

Audit Committee Meeting

April 2012



Teacher Retirement System of Texas
1000 Red River Street, Austin, Texas 78701-2698

**TEACHER RETIREMENT SYSTEM OF TEXAS
BOARD OF TRUSTEES
AUDIT COMMITTEE

MEETING AGENDA**

**April 20, 2012 – 8:00 a.m.
TRS East Building – Room 345E**

- 1. Approve Minutes of December 9, 2011 Audit Committee Meeting**
– Mr. Christopher Moss, Chair
- 2. Receive Report on Roles and Priorities of the State Auditor** – Mr. John Keel,
State Auditor
- 3. Receive Independent Audit Report on TRS-Care Service Providers** – Mr. Bob
Jordan; Ms. Sally Reaves, Sagebrush Solutions, LLC
- 4. Receive Internal Audit Reports**
 - A. Quarterly Testing of Benefit Payments (Agreed-Upon Procedures)
– Mr. Dorvin Handrick and Ms. Yimei Zhao
 - B. Audit of Building Security – Ms. Dinah Arce and Mr. Jim Smith
 - C. Audit of Investment Accounting – Mr. Brian Gomolski and Mr. Scot Leith
 - D. Quarterly Testing of Compliance with the Investment Policy Statement
(Agreed-Upon Procedures) – Mr. Hugh Ohn and Mr. Terry Harris
- 5. Receive Status of Prior Audit and Consulting Recommendations** – Ms. Amy
Barrett
- 6. Receive Internal Audit Administrative Reports** – Ms. Amy Barrett
 - Reporting Entity Study Project Plan – Ms. Karen Morris
 - Audit Project Map to Enterprise Risks
 - Status of Fiscal Year 2012 Audit Plan
 - Performance Measures
 - Hotline Usage Report
 - New Accounting and Auditing Pronouncements
 - Staff Accomplishments and The University of Texas at Austin Student Group

TAB 1



**TEACHER RETIREMENT SYSTEM OF TEXAS
AUDIT COMMITTEE MEETING
December 9, 2011**

The Audit Committee of the Teacher Retirement System of Texas met on Friday, December 9, 2011 in room 345-E. The following persons were present:

TRS Board Members

Christopher Moss, Audit Committee Chair
Eric C. McDonald, Audit Committee Member
Nanette Sissney, Audit Committee Member
Todd Barth, Audit Committee Member
Anita Smith Palmer, Audit Committee Member
R. David Kelly, Board Chair
Charlotte Clifton, Board Vice Chair
T. Karen Charleston, Board Member
Joe Colonna, Board Member

TRS Staff

Brian Guthrie, Executive Director
Ken Welch, Deputy Director
Ronnie Jung, Executive Liaison to the Board
Amy Barrett, Chief Audit Executive
Karen Morris, Senior Manager, Internal Audit
Hugh Ohn, Director, Investment Audit & Compliance
Jan Engler, Manager, Internal Audit
Dinah Arce, Senior Auditor, Internal Audit
Terry Harris, Investment Compliance Specialist, Internal Audit
Dorvin Handrick, Senior Information Technology Auditor, Internal Audit
Brian Gomolski, Senior Investment Auditor, Internal Audit
Toma Miller, Risk, Control, & Compliance Specialist, Internal Audit
Amy Morgan, Chief Information Officer
Chris Cutler, Manager, Network Infrastructure & Support, Information Technology
T.A. Miller, Deputy Information Officer
William Tompkins, Information Security Officer
Betsey Jones, Director, Health Care Policy and Administration
Britt Harris, Chief Investment Officer
Jerry Albright, Deputy Chief Investment Officer
Sylvia Bell, Director, Administrative Center, Investments
Kelly Doggett, Strategic Research & Risk Management
Ashley Baum, Chief of Staff to the Chief Investment Officer, Investment Division

TRS Staff (cont'd)

Marianne Woods Wiley, Chief Benefit Officer
Bob Jordan, Director, TRS Health & Insurance Benefits
Jimmie Savage, Manager, Member Data Services
Conni Brennan, General Counsel
Rebecca Merrill, Special Advisor to the Executive Director & Manager of Special Projects
Howard Goldman, Director, Communications
Jamie Michels, Manager, General Accounting
Cindy Haley, Team Leader, Financial Reporting, General Accounting
Scot Leith, Manager, Investment Accounting, General Accounting
Jay LeBlanc, Director, Risk Management & Strategic Planning
Michelle Pagan, ERM Specialist, Risk Management & Strategic Planning

Other Attendees

Leroy DeHaven, Texas Retired Teachers Association
Verma Elliott, State Auditor's Office
Greg Adams, State Auditor's Office
Bruce Dempsey, State Auditor's Office
Steven Huff, Reinhart Boerner Van Deuren s.c.
Steve Voss, HewittEnnisKnupp
Craig teDuits, State Street Bank
Scott Wilson, State Street Bank
Robin Erb, State Street Bank

Audit Committee Chair Christopher Moss called the meeting to order at 8:00 a.m. with a quorum of committee members present.

1. APPROVE MINUTES OF SEPTEMBER 16, 2011 AUDIT COMMITTEE MEETING

Ms. Anita Smith Palmer moved that the proposed minutes of the September 16, 2011 Audit Committee meeting be approved. Ms. Nanette Sissney seconded the motion, and the minutes were unanimously approved as presented.

2. RECEIVE STATE AUDITOR'S OFFICE REPORT ON THE AUDIT OF FISCAL YEAR 2011 COMPREHENSIVE ANNUAL FINANCIAL STATEMENT (CAFR)

Mr. Bruce Dempsey, State Auditor's Office (SAO), stated that on November 10, 2011, the SAO issued an opinion on TRS' fiscal year 2011 Comprehensive Annual Financial Statement (CAFR) stating that the document was materially correct and presented in accordance with the accounting principles generally accepted in the U.S.

Mr. Dempsey stated that the SAO maintained their independence throughout the audit and that their procedures did not identify any material weaknesses in internal control.

3. RECEIVE INTERNAL AUDIT REPORTS

A. Audit of State Street's Compliance Calculations

Mr. Scott Wilson, State Street Bank, gave a brief overview of the compliance calculations and reporting that State Street Bank provides for TRS. Mr. Hugh Ohn reviewed the results of the audit. He stated that no significant issues were identified. There were three minor reportable issues that included the use of an inaccurate country concentration limit, the miscategorization of two hedge fund accounts, and some inaccuracies on the Sudan/Iran monitoring list. All issues were corrected immediately and none had resulted in any misreporting of compliance violations.

B. Quarterly Testing of Compliance with the Investment Policy Statement (Agreed-Upon Procedures)

Ms. Amy Barrett stated that the compliance testing of the Investment Policy Statement is a combination of automated daily testing performed by State Street and a set of manual tests that are performed within Investment Compliance. She indicated that the results for the previous quarter were positive and resulted in no exceptions.

C. Quarterly Testing of Benefit Payments (Agreed-Upon Procedures)

Ms. Barrett reviewed the results of the quarterly benefit payment testing, noting that a few new tests were added this quarter. She stated that the results were positive with no exceptions.

D. Quarterly Testing of Information Security (Agreed-Upon Procedures)

Ms. Barrett stated that Internal Audit has begun conducting quarterly testing of information security since this is an area of great importance at TRS. She noted that the specific details of the results are confidential, so she gave a brief, high-level overview.

She stated that four areas were tested this quarter. There were some exceptions found. Management has taken appropriate steps to correct the issues, she reported, including the establishment of processes and procedures to prevent their recurrence.

4. STATUS OF PRIOR AUDIT AND CONSULTING RECOMMENDATIONS

A. Internal Audit Recommendations Status

Ms. Barrett gave a brief overview of the outstanding audit recommendations. She stated that the significant recommendations that remain are ones that are more complex and require a good deal of thought and planning. She noted that an outstanding recommendation regarding the creation of a travel policy by the Investment Management Division was inadvertently left off the report. She stated that the implementation date for the policy was set for December but has been revised to April because a lot of discussion is taking place in the development of the policy.

