked to the student's personal identification information, which consists of the student's Social Security Number (SSN) or alternative identification number, first and last name, and date of birth. The unique number allows electronic flagging (with a "Z") of subsequent student records that do not match the student's original PID information. Mismatches can occur because of incorrect, mis-keyed, or duplicate student personal identification information. Districts have an opportunity to correct all flagged PID errors in their data submissions and resubmit the data. The Special Data Integrity Unit (SDIU) is currently developing a methodology for identifying and auditing districts that have excessive PID errors beginning in the 2002-03 school year.

Unresolved PID errors keep a small percentage of student records from being included in some Agency reports on various aspects of Texas public education. However, the PID system allows more reliable matching of individual student records across multiple data collections. To improve data quality for all student-linked records, PEIMS is requiring all districts to reduce their PID errors to less than three percent of their students by the 2003-04 school year.

For the 1990-91 school year, districts began submitting student-level enrollment and graduation and leaver records. Since the 1997-98 school year, school districts have had to report the statuses of all students who were enrolled or in attendance in grades 7-12. Through this process, schools began accounting for all students enrolled in a Texas public school at any time during the previous year. This made it possible to track a student's progress across more than one district and across multiple years.

At the end of the 1999-00 school year, the Agency introduced Edit+, a Web-based edit program that districts, ESCs, and Agency staff use to streamline the PEIMS data correction process at each level of processing. Districts send their initial submissions to a secure agency server by encrypted, private-key file transfer protocol (FTP). The Edit+ program allows users to validate their preliminary data files against Agency requirements and identify errors that must be corrected before final certification by the ESC. The Agency maintains an Edit+ help desk and distributes updates and additional guidance in a regular newsletter.

PEIMS is near the end of its life cycle. The 77th Legislature funded a feasibility study, to be completed in November 2002, for the next cycle of technology and procedure. This study will evaluate whether PEIMS should be changed from the

current static record system based on four submissions each year by fixed deadlines to a transactional, dynamic database. This change would reduce current discrepancies among Agency databases and allow the daily matching of records and reporting.

The Academic Excellence Indicator System (AEIS)

Implemented in 1991, AEIS is the information system the Agency's Department of Accountability Reporting and Research uses to calculate and report school accountability ratings required by state statute and the U.S. Title I, Part A statute. Accountability ratings are based on specific performance standards set by the Legislature, the State Board of Education, and the Commissioner of Education. The standards were designed to phase in increasingly higher expectations, and between 1995 and 2000, the requirements for acceptable performance rose each year. In 2001 the system was made even more rigorous.

Until the 2000 school year ratings cycle, the base accountability indicators were attendance and dropout rates and student assessment results. Attendance then became an indicator used only for acknowledging high-performance districts and campuses. The fact that the Agency had already developed PEIMS and the Student Assessment Information System made timely implementation of the accountability system possible. AEIS draws on both of these systems for the information it needs to determine school ratings.

One of the strengths of AEIS is its modular structure, which provides security and flexibility. Each of the base accountability indicators stands alone in a separate file. Therefore, a problem with or change to one component is confined to only that component and does not put the others at risk.

AEIS is committed to facilitating the public accessibility of accountability information. Each September, the Agency releases AEIS data in printed and Web-based reports to students and parents, schools, districts, and the public. Additionally, AEIS takes significant steps to make the process by which it establishes school and statewide ratings highly visible to education stakeholders and concerned citizens.

The Title I, Part A Database

The Title I, Part A Database is a subsidiary database in the Student Support Program Division's database for information on recipients of Title I funds under the U.S. Elementary and Secondary Education Act of 1965 (amended by the Improving America's Schools Act of 1994, including Title I, Part A).

Title I, Part A funds support instructional programs for students most likely to be at risk of failing or dropping out of school. The program requires schools to show adequate yearly progress in serving all children. The No Child Left Behind Act, which the U.S. Congress signed into law in January 2002, increases the relationship between federal funding and school accountability.

