An Audit Report on

The State Treasury, the Treasury Safekeeping Trust Company, and the Texas Guaranteed Tuition Plan at the Office of the Comptroller of Public Accounts

July 2005

Report No. 05-044

State Auditor's Office

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State Auditor

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Overall Conclusion

Treasury Operations, a division within the Office of the Comptroller of Public Accounts (Comptroller's Office) processes warrants, checks, and electronic funds transfers accurately and in a timely manner. In addition, Treasury Operations and the Comptroller's wholly owned Texas Treasury Safekeeping Trust Company (Trust Company) produce reasonable investment returns for the Treasury Pool.

However, as we reported in 2003, the Trust Company's implementation of certain recommendations that the State Auditor's Office made in 2001 continues to remain dependent on the implementation of new financial accounting and investment accounting systems. The Trust Company has fully corrected material weaknesses that its external auditor identified in 2003.

The Trust Company values unclaimed securities accurately. Properly valuing these securities and selling them at an appropriate time is important because of the impact this has on the State's General Revenue fund. However, not all of the unclaimed securities that were eligible for sale were sold during fiscal year 2004. As of August 31, 2004, unclaimed securities valued at approximately $88.2 million were eligible for sale; the Trust Company sold $31 million worth of unclaimed securities, leaving approximately $57.2 million still available for sale. To ensure that the maximum transfer can be made to General Revenue, the Comptroller's Office should consider selling all unclaimed securities when they become eligible for sale. As of May 1, 2005, the value of all unclaimed securities (excluding mutual funds and book entry securities) totaled $159.7 million; of that amount, $130.5 million of those unclaimed securities were eligible for sale.

Background Information

This audit focused on the following units within the Office of the Comptroller of Public Accounts (Comptroller's Office):

- Treasury Operations, which manages all assets entrusted to the Comptroller's Office; pays state warrants and recognizes revenues; reconciles the State's cash assets; manages depository relationships, Comptroller's Office accounts, and securities held in its vault; forecasts cash balances; and registers municipal bonds. According to Treasury Operations, it processed 34.4 million warrants, checks, and electronic funds transfers totaling $76.4 billion in fiscal year 2004.
- The Texas Treasury Safekeeping Trust Company (Trust Company), which (1) provides a means for the Comptroller's Office to obtain direct access to services provided by the Federal Reserve System and (2) enables the Comptroller's Office to manage, disburse, transfer, protect, and invest funds and securities. As of August 31, 2004, the Trust Company managed $21.9 billion in net assets (excluding Texas Local Government Investment Pool [TexPool] assets).
- The Texas Guaranteed Tuition Plan (Plan, formerly the Texas Tomorrow Fund), which is a prepaid college tuition program overseen by the Texas Prepaid Higher Education Tuition Board. As of August 31, 2004, the Plan had $1.8 billion in total assets.

The Trust Company also should not sell unclaimed securities for which a claim is pending. In three instances, the Trust Company sold unclaimed securities for which a claim was pending. It later repurchased those securities and returned them to their owners. This represented noncompliance with the Trust Company's policy, which states that, if the unclaimed property has been sold, the owner shall receive the cash proceeds from the liquidation. This also represented a financial loss to the State because the repurchase costs exceeded the original sales proceeds by $70,562.

The Texas Guaranteed Tuition Plan (Plan), a prepaid tuition program administered by the Comptroller's Office, has fully or substantially implemented prior recommendations that the State Auditor's Office made in areas such as expanding sensitivity testing in actuarial reports and monitoring investment performance. However, the Plan's financial health has not improved significantly since the 2003 audit. The Plan is guaranteed by the State; therefore, if its financial health does not improve, the State will eventually be required to contribute funds to the Plan.

Key Points

Treasury Operations processes warrants, checks, and electronic funds transfers accurately and in a timely manner.

Testing of transactions processed on five business days within the Treasury Operations section indicated that the controls over deposits and payments are adequate and operating effectively and, therefore, that state funds are adequately protected. In fiscal year 2004, Treasury Operations reported processing more than 34 million warrant and deposit transactions totaling more than $76 billion.

Treasury Operations and the Trust Company produce reasonable investment returns. However, the Trust Company should revise its performance benchmark for the Treasury Pool to better assess the performance of its investments.

Treasury Operations has several controls to help ensure that all Treasury Pool funds are made available for investment. The Trust Company seeks competitive pricing and yields on its investments in overnight repurchase agreements. However, the Trust Company's current investment performance benchmark—federal funds rates—is not adequate to compare the entire portfolio's performance because of the different maturity structure. In addition, the federal funds rates benchmark is not among those specified in the Comptroller's Office's investment policy. Revising the Treasury Pool's performance benchmark could allow the Trust Company to better assess the performance of its investments.

The Trust Company should ensure that it completes the implementation of new financial accounting and investment accounting systems so that it can implement prior audit recommendations.

The Trust Company has fully or substantially implemented 13 of 17 prior State Auditor's Office recommendations. However, it continues to face challenges in the implementation of new financial and investment accounting systems. The four prior recommendations that the Trust Company has not fully or substantially implemented are related to these information technology systems. The Trust Company continues to experience delays in implementing the financial accounting system, and the implementation of the new investment accounting system has been halted due to incomplete planning for needs assessment. Properly implementing these systems is critical to ensuring that potential errors from manual data entries are minimized, that financial industry standards can be followed, and that accounting controls are sufficient.

The Trust Company has fully corrected material weaknesses in segregation of duties and timeliness of financial reconciliations that its external auditor identified in 2003.

The Trust Company values unclaimed securities accurately, but the Comptroller's Office should consider selling all unclaimed securities eligible for sale and the Trust Company should correct weaknesses associated with unclaimed securities.

The Trust Company values unclaimed securities accurately. However, as discussed in the Overall Conclusion, the Comptroller's Office should consider selling all unclaimed securities when they become eligible for sale to ensure that the maximum transfer can be made to General Revenue.

The Trust Company should not sell unclaimed securities for which a claim is pending. As discussed in the Overall Conclusion, the Trust Company sold unclaimed securities for which a claim was pending in three instances.

The Trust Company should correct weaknesses in its inventories of unclaimed securities. According to the review performed by the Trust Company's internal auditor, information in the Trust Company's inventory records does not accurately reflect the unclaimed securities physically held in the vault as of August 31, 2004.

The Texas Guaranteed Tuition Plan (Plan) has strengthened its operations by fully or substantially implementing prior audit recommendations; however, its financial health has not improved significantly.

The Plan has fully or substantially implemented prior recommendations from the State Auditor's Office. However, according to its actuary, the Plan's liabilities exceeded its assets by $223 million as of August 31, 2004. The Plan is guaranteed by the State; therefore, if its financial health does not improve, the State will eventually be required to contribute funds to the Plan.

Summary of Management's Response

Management agrees with our recommendations and has started implementing some of these recommendations.

Summary of Information Technology Review

Results of the information technology tests indicated that Treasury Operations has improved information technology controls but still needs to correct certain access weaknesses to decrease the risk that unauthorized individuals could access information or systems. In addition, Treasury Operations should develop a complete project development plan for its network application redesign and ensure that all DOS-based applications have proper controls when they are migrated to the new application environment.

Summary of Objectives, Scope, and Methodology

The audit objectives were to determine whether (1) State Treasury cash and securities management operations (including the Trust Company) produce reasonable returns while protecting the State's assets and (2) the Trust Company and the Plan have implemented recommendations made by the State Auditor's Office, the Department of Banking, and their external auditors.

The audit scope covered the activities (including information technology systems) performed by three units within the Comptroller's Office: Treasury Operations, the Trust Company, and the Plan. We reviewed data for fiscal year 2004 and fiscal year 2005 through April 2005.

The audit methodology included gathering information through interviews of management and employees, reviewing policies and procedures, and testing controls and related documentation. In addition, to review the Trust Company's investment practices and performance benchmarks, we researched other states' investment policies. We also researched other states' prepaid tuition plans to compare the Plan's actuarial assumptions and financial soundness.

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Detailed Results

Chapter 1

Treasury Operations Processes State Warrants and Deposits Accurately and in a Timely Manner

The Banking and Electronic Processing (B&E) section of Treasury Operations within the Office of the Comptroller of Public Accounts (Comptroller's Office) processes state warrants and deposits accurately and in a timely manner. This processing, which occurs each business day, is important to ensure that state payments are made in a timely manner and that state deposits (in the form of checks and electronic funds transfers) are promptly identified and recorded.

After deposits are identified and warrants are cleared, B&E instructs Treasury Operations' Cash & Securities Management section to initiate various transfers, including a final transfer to or from the Texas Treasury Safekeeping Trust Company's (Trust Company) Federal Reserve account. The Trust Company invests balances in that account for the benefit of the State.

In fiscal year 2004, Treasury Operations reported processing more than 34 million warrant and deposit transactions totaling more than $76 billion. Table 1 shows transaction numbers and values reported by Treasury Operations.

Table 1

Volume and Value of Treasury Operations Transactions		
Transaction	**Fiscal Year 2004**	**Fiscal Year 2005 (through April 2005)**
Warrants Paid		
Number	17,294,787	10,303,826
Value	$28,575,146,172	$12,665,841,231
Deposits		
Checks Deposited:		
Number	9,708,155	5,997,472
Value	$9,264,436,000	$5,455,873,836
Electronic Funds Transfer Deposits:		
Number	7,466,011	6,158,213
Value	$38,570,262,162	$25,949,414,016
Total Deposits:		
Number	17,174,166	12,155,685
Value	$47,834,698,162	$31,405,287,852

Treasury Operations uses a complex Excel file—referred to as the FAN (Fund Allocation Network) file—to identify the amount available for investment by the Trust Company. With assistance from Treasury Operations staff, we identified the key inputs into and outputs from the FAN file and then reviewed the entries and formulas that affect those inputs and outputs. We also reviewed policies and procedures, conducted interviews, and observed various Treasury Operations processes to gain an understanding of controls over state deposits and warrants. In addition, we judgmentally selected and tested FAN files for five separate days in 2005 and supporting documentation for those files to determine whether controls were operating effectively (see text box for additional details).

Summary of Transaction Testing for Five Business Days

Our selection of five test days included a payday, a day on which sales taxes were due, and three other days in 2005. The following is a description of the days tested:

- The value of the warrants presented on the test days ranged from $31,225,137 to $45,471,002.
- The value of the deposits to the Treasury Pool on the test days ranged from $29,500,000 to $727,000,000.
- The value of withdrawals from the Treasury Pool on the test days ranged from $0 to $445,000,000.
- The value of TexNet automated clearinghouse transfers on the test days ranged from $24,674,074 to $845,205,272.

Testing procedures included:

- Traced deposits received by Treasury Operations to deposits made at the clearinghouse banks.
- Compared reports prepared by the Treasury's Transit section to deposits on bank statements and examined the support for other deposits on the bank statements.
- Compared deposit and warrant source data for FAN file inputs to actual entries on the FAN file.
- Traced FAN file entries to the amounts wired to the Trust Company for investment.
- Compared other wire transfer instructions from the FAN file to actual wire transfers completed by Treasury Operations' Cash & Securities Management section.
- Traced wire transfers completed by Cash & Securities Management to transactions recorded on Treasury Operations' Trust Company account statements.
- Compared FAN file entries and information from the Trust Company's Investment Accounting division to the Trust Company's estimates of funds available for investment.
- Compared the Trust Company's estimates of funds available for investment to the Trust Company's actual investment purchases for the Treasury Pool.

Due to the large number of data entry cells in the FAN file, there is the possibility for error in the calculation of the amount available for investment. However, our observations of Treasury Operations' staff processes and testing of FAN file transactions indicate that the controls over the FAN file appear to be adequate and operating effectively. Treasury Operations also is redesigning the FAN file to reduce the amount of manual data entry.