B. Independent Fiduciary Review Recommendations Status

Ms. Sylvia Bell discussed the Independent Fiduciary Review that the State Auditor's Office was hired to perform. She stated that the legislatively required audit focused on TRS' use of external managers, investments in derivatives, and the ability of the system to invest up to 5% of its assets in hedge funds. She stated that the results of the audit were favorable and supported the continued use of these investment strategies by TRS. She stated that all recommendations from the audit have been implemented.

5. RECEIVE INTERNAL AUDIT ANNUAL REPORT AND ADMINISTRATIVE REPORTS

A. Fiscal Year 2011 Internal Audit Annual Report

Ms. Karen Morris discussed the fiscal year 2011 Internal Audit Annual Report. She indicated that the report meets the annual reporting requirements under the Texas Internal Auditing Act and that copies were sent to all required oversight bodies.

B. Quarterly Audit Plan Status Reports

Ms. Barrett reviewed several standard administrative reports, including the status of fiscal year 2012 Internal Audit projects. Per the TRS Internal Fraud and Ethics Hotline summary report, Ms. Barrett stated that no new issues were reported to the hotline during the quarter.

Mr. Ken Welch recognized Ms. Barrett for her selection as Practitioner of the Year for the Austin Chapter of the Institute of Internal Auditors. A letter detailing her selection was read to the Audit Committee members.

The meeting adjourned at 8:43 a.m.

Approved by:

Christopher Moss
Chair, Audit Committee
Board of Trustees
Teacher Retirement System of Texas

TAB 2

MEMORANDUM

TO: Audit Committee Members, TRS Board of Trustees
Mr. Brian Guthrie, Executive Director

FROM: Amy Barrett, Chief Audit Executive

SUBJECT: **ROLE AND PRIORITIES OF THE STATE AUDITOR**

DATE: March 1, 2012

Mr. John Keel, State Auditor, will speak to the TRS Audit Committee of the Board of Trustees about the role of the State Auditor and how it is different from Internal Audit.

As the independent auditor for the State of Texas, the State Auditor's Office (SAO) conducts audits, reviews, and investigations of any entity receiving state funds, including state agencies, and higher education institutions. Types of services the SAO performs include:

- Financial opinion audit
- Financial-related and compliance audit
- Performance measure certification audit
- Special investigations and fraud hotline administration
- State classification review and audit
- Coordination of external review of investment practices and performance required by statute
- Quality assurance review of technology projects as part of the Quality Assurance Team (QAT)
- Audit and accounting professional training

The presentation will address the following questions:

- What is the role of the State Auditor (and State Auditor's Office)?
- What types of audits are performed? Which ones are performed at TRS?
- What is the difference between the work of the State Auditor and the work of Internal Audit at state agencies? How do they interact?
- What are current priorities and challenges of the State Auditor?
- What can agencies and audit committees do to facilitate the effectiveness of the State Auditor?

Attached is Mr. Keel's biography as well as educational materials from the Institute of Internal Auditors regarding common misconceptions of the roles of internal and external auditors and how these roles differ.



John Keel, CPA Biography

John Keel was appointed the Texas State Auditor on December 1, 2004. As such, he directs a professional staff of approximately 200 in primarily financial/compliance audits, economy/efficiency audits, effectiveness audits, and classification projects for 300 state agencies and universities.

Mr. Keel was appointed Director of the Legislative Budget Board (LBB) in April 1994. As Director, he led the LBB in developing six state budgets and thousands of fiscal impact statements during his decade long tenure.

Mr. Keel's service in state government began in 1973 at the Texas Water Quality Board as an accountant. His service has included work at the Comptroller of Public Accounts, the Lieutenant Governor's Office and the Attorney General's Office, among others.

Mr. Keel in May of 2008 received the Intergovernmental Audit Forum – David M. Walker Excellence in Government Performance and Accountability Award and later received the 2005 Bob Bullock Award for Outstanding Public Stewardship.

Mr. Keel graduated from the University of Texas at Austin with a bachelor's degree in business administration and earned a master's in business administration from St. Edward's University. He is a Certified Public Accountant, Certified Government Auditing Professional and Certified Fraud Examiner.

Common Misconceptions

An auditor is an auditor ... right? Well, not really. Certainly, all auditors must have a keen eye for deciphering what's wrong when things aren't quite right; must recognize the signposts of inefficiency and ineffectiveness; must have the courage and conviction to confront sensitive issues; must model uncompromising integrity and ethics; and must be relentless in their commitment to get to the bottom of things. Although all of this is true, the rules that govern, the standards adhered to, and the roles required of government, internal, and external auditors are actually quite different.

Perhaps auditors' roles would be easier for the general public to understand if their business cards displayed a unique title, rather than all including "auditor." Because the similarities are striking, though, that's not going to happen, so let's move on.

In a future issue of *Tone at the Top*, we'll focus on the intricacies of government auditing, which, in spite of common characteristics and goals, is vastly different from internal and external auditing. In this edition of the newsletter, however, we intend to set the record straight on how internal and external auditors differ and clear up some common misconceptions regarding their roles and responsibilities.

WHO DOES WHAT?

To begin with, let's examine the basic reason for obtaining audit services. The driver for external auditing is the external regulatory requirement for an independent certification that the financial information provided to stockholders and the financial community is reasonable and accurate. On the other hand, internal auditing is primarily driven by management's desire to have an internal resource that focuses attention on organizational processes and ensures accuracy, efficiency, and effectiveness of operations.

The scope of work for both internal and external auditors has broadened significantly over the past few years. While attesting to the validity of an organization's financial statements had been the key responsibility of external auditors, some governance entities believe that an internal review of the external

auditors' work provides a needed safety net for responsible financial reporting. Others debate the value of this duplication of work.

A COMMITMENT TO GOVERNANCE AND QUALITY

It is the responsibility of the audit committee of the board of directors to take a big-picture, strategic — not merely tactical — view of policies regarding internal and external audit work. The audit committee should be diligent about its governance role and ensure overall coordination of internal and external audit work. Audit committee members should have an in-depth understanding of what is and should be done throughout the audit universe and how the work is being conducted.

The definition of internal auditing clearly states that the internal audit process helps *an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes*. Based on this definition, the internal audit department can and should be the resource that helps the audit committee to determine the right level and involvement of internal and external audit assignments.

According to The IIA's *International Standards for the Professional Practice of Internal Auditing*, coordinating internal and external audit work falls under the job responsibilities of the chief audit executive (CAE). As a part of this responsibility, the CAE should ensure that management and the audit committee have a clear understanding of how audit goals can be achieved with minimal duplication of work.

Armed with the knowledge and understanding so vital to sound, decisive leadership and governance, the audit committee should demand a combined and coordinated scope of work that extends beyond financial auditing to all aspects of the operation. It should state a formal expectation of which tasks are to be accomplished individually, and which ones are to be joint engagements involving both the internal and external auditors. It should also clearly identify who is responsible for rendering an opinion for each task. This expectation should include a philosophy of how it should all work, a policy on ethics, delineation of roles and responsibilities that tie into a multi-year process, a system of assessing results, and delivery of opinions on how well responsibilities have been fulfilled.

Although the audit committee may rely on the Public Company Accounting Oversight Board's (PCAOB's) new

reports on the quality of the auditing, the reviews are not specific to the company audited. Therefore, the internal and external auditors might be asked to review each other's work and provide opinions as to comprehensiveness, adherence to standards, and overall reliability. This results in a good balance and attests to the growing movement among audit committees to require back-and-forth opinions annually.