The Title I, Part A Database contains tables with information on federal allocations to Texas districts (based on the most recent census income records), district eligibility, applications, awards, and program evaluations. In the 2000-01 school year, the Division administered the Title I, Part A program for over 2 million students in 1,124

participating districts (93 percent of all Texas public school districts) and 4,447 participating campuses (58 percent of all campuses).

As required by law, division staff prepare an annual *Consolidated State Performance Report* for the U.S. Department of Education on all federal title programs. To compile the Title I, Part A tables in this report, staff draw on the Title I Programs database, PEIMS, the Student Assessment Database, and AEIS. The Division has recently automated district Title I, Part A applications and program evaluations. It is currently developing a fully automated system for processing applications and reporting on Title I, Part A programs.

Public Access Initiative (PAI)

PAI, the first phase of which was implemented in 2001, is an integrated data resource designed to provide stakeholders with ready access to public primary, secondary, and higher education information for research, planning, and policy- and decision-making. PAI is a joint, cross-agency project managed by the Agency, the Higher Education Coordinating Board, and the State Board for Educator Certification. PAI integrates raw and aggregate data collected by several different operational systems and stores it in multiple distinct databases maintained by the participating agencies. The system provides and extends access to multi-year tracking information across the spectrum of public education services in Texas.

The public education data in PAI is drawn from PEIMS, the Student Assessment Information System, AEIS, administrative cost ratios, and tax rates and property values from the Comptroller of Public Accounts.

PAI project staff are still developing user requirements and documenting crosswalks among the many participating databases. There are also plans for including additional Agency data, including adult education data and child nutrition data.

This integrated resource will improve users' capability to analyze student, campus, and district outcomes. It will enable the tracking of students after they exit K-12 through Texas public higher education and on to employment. Longitudinal reports for several years and trend analyses for training, certification, tenure, and exit of teachers in public education will also be available. It will also be possible to project teacher shortages and understand the risks and problems associated with ensuring an adequate supply of certified teachers.

Appendix 5:

Agency Methods for Ensuring Data Quality

The following is a detailed list of the specific methods the Texas Education Agency (Agency) uses to ensure data quality.

High-level data quality strategies

- Agencywide strategic planning for mission-critical, enterprise information technology and systems
- Commitment of funds and human expertise to information systems development and management
- Philosophy of continuous improvement in information management and quality
- Published, visible processes for calculating and reporting accountability information
- Rules, standards, and procedures
- Commissioner's Rules on Reporting Requirements (Texas Administrative Code, Title 19, Chapter 61, Subchapter BB)
- Up-to-date Web-based and printed data definitions, standards, and procedures
- Agencywide security and access standards
- Policy requiring a three-year phase-in for statewide changes to data requirements

Automated tools

- Edit+, a Web-based application that districts, ESCs, and the Agency use to streamline and improve the correction of district PEIMS data submissions
- Statewide electronic reports made available to districts for identifying under-reported, duplicate, mis-keyed, or incorrect records in their PEIMS submissions
- Tests of the adequacy of student assessment test vendor procedures using simulated districts, campuses, and batches of students
- Programmed record counts and transaction logs for automated inputs, processing, and outputs of major information systems
- Electronic and manual diagnostic tests to identify anomalies and problems with data quality

Training, assistance, and enforcement

- Ongoing training and technical assistance for ESCs, districts, and campuses
- Certain logical consequences for districts that do not submit data on time or that submit incorrect data

Ongoing oversight, review, and data correction

- Broad-based technology and information management committees, task forces, and Agency divisions and units to oversee data requirements, changes, and quality
- Annual review of accountability information by the Commissioner's Accountability Advisory Committee
- Commissioner approval of all major changes to data requirements
- Three-month period during which districts can correct errors in each PEIMS submission before the final resubmission deadline
- Routine Agency reviews of poor accountability data quality at districts and campuses, followed by audits and sanctions when necessary (Appendix 6 provides a history of these audits for the 1997-98 through 1999-00 school years)
- Manual comparison of assessment test vendor records with Agency records to ensure data integrity
- Replications and multiple reviews of accountability calculations before publication of data

Appendix 6:

Special Data Inquiry Unit Audits of District Data Submitted for the 1997-98 through 1999-00 School Years

Special Data Inquiry Unit (SDIU) Audits by Data Year (Audits occur 2 years after year of record)					
A. Leaver and Exemptions Audits					
Year of Record		**97-98**	**98-99**	**99-00**	
Audit Year		**99-00**	**00-01**	**01-02**	**Total**
Type of Audit/Review	**Audit Selection Criteria**				
Underreported Leavers	At least 10 percent of students were underreported or 1,000 students were underreported				
On-site visits					
Regular districts		16	20	20	
Charter schools			27	26	
Desk audits	After on-site visits conducted in 1999-00		14	47	
Reported Leavers	Excessive use of four leaver codes				
Randomly selected	Districts not visited before		15	14	
Excessive Exemptions	Exemptions (ARD or LEP), absences, or "O" codes in excess of 110 percent of group averages.				
Desk reviews		31	33	8	
On-site visits		8	5	24	
Special Investigations	Data Quality		2		
Total Desk Audits		**31**	**47**	**55**	**133**
Total On-Site Audits		**24**	**69**	**84**	**177**
Total Records Reviewed		**22,207**	**6,409**	**7,842**	**36,458**
B. School Ratings Lowered because of Data Quality					
Year of Record		**97-98**	**98-99**	**99-00**	
Year of Audit		**99-00**	**00-01**	**01-02**	**Total**
Number of Districts		2	1	0	
Number of Campuses		0	6	13	
Total Ratings Lowered		**2**	**7**	**13**	**22**
C. Records Reviewed for Underreported Leavers and Number of Dropouts Identified					
Year of Record		**97-98**	**98-99**	**99-00**	
Year of Audit		**99-00**	**00-01**	**01-02**	**Total**
Records Reviewed/ Errors Identified/Dropouts Identified	No information available				

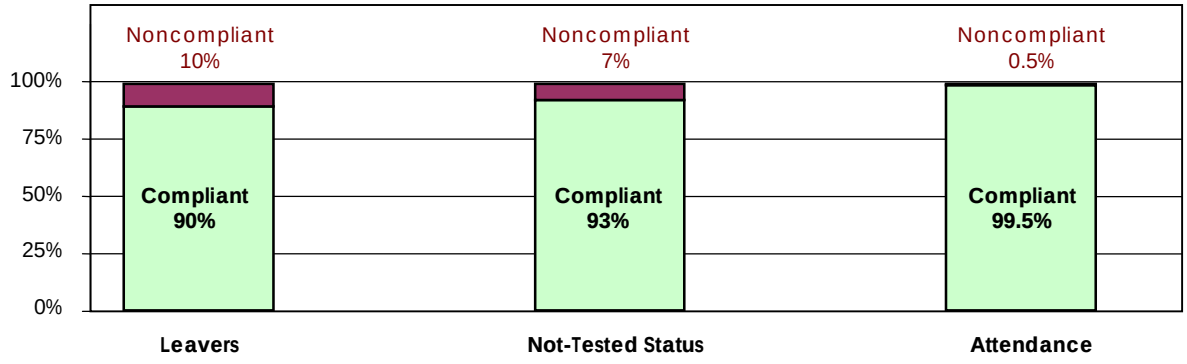
Source: The Agency's Special Data Inquiry Unit and its Division of School Governance, EEO Compliance, and Complaints Management

Appendix 7:

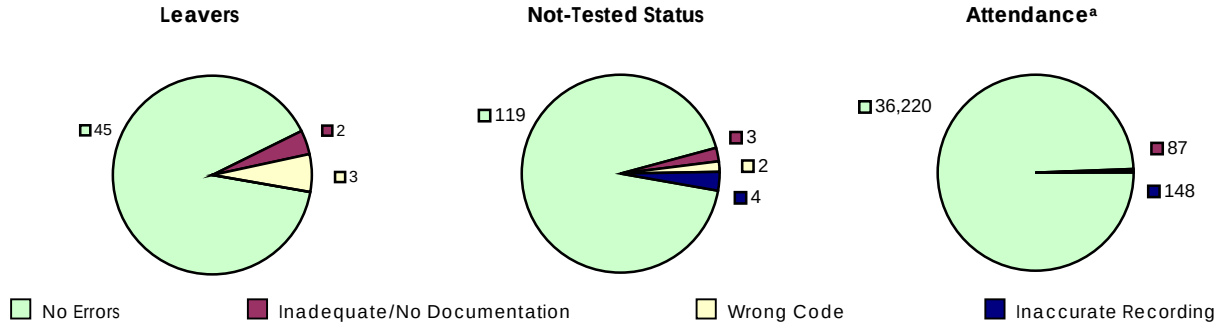
Summary of Results and Errors Identified in Leaver, Assessment Test Participation, and Attendance Data

Our tests of compliance with *PEIMS Data Standards 1999-00*, the *Attendance Accounting Handbook 1999-00*, and the *2001 TAAS Coordinator Manual* in documenting and reporting attendance, school leavers, and student assessment test participation identified specific compliance error rates, types of noncompliance, and distribution of noncompliance among district community types. These results are summarized in the charts below.

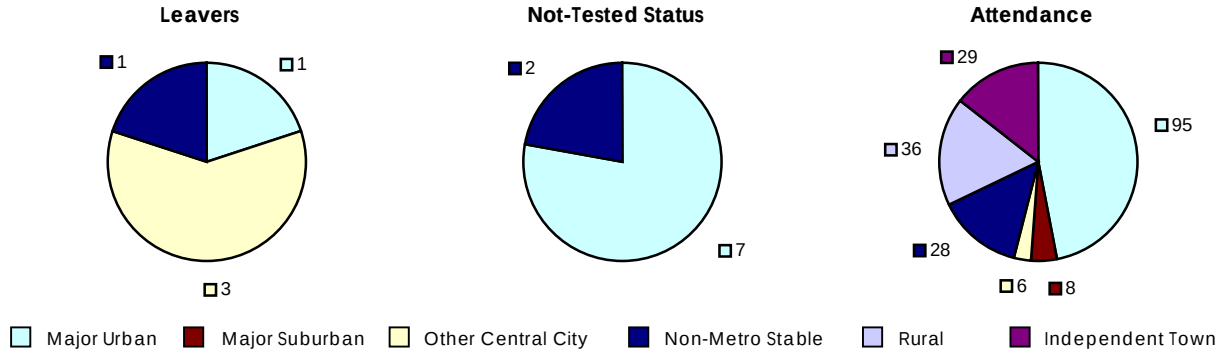
Compliance in Data Documentation, Coding, and Reporting



Results and Number of Errors by Noncompliance Type



Number of Errors by District Community Type



[a] There were 202 errors for attendance, however some errors involved more than one type of noncompliance.

Source: Agency PEIMS and student assessment databases, campus student files, and teacher's rosters

Appendix 8:

Difference Between the 1999-00 Annual Event Dropout Rates as Calculated by the Agency and the National Center for Education Statistics

For the 1999-00 school year, the Texas Education Agency (Agency) reported 23,457 students as official dropouts, resulting in a statewide annual event dropout rate of 1.3 percent. Because the Agency's dropout definition differs from the definition the National Center for Education Statistics (NCES) uses for all states, the Agency also prepared a second report for the 1999-00 school year using the NCES dropout definition. The Agency submitted data to NCES identifying 58,819 students as dropouts under the NCES definition (see table below).