In addition to controls over the FAN file process, Treasury Operations has established controls to help ensure that funds are available for investment in a timely manner. For example, controls are in place to ensure that deposits are made at banks with the lowest "float time" (the length of time between when money is deposited and when the money becomes available). B&E's check imaging machine sorts deposits based on the anticipated float at the clearinghouse banks, and its staff monitor the float at these banks on a daily basis.

B&E also ensures that warrants are processed on the day they are presented for payment and that deposits are made each day before the bank's deadlines. Deposits received by Treasury Operations are processed by the B&E Transit section and deposited to one of the clearinghouse banks on the day of receipt. B&E can deposit to one of the clearinghouse banks until 7:00 pm each business day.

Additionally, sufficient controls are in place to help ensure that the Treasury Operations' Cash & Securities Management (C&S) section transfers funds to the appropriate accounts in a timely manner. To test these controls, we observed the wire transfer processes and reviewed wire transfer transactions. Treasury Operations' wire transfer systems include multiple security features that restrict system access and limit the accounts to and from which funds can be transferred.

Treasury Operations has additional controls to help ensure that funds are effectively safeguarded. B&E operates a Teller section that receives incoming cash and checks. B&E also maintains a Lockbox section that processes incoming deposits for various state agencies. After the deposits are received in the Teller or Lockbox sections, they are forwarded to B&E's Proofing section for further processing. Our observations of and interviews with employees in the Teller, Lockbox, and Proofing sections indicate that controls are in place to safeguard deposits as they move through these processes.

Securities Held by Treasury Operations Are Safeguarded Effectively

Treasury Operations' C&S division manages a vault in which securities held for other State agencies are stored. As of March 31, 2005, C&S maintained $2.2 billion in securities, letters of credit, and safekeeping receipts in the vault.

Results of our test of securities in the vault, combined with observations of physical security, indicated that Treasury Operations adequately safeguards securities in its control. However, C&S could not produce documentation to support that it conducted semiannual inventories of the securities as required by its policy. Although the inventory we conducted did not identify any discrepancies, conducting regular inventories would help ensure that the securities are properly accounted for.

Treasury Operations Has Improved Information Technology Controls but Still Needs to Correct Certain Weaknesses

Treasury Operations has begun the process of converting old network applications that were developed with now-outdated programming languages or environments to a new, Internet-based application framework. The new framework will provide for added security and audit functionality such as transaction logging and audit trails.

Treasury Operations also has implemented a new application to increase controls over application coding changes. Features of this application include segregation of duties in the application development process and controls that allow for tracking changes to application code.

However, Treasury Operations should correct certain access weaknesses to decrease the risk that unauthorized individuals can access information or systems. These weaknesses include the following:

- Treasury Operations has not changed the FAN file password since February 2004.
- Treasury Operations' security administrator does not maintain sufficient information regarding user access and requests for user access.
- Treasury Operations did not revoke network access for a terminated employee in a timely manner. The Comptroller's Office's review of user access records indicated that the former employee did not use the account after termination.

Additionally, Treasury Operations does not have a detailed project development plan for replacing network applications that use the old DOS-based environment. The replacement of these applications would help mitigate the risks that we observed regarding:

- A lack of security or transaction logging.
- Assignment of global levels of access to all users.

The replacement of these applications also would help mitigate risks that the Comptroller's Office's Internal Audit Department has previously identified in multiple reports regarding a lack of segregation of duties for the application programmer.

Recommendations

Treasury Operations should:

- Comply with policy and regularly perform and document inventories of the securities in its vault.
- Change the password in the FAN file at least quarterly.
- Ensure that employees' system access is periodically reviewed and is appropriate to their job duties. It should also ensure that the granting and review of system access are properly documented.
- Develop a complete project development plan for its network application redesign, and ensure that all DOS-based applications have proper controls when they are migrated to the new application environment.

Management's Response

Treasury Operations has revised and adopted new policies and procedures for the inventory of securities in the vault. We have already performed and documented a detailed inventory of all the securities in the vault. No discrepancies were discovered. We will continue to conduct and document the securities inventory on a semi-annual basis every May and November.

Treasury Operations has changed the password on the FAN to comply with the State Auditor's recommendation. We have implemented procedures to change it on a monthly basis.

Treasury Operations has reviewed and documented every Treasury Operations employee's system access to ensure that it is appropriate and will continue to do so every six months.

Information Technology Division will work with Treasury Operations to develop a plan by November 30, 2005, that identifies the applications to be migrated to the new environment and the appropriate controls that will be put in place for the migrations.

Chapter 2

Treasury Operations and the Trust Company Produce Reasonable Investment Returns for the Treasury Pool; However, the Trust Company Should Revise Its Investment Performance Benchmark

Treasury Operations and the Trust Company Produce Reasonable Investment Returns for the Treasury Pool

The Treasury Pool

The Treasury Pool consists of assets under the management of the Trust Company, but it does not include endowments, trust funds, or TexPool assets. The size of the Treasury Pool ranged from approximately $9 billion to $14 billion in fiscal year 2004.

The monthly investment yields that the Treasury Pool earned during fiscal year 2004 ranged from 1.323 percent to 1.587 percent, which were reasonable given the objectives of the Treasury Pool. We based that conclusion on a number of conditions, which are detailed below.

Controls help to ensure that funds are available for investment. Treasury Operations has several controls to help ensure that funds are made available for investment. For example, it has controls to ensure that it:

- Makes daily deposits before bank deadlines. This helps ensure that the maximum amount of funds is made available to the Trust Company for investment.
- Transfers funds to the appropriate accounts in a timely manner.
- Makes projections of the amount of cash that will be available during the day and provides this information to the Trust Company's Investment Department. The Trust Company's Investment Accounting Department and Wire Room also provide daily information to the Investment Department to inform it of how much cash will become available to invest as a result of investments' maturing.

Cash cushions are reasonable. Treasury Operations and the Trust Company use intraday cash cushions of $10 million and $100 million, respectively. These amounts are both minimal and reasonable considering the large amount of investments made each day. Both cushions help protect against inherent uncertainties associated with the functions of Treasury Operations and the Trust Company. Any remaining cash at the end of each day may still be invested in institutional mutual funds, which can be used as liquidity reserves if a need for more cash arises.

The Trust Company seeks competitive pricing and yields on overnight repurchase agreements. Each morning, the Trust Company's Investment Department receives bids from multiple brokers to obtain competitive pricing and yields for its investments in repurchase agreements. The average daily balance of repurchase agreements was more than $2 billion during fiscal year 2004. The Investment Department distributes the cash available for investment in repurchase agreements among multiple brokers to prevent having an overconcentration of repurchase agreements with a single broker.

Investments are diversified. The Trust Company invests cash in diversified asset classes, such as repurchase agreements, U.S. Treasury securities, agency securities, mortgage-backed securities, and securities issued by other governmental organizations. All of these investment types are authorized by the Comptroller's Office's investment policy, and no unauthorized investments were identified during the audit.

Investments emphasize safety, liquidity, and yield. The asset classes in which the Trust Company's Investment Department invests have high credit quality. This is consistent with the investment objectives of the Comptroller's Office's investment policy, which puts the "preservation of capital and protection of principal [i.e., safety]" ahead of the "maintenance of sufficient liquidity to meet the state's operating needs [i.e., liquidity]" and "maximization of return [i.e., yield]."

Although Treasury Pool Investment Returns Are Reasonable, the Trust Company Should Revise Its Investment Performance Benchmark for the Treasury Pool

While investment returns on the Treasury Pool are reasonable, the Trust Company should revise its investment performance benchmark for the Treasury Pool. The Trust Company currently uses the federal funds rate as an informal benchmark and reports a comparison of the Treasury Pool's yield against the federal funds rate to the Trust Company's Investment Advisory Board. However, the federal funds rate alone is not an adequate benchmark to thoroughly measure portfolio performance because the maturity associated with the federal funds rate is not consistent with the weighted average maturity of investments in the Treasury Pool's portfolio. Typically, investments with longer maturities have relatively higher returns than investments with shorter maturities. Therefore, the Trust Company's use of the federal funds rate as a benchmark could give the mistaken impression that the investment performance is better than it is. Revising the Treasury Pool's performance benchmarks could allow the Trust Company to better evaluate the performance of its investments.

The federal funds rate is the cost of borrowing immediately available funds, primarily for one day. Therefore, the federal funds rate aligns well with expected returns on overnight repurchase agreements with a maturity of one day. However, the weighted average maturity of the Treasury Pool portfolio in fiscal year 2004 was 193 days.

The Trust Company's use of the federal funds rate as the only benchmark also is inconsistent with the Comptroller's Office's policy. Specifically, the Comptroller's Office's investment policy for the Trust Company states that "the Treasury Pool's yield will be compared to various money market funds and indices and the yields of three- and six- month U.S. Treasury Bills. The results will be reported quarterly to the Board and the Comptroller."

Recommendation

The Trust Company should comply with the Comptroller's Office's investment policy and establish an investment performance benchmark that more closely aligns with the composition of investments in the Treasury Pool's portfolio.

Management's Responses

The Trust Company will explore and make a recommendation to the Comptroller by December 31, 2005, regarding a more representative benchmark that also 1) adheres to the Treasury Pool's safety, liquidity, and yield investment objectives; and 2) is composed of well-recognized, readily accessible, and objective metrics. Given the unique composition of the Treasury Pool, it may not be possible to establish a truly representative benchmark.

Chapter 3

The Trust Company Has Fully or Substantially Implemented 13 of 17 Prior Audit Recommendations; However, It Should Ensure that It Completes the Implementation of New Financial and Investment Accounting Systems

Implementation Status of Prior State Auditor's Office Recommendations

The Trust Company has fully or substantially implemented 13 of 17 prior State Auditor's Office recommendations. However, it continues to face challenges in the implementation of new financial and investment accounting systems that are related to our prior recommendations. The proper implementation of new financial and investment accounting systems, or the modification of existing systems, is critical to ensuring that potential errors from manual data entries are minimized, that financial industry standards can be followed, and that accounting controls are sufficient. The four prior recommendations that the Trust Company has not fully or substantially implemented are related to its information technology environment.

> **Implementation Status**
>
> The definitions of each implementation status determination are as follows:
>
> - Fully Implemented: Successful development and use of a process, system, or policy to implement a prior recommendation
> - Substantially Implemented: Successful development but inconsistent use of a process, system, or policy to implement a prior recommendation
> - Incomplete/Ongoing: Ongoing development of a process, system, or policy to address a prior recommendation
> - Not Implemented: Lack of a formal process, system, or policy to address a prior recommendation

The following summarizes the implementation status of the 17 prior recommendations:

- Ten recommendations have been fully implemented.
- Three recommendations have been substantially implemented.
- The implementation of three recommendations is incomplete or ongoing.
- One recommendation has not been implemented.

Appendix 2 provides detailed information regarding the implementation status of the 17 prior audit recommendations we reviewed.

The Trust Company Should Ensure that It Completes the Implementation of New Financial and Investment Accounting Systems

The full implementation of most of the remaining State Auditor's Office recommendations is dependent on the implementation of new financial and investment accounting systems. The Trust Company did not complete a needs assessment prior to initiating system purchases, which contributed to its entering into a contract for the investment accounting system that it later determined did not fully satisfy its operating requirements. The Trust Company terminated the acquisition of two of the three investment accounting system modules; it spent approximately $150,000 on those two modules. Trust Company management intends to hire a consultant to conduct a needs assessment prior to resuming the process of purchasing an investment accounting system.