A LEGAL ISSUE

The U.S. Sarbanes-Oxley Act of 2002 (SOX) was passed in response to the failure of publicly held companies to preserve the public trust by ensuring ethical operations and protecting investment dollars. Because the corporate world failed to hold itself accountable, the U.S. government stepped in with new regulations that assign accountability, prescribe processes, and mandate compliance. Corporate misbehavior, however, is neither confined to companies listed on the stock exchanges nor contained within the borders of the United States. Many private companies are also employing voluntary best-practice compliance with SOX. In addition to anticipating a possible broader compliance mandate in the future, the audit committees at many of these organizations comprise heads of publicly traded companies, and those business leaders view SOX compliance as the right thing to do. Many companies outside the United States are also following suit with revved up processes that speak volumes about their renewed commitment to effective corporate governance and strict corporate accountability.

According to the PCAOB standards and in compliance with SOX, the objectivity and competency of the internal auditors determines the extent to which the external auditors might rely on their work. This sometimes becomes problematic, for executive management might view the internal auditors as the preferred party to manage the entire SOX-compliance process for internal controls over financial reporting. Instead, line managers should be assigned the responsibility of testing their own controls, and the internal auditors should then independently review that work. This would allow the external auditors to rely more heavily on the objectivity of the internal auditors' review. This, in turn, could reduce the amount of retesting necessary by the external auditors, as well as the total external audit fee charged to the organization at the end of the compliance review process.

ROLES AND RESPONSIBILITIES

This newsletter has often referred to The IIA's and other thought-leaders' view that the board of directors, executive management, the internal auditors, and the external auditors are the cornerstones of effective corporate governance. The roles and responsibilities of each of these cornerstones can often appear somewhat convoluted, especially in today's business arena with increased regulations and enhanced expectations of corporate accountability.



KEY FACTORS THAT DISTINGUISH AND DIFFERENTIATE INTERNAL AND EXTERNAL AUDITING		
IN REGARD TO:	INTERNAL AUDITING:	EXTERNAL AUDITING:
1. Focus	Provides financial-, operational-, assurance-, consultative-, governance-, computer-, and fraud-related services.	Primarily attests to financial statements and internal control.
2. Management	Reports to executive management administratively. Builds relationships throughout the organization to ensure concerns are identified and resolved in a timely manner.	Primarily reports to the audit committee on financials and internal control.
3. Audit Committee	Reports directly to the audit committee. Provides opinions on the organization's business risks, financial statements, system of internal control, and level of compliance with laws, regulations, and policies.	Attests to the audit committee the accuracy of the financial reports and attests to management's assessment of internal controls over financial reporting. Provides updates on pending accounting pronouncements and their potential impact on the organization.
4. Standards	Follows The IIA's <i>International Standards for the Professional Practice of Internal Auditing</i> .	Is governed by appropriate accounting and audit standards.
5. Approach	Customizes approaches to best meet individual assignment objectives.	Customizes financial audit approaches to best meet individual assignment objectives.
6. Independence	Demonstrates organizational independence and objectivity in work approach, but is not independent of the organization. (Is independent of the activity audited, but is integral to the organization.)	Is independent of the organization.

IN REGARD TO:	INTERNAL AUDITING:	EXTERNAL AUDITING:
7. Results	Identifies problems, makes recommendations, and helps facilitate resolutions.	Meets statutory requirements and provides necessary adjustments to meet financial accuracy.
8. Control	Under SOX 404, provides assurance that the financial and operational systems of internal control are adequate and effective; and that systems of internal control of each activity of the organization (including control over financial reporting) are adequately designed, effective, and efficient. May assist in documenting internal controls, testing internal controls, and/or providing input to management with respect to drawing conclusions on design and operating effectiveness.	Identifies risks and assesses controls over financial reporting for audit planning purposes. Audit planning results in documentation of linkage of the identified audit risk and the evaluation of internal controls. The linkage is accomplished by assessing the risk of material misstatement in each financial statement caption and designing audit procedures to address this risk. Reviews the approach taken by management in the completion of 404 efforts including results at various key milestones. Audits the work of management and the representations involved and completes an attestation report to the reliability and accuracy of the 404 reporting.
9. Risk	Identifies and qualifies key business risks to estimate probability of occurrence and impact on business. Makes appropriate recommendations as a result of the risk assessment.	Identifies key transactions and exposures for financial statements.
10. Fraud	Includes fraud detection steps in audit programs. Investigates the allegations of fraud. Reviews fraud prevention controls and detection processes put in place by management and makes recommendations for improvement.	Includes fraud detection steps in audit plan. Gathers information necessary to identify risks of material misstatement due to fraud by inquiring of management and others within the entity about the risks of fraud. Considers fraud risk factors, analytical procedures, and substantive testing in planning and field work phases.
11. Recommendations	Communicates recommendations for corrective action to management in the audit reports.	Communicates recommendations for corrective action.
12. Follow-up	Follows through with customers to ensure work is sufficient to achieve problem resolution.	Limits follow-up primarily to financial areas.

SETTING THE RECORD STRAIGHT

According to *Sawyer's Internal Auditing: The Practice of Modern Internal Auditing, 4th Edition* by Lawrence B. Sawyer, J.D., CIA, PA, and Mortimer A. Dittenhofer, Ph.D., CIA, "Coordination between external and internal auditors is important because it increases the economy, efficiency, and effectiveness of the total audit activity for the enterprise. Neither form of auditing can replace the other. But in many ways, they impinge on each other. And if the two audits are uncoordinated, there will be overlaps and duplication that unnecessarily increase audit costs."

The IIA encourages its members and other internal and external audit practitioners to take seriously the task of helping clear up common misconceptions regarding internal and external auditing. The bottom line is that these are two distinct professions, each of which brings great value to an organization and its stakeholders. When practiced independently, objectively, and in accordance with standards; in compliance with rules and regulations; and including appropriate coordination and collaboration; both professions can effectively fulfill their governance cornerstone roles and positively impact the public trust.

TONEattheTOP



Mission

To provide executive management, boards of directors, and audit committees with concise, leading-edge information on such issues as ethics, internal control, governance, and the changing role of internal auditing; and guidance relative to their roles in, and responsibilities for, the internal audit function.

Your comments about *Tone at the Top* are welcomed.

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The Institute of Internal Auditors (www.theiia.org) is dedicated to the global promotion and development of internal auditing.

Established in 1941, The IIA is an international professional association with global headquarters in Altamonte Springs, FL. The IIA has almost 100,000 members in internal auditing, risk management, governance, internal control, IT audit, education, and security.

The Institute is the recognized authority, principal educator, and acknowledged leader in certification, research, and technological guidance for the profession worldwide. The IIA presents conferences and seminars, certifies qualified audit professionals, provides quality assurance reviews and benchmarking, and through The IIA Research Foundation, conducts research projects and produces educational products.

TAB 3

Memorandum

Date: March 16, 2012

To: Betsey Jones, Director, Health Care Policy & Administration

From: Bob Jordan, Director, Health & Insurance Benefits Dept.

Subject: Sagebrush Solutions, L.L.C. Audit Report for TRS-Care

Following a competitive procurement process, TRS selected Sagebrush Solutions, L.L.P., (Sagebrush) an experienced healthcare claims audit firm, to conduct four audits of the vendors serving TRS-Care and TRS-ActiveCare over a four-year period. Under their contract with TRS, audits for TRS-Care will be conducted in 2011 and 2013 and for TRS-ActiveCare in 2012 and 2014. Sagebrush is also a women-owned qualified HUB vendor in Texas.

The audit being presented to the TRS Board of Trustees at their April 19-20, 2012 meeting is for CaremarkPCS, L.L.C., the TRS-Care pharmacy benefit manager and Aetna Life Insurance Company, Inc., the TRS-Care health plan administrator for FY 2010 and FY 2011. This audit resulted in no material findings or recommendations.