Calculation of 1999-00 Dropout Rate Using Agency and NCES Definitions

Categories Included	Agency Dropout Calculation	NCES Dropout Calculation
Regular School Year Dropouts	23,457	30,600
Summer Dropouts	n/a	14,576
Regular School Year Returning Dropouts	n/a	7,271
Summer Returning Dropouts	n/a	6,372
Total Dropouts	**23,457**	**58,819**
Total Student Population	1,794,521	1,794,521
Annual Event Dropout Rate (Total Dropouts/Total Student Population)	**1.3%**	**Not available until late 2002[a]**

[a] Subject to change prior to publication by NCES

Source: Texas Education Agency

Regular School Year Dropouts

The numbers of regular school year dropouts and summer dropouts differ under the Agency and NCES definitions because the NCES definition includes students the Agency does *not* consider to be dropouts for accountability purposes. These students are:

- Students reported as dropouts by the Agency definition but later excluded from the Agency's final count of official dropouts as a result of the Agency's leaver recovery/exclusion process. (NCES considers some students excluded through this process to be dropouts.) The Agency's leaver recovery/exclusion process identifies:
  - Students who received a General Equivalency Diploma (GED) after the Public Education Information Management System (PEIMS) October snapshot date but before the Agency's automated recovery/exclusion system is run in early March 2001.
  - Students who were previously counted as dropouts prior to the 1999-00 school year.

  - Students who were not eligible for state Foundation School Program funding based on their average daily attendance. Students with limited instructional plans (2 to 3 hours per day) do not meet minimum attendance requirements.
  - Students for whom more than one district submitted a dropout leaver reason and the last district attended cannot be determined from attendance records.
  - Students who were not enrolled on the snapshot date but were enrolled earlier or later that fall.
- Students reported with other leaver reasons that NCES considers as dropouts, but the Agency does not. These are students who:
  - Failed the exit-level test required for graduation but met all other graduation requirements.
  - Are working on completing their GEDs in an alternative program outside the public school system.

Summer Dropouts

The Agency counts summer dropouts as part of the leaver/dropout count for the previous school year. NCES counts them as part of the leaver/dropout count for the following school year. Consequently, the NCES regular school year dropouts and summer dropouts come from two different Agency dropout years. The NCES summer dropout count also includes additional students the Agency does not consider to be dropouts described above.

Returning Dropouts

The Agency does not count as dropouts those students who returned to school the following fall but were not enrolled on the October snapshot enrollment date. NCES counts those students as dropouts. Because NCES attributes summer dropouts to a different school year than the Agency, NCES regular school year returning dropouts and NCES summer returning dropouts also come from two different school years:

- Regular school year returning dropouts—students who attended but did not complete the 1999-00 school year, returned to school in the same district the following fall, but were not enrolled on the October snapshot enrollment date.
- Summer returning dropouts—students who completed the 1998-99 school year, returned to school in the same district the following fall, but were not enrolled on the October snapshot enrollment date.

Appendix 9:

Leaver and Dropout Recovery/Exclusion Process for the 1999-00 School Year

In March each year, after the final January PEIMS resubmission of district enrollment and leaver records, the PEIMS Division conducts a statewide records search in an attempt to locate and "recover" students initially reported by districts as dropouts or other leavers during the previous school year. Through this search, the Division finds that a high percentage of the reported leavers (58 percent) and dropouts (19 percent) received a diploma, received a General Equivalency Diploma (GED), or enrolled in another Texas public school or acceptable alternative education program. A small percentage of these recovered or excluded students were found to be ineligible for average daily attendance reporting or were reported with questionable student identification (see textbox).

Agency Efforts to Locate Reported Dropouts and Other Leavers
(1999-00 School Year)

Of the 31,023 students districts reported as dropouts, the Agency recovered 7,566 (24 percent) when it found they had enrolled in another Texas public school or acceptable alternative program or received a diploma or GED. The Agency excludes those students found to be ineligible for attendance reporting or reported by two districts as leavers when it is not clear which district the student last attended.

Of the 274,462 students districts reported as other (nondropout) leavers, the Agency recovered 157,818 (58 percent). Of the remaining 116,644 official other (non-dropout) leavers, 65,540 (56 percent) were designated as transfers to schools in or out of state.

This designation includes students documented with a declared intent to transfer or with no declared intent but for whom the district has received enrollment documentation. They were not found during the recovery process, and their actual location is unknown.