The Trust Company continues its migration to a new financial accounting system. The new system is currently running parallel with the old one, and the Trust Company plans to switch the book of record to the new financial accounting system by September 1, 2005.

Implementation Status of Prior External Auditor Recommendations

The Trust Company has fully corrected material weaknesses that its external auditor identified in 2003 regarding segregation of duties and timeliness of financial reconciliations.

The Trust Company's external auditor issued an unqualified opinion on the Trust Company's financial statements for fiscal year 2004 and did not note any material weaknesses. The external auditor's report on compliance and on internal control over financial reporting for fiscal year 2004 noted no material weaknesses involving internal control over financial reporting or the Trust Company's operations. The Trust Company's investment staff had adequate security access levels for the current financial and investment accounting systems.

Implementation Status of Prior Department of Banking Recommendations

As reported previously in the State Auditor's Office report (*A Follow-Up Audit Report on the Texas Treasury Safekeeping Trust Company, the Texas Guaranteed Tuition Plan, and the Texas Local Government Investment Pool*, SAO Report No. 04-007, October 2003), the Trust Company has chosen not to implement recommendations that the Department of Banking made in 2003 because the Trust Company asserts that those recommendations were not applicable to its unique structure and governance.

Recommendations

The Trust Company should:

- Ensure that it follows an appropriate best-practices methodology for the life cycle of system development with complete requirements for all future system changes to avoid spending funds for a system that does not meet its needs.
- Ensure that all systems implemented in the future have complete and adequate access and accounting controls.

Management's Response

The Trust Company has issued a Request for Offer to hire a consultant with investment information technology expertise to assist with the development of a plan that will follow industry best practices for life cycle of system development and enhancements.

The Trust Company will work with its investment information technology consultant to ensure that all future implemented systems have the appropriate access and accounting controls.

Chapter 4

The Trust Company Correctly Values Unclaimed Securities; However, the Comptroller's Office Should Consider Selling All Unclaimed Securities Eligible for Sale, and the Trust Company Should Correct Certain Weaknesses Associated with Unclaimed Securities

The Trust Company Values Unclaimed Securities Accurately

Based on sample testing of holdings of unclaimed securities as of February 28, 2005, we concluded that the Trust Company's valuation of unclaimed securities was materially correct.

> **Unclaimed Property**
>
> Texas Property Code, Title 6, Chapter 74, Section 101(a), requires entities to annually turn over to the Comptroller's Office property that is considered abandoned or unclaimed. The Comptroller's Office acts as a custodian for the owners of this property and holds it in trust until it is claimed.
>
> The Comptroller's Office's Unclaimed Property Division is responsible for administering tangible, unclaimed property such as coins, artwork, and jewelry. The Comptroller's Office has delegated responsibility for the custody and safekeeping of unclaimed securities to the Trust Company.

Results of testing also indicated that, during fiscal year 2004, the Trust Company properly distributed securities to the rightful owners after these individuals' claims for unclaimed securities had been approved. The Trust Company distributed a total of 1,741 claims (associated with a total of 420,575 shares) during fiscal year 2004.

The Comptroller's Office Should Consider Selling All Unclaimed Securities Eligible for Sale to Ensure that the Maximum Transfer Can Be Made to the State's General Revenue Fund

Accurately valuing unclaimed securities and selling them at an appropriate time is important to the State because of the effect this has on the State's General Revenue fund. However, not all unclaimed securities eligible for sale were sold during fiscal year 2004. As of August 31, 2004, unclaimed securities valued at approximately $88.2 million were eligible for sale. The Trust Company sold $31 million worth of these securities, and the proceeds went to the State's General Revenue fund; the remaining approximately $57.2 million worth of unclaimed securities was still eligible to be sold. According to the Comptroller's Office's policy, unclaimed securities become eligible for sale 18 months after they are turned over to the State. As of May 1, 2005, the value of all unclaimed securities (excluding mutual funds and book entry securities)[1] totaled $159.7 million; of that amount, $130.5 million of those unclaimed securities were eligible for sale.

The Trust Company Should Not Sell Unclaimed Securities for Which a Claim Is Pending

In three instances, the Trust Company sold unclaimed securities for which a claim was pending. The Trust Company repurchased those securities and returned them to their owners, However, the Trust Company's policy states that, if the unclaimed property has been sold, the owner shall receive the cash

[1] Mutual funds and book entry securities were excluded because they are valued only at the end of the fiscal year (therefore, we could not include them in the total value of unclaimed securities as of May 1, 2005).

proceeds from the liquidation. In addition, the Trust Company has a procedure to check pending claims at the Comptroller's Office before selling unclaimed securities. The repurchases of securities also represented a financial loss to the State because the repurchase cost of these securities exceeded the proceeds from the Trust Company's sale of those securities by $70,562.

The Trust Company Should Correct Weaknesses in Its Inventories of Unclaimed Securities

According to a review performed by the Trust Company's internal auditor, information in the Trust Company's inventory records does not accurately reflect the unclaimed securities physically held in the vault as of August 31, 2004. Specifically, 30,095 shares of unclaimed securities recorded in inventory records were not found in the vault. In addition, 3,649 shares found in the vault were not listed in the inventory records. Currently, there are over 6 million shares of securities in the inventory file. As of the time of our audit, the Trust Company had not followed up to provide an explanation for the discrepancies in its inventory records.

The Trust Company Should Improve Controls to Ensure that Information about Sales of Unclaimed Securities Is Entered Correctly into the Investment Accounting System

The Trust Company did not correctly enter information regarding some proceeds from the August 2004 sale of unclaimed securities into its investment accounting system. Having incorrect information in the investment accounting system could result in an incorrect amount being distributed to owners, who may subsequently file claims for those securities. Although the dollar values of the errors in the investment accounting system were very small, the Trust Company should ensure data accuracy by establishing controls such as a review of data entries and a reconciliation of sales transactions at the individual security level.

Recommendations

The Comptroller's Office should consider selling all unclaimed securities that are eligible for sale to ensure that the maximum transfer can be made to the State's General Revenue fund.

The Trust Company should:

- Follow its policy to not sell unclaimed securities for which a claim is pending.
- Maintain an accurate inventory of unclaimed securities in the vault and promptly determine the cause of any inventory discrepancies.

- Review and/or reconcile information regarding sales of unclaimed securities to ensure that accurate data regarding these sales has been entered into the investment accounting system.

Management's Responses

The Trust Company will work with the Comptroller's Unclaimed Property Division to develop a plan for the sale of eligible securities in an effort to maximize funds transfer to the General Revenue fund. The Trust Company, as part of that effort, is negotiating to access systems provided by an affiliate of The Depository Trust & Clearing Corporation, which will facilitate more efficient sales of unclaimed securities consistent with industry best practices.

The Trust Company will work with the Comptroller's Unclaimed Property Division and jointly develop a plan by December 31, 2005, that addresses the sale of unclaimed securities for which a claim is pending or may be asserted. The Trust Company's current policy is being reviewed and will be appropriately revised as necessary.

The Trust Company will work with the Comptroller's Unclaimed Property Division to determine by December 31, 2005, the cause of identified inventory discrepancies between unclaimed securities in the vault and those shown on its inventory. The Trust Company commenced researching and addressing the noted discrepancies on October 1, 2004.

The Trust Company will thoroughly review, and make accurate and timely entries of, unclaimed securities sale information in the investment accounting system and will reconcile any discrepancies. The Trust Company has commenced addressing this issue by establishing an investment accounting department and transferring an employee into this department to specifically handle the responsibility of entering and reconciling the sale information.

Chapter 5

The Texas Guaranteed Tuition Plan Has Strengthened Its Operations by Fully or Substantially Implementing Prior Audit Recommendations; However, Its Financial Health Has Not Improved Significantly

The Texas Guaranteed Tuition Plan (Plan, formerly the Texas Tomorrow Fund) has strengthened its operations by fully or substantially implementing prior State Auditor's Office audit recommendations. However, despite improved capital market conditions, the Plan's financial health has not improved significantly since the State Auditor's Office's 2003 audit. As of August 31, 2004, the Plan's actuary specified that the Plan's projected funding shortfall[2] was approximately $223 million (see Appendix 3 for a copy of the actuary's report). The projected funding shortfall as of March 31, 2003, was approximately $226 million. Because the Texas Constitution specifies that the Plan is guaranteed by the State, the State will eventually be required to contribute funds to the Plan if the Plan's financial health does not improve.

Status of Implementation of Prior Audit Recommendations

Examples of the 17 prior State Auditor's Office recommendations that the Plan fully implemented include the following:

Implementation Status

The definitions of each implementation status determination are as follows:

- Fully Implemented: Successful development and use of a process, system, or policy to implement a prior recommendation
- Substantially Implemented: Successful development but inconsistent use of a process, system, or policy to implement a prior recommendation

- To allow for enhanced forecasting, the Plan has expanded the range of sensitivity testing and the number of scenarios in its actuarial reports.
- The Plan revised its investment policy to include guidelines for monitoring investment managers' performance.
- The Plan considered the benefits of using passive indexation strategies in managing a portion of its investment portfolio and, as of December 31, 2004, had invested 5.4 percent of its assets in a large-cap equity index fund.

The Plan substantially implemented the following two recommendations:

- The Plan substantially increased its retention of formal, documented research to develop investment rate-of-return assumptions in 2003. However, we noted that the Texas Prepaid Higher Education Tuition Board based its return assumptions on the verbal recommendation of the Plan's consultant in 2004.

[2] The projected funding shortfall is the Plan's unfunded liability. The unfunded liability = (the market value of assets and the present value of expected future contract payments) – (the present value of expected future tuition and required fees, refunds, and expenses).

- The Plan implemented contract monitoring procedures and adopted the Texas Building and Procurement Commission's *State of Texas Contract Management Guide* as its main contracting policy. However, this guide states that it is not intended to replace agency policy but instead provides a framework to develop policy specific to the agency. The Plan has not supplemented the guide with its own policy.

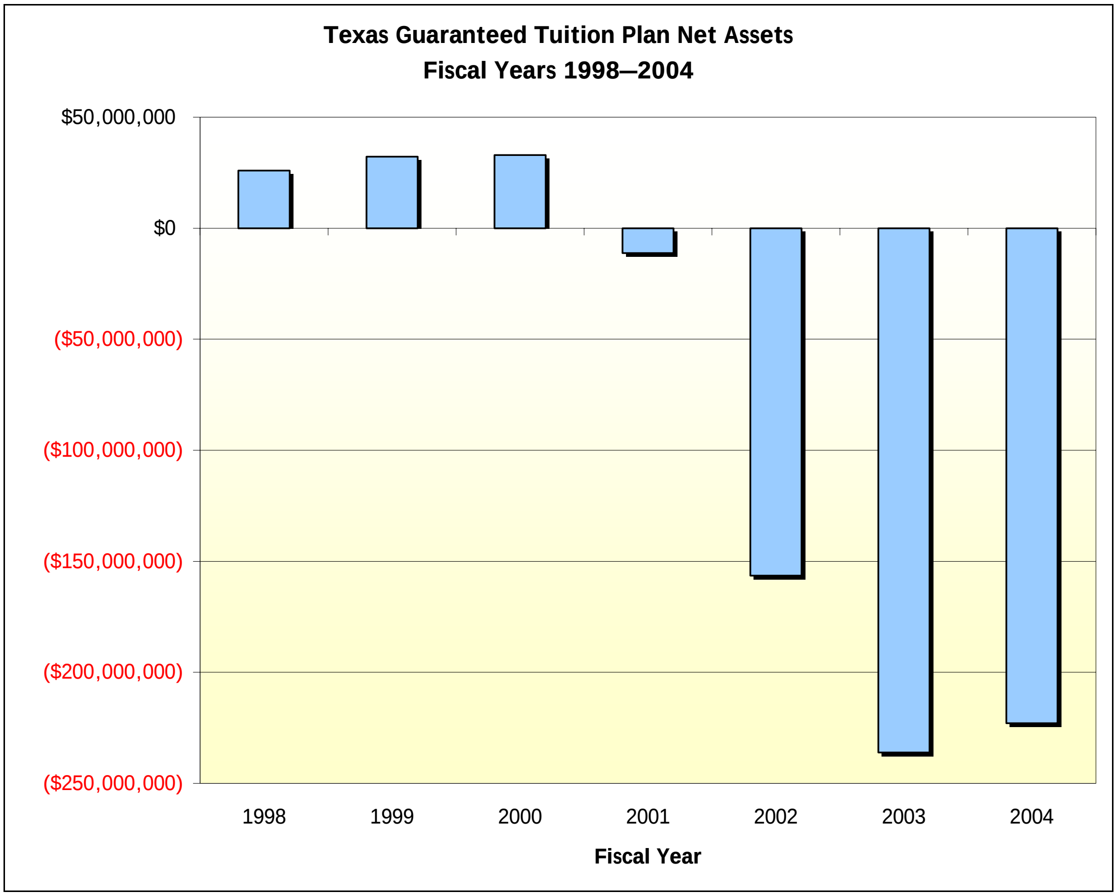
The Plan decided not to implement one prior recommendation to set a target actuarial surplus. As long as enrollment in the Plan remains closed and until the projected funding shortfall is significantly reduced, it is not feasible to set a target actuarial surplus.