The Audit Committee Book will contain this memo and the Executive Summary from the Sagebrush audit report. Copies of the full report from Sagebrush are being provided in advance to the Audit Committee members and additional copies will be available for the entire Board during the April 2012 meeting.

Sally Reaves of Sagebrush and I will be available to present the full report to the Audit Committee in April 2012 and to address any questions the Board members may have.

EXECUTIVE SUMMARY

The Teacher Retirement System of Texas (TRS) engaged Sagebrush Solutions to conduct an audit of the claim administration services provided by the Health Plan Administrator (HPA) and Pharmacy Benefits Manager (PBM) of the TRS-Care program. The principal components of the audit program include to:

- Audit randomly selected sample claims
- Review and verify the accuracy and appropriateness of claims payments
- Test the reasonableness of the internal claims audit system and processing controls
- Test the reasonableness of the “allowable charge”
- Compare eligibility to claim payments
- Verify the correctness and appropriateness of the data reported by the HPA and PBM as it pertains to the performance guarantees specified in their contracts with TRS
- Verify that the total number of claims from which the samples were selected is consistent with the number of claims reported by the HPA and PBM to TRS in the annual report for audited plan years
- Verify that the HPA and PBM follow their procedures to identify potential areas of claim abuse and fraud
- Assess HPA and PBM responses to a Claims Administration Questionnaire
- Review paper claim submissions to Caremark
- Review the timing of HPA & PBM invoices to TRS (Whether TRS was invoiced after the claim payments were issued)

The following benefit programs were reviewed under the audit program:

- TRS-Care medical program by Aetna Life Insurance Company (Aetna)
- TRS-Care prescription drug program by CaremarkPCS Health L.L.C., Inc. (Caremark)

Claim samples were selected from electronic data files provided by each of the administrators for the population of Group Benefit Program claims processed between September 1, 2009 and August 31, 2011. Each claim in the sample was tested for:

- Payment and processing accuracy
- Adherence to plan benefits
- Timeliness of payment

Data was provided by Aetna and Caremark

We requested that each of the administrators complete a detailed Claim Administration Questionnaire, addressing issues such as system capabilities, claim adjudication procedures, claim pricing, fraud prevention procedures, processing timeliness, and training. The Questionnaire was used as a framework for the claims audit by establishing the administrator’s procedures and protocols for processing.

The audit also included a review of official records to ensure that general accounting principles are observed and internal records support the data used to develop the annual accounting

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statements. The scope did not encompass a review of the financial statements of the administrators nor an audit of their accounting records.

The body of this report contains the detailed results and recommendations for improvement for each benefit plan administrator reviewed under this audit program. Other than any noted deviations, the claims administration functions reviewed appear to be in accordance with contractual agreements.

The following provides a summary of the key findings of our audit:

Fraud

- Both Aetna and Caremark have in place comprehensive and appropriate fraud control programs and procedures.

Claim Processing Timeliness

- Aetna met the timeliness standards specified in its agreement with TRS for processing 95.00% of TRS-Care claims within fourteen (14) calendar days for both plan year 2009 and plan year 2010.
- Caremark met their performance guarantee for timely processing of prescription drug claims, 97.00% of paper claims within 5 business days and 99.50% of electronic claims within 3 business days.

Claim Financial, Payment and Procedural Accuracy

Aetna

Financial Accuracy: The performance guarantee between TRS-Care and Aetna for financial accuracy is 99.00%. The audited accuracy results in the samples were 99.86% and 99.67% for plan years 2009 and 2010, respectively. Aetna met the performance guarantee for financial accuracy for both of the audited plan years.

Payment Accuracy: The performance guarantee between TRS-Care and Aetna for payment accuracy is 97%. Based on the two (2) payment errors identified in the plan year 2009 sample, the weighted payment accuracy rate is 98.59%. Based on the two (2) payment errors identified in the plan year 2010 sample, the weighted payment accuracy rate is 99.93%. These accuracy rates exceed the Aetna internal goal of 97.00%, as well as the generally observed industry standard of 95.00% to 97.00%, based on our experience. Aetna met the performance guarantee for payment accuracy for both of the audited plan years.

Procedural Accuracy: The two (2) identified procedural errors, both of which Aetna agrees to in the plan year 2009 sample, produced a weighted accuracy rate of 99.98%. The one (1) identified procedural error, of which Aetna agrees in the plan year 2010 sample, produced a weighted accuracy rate of 99.93%. The audited procedural or non-payment accuracy rate exceeds the industry standard of 95.00% by several percent. This

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accuracy rate also meets the minimum performance guarantee of 96.00% as shown in the contract between TRS-Care and Aetna.

Caremark

- **Financial Accuracy:** The tested financial accuracy rate of the sample is 100.00%. This accuracy exceeds the Caremark internal goal of 98.50% and the generally observed industry standard of 99.00%.
- **Payment Accuracy:** The payment accuracy rate for the audit sample is 100.00%. This accuracy exceeds TRS's contract performance agreement requirement and Caremark's internal goal of 99.00% and the generally observed industry standard of 95.00% to 97.00%.
- **Procedural Accuracy:** The procedural accuracy rate for plan year 2009 is 99.99%. This accuracy rate exceeds the generally observed industry standard of 95.00%. Caremark does not currently measure procedural accuracy internally.

The procedural accuracy rate for plan year 2010 is 100.00%. This accuracy rate exceeds the generally observed industry standard of 95.00%. Caremark does not currently measure procedural accuracy internally.

Recommendations

The information presented below highlights our major recommendations for each administrator. Detailed descriptions of our observations and recommendations can be found in the body of this audit report.

Aetna

Overpayments: Appropriate steps should be initiated to recover the agreed upon overpayments.

Underpayments: These claims should be adjusted to issue additional payment to the provider of service.

Coordination of Benefits: Two (2) payment errors were identified during the audit in which coordination of benefits was not applied correctly. We recommend that Aetna place a priority on training for manually processed Medicare and other insurance carrier claims. Aetna may also review its policies to determine whether a member has other insurance and which carrier would be the primary payer. (See Observations for additional information)

Incorrect Allowable Amount: Incorrect allowable amount was calculated on one (1) claim. This error resulted from a calculation error due to incorrect contract allowable or fee schedule pricing. Sagebrush used the electronic contract and fee schedule pricing information provided in Aetna's claim system to determine the correct allowable amounts.

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Aetna should assess the quality, training needs, and controls for this process. Aetna should standardize this process to the greatest possible extent in order to improve overall performance.

Incorrect Plan Benefits: One (1) claim was processed with part of the services being denied due to the plan limitations. TRS-Care's plan of benefits does not have a limitation on Radiation services. The incorrect denial code was used on this claim. The claim was submitted with the information needed to process the claim. The claim processor denied the claim in error.

We recommend that Aetna provide training to processors on an annual basis to ensure that the plan policies and internal policy updates are being followed.

Caremark

Claim Payment and Processing: Tracking productivity by person and function is a good business practice for planning and is a reflection of individual efficiency and quality. We recommend tracking individual performance and incorporating productivity in combination with quality measures into Caremark's overall Quality Assurance and Training programs.

Customer Service:

Call Center

During the operational walk-through of Caremark, it was asked if Caremark had a proactive call program, which is a new trend at call centers. Caremark stated they did not have this type of program.

With a proactive call program, the call center would contact members that have called multiple times in the past to see if all of their questions were answered adequately and to see if they may have any other questions.

We recommend Caremark consider implementing systematic flags, notifying Customer Service Representatives of excessive inbound calls by individual TRS-Care members and consider a proactive call program to follow up on the aberrant activity.

Eligibility (ID Cards)

We recommend Caremark identify and implement process improvements and controls to ensure the timely processing of member ID cards.

Eligibility updates are transferred to Caremark electronically from TRS on a weekly basis and a full file is sent on the first of the month. The information is then uploaded into Caremark's system. When the eligibility data is uploaded, there should be system flags to identify new members. The processing of ID Cards should be automated so that ID cards are printed and mailed weekly. This would ensure that Caremark meets their contractual performance guarantee.