Source: *Secondary School Completion and Dropouts in Texas Public Schools, 1999-2000* (Research and Evaluation Division, August 2001)

The unrecovered and unexcluded leavers are designated as "official other leavers" in the *Secondary School Completion and Dropouts* in Texas Public Schools report. There were 116,644 official other leavers for the 1999-00 school year, which represented 42 percent of all reported other (non-dropout) leavers. In the 2001 report, these leavers were reported in 16 descriptive categories (representing 23 different leaver reasons) such as transfer to public or private schools in or out of state, alternative education programs, home schooling, GED programs, prison or health care facilities, college, official expulsion, or death.

Fifty-six percent of the 116,644 unrecovered or official other leavers were designated in the report as transfers to public or private schools in the state (29,045, or 25 percent) or out of state (36,495, or 31 percent).

There are two types of reasons and five leaver codes that fall within the transfer designation. Out-of-state transfers include those with declared intent to transfer to a public or private school out-of-state (Code 7) or with no declared intent but with documentation received of enrollment in another public or private school out-of-state (Code 6). In-state transfers include official transfers to a Texas public school (Code 21), students with declared intent to enroll in a Texas public school (Code 28), and students with no declared intent but with documentation received of enrollment in a Texas public school (73). Reporting these students in a chart under a category labeled as in-state "transfers" may be slightly confusing to the average reader, however, because the Agency's recovery process was not able to locate these students as enrolled in a Texas public school. Properly documented, the existence of these categories should not be a cause for concern. The table on next page provides a breakdown of the number of Official Other Leavers by all reported reason codes.

Breakdown By Reason Code of Official Other Leavers		
Reason	**Code(s)**	**Number**
No declared intent but out-of-state enrollment documentation obtained	6	4,942
Declared out-of-state enrollment intent	7	31,553
Subtotal		**36,495**
Official Transfer before 5-1	21	637
Declared in-state enrollment intent	28	25,099
No declared intent but in-state enrollment documentation obtained	73	3,309
Subtotal		**29,045**
Acceptable Alternative Program	22	14,740
Home Schooling	60	10,514
Return to Home Country	16	10,114
Private School	29,74	6,681
Incarcerated outside district	61	2,253
Completed but no TAAS	19	1,748
Health Care Facility, CPS, or court order	30, 72, 66	1,495
Completing GED	31	1,304
Administrative Withdrawal	62, 67	1,003
Deceased	3	733
College	24	242
Expelled for criminal behavior	78	133
Previous GED	64	86
Previous Graduate	63	58
Subtotal		**51,104**
Total Official Other Leavers		**116,644**

Schools are not penalized for the withdrawal of official other leavers. School personnel documented (1) the intent of these students to enroll elsewhere, (2) their enrollment elsewhere, or (3) one of the other valid non-dropout leaver reasons. Inevitably, some of these students changed their minds, or their circumstances changed, after the school documented their withdrawal reasons. Some of them undoubtedly did dropout. Some also began home schooling, and some enrolled in either a private school in state, a public or private school out of state, or college. Some of them returned to their home countries.

Neither the districts nor the Agency are required to determine the actual destination of every school leaver. They are required to determine, to the best of their ability, the valid reason for a student's departure from school, and document that reason according to specific PEIMS guidelines. Given limited district and Agency resources to locate every school leaver wherever he or she has gone, the location of the official other leavers will remain unknown and largely indeterminable.

Appendix 10:

Student Assessment Test Participation and Exemption Process

Texas Education Code, Section 30.023, specifies that each student in grades 3 through 8 and grade 10 is eligible to participate in one or more of the student assessment tests in reading, math, writing, social studies, and science. Specifically:

- Students in grades 3 and 8 and at exit level (10th grade and higher) take reading and math tests.
- Students in grades 4 and 8 and at exit level take writing tests.
- Students in grade 8 take tests in social studies and science.

An Academic Review and Decision (ARD) committee reviews the record of each special education student and determines the student's ability to participate in the standard test, alternative test, or the Reading Proficiency Test in English. The ARD documents its decisions regarding participation and exemptions for all three assessment tests.