Appendix 2 provides detailed information regarding the implementation status of the 20 prior audit recommendations we reviewed.

Status of the Plan's Financial Health

According to the Plan's actuary, the Plan had a projected funding shortfall of $223 million as of August 31, 2004. This represents only a $3 million decrease from the $226 million unfunded liability that existed as of March 31, 2003. Figure 1 shows the decrease in the Plan's net assets from fiscal year 1998 through fiscal year 2004.

Figure 1



Source: Unaudited information from the Plan's actuarial reports from 1998—2004

As of August 31, 2004, the Plan's funded ratio (actuarial assets divided by actuarial liabilities) was 89 percent. The Plan's actuary has not deemed the Plan to be actuarially unsound but projects that the Plan's unfunded liability will never become smaller. The actuary projects that the funding shortfall will grow to $332 million and $526 million by the ends of fiscal years 2009 and 2015, respectively.

The actuary's analysis also shows that the Plan has started experiencing cash flow shortfalls. During fiscal year 2004, the Plan incurred a $28.8 million cash flow shortfall, and the actuary projects that this amount will grow to $145 million in fiscal year 2009. A cash flow shortfall exists when the contributions from contract holders alone are not sufficient to pay for both tuition payments and administrative expenses and, therefore, the Plan must liquidate investments to meet financial obligations. According to the Plan's actuary, using the assumptions approved by the Plan's board, Plan assets would be completely depleted sometime in 2021.

The Plan's deficit is the result of both declining capital market conditions and significant increases in costs of higher education. Since the inception of the Plan, the average cost of tuition at Texas public senior colleges has more than doubled, increasing on average 11.9 percent each year. Tuition climbed more steeply after the passage of House Bill 3015 (78th Legislature, Regular Session). The average cost of tuition and fees at public senior colleges in Texas increased 23 percent between the fall 2003 semester and the fall 2004 semester. House Bill 2425 (78th Legislature, Regular Session) mitigated the full impact of the rising tuition costs by capping the Plan's payout on senior college plans at the lesser of (1) the amount of tuition and required fees charged by the institution or (2) an amount paid by the board under the contract equal to the weighted average amount of tuition and required fees of all public senior colleges and universities for that semester or other academic period as determined by the Plan's board.

The Plan is not the only prepaid tuition plan experiencing adverse financial health. We researched nine prepaid tuition plans in other states (three of which are guaranteed by their respective states). The funded ratios of these plans ranged from 107 percent to 75 percent. While the Texas Plan has one of the lowest funded ratios (89 percent), three states have the same or lower ratios.

At its September 2004 meeting, the Plan's board renewed its decision to keep the Plan closed to new enrollment. The Plan also has re-examined its process for determining its investment return assumption and, with its consultant's assistance, has developed a target asset allocation that it believes will achieve the assumed return rate of 8.25 percent. However, of the nine other prepaid tuition plans that we researched, only one of them (the prepaid tuition plan in Alabama) has a higher assumed rate of return (9 percent), and its asset allocation was significantly more aggressive than the Texas plan's asset allocation. Three other prepaid tuition plans appeared to have more aggressive asset allocations than the Plan, yet they had lower assumed rates of return.

Recommendations

The Plan should:

- Ensure that the Plan's board consistently receives formal, documented research to develop and support investment rate-of-return assumptions.
- Develop a formal policy to ensure that it continues to follow contract monitoring procedures referred to in the Texas Building and Procurement Commission's *State of Texas Contract Management Guide*.

Management's Response

The Texas Guaranteed Tuition Plan management will ensure that the Plan's board consistently receives formal, documented research to develop and support investment rate-of-return assumptions.

The plan has adopted, implemented, and abides by the contracting and contract monitoring policies and procedures of the agency that are in addition to and supplement applicable provisions of the State of Texas Contract Management Guide. The Contracts Section of the Comptroller's General Counsel Division provides legal counsel and support to the Plan's management, as well as to all divisions of the agency, to ensure that agency contracting policies and procedures are consistent with and appropriately supplement the Guide, and that such policies are duly implemented. For example, the Section routinely works with the Plan to establish formal initial contract monitoring schedules for the Plan's contracts even prior to contract signature (an agency requirement that is consistent with and supplements the Guide).

Appendices

Appendix 1

Objectives, Scope, and Methodology

Objectives

The audit objectives were to:

- Determine whether State Treasury cash and securities management operations produce reasonable returns while protecting the State's assets.
- Determine whether the Texas Treasury Safekeeping Trust Company (Trust Company) and the Texas Guaranteed Tuition Plan (Plan) have implemented recommendations made by the State Auditor's Office, the Department of Banking, and their external auditors

Scope

Each of the units we audited is located within the Office of the Comptroller of Public Accounts (Comptroller's Office).

We reviewed Treasury Operations processes, Trust Company investments, and unclaimed securities held at the Trust Company. We also followed up on the recommendations that the State Auditor's Office made in *A Follow-Up Audit Report on the Texas Treasury Safekeeping Trust Company, the Texas Guaranteed Tuition Plan, and the Texas Local Government Investment Pool* (SAO Report No. 04-007, October 2003).

We reviewed data for fiscal year 2004 and fiscal year 2005 through April 2005. Our scope also included a review of external auditor reports and related working papers from KPMG, LLP. In addition, we coordinated our work with the Comptroller's Office's director of internal audit and the Trust Company's internal auditor.

Methodology

Our methodology consisted of gathering information through interviews of management and employees in Treasury Operations, the Trust Company, and the Plan; reviewing policies and procedures; and testing controls and related documentation. To review the Plan's investment practices and actuarial assumptions, we researched other states' prepaid tuition plans. To review the Trust Company's investment operations and benchmarks, we researched other states' investment policies.

Information collected and reviewed included the following:

- Applicable constitutional and statutory provisions
- Agency internal audit reports
- Agency policies and procedures
- Agency and information technology budgets
- Reports prepared by outside consultants
- Meeting transcripts for the Texas Prepaid Higher Education Tuition Board and its investment committee
- Actuarial soundness reports (including the *Texas Guaranteed Tuition Plan Actuary's Report on Program Soundness*, August 31, 2004) and annual financial reports from other states that have prepaid tuition programs
- Contracts with external investment managers
- Organizational charts
- Annual financial reports
- Ethics policies
- KPMG, LLP's management letter and related work papers
- Investment policies, including the policies of other states
- Investment reports
- Investment trade tickets
- Deposit and wire transfer reports
- Sungard work plan and reconciliations with the Clipper GL
- Investment Accounting System (i.e., QED) access changes
- Network access documentation for both the Trust Company and the Treasury

Procedures and tests conducted included the following:

- Conducted interviews with:
  - Agency management and staff
  - Consultants who performed services for the Plan and Trust Company

- Observed various Trust Company and Treasury Operations processes
- Tested FAN file inputs and wire transfer transactions
- Sampled the inventory of securities held in Treasury Operation's vault
- Tested the Trust Company's claim distribution, sale, and valuation of unclaimed securities
- Tested Trust Company investment trade tickets
- Tested Trust Company and Plan contracts
- Tested network access for both the Trust Company and the Treasury
- Performed a limited review of Rapid 1 and 2 processing

Criteria used included the following:

- *Trust Examination Manual*, Federal Deposit Insurance Corporation
- Texas Constitution
- Texas Government Code
- Texas Property Code
- Comptroller's Office's Investment Policy, November 2003
- Trust Company policies and procedures
- Treasury Operations policies and procedures
- Texas Guaranteed Tuition Plan Investment Policy, February 2005
- Texas Building and Procurement Commission's *State of Texas Contract Management Guide*

Other Information

We conducted fieldwork from February 2005 through May 2005. This audit was conducted in accordance with generally accepted government auditing standards. The following members of the State Auditor's staff performed this audit:

- Hugh Ohn, CFA, CPA, CIA (Project Manager)
- Kelton Green, CPA, CFE (Assistant Project Manager)
- Kristin Alexander

- Michael Clayton, CPA
- Hillary Hornberger
- Jackie Shelby
- Jim Timberlake
- Alan Walton, MBA
- Priscilla Garza (Information Systems Audit Team Member)
- Michael Yokie, CISA (Information Systems Audit Team Member)
- Worth Ferguson, CPA (Quality Control Reviewer)
- Dave Gerber, CISA, MBA (Audit Manager)

Appendix 2

Implementation Status of Prior State Auditor's Office Recommendations

Table 2 presents the implementation status of the 17 prior audit recommendations we reviewed for the Trust Company.

Implementation Status

The definitions of each implementation status determination are as follows:

- Fully Implemented: Successful development and use of a process, system, or policy to implement a prior recommendation
- Substantially Implemented: Successful development but inconsistent use of a process, system, or policy to implement a prior recommendation
- Incomplete/Ongoing: Ongoing development of a process, system, or policy to address a prior recommendation
- Not Implemented: Lack of a formal process, system, or policy to address a prior recommendation

Table 2

Status of the Trust Company's Implementation of Prior State Auditor's Office Recommendations

State Auditor's Office Report	Recommendation	Implementation Status	Auditor Comments
An Audit Report on the Texas Treasury Safekeeping Trust Company, the Texas Guaranteed Tuition Plan, and the Texas Local Government Investment Pool (SAO Report No. 04-007, October 2003)	The Trust Company should correct all weaknesses noted in the financial audit report.	Fully Implemented	The Trust Company's external auditor issued an unqualified opinion on the Trust Company's financial statements for fiscal year 2004, and the external auditor's report on compliance and on internal control over financial reporting for fiscal year 2004 noted no material weaknesses.
	The Trust Company should ensure that the results of financial audits are issued in a timely manner and promptly share those results with the Trust Company's Investment Advisory Board.	Fully Implemented	Results of the Trust Company's fiscal year 2004 financial statement audit were issued within four months of the fiscal year end. The results were shared with the Trust Company's Investment Advisory Board within a reasonable time period.
	The Trust Company should continue working to implement its new financial accounting and investment accounting systems.	Incomplete/ Ongoing	The Trust Company continues to work toward implementation of its new financial accounting system. The net asset valuation module of that system is currently online. However, the general ledger module is two years behind schedule; the Trust Company anticipates that it will be implemented by August 31, 2005. The Trust Company terminated the acquisition and implementation of two of the three modules of its new investment accounting system because those modules did not meet its needs. Trust Company management intends to hire a consultant to conduct a needs assessment prior to resuming the process of purchasing an investment accounting system.