TAB 4

TAB 4A

QUARTERLY TESTING OF BENEFIT PAYMENTS

OCTOBER 2011 – DECEMBER 2011

TRS Internal Audit Department

Business Objectives	To deliver retirement and related benefits authorized by law for members and their beneficiaries.		
Business Risks	Fraud / Errors Benefit payments could be incorrect or fraudulent in these areas: <ul style="list-style-type: none"> • Payments to recent retirees • Benefit payments with an expiration date • QDRO Calculations* 	Eligibility TRS members could retire with full benefits without meeting Rule of 80 or minimum requirements	Premium Refunds & Manual Payments TRS-Care premium refund payments could be calculated incorrectly Manual payments could be processed incorrectly or without proper authorization
Management Assertions	All benefit payments are valid	All retirees who received annuity benefit payments are eligible	All premium refund and manually processed payments are valid
Agreed-upon Procedures	Matched benefit payments to supporting documents in three areas: <ol style="list-style-type: none"> 1. Recent retirees benefit recalculations 2. Benefit payment expiration dates 3. QDRO processing controls and calculation validation 	4. Recalculated Rule of 80 or minimum requirements for all new normal-age service retirements during the testing period	5. Recalculated TRS-Care premium refunds and agreed to supporting documentation 6. Matched 30 randomly selected manually processed payments to supporting documentation
Test Results	No Exceptions	No Exceptions	Three TRS-Care premium refund underpayments or (overpayments) of \$45, \$82, and (\$3,250) out of 38 tested
Management Responses	N/A	N/A	TRS Health and Insurance Benefits management agrees with the test results and is taking corrective action

Legend of Results: **Red** - Significant to TRS
Yellow - Other Reportable Exception

Orange - Significant to Business Objectives
Green - Positive Test Result/No Exception

*QDRO is the Qualified Domestic Relations Order.



March 28, 2012

Mr. Don Green, Chief Financial Officer
Ms. Marianne Woods Wiley, Chief Benefit Officer
Ms. Betsey Jones, Director, Health Care Policy and Administration

We have completed the second **Quarterly Testing of Benefit Payments** as included in the *Fiscal Year 2012 Audit Plan*.

We performed the procedures listed below that were agreed to by management of Benefit Services, Health Care Policy and Administration, and the Finance Divisions. These procedures include six data-mining tests designed to identify anomalies in benefit payments during the current quarter and possible deviations from management's benefit processing controls.

For this quarter, two new tests were added relating to QDRO¹ verification controls and calculation validation in benefit processing and TRS-Care (retiree health plan) premium refund payment amount calculations. In addition, tests that are performed each quarter include testing gross payment amounts made to recent retirees, manual benefit payments, normal age retirement criteria, and expiry date testing for five or ten year guaranteed period payments, disability retirement payment calculations for retirees with less than 10 years of service, and expiry dates greater than 50 years. There were three TRS-Care premium refund exceptions noted as a result of test procedures performed. The detailed procedures and results of our testing are explained in **Appendix A**.

This agreed-upon procedures engagement was performed in accordance with generally accepted government auditing standards contained in the *Government Auditing Standards* issued by the Comptroller General of the United States.

The sufficiency of the agreed-upon procedures performed is solely the responsibility of the specified users of the report. Consequently, we make no representations regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

Internal Control Structure

We were not engaged to and did not perform an examination of the internal controls nor the operating effectiveness pertaining to the subject areas tested. Accordingly, we do not express an opinion on the suitability of the design of internal controls nor the operating effectiveness of the subject areas tested.

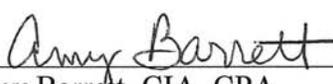
¹ QDRO is the acronym for a Qualified Domestic Relations Order.

Had we performed additional procedures, or had we made an examination of the system of internal control, other matters might have come to our attention that would have been reported to you. This report relates only to the procedures specified above and does not extend to the internal control structure.

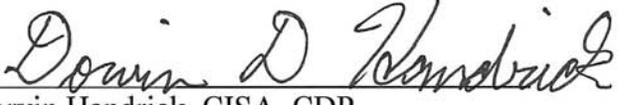
This report is intended solely for information and use by TRS management, the Board of Trustees, and oversight agencies, and is not intended to be and should not be used by anyone other than those specified parties. However, this report is a matter of public record and its distribution is not limited.

* * * * *

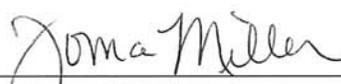
We express our appreciation to management and key personnel of Information Technology, Benefit Services, Health Care Policy and Administration, and the Finance Divisions for their cooperation and professionalism shown to us during this quarterly testing.



Amy Barrett, CIA, CPA
Chief Audit Executive



Dorvin Handrick, CISA, CDP
Senior IT Auditor



Toma Miller
Risk, Control, & Compliance Specialist



Jan Engler, CIA, CISA, CFE,
Internal Audit Manager

APPENDIX A

AGREED-UPON PROCEDURES AND RESULTS

1. Test Purpose: Test that gross annuity payments from October to December 2011 to recent retirees (September 2011 or later retirements) are calculated accurately.

Test Description: Query the *October to December 2011 Benefit Payments Data File* for all gross annuity payments that were related to recent member retirements and randomly select five sample items from each month for a total of 15 sample items. Recalculate the gross payment amount as follows: The annuitant's standard annuity payment is first recalculated based on the member's number of years of service and the average salary amount at the time of retirement and agreed to the supporting documentation in the *TRS Imaging System*. If applicable, recalculate the gross annuity payment amount using the annuity payment option adjustment factor(s) selected by the member per the supporting documentation in the *TRS Imaging System*.

Test Result: All 15 gross annuity payments to recent retirees from October to December 2011 were recalculated and traced to supporting documentation. No exceptions were noted.

2. Test Purpose: Test that the expiration date to stop the annuity payment timely is properly recorded in the system.

Test Description: Test the expiration date accuracy for a sample of annuity payments from the three groups described below. Agree the recorded expiration date to the auditor's calculation based on the imaged documents maintained in the *TRS Imaging System*. Each test is described as follows:

- a. Expiration date of guaranteed-period annuity options retirement

- i.) For guaranteed-period (5-year and 10-year) annuity options that TRS is paying the beneficiary because the retiree was deceased before the guaranteed period ended, obtain all records with an expiration date that is greater than the retirement date plus the guaranteed period. Agree these records to supporting documentation indicating the expiration date.
- ii.) Obtain all records where the payment status is active but there is no expiration date. Trace these records to the supporting documentation.

- b. Expiration date of disability retirement with less than 10 years service

The disabled retiree with less than 10 years service should receive a standard benefit amount of \$150 per month for the shortest period of the retiree's disability period, retiree's life, or total number of creditable service months.

- i.) Obtain all records with a retiree death date but payment status is still active. Trace to the supporting documentation.
 - ii.) Obtain all records that the gross payment amount is not the standard amount of \$150 and report differences.
 - iii.) Obtain all records where the expiration date has expired but the payment status is still active. Trace to the supporting documentation.
 - iv.) Obtain all records where the member was not the payee. Trace to the supporting documentation.
 - v.) Obtain all records where the expiration date is greater than the retirement date plus years of member service. Select five random samples from each monthly data file to test by adding the number of creditable service months, based on the imaged documents in the TRS *Imaging System*, to the retirement date and comparing that number with the expiration date in the retirement system. Agree sample items to supporting documentation.
- c. Expiration date is longer than 50 years from the date of current payment record.
Obtain items from all payment records with an expiration date that is more than 50 years from each data file of October, November, and December 2011 that have not been previously tested. Recalculate and agree the recorded expiration date to the supporting documentation.