The Language Proficiency Assessment Committee (LPAC) determines participation and exemptions for students with limited proficiency in English, allowing some students to take the Spanish assessment test in lower grades. On test days, teachers follow the recommendations of the ARD committee and the LPAC in coding each eligible student's answer documents for each standard test. Teachers are instructed to use an "O" code for only five special circumstances in which an eligible student who is present does not take the exam:

- Test administration irregularity
- Illness during testing
- One-time Limited English Proficiency (LEP) postponement
- Foreign exchange student waiver
- Exit-level (10th grade or higher) student has passed the appropriate end-of-course exam and did not take the standardized test

The 2000-01 school year was the first year of administration for the State Developed Alternative Assessment (SDAA) for special education students exempted from one or more of the regular tests. The state is in the process of changing from one series of assessment tests (Texas Assessment of Academic Skills, or TAAS) to a new series, the Texas Assessment of Knowledge and Skills, or TAKS. The 2002-03 school year will be the first year of administration for the TAKS.

Appendix 11:

Issues Identified by the Agency for Consideration by the U.S. Department of Education Regarding Title Program Reporting

The Texas Education Agency's (Agency) Student Support Programs Division staff, who administer the Title I, Part A program, note that a major intention and effect of the enabling legislation for title programs is the integration of funding and service delivery across many instructional programs for many different types of at-risk students. However, the Title I, Part A tables in the *Consolidated State Performance Report* require an arbitrary disaggregation of all that has been integrated. The report requires input and output indicators and measures for each title program that may not accurately capture the variables or allow evaluation of overall performance and desirable outcomes for all programs combined.

However, reporting for schoolwide programs covers all students, which include gifted and talented students and other categories of students not at risk. Title I, Part A funds are awarded to schools with high percentages of economically disadvantaged students, and although this category overlaps with at-risk students, it is not necessarily the same. This blurring of inputs results in a blurring of the effects of Title I, Part A funding and programs, which makes it equally difficult to attribute outcomes to specific programs. The present reporting system therefore limits the validity of conclusions about performance of both the overall Title I, Part A program and its individual components.

Staff also note that, if the U.S. Congress defined overall educational outcomes and then measured each program against those outcomes, this would allow a more meaningful evaluation of the effects of federal funding on student learning. The previous elementary and secondary education acts and the No Child Left Behind Act, signed into law in January 2002, do not clearly define or quantify expected outcomes and their measures. The No Child Left Behind Act leaves program outcomes, measure definitions, and reporting requirements to the U.S. Department of Education to define by rule.

The U.S. Department of Education is currently developing rules for the consolidated state applications for title funding that give the states the flexibility to develop their own performance targets for measuring progress. However, these targets and reporting requirements would be in addition to Department requirements for all 50 states to report on numerous variables and indicators for all the complex federal programs for public education. States are not measuring indicators consistently, which makes it impossible to draw conclusions about performance nationwide.

Staff compare these reporting requirements with those of the State's report on Texas State Compensatory Education, which complements Title I, Part A programs. The Legislature defined in law the expected outcomes and the measurements required to report on those outcomes. Reporting is simple, straightforward, and not unduly burdensome on campus, district, or Agency personnel. It serves the Legislature's purposes in evaluating the effect of state funding on improving the academic performance of at-risk students.

Finally, a March 2002 audit report by the Inspector General of the U.S. Department of Education on the integrity of the Department's Title I Data notes that the lateness, incompleteness, and inaccuracy of states' Title I data in the *Consolidated State Performance Report* prevent the Department from providing timely evaluations of the Title I, Part A programs.

Management of the Texas Education Agency's Student Support Programs Division suggest two alternatives to the burdensome reporting requirements of the *Consolidated State Performance Report*, a report the Department is only minimally using:

- The Department could evaluate how individual states are and are not meeting the objectives of the federal law, instead of attempting to aggregate state results to a national summary level.
- The Department could use sampling, stratified if necessary, as an alternative to gathering all program information from all states, in order to evaluate program performance nationwide. This is currently the method for assessing the national effect of student assessment through the National Assessment of Educational Progress (NAEP), a 30-year longitudinal study using a small statistical sample from each state.

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36 Texas School Districts That Participated in the Audit

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