Status of the Trust Company's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
	The Trust Company should monitor to ensure that the new investment accounting system fulfills business and functional requirements.	Not Implemented	The Trust Company has not implemented a new investment accounting system (see above).
	The Trust Company should correct the password and access authorization weaknesses in the current investment accounting system and ensure that they are not duplicated in the new financial accounting and investment accounting systems. Specifically, the Trust Company should implement a process requiring users to change their passwords on a regular basis and follow the Comptroller's requirements for establishing passwords.	Substantially Implemented	The Trust Company's current investment accounting system lacks the functionality to automatically expire passwords and notify/force users to change their passwords. However, the Trust Company has developed a process to notify users of the need to change their passwords in the time frame specified in the Comptroller's Office's requirements for establishing passwords. Users also must confirm that they changed their passwords. The Trust Company appears to have corrected prior weaknesses in authorization (password changes) by developing a new process to address the lack of functionality in the current investment accounting system.
	The Trust Company should ensure that user passwords are not available to division security coordinators for viewing. Passwords should be hidden or encrypted.	Substantially Implemented	Passwords in the investment accounting system remain unencrypted in the application database. However, the Trust Company now allows only one security administrator to view the passwords.
	The Trust Company should ensure that access authorization is documented and fully supported for all users of the investment accounting system.	Fully Implemented	Access authorization is documented and fully supported for all users of the investment accounting system.
	The Trust Company should periodically review access authorization for all users, including division security coordinators, to ensure that access rights match job duties and responsibilities.	Fully Implemented	Access is reviewed for all users of the various applications and systems, including the investment accounting system. The Trust Company has a process and documentation to assist in performing the review.
	The Trust Company should follow formal procedures and adhere to established criteria in evaluating proposals and awarding contracts. In particular, it should abide by the stated minimum criteria for consideration of proposals that potential contractors submit in response to requests for proposal (RFP).	Fully Implemented	Since January 2004, the Trust Company has executed only one new contract that was subject to the RFP process. Review of this contract file indicated that the Trust Company ensured that its selection criteria agreed with the RFP.
	The Trust Company should separate its procurements to hire investment managers from its investments in alternative assets.	Fully Implemented	The Trust Company's only applicable RFP since January 2004 clearly specified that the service requested related to the management of alternative assets.

Status of the Trust Company's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
	The Trust Company should document its evaluation of potential contractors' proposals and related deliberations in a manner that adequately explains the basis on which resulting contract award decisions are made.	Fully Implemented	The Trust Company's only applicable contract file since January 2004 contains evidence showing that the Trust Company conducted an adequate evaluation of front-runner RFP respondents during the selection of the contractor.
	The Trust Company should research potential contractors' tax and child support payment histories sufficiently early in the contractor selection process so they can use the results of that research in the evaluation of potential contractors' proposals.	Fully Implemented	The Trust Company's only applicable contract file since January 2004 contains documents certifying that the contractor had no tax or child support liabilities.
	The Trust Company should develop and communicate formal policies and procedures for monitoring contractors. These policies and procedures should identify: • The specific monitoring activities to be performed and the frequency with which they should be performed. • How monitoring activities should be performed, including the information sources that should be used. • The individual responsible for performing each monitoring activity. • How monitoring activities should be documented. • How and to whom the results of monitoring should be communicated. • How monitoring results should be used, including requirements for subsequent follow-up.	Fully Implemented	The Trust Company's policy indicates that monitoring reports should be issued independently for each contract. The Trust Company generates a report prior to the execution of the contract that identifies monitoring activities, the method of performing monitoring activities, and the frequency of monitoring activities. Contract monitoring forms used by the Trust Company identify: ▪ Specific monitoring activities to be performed. ▪ Monitoring methods, including information sources to be used. ▪ The individual responsible for each monitoring activity. ▪ Monitoring frequency. ▪ Documentation method. ▪ The individual(s) to whom the results of monitoring should be communicated. ▪ How results of monitoring are used.
	The Trust Company should conduct monitoring and evaluation of contractors with a frequency that sufficiently supports the continuous management of contracts. Monitoring and evaluation criteria should directly relate to the specific services each contractor provides and the key provisions of each contract.	Substantially Implemented	The Trust Company has recently issued contract monitoring reports. However, most of those reports were dated after January 2005, and we observed only one contract for which more than one monitoring report had been issued. The monitoring documentation indicated recent compliance with monitoring requirements, but we were unable to make an assessment regarding long-term monitoring.

Status of the Trust Company's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
An Audit Report on the State Treasury and Its Trust Company, the Texas Tomorrow Fund, and TexPool (SAO Report No. 02-007, October 2001)	The Treasury should consider having the Trust Company invest discretionary cash in short- to intermediate-term government agency securities or a local government investment pool such as the Treasury Pool or TexPool.	Fully Implemented	As of January 31, 2005, Treasury Pool funds were invested in several different asset categories, including repurchase agreements, agency notes, and commercial paper. In addition, maturity structure varied, but 64 percent of securities had maturities of less than 30 days. The Trust Company now holds various government agency securities, and its asset allocations are diversified. Investments have been split primarily between securities issued by government agencies, commercial paper, and repurchase agreements. The Trust Company also has lower levels of investments in money market funds and mortgage-backed securities.
	The Treasury and the Trust Company should consider improving the information system to meet financial industry standards. The system should capture all financial activity so that pertinent information is communicated to appropriate personnel on a timely basis.	Incomplete/ Ongoing	The Trust Company has implemented the net asset valuation module in its new financial accounting system. This module has resulted in the automation of some processes and, therefore, has strengthened the overall control environment. However, the current investment accounting system does not capture the externally managed fund (endowment) transactions and contains incorrect data for the transactions that the Trust Company attempted to load into the system. In addition, implementation of the new financial accounting system's general ledger module is two years behind schedule and is not anticipated to be complete until August 31, 2005.
	The Trust Company should ensure that the information system accommodates complete accounting controls such as audit trails, transaction journals, trial balances, and frequent reporting. Management should design methods to use this system to evaluate strategies and detect errors or irregularities.	Incomplete/ Ongoing	The investment accounting system provides for a text-based transaction log that is viewable and provides an audit trail for changes. However, the current general ledger and investment accounting systems lack access functionality and security logging. The general ledger system currently in use captures information on the user and the time of the last update, but it does not capture any transaction change information.

Table 3 provides detailed information regarding the implementation status of the 20 prior audit recommendations we reviewed at the Texas Guaranteed Tuition Plan (Plan, formerly the Texas Tomorrow Fund).

Table 3

Status of the Texas Guaranteed Tuition Plan's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
A Follow-Up Audit Report on the Texas Treasury Safekeeping Trust Company, the Texas Guaranteed Tuition Plan, and the Texas Local Government Investment Pool (SAO Report No. 04-007, October 2003)	The Plan should re-examine its process for developing investment return assumptions to determine why its assumptions are higher than most other states' return assumptions for prepaid tuition plans.	Fully Implemented	The Plan approved an investment return assumption based on a new asset allocation strategy. Although Plan management has not determined specific explanations for why its return assumption is higher than in many other states, it has acknowledged this and appears to have made an informed decision to rely on the 8.25 percent return assumption recommended by its investment consultant. Plan management has accepted the risk of forgoing further analysis of other states' assumption rates, in part due to the effort that would be necessary to obtain information regarding the operating environments of other prepaid tuition plans.
	The Plan should work with its investment consultant to ensure that, at least on an annual basis, it receives formal, documented research to develop investment rate of return assumptions.	Substantially Implemented	The Plan's board received sufficient research from its investment consultant in 2003. However, we noted that the Plan's board based its return assumptions on the verbal recommendation of the consultant in 2004.
	The Plan should consider the average duration of its liabilities when developing investment return assumptions.	Fully Implemented	When developing an allocation strategy, the Plan's investment consultant considers whether each asset class is reasonable given the Plan's duration.
	The Plan should ensure that its board formally votes on significant decisions such as enrollment suspensions, program modification, or program termination. In addition, the Plan should obtain actuarial analyses regarding the fiscal impact of any major decisions before making these types of decisions.	Fully Implemented	In 2004, the Plan's board formally voted to continue suspension of new enrollment in the Plan. Before voting, the board heard the recommendation of Plan staff regarding the feasibility of reopening the program. Between June 2003 and February 2005, the board formally voted on all significant Plan issues.
	The Plan should obtain additional, useful information from its external investment consultant or others, including information about attribution analysis, portfolio turnover, best execution of trades, investment style analysis, and average daily cash balances.	Fully Implemented	With the exception of information on the best execution of trades, the Plan's investment consultant provides all of the recommended information in its quarterly reports to the Plan's board. The Plan decided not to hire an outside service to analyze whether the Plan's investment managers were receiving the best execution of trades. Instead, the Plan relies on its investment consultant to monitor investment managers' trade execution.

Status of the Texas Guaranteed Tuition Plan's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
	The Plan should enhance its investment policy by specifying provisions governing soft dollar arrangements.	Fully Implemented	The Plan's revised investment policy includes a provision that governs soft dollar arrangements. The policy requires investment managers to submit annual reports that discuss their use of soft dollars.
	The Plan should enhance its investment policy by specifying more protective standards to emphasize safety and liquidity more than investment yield when choosing cash equivalent investments and establishing minimum standards for the credit ratings on investments or collateralization requirements for investments.	Fully Implemented	The Plan's revised investment policy specifies that "return objectives should be achieved without assuming undue risk." The investment guidelines for each manager explain that the Plan expects portfolios to be fully invested, with the understanding that some liquidity is required for trading. The guidelines also specify that a manager may hold cash equivalent investments as long as they meet certain rating requirements. Collateralization applies to the Trust Company, which invests the Plan's assets. The Trust Company's investment policy addresses collateralization.
	The Plan should enhance its investment policy by establishing a money manager review and retention policy that includes guidelines for monitoring investment managers' performance.	Fully Implemented	The Plan has revised its investment policy to include guidelines and performance criteria for monitoring investment managers' performance.
	The Plan should define the phrases "actuarial soundness," "sufficiently actuarially sound," and "financially infeasible" and use them as criteria to determine when corrective action needs to be taken to ensure the financial health of the Plan.	Fully Implemented	The Plan defined "actuarially sound" and "financially feasible" to mean that the Plan is able to meet its future liabilities under one or more reasonable sets of assumptions about future program revenues and expenses. The investment committee of the Plan's board recommended that the Plan's actuary create reasonable scenarios for the Board to annually assess the Plan's soundness and financial feasibility.
	The Plan should consider expanding its staff's investment expertise to better manage or at least monitor its investment programs.	Fully Implemented	The investment committee of the Plan's board considered this recommendation but determined that it would be more cost-effective, yet still prudent, to rely on the expertise of its investment consultant to monitor external money managers.
	The Plan should consider the benefits of using passive indexation strategies for the management of a portion of its investment portfolio.	Fully Implemented	The Plan has considered using passive indexation strategies for part of the portfolio. As of December 31, 2004, 5.4 percent of the Plan's assets were invested in a large-cap equity index fund.