Test Results:

- a. Expiration date of guaranteed-period annuity options retirement
 - i. No exceptions were noted where the expiration date was greater than the retirement date plus the guaranteed period.
 - ii. All 21 unique sample items of records, with an active payment status but no expiration date, were traced to the supporting documentation. No exceptions were noted.
- b. Expiration date of disability retirement with less than 10 years service

No exceptions were noted.
- c. Expiration date is beyond 50 years from current payment records

The recalculated expiration date for the two records identified agreed to the recorded expiration date in the supporting documentation. No exceptions were noted.

3. Test Purpose: Test if the key information for calculating the numerator, denominator, and payment split between the member and alternate payee for QDROs processed for recent retirees agrees to supporting documentation and that there is evidence of a secondary verification of the calculation of the numerator, denominator, and payment split between the member and alternate payee by another benefits processor or consultant prior to a retirement being finalized.

Test Description: Query the *October to December 2011 Benefit Payments Data File* for all members who retired in FY 2011 or FY 2012 with a qualified domestic relations order (QDRO) in effect and select a random sample of 10 items from each month for a total of 30 sample items. Trace and agree the key information for calculating the numerator, denominator, and payment split between the member and alternate payee to the supporting documents maintained in the TRS *Imaging System*. Determine that there is evidence of a secondary verification of the calculation of the numerator, denominator, and payment split by another benefit processor or consultant in the TRS *Imaging System or Bulletin System* prior to the retirement being finalized. An exception to this verification control is defined as more than one error in a sample size of 30.

Test Results: All key information used in the calculation of the numerator, denominator, and in the payment split were traced and agreed to the supporting documents without exception. There were no control exceptions with the secondary review control.

4. Test Purpose: Test for normal-age service retirement benefits from October to December 2011 that do not meet the Rule of 80 with at least five years of service or the minimum retirement age of 65 with at least five years of service.

Test Description: Query the *October to December 2011 Benefit Payments Data File* for all payments that were related to normal-age service retirement benefits since September 2011. All proportionate retirements, early age retirements, and disability retirements are excluded. The annuitant's retirement age is calculated based on the year and month of the member's retirement date and birth date in the annuity system records. All records were recalculated by the auditor according to the stated criteria using the automated audit software.

Test Result: All normal-age service retirement benefits met the requirements of Rule of 80 with at least five years of service or with the minimum retirement age of 65 and at least five years of service. No exceptions were noted.

5. Test Purpose: Test that TRS-Care refunds are calculated in accordance with plan provisions and agree to supporting documentation.

Test Description: Select a sample of 10 TRS-Care refunds per month from the *October to December 2011 Benefit Payments Data File* consisting of all refunds over \$2,000 plus a random sample from the remaining refund records for a total of 10 sample items. Trace and agree these TRS-Care refunds to the supporting documents maintained in the TRS *Imaging System* and the annuity payment system. Recalculate refund amounts in accordance with plan provisions.

Test Result: All TRS-Care refunds were traced and agreed to the supporting documents. Three exceptions were identified in our sample testing. Two exceptions occurred when the TRS-Care premium refund amounts were calculated in error during the processing of a change in the retiree's Medicare coverage. These two exceptions resulted in underpayments of \$45 and \$82. The third exception was due to duplicate refunds issued by Aetna and TRS-Care that resulted in an overpayment of \$3,250.

Management Response:

TRS Health and Insurance Benefits (HIB) management agrees with these findings and will implement the following steps to enhance controls now that Health Benefits Finance (HBF) operations are within the department:

- TRS-Care counselors will continue to initiate automated and manual refunds, but the number of persons authorized to verify refund calculations will be reduced to three; the Assistant Director, the Customer Services Team Leader, and one Health Benefits Consultant.
- A system authorization change will be requested to restrict the final verification step to HBF for automated refunds, so no one in HIB has authority to finalize an automated refund.
- The refund authorization form for manual refunds will be changed to add a third verification level to be made by HBF before a refund authorization form is sent to Payroll for completion of a manual refund.
- HIB is in the process of correcting the identified exceptions by distributing additional refunds and collecting overpayments.
- HIB will revise the refund procedure to require a check with the TRS-Care direct-bill administrator to determine whether a refund has been issued by Aetna before authorizing a refund to a member who is/was on direct-bill during the refund period.

The target date for completion of these steps is July 1, 2012.

6. Test Purpose: Test that manual voucher payments are properly authorized and supported.

Test Description: Select a random sample of 10 manual voucher payments per month from the *October to December 2011 Benefit Payments Data File*. Trace and agree these manual voucher payments to the supporting documents maintained in the TRS *Imaging System*.

Test Results: We randomly selected 30 manual voucher payments to test. These test samples included eight premium refunds, six qualified domestic relations order (QDRO) related payments, three payments re-issued due to returned payments, five retiree requests to re-issue payment, three payment amount adjustments, three payments re-issued due to retiree death, and two other payments that required manual processes. All payments were traced and agreed to the supporting documents. No exceptions were noted. However, during testing it

came to our attention that an additional premium refund for \$570 was due to the member based on information provided by Aetna during our testing.

Management Response:

HIB management agrees with the testing results and is working with Aetna to develop a process that will expedite information sharing between TRS and Aetna so that there is little or no lag between the times both entities become aware of a change in a retiree's account status.

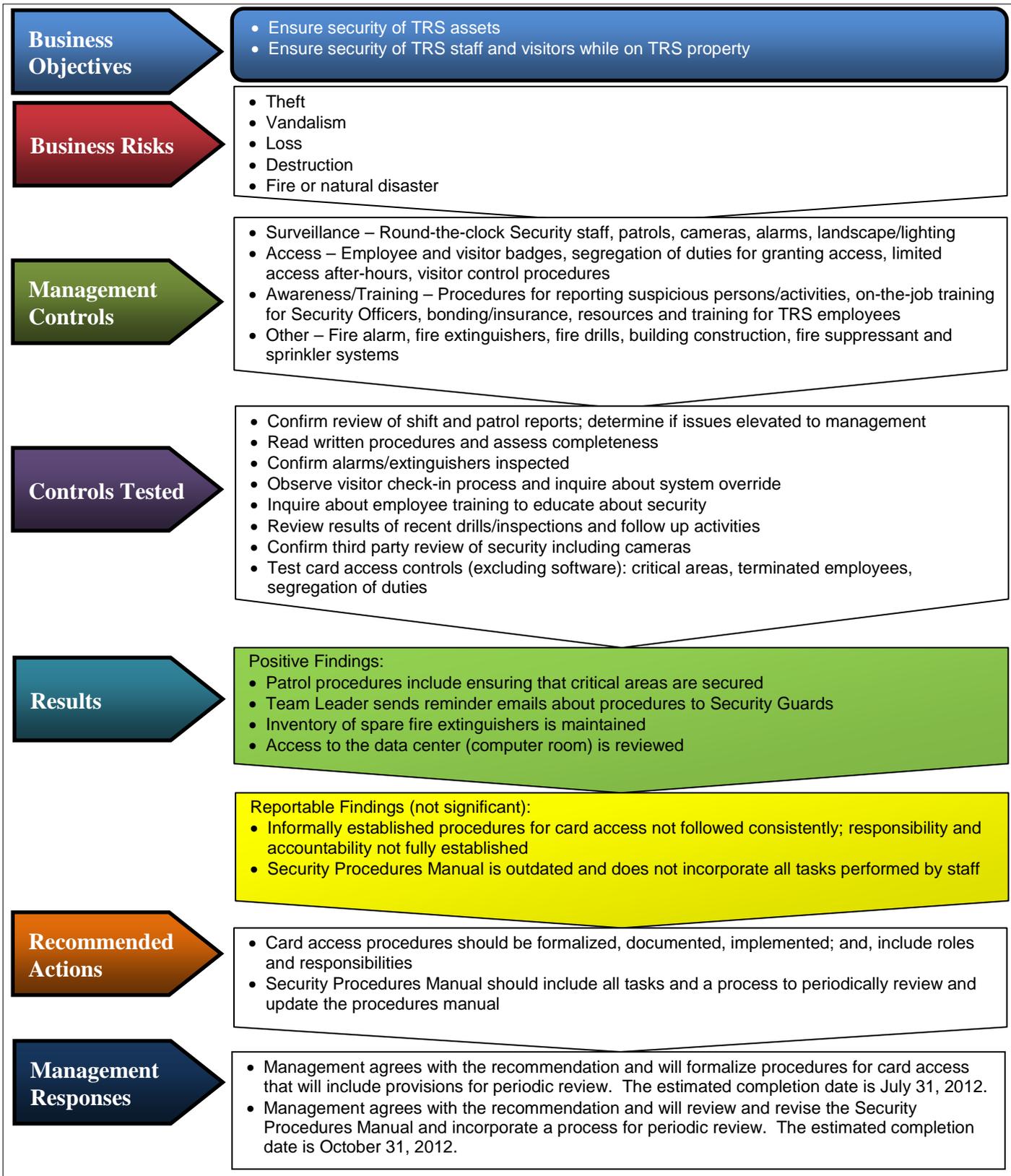
The target date for completion of these changes is July 1, 2012.

TAB 4B

AUDIT OF BUILDING SECURITY

February 28, 2012

TRS Internal Audit Department



Legend of Results:

Red

- Significant to TRS

Orange

- Significant to Business Objectives

Yellow

- Other Reportable Issue

Green

- Positive Finding or No Issue



February 28, 2012

Audit Committee, Board of Trustees
Mr. Brian Guthrie, Executive Director

EXECUTIVE SUMMARY

We have completed the audit of **Building Security**¹, as included in the *Fiscal Year 2012 Audit Plan*. Business objectives related to security are as follows:

- Ensure security of TRS assets
- Ensure security of TRS staff and visitors while on TRS property

Based on our audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified two opportunities to improve building security controls.

Results of our procedures are presented in more detail in the **Results and Recommendations** section (pages 3-6). The audit objective, scope, methodology and conclusion are described in **Appendix A** (pages 7-8).

BACKGROUND

The security of TRS property, TRS staff and its visitors is overseen by a staff of 14 who report to the Staff Services Manager. Security Staff are present round-the-clock and have received training to handle various difficult situations. Security Staff perform routine physical patrols of the building and grounds as well as monitoring areas from the control room via the over 200 surveillance cameras situated in and around the building.

TRS initiated numerous upgrade features to enhance building security and integrate the 816 Congress Avenue and 1000 Red River locations into a single system. The work took place from April 2010 – May 2011 and included installation of new card access readers and issuance of new identification badges, upgraded locking mechanisms on all exterior and many interior doors, installation of more surveillance cameras and replacement of obsolete cameras, upgraded software for camera surveillance, upgraded software for the card access system, identification card scanning software system to check-in visitors, and improved landscaping (better lighting and replacement of plants for increased visibility of traffic and pedestrians).

¹ This audit does not include the property at 816 Congress Avenue.

Access to the building for staff and contract workers is authorized by management and then an identification badge is issued by Security. Card readers with key pads are located at various entrances and throughout the building. Staff only has access to specific areas as designated by management. Most areas are restricted even further during non-business hours.

Visitor access to the building is permitted with sign-in procedures. The new electronic sign-in system scans the driver's license or other form of official identification and then prints a temporary name tag. The system maintains a log of the visitors to TRS.

The following chart depicts the number of cameras and card access devices:

LOCATION	SURVEILLANCE CAMERAS	ACCESS CONTROL DEVICES
816 Congress Avenue	13	17
1000 Red River	195	210
Total	208	227

Source: TRS Staff Services

BUSINESS OBJECTIVES, RISKS, AND CONTROLS

For the audit of Building Security, we obtained information about the following two business objectives, as well as the related risks and controls management established to mitigate these risks:

Business Objectives	<ul style="list-style-type: none"> • Ensure security of TRS assets • Ensure security of TRS staff and visitors while on TRS property
Business Risks	<ul style="list-style-type: none"> • Theft • Vandalism • Loss • Destruction • Fire or natural disaster
Management Controls	<ul style="list-style-type: none"> • Surveillance – Round-the-clock Security staff, patrols, cameras, alarms, landscape/lighting • Access – Employee and visitor badges, segregation of duties for granting access, limited access after-hours, visitor control procedures • Awareness/Training – Procedures for reporting suspicious persons/activities, on-the-job training for Security Officers, bonding/insurance, resources and training for TRS employees • Other – fire alarm, fire extinguishers, fire drills, building construction, fire suppressant and sprinkler systems

<p>Controls Tested</p>	<ul style="list-style-type: none"> • Confirm review of shift reports and patrol reports; determine if issues elevated to management • Read written procedures and assess completeness • Confirm alarms/extinguishers inspected • Observe visitor check-in process and inquire about system override • Inquire about employee training to educate about security • Review results of recent drills/inspections and follow up activities • Confirm third party review of security including cameras • Test card access controls for process override, critical areas, terminated employees, segregation of duties
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RESULTS AND RECOMMENDATIONS

OVERALL RESULTS

Based on audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified two opportunities to improve building security controls.

POSITIVE RESULTS

A. Written patrol procedures include ensuring that critical areas are secured

- Written procedures for the patrolling of the buildings require the Security Guard to check doors to critical areas to ensure that the doors are properly secured.

B. Team Leader sends reminder emails about procedures to Security Guards

- The Security Team Leader periodically sends reminder emails about various duty requirements to help ensure that Security Guards understand procedures and follow them consistently.

C. Inventory of spare fire extinguishers is maintained

- The Facilities Staff maintains an inventory of more than a dozen additional fire extinguishers in reserve, thus there is always a working fire extinguisher in every designated location.

D. Access to the data center (computer room) is reviewed

- There was evidence that card access to the data center was reviewed at least twice during 2011 to ensure only authorized persons have access.

SIGNIFICANT RESULTS²

No significant issues and recommendations were identified.

OTHER REPORTABLE RESULTS

1. Card access procedures should be formalized, documented, implemented; and, include roles and responsibilities

We noted several areas for improvement related to the review of card access:

- With the exception of the data center, card access to critical areas is not reviewed periodically.
- There are no written procedures for issuing and deactivating card access thus the informally established procedures are not followed consistently.
- Responsibility and accountability for after-hours securing of doors with card access devices into business units has not been established.

For the five critical areas included in our testing, only the data center had a review of card access during the past year. For two of the five critical areas, the business unit managers noted staff and contractors were included that should not have access to the critical area. Each manager requested that Security remove the persons' access to the critical area.

Procedures to issue and deactivate badges are not followed consistently. For example, for the period tested, there was one instance in which a TRS Form 481 was not provided to Security by the hiring manager. This form provides authorization for card access to an employee or vendor. In this instance, Security completed the TRS Form 481 rather than the hiring manager. We noted another instance in which a TRS Form 481 was not on file in Security. For both, we were able to validate authorized access by viewing other supporting documentation.

Card access information exists in three places: electronically in the card access system, in a hard copy binder of dates that card access is granted and revoked, and in the shift reports. For two of the seven sample items, the system reflected the employees' badges still existed but were in "disabled" status rather than the required "deactivated" status. For each of the sample items, the binder did not reflect the date that the card was deactivated. A review of four months of shift reports showed that documentation for issuing and deactivating card access varied greatly or in some cases did not exist.

As a result of our after-hours walkthrough of the buildings, we observed that eight doors were propped open where card access was required after hours.

Recommendation

Management should formalize procedures for card access. The procedures should be periodically reviewed and updated as needed. At a minimum, the procedures should include:

² A significant result is defined as a control weakness that is likely to create a high risk of not meeting business objectives if not corrected.