Status of the Texas Guaranteed Tuition Plan's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
	The Plan should develop and communicate formal policies and procedures for monitoring contractors. These policies and procedures should identify: ▪ The specific monitoring activities to be performed and the frequency with which they should be performed. ▪ How monitoring activities should be performed, including the information sources that should be used. ▪ The individual responsible for performing each monitoring activity. ▪ How monitoring activities should be documented. ▪ How and to whom the results of monitoring should be communicated. ▪ How monitoring results should be used, including requirements for subsequent follow-up.	Substantially Implemented	The Plan has implemented contract monitoring procedures and adopted the Texas Building and Procurement Commission's *State of Texas Contract Management Guide* as its main contracting policy. However, this guide states that it is not intended to replace agency policy but instead provides a framework to develop policy specific to the agency. The Plan has not supplemented the guide with its own policy.
	The Plan should conduct monitoring and evaluation of contractors with a frequency that sufficiently supports the continuous management of contracts. Monitoring and evaluation criteria should directly relate to the specific services each contractor provides and the key provisions of each contract.	Fully Implemented	The Plan's investment consultant provides the Plan's board with quarterly monitoring information on all of the Plan's investment managers. In addition, we judgmentally selected two additional contracts not related to money management and determined that the Plan sufficiently monitored those contracts.
	The Plan should develop and implement a policy requiring board members and key employees to disclose any relationships or other conflicts of interest they may have regarding potential contractors.	Fully Implemented	The Plan approved an ethics policy requiring board members and staff who serve the board to disclose and resolve potential conflicts of interest.
An Audit Report on the State Treasury and Its Trust Company, the Texas Tomorrow Fund, and TexPool (SAO Report No. 02-007, October 2001)	When developing actuarial assumptions, the Texas Guaranteed Tuition Plan (Plan) staff and Board members should thoroughly research existing relevant trends.	Fully Implemented	The Comptroller's Office's Expenditure Analysis Division provides the results of tuition trend research to the Plan. The Plan's investment consultant recommends an investment rate-of-return assumption based on the Plan's asset allocation and its consultant's market expectations. The Plan's actuary projects the Plan's future expenses and calculates the selection bias (the possibility that Plan beneficiaries attend relatively higher priced schools than the student population as a whole).

Status of the Texas Guaranteed Tuition Plan's Implementation of Prior State Auditor's Office Recommendations			
State Auditor's Office Report	**Recommendation**	**Implementation Status**	**Auditor Comments**
	When developing actuarial assumptions, Plan staff and board members should seek expert opinions about likely future developments.	Fully Implemented	The Plan's board seeks the opinion of the Comptroller's Office's Expenditure Analysis Division when developing the tuition assumptions and of the Plan's investment consultant when developing the investment rate-of-return assumption.
	The Plan should expand its sensitivity testing to include a more comprehensive set of assumptions. Plan staff should collect, compare, and contrast the assumptions used by other states employing different actuarial consultants. This would provide additional assurance that a full range of actuarial approaches is considered.	Fully Implemented	The Plan expanded its sensitivity testing from 8 to 11 scenarios and expanded the number of basis points used in certain scenarios from 25 to 100.
	Management of the Plan should monitor the financial condition of key contractors, especially the administrative services vendor, and share this information with the Board as part of the contract renewal process.	Fully Implemented	The Plan obtains evidence of contractors' financial stability prior to awarding contracts. The Plan also requires all contractors to provide certification of financial solvency on an annual basis.
	Set a target actuarial surplus. The surplus, or net worth of the program, creates a starting point against which the Tomorrow Fund can establish measures of tolerable risk.	Not Implemented	The Plan had decided not to implement this recommendation. Setting a target actuarial surplus appears to be unrealistic at this point considering the surrounding circumstances the Plan faces now.
	Plan for contingencies. A financial institution of the Tomorrow Fund's size needs to develop contingency plans in the event of operating and financial obstacles. Examples include but are not limited to a legislative change in public university tuition levels, a bear market for stock investments, and an interruption in the provision of important services by a key contractor.	Fully Implemented	The Plan has demonstrated its contingency planning, in part, by: ▪ Developing a revised asset allocation strategy to reduce the impact of market downturns. ▪ Continuing to suspend new enrollment in the Plan. ▪ Receiving research regarding tuition trends. ▪ Assuming responsibility for the administration of Plan participant records, which eliminated the risk of potential business interruptions in the event of performance issues with the former contractor. House Bill 2425 (78th Legislature, Regular Session) mitigated the full impact of the rising tuition costs by capping the Plan's payout on senior college plans at the lesser of (1) the amount of tuition and required fees charged by the institution or (2) "an amount paid by the board under the contract equal to the weighted average amount of tuition and required fees of all public senior colleges and universities for that semester or other academic period as determined by the [Plan's] board."

Source: State Auditor's Office analysis of the implementation of prior audit recommendations

Actuary's Report for the Texas Guaranteed Tuition Plan

TEXAS GUARANTEED TUITION PLAN
ACTUARY'S REPORT ON PROGRAM SOUNDNESS
AUGUST 31, 2004

December 2004

December 9, 2004

Members,
Texas Prepaid Higher Education Tuition Board
111 East 17th Street
Austin, Texas 78711-3528

Dear Board Members:

PricewaterhouseCoopers LLP (PwC) in conjunction with Richard M. Kaye & Associates has performed an actuarial analysis of the Texas Guaranteed Tuition Plan ("the Plan") at the request of the Plan as of August 31, 2004. This report presents: a projection of cash flows, an analysis of the duration of the liability, and an analysis of the soundness of the Plan.

The analysis is based on data furnished by the Plan regarding the contracts submitted during the 1995/96 through 2002/03 enrollment periods and payments made under those contracts; unaudited financial data provided by the Plan; the actuarial basis described herein and the contract provisions in effect for the 1995/96 through 2002/03 enrollments. The actuarial assumptions were approved by the Investment Committee of the Board and presented to the Board.

The analysis was performed based upon generally accepted actuarial principles, and tests were performed as considered necessary to ensure the accuracy of the results. We certify that the amounts presented in the accompanying report have been appropriately determined according to the actuarial assumptions stated herein.

Respectfully submitted,

____

Steven A. Skov, ACAS, MAAA
Director
PricewaterhouseCoopers LLP

____

Richard M. Kaye, FSA, CPA
Richard M. Kaye & Associates
Consultant to PricewaterhouseCoopers LLP

Texas Guaranteed Tuition Plan
Actuary's Report on Program Soundness
August 31, 2004

Contents

SECTION I - Summary

Adequacy of the Fund

As of August 31, 2004, the Plan had an unfunded liability of $222,852,297. The unfunded liability represents the difference between the sum of the market value of the assets and the present value of the expected future contract payments and the sum of the present value of the expected future tuition and required fees, refunds and expenses. The unfunded liability is $13,231,456 less than last year's unfunded liability of $236,083,753. The primary reasons for the improvement in the Plan's reserve level can be summarized as follows: a)-investment asset performance of 10.30 percent, notably above the assumed investment return of 8.25 percent; and b)- gains from cancellations. The table below summarizes current balances:

Assets	
Investments	$1,342,695,201
Future Contract Collections	481,713,566
Total Assets	$1,824,408,767
Liabilities and Surplus	
Future Contract Benefits and Expenses	$2,047,261,064
Deficit of Assets over Liabilities	(222,852,297)
Total Liabilities and Surplus (Deficit)	$1,824,408,767

The program is 89% funded as of August 31, 2004.

The assumptions used to measure the adequacy of the Plan, which were approved by the Investment Committee of the Board and presented to the Board, are stated in Section III. The most important assumptions are:

The investment yield;

The rate of increase in tuition/fees;

Future new entrants;

Expenses; and

Selection against the Plan by purchasers and beneficiaries.

Investment Yield

The investment yield is the expected long-term gross earnings rate on the assets.

The actuarial valuation of the Plan was determined using an assumed 8.25% gross rate of return on investments, with an assumed fee for investment consulting and management of 35 basis points. We also assume the Plan is exempt from federal income tax. It is important to highlight the sensitivity of this analysis to this assumption. As pointed out subsequently, a quarter point shortfall in such a goal would place the Plan in a much less favorable position. Additionally, the nature of this type of program involves payment of benefits at fixed future points in time, subjecting the Plan to greater than average investment risk due to short-term fluctuations and in matching investment maturities with expected outlays.

Rate of Increase in Tuition/Fees

The amount paid for each beneficiary who uses a Public Senior College contract to attend a Public Senior College has changed from prior years due to recent amendments to state law. Under statutory changes approved in 2003 by the Texas Legislature, the amount of tuition and required fees paid for each beneficiary who uses a Public Senior College contract to attend a Public Senior College will be the lesser of: 1) actual tuition and required fees; or 2) the weighted average tuition and required fees of all Texas public colleges and universities. Under this new formula, Texas colleges and universities must accept this amount as payment in full for a beneficiary who attends a public senior college using Plan benefits.

Tuition and fee increases reflect effective management of the schools as well as general inflation, the rate of increase in state support and real improvements in the quality of educational services. After careful analysis, the Board selected tuition and fees increase assumptions that allow improved quality of education above an expected rate of inflation. The assumed annual increases for Public Senior Colleges are 10% for 2005/2006 and 7.5% thereafter. This is the same assumption as last year. For Junior Colleges, the assumption is 7.5% for all years. This too is the same assumption except that a 10% assumption for 2005/2006 was utilized instead of the current 7.5%. For Private Universities, the assumed rates are 6.5% each year which also is the same as last year's assumption.

Future New Entrants

New contracts in future years would serve: a) to expand the base for spreading fixed expenses; b) to increase the likelihood that the Plan average tuition cost will not exceed Weighted Average Tuition (WAT) by a significant amount; and c) to ensure a large enough fund balance to invest profitably.

In 2003 the Board suspended new enrollment in the Plan. For purposes of the actuarial analysis in this report, it is assumed that no future contracts will be sold.

Expenses

In our analysis we provide an expense provision for records administration charges and for general expenses. The provision for fiscal year 2005 is $32 per contract which we assume will increase 3.5% per year for inflation.

Use of Report

This report is prepared solely to assist the Board of the Texas Guaranteed Tuition Plan in evaluating the actuarial soundness of the Plan each year. The report is not intended and is not suitable for any other purpose. Accordingly, PricewaterhouseCoopers LLP does not intend this report or the data contained therein to be used as personal financial advice. Other readers of this report should consult with their own financial advisors regarding the application of this report to their particular circumstances.

Selection Against the Program by Purchasers and Beneficiaries

Selection is the result of rational decisions by purchasers and beneficiaries. Selection against the Plan is expected and is intrinsic to the purpose of a prepaid tuition program. A basic reason for establishing the Texas Guaranteed Tuition Plan is that the purchase of a contract will increase the commitment of the purchaser to a belief the beneficiary will become qualified to enter college and that the ownership of a contract will cause the beneficiary to be comfortable with a commitment to academic achievement. (This linkage is sometimes referred to as the "Lang effect," after the philanthropist who guaranteed college tuition for a class of students at his old elementary school).

Selection against the Plan causes the amount the Plan pays to exceed the WAT. WAT is the average tuition/fees weighted by the number of full-time equivalent students. Selection refers to the degree to which the Texas Guaranteed Tuition Plan beneficiaries choose to attend the higher priced schools and so cause the Plan to pay out more tuition/fee benefits.

The cost of selection against the Plan by beneficiaries who attend the Public Senior Colleges is offset somewhat by gains from contracts that are terminated. The payments on contracts that are terminated generally are of lower value than the payments on contracts used to attend the Public Senior Colleges.

The assumed bias load is 3.0% for universities and 15.0% for community colleges. The assumed bias loads equal the values used in our prior valuation.

SECTION II - Summary of Contract Data and Current Assets

Contract Data

A contract inventory report as of August 31, 2004 was extracted from Plan data. The contract inventory report presents the number of contracts issued net of cancellations by contract type, number of years of tuition, grade or age of beneficiary and payment option.

The contracts issued in 1996 were for 30 credit hours. The contracts issued after 1996 were for 32 credit hours. The credit inventory as of August 31, 2004 is summarized in the following table:

Plans	**Payment Option**						
	Lump Sum	Five-Yr Monthly	Ten-Yr Monthly	Extended Monthly	Five-Yr Annually	Ten-Yr Annually	Extended Annually
1996 Enrollment							
Sr. College	680,053	472,611	430,346	844,277	-	-	256
Jr. College	8,645	9,868	11,648	35,737	-	-	-
Jr. & Sr. College	45,801	55,996	56,704	172,466	-	-	124
Private College	8,229	7,483	4,106	9,517	-	-	-
Total 1996	**742,728**	**545,957**	**502,804**	**1,061,996**	-	-	**380**
1997 Enrollment							
Sr. College	594,779	321,068	288,960	451,580	-	-	352
Jr. College	5,406	6,986	4,800	13,350	-	-	-
Jr. & Sr. College	32,197	33,608	32,384	65,139	-	-	128
Private College	25,820	7,855	3,168	6,772	-	-	98
Total 1997	**658,201**	**369,516**	**329,312**	**536,841**	-	-	**578**
1998 Enrollment							
Sr. College	424,514	125,987	167,552	242,799	109,692	36,224	34,975
Jr. College	3,461	2,397	2,240	4,973	500	288	416
Jr. & Sr. College	16,834	11,545	14,464	30,581	6,743	2,176	3,348
Private College	10,254	2,900	736	3,067	2,382	1,216	722
Total 1998	**455,063**	**142,829**	**184,992**	**281,420**	**119,318**	**39,904**	**39,461**
1999 Enrollment							
Sr. College	268,189	81,042	128,256	201,648	77,045	26,080	28,258
Jr. College	1,352	1,789	2,368	3,980	910	192	488
Jr. & Sr. College	13,824	10,240	12,416	25,902	5,351	1,536	1,064
Private College	6,810	1,280	1,152	2,906	4,070	640	808
Total 1999	**290,175**	**94,351**	**144,192**	**234,436**	**87,375**	**28,448**	**30,618**

SECTION II - Summary of Contract Data and Current Assets

Plans	Payment Option						
	Lump Sum	Five-Yr Monthly	Ten-Yr Monthly	Extended Monthly	Five-Yr Annually	Ten-Yr Annually	Extended Annually
2000 Enrollment							
Sr. College	320,235	128,992	178,368	273,391	90,559	33,152	39,289
Jr. College	3,136	3,232	2,336	5,978	832	160	564
Jr. & Sr. College	15,381	16,512	19,328	33,133	4,477	2,816	2,304
Private College	5,510	1,056	1,568	1,730	3,712	768	711
Total 2000	**344,262**	**149,792**	**201,600**	**314,233**	**99,580**	**36,896**	**42,868**
2001 Enrollment							
Sr. College	343,163	147,968	169,930	400,310	132,384	51,936	71,072
Jr. College	4,185	4,768	3,840	16,137	1,056	1,152	861
Jr. & Sr. College	26,548	21,376	28,416	79,920	10,112	4,992	9,715
Private College	9,175	1,984	1,344	6,595	3,552	1,824	1,696
Total 2001	**383,071**	**176,096**	**203,530**	**502,962**	**147,104**	**59,904**	**83,345**
2002 Enrollment							
Sr. College	405,810	143,136	165,422	343,205	156,864	65,312	71,968
Jr. College	6,056	6,112	4,160	15,507	947	864	1,214
Jr. & Sr. College	23,240	20,352	31,616	58,624	11,776	7,424	8,931
Private College	11,364	1,088	2,048	5,455	3,616	1,440	1,184
Total 2002	**446,470**	**170,688**	**203,246**	**422,791**	**173,203**	**75,040**	**83,297**
2003 Enrollment							
Sr. College	969,626	147,392	211,776	576,768	282,272	127,072	169,413
Jr. College	13,547	4,992	4,352	14,912	1,952	960	1,504
Jr. & Sr. College	49,297	18,304	28,928	89,216	17,536	11,136	17,920
Private College	33,196	3,520	2,560	8,352	9,984	1,600	3,456
Total 2003	**1,065,667**	**174,208**	**247,616**	**689,248**	**311,744**	**140,768**	**192,293**
Total Enrollment							
Sr. College	4,006,371	1,568,197	1,740,610	3,333,978	848,816	339,776	415,584
Jr. College	45,787	40,143	35,744	110,574	6,197	3,616	5,047
Jr. & Sr. College	223,121	187,933	224,256	554,981	55,995	30,080	43,535
Private College	110,358	27,165	16,682	44,394	27,316	7,488	8,675
Total Enrollment	**4,385,637**	**1,823,437**	**2,017,292**	**4,043,926**	**938,324**	**380,960**	**472,840**

The number of active contract counts (for all enrollment years combined) by plan type and projected year of matriculation is included in the Appendix.

SECTION II - Summary of Contract Data and Current Assets

Current Assets

The assets are administered and invested by the State Treasury, the Texas Safekeeping Trust Company, and external managers with whom the Board contracts. The value of the assets as of August 31, 2004 is $1,342,695,201.

Assets held as of August 31, 2004:

Cash in State Treasury	$ 48,214,476
Investments	1,287,605,646
Interest & Dividends Receivable	7,190,220
Furniture and equipment - net of depreciation	959,092
Less Accounts Payable	(1,274,232)
Total Assets	$1,342,695,201

It is assumed that this mix will produce a gross annual investment return of 8.25%.

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SECTION III - Actuarial Methods and Assumptions

Actuarial Methods

The actuarial method projects the expected future cash flows from contract payments, tuition and refund benefits and expenses. These projected future cash flows are discounted to the present and compared to the market value of the assets to indicate the soundness of the Plan.

The development of this measurement of soundness has seven stages:

Develop base line average tuition and required fees from data provided by the Plan;

Project average tuition and required fees through the expected term of the contracts, based on assumptions as to future tuition increases;

Determine the nominal cost of expected future tuition and required fees benefits, based on the contract inventory and assumptions as to mortality, disability, voluntary surrender and utilization of benefits;

Determine the nominal cost of expected future administrative expenses, based on the contract inventory and the records administration fee schedule, as well as assumptions as to inflation and utilization of benefits;

Project future contract payments based on the contracts and assumptions as to mortality, disability and voluntary surrender;

Determine the present value of expected future benefits, expenses and contract payments, based on the discount rate assumption;

As the indication of soundness, measure the surplus or deficit, which is the difference between the sum of the market value of the assets and the present value of the expected future contract payments and the sum of the present values of the expected future tuition and required fees, refunds and expenses.

Actuarial Assumptions

The assumptions were approved by the Investment Committee and presented to the Board. Necessary adjustments to reflect new information were made to last year's assumptions. The revisions to the assumptions are noted herein.

Federal Income Tax

We assume the income of the Plan is exempt from Federal income tax.

Tuition/Fee Increases

Under statutory changes approved in 2003 by the Texas Legislature, the amount of tuition and required fees paid for each beneficiary who uses a Public Senior College contract to attend a Public Senior College will be the lesser of: 1) actual tuition and required fees; or 2) the weighted average tuition and required fees of all Texas public colleges and universities. Tuition increases

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SECTION III - Actuarial Methods and Assumptions

reflect effective management of the schools as well as general inflation, the rate of increase in state support and real improvements in the quality of public education. After careful analysis, the Board selected tuition increase assumptions above the expected rate of inflation.

Assumed increases in future tuition and required fees are:

Public Senior College	Junior College	Private University
10.0% next year, then 7.5% thereafter	7.5%	6.5%

Investment Yield

A gross investment yield of 8.25% per year is assumed.

Expenses

In our analysis we provide an expense provision for records administration charges and for general expenses. The provision for fiscal year 2005 is $32 per contract which we assume will increase 3.5% per year for inflation.

Future Participation in the Program

The Board selected an assumption that no new contracts will be issued in the future.

Mortality and Disability

Mortality rates for beneficiaries are assumed to follow the 1990 U.S. Life Tables.

SECTION III - Actuarial Methods and Assumptions

Early Voluntary Surrender of Contract

We assumed the following percentages of the public senior college contracts in effect at the beginning of the year would be surrendered during the year. We use similar estimates for the other college types, based on empirical evidence:

Years From Purchase	Lump sum	Five-Year Payments	Ten-Year Payments	Extended Payments
1 to 2	2.50%	6.30%	8.80%	13.70%
2 to 3	1.80%	3.60%	5.30%	6.00%
3 to 4	0.40%	1.50%	2.30%	3.00%
4 to 5	0.50%	1.00%	2.00%	3.00%
5 to 6	0.50%	0.50%	1.30%	2.00%
6 to 7	0.25%	0.25%	0.40%	0.50%
After 7 years	0.25%	0.25%	0.40%	0.50%

Matriculation Percent

We assume the beneficiary of a contract not voluntarily surrendered matriculates at the date specified in the contract.

Dropout Rate

We assume beneficiaries use the number of credits specified in the contract.

Utilization of Credits

We assume beneficiaries use the credits specified according to the following schedule:

Type of Contract	First Year	Second Year	Third Year	Fourth Year	Fifth Year
Five-Year Contracts	20%	20%	20%	20%	20%
Four-Year Contracts	25%	23%	22%	20%	10%
Three-Year Contracts	35%	30%	25%	10%	0%
Two-Year Contracts	60%	30%	10%	0%	0%
One-Year Contracts	90%	10%	0%	0%	0%

Frequency of Beneficiary Replacement

We assume no replacement of beneficiaries.

Bias

We have loaded liabilities relating to university contracts by 3% and liabilities relating to community colleges by 15% to reflect the possibility of beneficiaries of Plan contracts attending relatively higher priced schools than the student population as a whole.

SECTION IV - Soundness of the Plan as of August 31, 2004

As a measure of the soundness of the Plan as of August 31, 2004, we determined the difference between the value of the assets and the actuarial present value of the future contract payments and the actuarial present value of future benefits and expenses. This measurement of soundness is summarized on the next two pages.

A projection of the status of the Plan at each future anniversary date through the life of these contracts is presented in the following table headed Present Value of Assets and Liabilities.

The projections of future benefits and expenses and contract payments are presented in the following table headed Expected Cash Flows.

Our measurement of the present values and projections are based on asset and contract information provided and on the assumptions chosen by the Board.

SECTION IV - Soundness of the Plan as of August 31, 2004

Present Value of Assets and Liabilities

Fiscal Year Ending	Present Value of Future Benefits and Expenses	Value of Assets and Present Value of Future Collections	Surplus of Assets over Liabilities
2004	2,047,261,064	1,824,408,767	(222,852,297)
2005	2,088,569,202	1,847,785,000	(240,784,202)
2006	2,124,483,011	1,863,108,043	(261,374,968)
2007	2,146,142,182	1,862,778,931	(283,363,251)
2008	2,146,552,916	1,839,740,189	(306,812,727)
2009	2,132,816,739	1,801,157,063	(331,659,676)
2010	2,099,097,347	1,740,705,949	(358,391,398)
2011	2,046,419,331	1,659,247,774	(387,171,557)
2012	1,978,466,208	1,560,317,546	(418,148,662)
2013	1,890,224,063	1,438,734,554	(451,489,509)
2014	1,779,953,721	1,292,633,519	(487,320,202)
2015	1,647,268,909	1,121,314,922	(525,953,987)
2016	1,499,363,836	931,741,180	(567,622,656)
2017	1,336,571,814	724,004,692	(612,567,122)
2018	1,164,050,439	503,005,708	(661,044,732)
2019	982,368,829	269,034,534	(713,334,294)
2020	793,048,859	23,311,942	(769,736,917)
2021	600,733,856	(229,845,893)	(830,579,749)
2022	389,847,376	(488,175,246)	(878,022,621)
2023	229,177,467	(679,642,247)	(908,819,714)
2024	111,091,079	(815,833,655)	(926,924,734)
2025	34,451,948	(901,248,981)	(935,700,929)
2026	337,805	(938,084,828)	(938,422,633)
2027	119,656	(938,329,664)	(938,449,320)
2028	24,667	(938,434,105)	(938,458,772)
2029	0	(938,460,473)	(938,460,473)
2030	0	(938,460,735)	(938,460,735)
2031	0	(938,460,741)	(938,460,741)

SECTION IV - Soundness of the Plan as of August 31, 2004

Expected Cash Flows

Fiscal Year Ending	Expenses	Payments	Cash Flow
2004	115,444,477	86,595,119	(28,849,358)
2005	123,744,053	108,521,210	(15,222,843)
2006	140,128,933	91,924,935	(48,203,998)
2007	162,138,800	75,405,585	(86,733,215)
2008	175,731,675	55,179,699	(120,551,976)
2009	193,848,075	48,663,374	(145,184,701)
2010	209,468,887	41,761,554	(167,707,333)
2011	220,122,754	34,436,840	(185,685,914)
2012	234,426,332	26,771,293	(207,655,039)
2013	248,860,614	17,830,659	(231,029,954)
2014	261,996,942	15,179,607	(246,817,335)
2015	266,539,123	12,951,878	(253,587,245)
2016	269,609,113	10,681,507	(258,927,606)
2017	266,607,409	8,522,538	(258,084,871)
2018	262,323,300	6,359,020	(255,964,280)
2019	255,886,534	4,278,732	(251,607,802)
2020	244,420,029	2,577,416	(241,842,613)
2021	247,658,875	345,236	(247,313,639)
2022	183,548,406	21,943	(183,526,462)
2023	130,558,293	0	(130,558,293)
2024	81,882,398	0	(81,882,398)
2025	35,312,252	0	(35,312,252)
2026	234,710	0	(234,710)
2027	100,121	0	(100,121)
2028	25,277	0	(25,277)
2029	251	0	(251)
2030	6	0	(6)
2031	0	0	0

SECTION V - Sensitivity Testing

The Program operates under conditions of risk and uncertainty. For example, while it is assumed the assets of the fund will earn a gross rate of 8.25% each year through the life of the contracts, we also expect actual returns to vary from year to year. To accept the reasonableness of the basis for the measurement of the soundness it is useful to know how the status of the fund may be affected by the vagaries of the markets and other factors. We have rerun the valuation under the following alternative scenarios:

1. Tuition increases are 25 basis points higher in each future year than assumed.
2. The ultimate investment return is 25 basis points lower than assumed.
3. Tuition increases are 25 basis points higher in each future year and the ultimate investment return is 25 basis points lower than assumed.
4. Tuition increases are 25 basis points lower in each future year than assumed.
5. Tuition increases are 25 basis points lower in each future year and the ultimate investment return is 25 basis points lower than assumed.
6. The ultimate investment return is 50 basis points lower than assumed.
7. The ultimate investment return is 75 basis points lower than assumed.
8. The ultimate investment return is 100 basis points lower than assumed.
9. Tuition increases are 50 basis points higher in each future year than assumed.
10. Tuition increases are 75 basis points higher in each future year than assumed.
11. Tuition increases are 100 basis points higher in each future year than assumed.

The surplus as of August 31, 2004 under each of these scenarios is presented in the following table.

Scenario	Surplus / (Deficit)
1	(262,471,413)
2	(261,085,878)
3	(301,844,805)
4	(184,204,504)
5	(221,330,786)
6	(300,548,515)
7	(341,286,971)
8	(383,350,022)
9	(303,088,687)
10	(344,731,718)
11	(387,428,887)

SECTION VI – Changes in Surplus

The following table shows the changes in surplus between August 31, 2003 and August 31, 2004.

1.	Deficit as of August 31, 2003		($236,083,753)
2.	Change in Assets	$210,307,122	
3.	Decrease in Value of Future Contract Collections (Receivable)	$(116,135,614)	
4.	Increase in Value of Benefits and Expenses (Payable)	$(80,940,052)	
5.	Deficit as of August 31, 2004		$(222,852,297)

APPENDIX

TEXAS GUARANTEED TUITION PLAN

Active Contract Counts For All Enrollment Periods as of August 31, 2004

Matriculation Year	01	02	03	04	05	06	07	08	09	10	11	12
1996	-	19	-	1	-	-	-	-	-	-	-	-
1997	10	82	1	8	-	3	3	1	-	-	-	-
1998	33	225	11	23	2	11	3	5	1	-	-	1
1999	65	482	12	43	12	22	6	12	-	2	-	2
2000	128	1,153	36	78	31	44	5	21	1	3	-	2
2001	218	2,054	86	161	50	61	7	40	1	5	2	2
2002	328	2,764	132	253	75	95	8	61	6	8	4	3
2003	460	3,435	148	405	176	128	27	60	4	10	3	5
2004	505	3,841	158	461	210	191	43	75	10	19	8	1
2005	567	4,374	199	512	193	214	38	86	3	15	7	5
2006	610	4,806	196	611	277	217	53	105	4	13	8	2
2007	674	5,051	198	619	242	235	67	99	5	15	15	6
2008	780	5,334	224	620	272	236	54	104	8	15	6	7
2009	637	4,928	208	611	274	275	47	98	2	12	9	4
2010	684	4,870	192	603	260	248	60	82	5	6	8	3
2011	660	4,752	149	517	204	243	35	91	1	3	7	5
2012	649	4,839	183	557	245	200	35	107	7	11	14	2
2013	654	4,885	170	519	214	232	51	78	3	10	9	5
2014	623	4,635	167	449	217	200	53	76	1	5	5	1
2015	453	3,902	118	350	182	147	37	69	2	11	5	-
2016	418	3,598	112	354	136	135	22	67	7	9	7	1
2017	401	3,225	89	274	140	141	28	60	-	6	4	-
2018	392	2,930	97	307	158	124	24	38	1	8	2	-
2019	355	2,553	77	252	141	87	20	40	1	7	1	-
2020	273	2,094	70	206	135	72	12	36	2	5	4	-
2021	290	2,472	90	239	160	74	21	33	3	4	15	-
Total	10,867	83,303	3,123	9,033	4,006	3,635	759	1,544	78	202	143	57
% of Total	8.65%	66.29%	2.49%	7.19%	3.19%	2.89%	0.60%	1.23%	0.06%	0.16%	0.11%	0.05%

Matriculation Year	13	14	15	16	17	18	19	21	22	23	24	31	33	34	35	Total	% of Total
1996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	0.02%
1997	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	114	0.09%
1998	4	15	-	-	-	-	-	-	-	-	-	-	-	1	-	335	0.27%
1999	7	16	-	1	-	-	-	-	-	-	-	-	-	1	-	683	0.54%
2000	24	41	1	1	-	-	-	2	-	2	4	-	-	3	-	1,580	1.26%
2001	32	58	1	-	-	-	-	1	-	-	-	-	-	6	-	2,785	2.22%
2002	61	82	-	1	1	2	1	3	-	-	3	-	-	2	-	3,893	3.10%
2003	171	81	-	1	1	-	-	4	-	-	1	-	1	3	3	5,127	4.08%
2004	188	81	1	-	-	-	-	5	-	-	3	-	-	5	3	5,808	4.62%
2005	209	84	-	1	-	-	-	4	-	1	1	-	-	6	6	6,525	5.19%
2006	301	73	-	3	1	2	-	5	1	2	2	-	-	7	5	7,304	5.81%
2007	305	71	-	-	-	-	-	4	-	1	2	-	-	4	10	7,623	6.07%
2008	327	70	1	2	-	2	-	3	-	3	-	-	-	9	15	8,092	6.44%
2009	366	75	-	1	-	1	-	1	-	1	4	-	-	5	8	7,567	6.02%
2010	379	54	-	-	-	-	-	2	-	2	3	-	-	5	17	7,483	5.95%
2011	383	72	-	-	-	1	-	3	-	1	2	2	-	2	10	7,143	5.68%
2012	377	73	-	-	-	-	-	2	-	2	2	-	-	7	14	7,326	5.83%
2013	404	66	-	-	-	1	-	5	-	2	3	2	-	7	10	7,330	5.83%
2014	380	31	1	1	-	-	-	1	-	1	1	-	-	12	7	6,867	5.46%
2015	506	1	-	-	-	-	-	-	-	-	-	-	-	5	10	5,798	4.61%
2016	562	-	-	-	-	-	-	-	-	-	-	-	-	2	10	5,440	4.33%
2017	542	-	-	-	-	-	-	-	-	-	-	-	-	-	12	4,922	3.92%
2018	537	2	-	-	-	-	-	-	-	-	-	-	-	-	14	4,634	3.69%
2019	478	1	-	-	-	-	-	-	-	-	-	-	-	-	8	4,021	3.20%
2020	386	-	-	-	-	-	-	-	-	-	-	-	-	-	10	3,305	2.63%
2021	525	-	-	-	-	-	-	-	-	-	-	-	-	-	13	3,939	3.13%
Total	7,454	1,053	5	12	3	9	1	45	1	18	31	4	1	92	185	125,664	
% of Total	5.93%	0.84%	0.00%	0.01%	0.00%	0.01%	0.00%	0.04%	0.00%	0.01%	0.02%	0.00%	0.00%	0.07%	0.15%		

Key to Plan Type:

1 Jr/Sr - 2/2
2 Sr - 4 Yr
3 Sr - 3 Yr
4 Sr - 2 Yr
5 Sr - 1 Yr
6 Jr - 2 Yr
7 Jr - 1 Yr
8 Pr - 4 Yr
9 Pr - 3 Yr
10 Pr - 2 Yr
11 Pr - 1 Yr
12 Jr/Sr - 2/2 + 4Hrs
13 Sr - 5 Yr
14 Sr - 4 Yr + 8 Hrs
15 Sr - 4 Yr + 6 Hrs
16 Sr - 4 Yr + 4 Hrs
17 Sr - 4 Yr + 2 Hrs
18 Sr - 3 Yr + 6 Hrs
19 Sr - 3 Yr + 4 Hrs
20 Sr - 3 Yr + 2 Hrs
21 Sr - 2 Yr + 4 Hrs
22 Sr - 2 Yr + 2 Hrs
23 Sr - 1 Yr + 2 Hrs
24 Pr - 4 Yr + 8 Hrs
25 Pr - 4 Yr + 6 Hrs
26 Pr - 4 Yr + 4 Hrs
27 Pr - 4 Yr + 2 Hrs
28 Pr - 3 Yr + 6 Hrs
29 Pr - 3 Yr + 4 Hrs
30 Pr - 3 Yr + 2 Hrs
31 Pr - 2 Yr + 4 Hrs
32 Pr - 2 Yr + 2 Hrs
33 Pr - 1 Yr + 2 Hrs
34 Sr Add'l Year
35 Pr - 5 Yr

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The Honorable David Dewhurst, Lieutenant Governor, Joint Chair
The Honorable Tom Craddick, Speaker of the House, Joint Chair
The Honorable Steve Ogden, Senate Finance Committee
The Honorable Thomas "Tommy" Williams, Member, Texas Senate
The Honorable Jim Pitts, House Appropriations Committee
The Honorable Jim Keffer, House Ways and Means Committee

Office of the Governor

The Honorable Rick Perry, Governor

Office of the Comptroller of Public Accounts

The Honorable Carole Keeton Strayhorn, Comptroller of Public Accounts
Mr. Billy Hamilton, Deputy Comptroller

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