- Management's periodic review (at least annually) of card access to critical/restricted areas and inform Security of changes, when needed
- Designated source (electronic or hard copy) of card access information
- Specific procedures for issuing and deactivating card access
- The responsibility of the hiring manager to complete and submit a TRS Form 481 to Security prior to the new hire's start date
- Maintenance of the completed TRS Form 481 by Security
- Timely notification to Security when a person is terminating employment with TRS
- Designated person to obtain the access card from people who terminate TRS employment
- Responsibilities of each business unit, the office cleaning crew staff, and Security Guards for ensuring after-hours security to each business unit area

Management Responses

Management agrees with the recommendation. Management will formalize procedures for card access. The procedures will include provisions for periodic review. The estimated completion date is July 31, 2012.

2. Security Procedures Manual is outdated and does not incorporate all tasks performed by staff

Patrol reports are reviewed by the Security Team Leader and suggestions for improvement are communicated, as needed, to the Security Guards; however, evidence of review is not documented.

Written procedures exist for Security Staff; however, the procedures were dated August 2006 and are in need of updating.

Also, the procedures do not mention checking the data center door while on patrol and do not include procedures for reporting faulty door closures or when doors are found to not be closed securely.

Recommendation

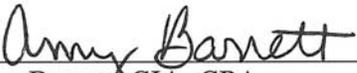
Management should review and update the Security Procedures Manual periodically. At a minimum the manual should include:

- A method for which the review of the patrol reports will be conducted and documented
- Detailed procedures for each task (e.g., completing patrols, issues that require submission of an event report, issuing and deactivating card access, etc.)
- A process to ensure that the Security Procedures Manual is periodically reviewed and updated

Management Responses

Management agrees with the recommendation. Management will review and revise the Security Procedures Manual. The procedures will include provisions for periodic review. The estimated completion date is October 31, 2012.

We appreciate Staff Services management and staff for their cooperation, courtesy, and professionalism extended to us during this audit. We also appreciate support provided by Finance, Information Technology, Health Care Policy and Administration, and Imaging.



Amy Barrett, CIA, CPA
Chief Audit Executive



Dinah G. Arce, CIA, CPA, CFE, CIDA
Senior Auditor



Jan Engler, CIA, CFE, CISA
Internal Auditor Manager

APPENDIX A

AUDIT OBJECTIVE, SCOPE, METHODOLOGY, AND CONCLUSION

We conducted this performance audit in accordance with generally accepted government auditing standards contained in the *Government Auditing Standards* issued by the Comptroller General of the United States and the *International Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors, Inc.

These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our audit findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

AUDIT OBJECTIVE

The audit objective was to determine whether internal controls are in place and are working effectively to achieve the business objectives stated below and mitigate significant risks to meeting those objectives.

- Ensure security of TRS assets
- Ensure security of TRS staff and visitors while on TRS property

SCOPE

The scope of the audit included:

- Activities for calendar year 2011
- Building entry points and restricted areas of TRS property at 1000 Red River St.
- Grounds surrounding buildings
- Various activity reports (access, incident, inspection, etc.) maintained by Security Staff

The audit scope did not include:

- Inventory of physical assets
- Property at 816 Congress Ave.
- Health and safety controls
- Card access software controls
- Business continuity/disaster recovery procedures

METHODOLOGY

Our methodology included obtaining information on management's business objectives and risks, and focused on key processes and monitoring controls that management has established to address significant risks. To meet the audit objectives, we specifically performed the following procedures:

- Confirmed that various reports are reviewed by Team Leader or Manager
- Confirmed that incident reports were elevated to management and issues, if any, were resolved timely
- Confirmed through observation and written evidence that Security Staff adheres to procedures
- Confirmed that various alarms/extinguishers have been inspected
- Observed visitor check-in process
- Inquired about employee training to educate about security
- After-hours walkthrough to confirm access secured in accordance with managers' directives
- Physically confirmed locked areas and entry points
- Obtained reports of results of recent drills or periodic routine tests/inspections and noted if issues resolved timely
- Obtained recent outside expert's review of building security and noted if issues resolved timely
- Verified that card access has been removed for terminated employees
- Confirmed segregation of duties for approval and adding access

CONCLUSION

Based on our audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified two opportunities to improve building security controls.

TAB 4C

AUDIT OF INVESTMENT ACCOUNTING

March 23, 2012

TRS Internal Audit Department

Business Objectives	To ensure accurate and sufficient investment reporting for Comprehensive Annual Financial Report (CAFR) and management	To verify that partnership investments are valued in accordance with TRS valuation guidelines	To ensure that wire transfers of funds are complete and made as requested
Business Risks	<ul style="list-style-type: none"> • TRS account balances do not match State Street (SSB) • TRS investment accounts are misstated/misclassified in financial statements • Reports to management do not provide information for sufficient oversight 	<ul style="list-style-type: none"> • Under/over or incomplete reporting of market values • Funding of private market investments exceeds commitments • Partnership financial statements do not follow accounting standards 	<ul style="list-style-type: none"> • SSB wires funds that are unauthorized or doesn't wire funds requested by TRS • SSB wires funds to wrong person/account or for the wrong amount • SSB does not credit incoming wires to TRS
Management Controls	<ul style="list-style-type: none"> • Review of mapping of SSB to TRS accounts • Tie-out between SSB and TRS accounts • Reporting of investment activities 	<ul style="list-style-type: none"> • Comparison of partnership statements to SSB reports • Tracking of funded amounts • Review of partnership financial statements 	<ul style="list-style-type: none"> • Written agreement with SSB • List of authorized signatures • Segregation of duties • Confirmation with SSB • Daily reconciliation of wires
Controls Tested	<ul style="list-style-type: none"> • Verify existence and adequacy of mapping review • Verify tie-outs of General Ledger account balances • Obtain management reports on investment activities 	<ul style="list-style-type: none"> • Verify existence of partner to SSB comparisons for sample months • Obtain evidence of review of partnership financial statements 	<ul style="list-style-type: none"> • Verify existence of written agreement • Compare authorized signatures per TRS and SSB • Test sample funds wired, including confirmation
Results	<ul style="list-style-type: none"> • Management controls are operating effectively. Review of account classifications and monthly tie-outs ensure accurate CAFR reporting. • An opportunity to improve reporting to management exists. 	<ul style="list-style-type: none"> • Management controls are operating effectively. Reconciliations provide independent oversight of partnership values prepared by SSB. 	<ul style="list-style-type: none"> • Management controls are operating effectively. Segregation of duties, confirmations, and reconciliations work well.
Recommended Actions	Define monitoring activities for the securities lending program. Examine need for other reports with executives.	None	None
Management Responses	Management agrees with the recommendation. Investment Accounting will work with executive management to develop reporting and monitoring opportunities.	N/A	N/A

Legend of Results: Red - Significant to TRS Orange - Significant to Business Objectives
Yellow - Other Reportable Issue Green - Positive Finding or No Issue



March 23, 2012

Audit Committee, Board of Trustees
Mr. Brian Guthrie, Executive Director

EXECUTIVE SUMMARY

We have completed the audit of **Investment Accounting**, as included in the *Fiscal Year 2012 Audit Plan*. Business objectives related to Investment Accounting are as follows:

- To ensure accurate and sufficient investment reporting for the Comprehensive Annual Financial Report (CAFR) and management
- To verify that partnership investments are valued in accordance with TRS valuation guidelines
- To ensure that wire transfers of funds are complete and made as requested

Based on our audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified one opportunity to initiate securities lending reporting to executive management.

Results of our procedures are presented in more detail in the **Results and Recommendations** section (page 5). The audit objective, scope, methodology and conclusion are described in **Appendix A** (page 8).

BACKGROUND

Investment Accounting is part of the Financial Division at TRS and reports to the Chief Financial Officer (CFO). See **Appendix B** (page 10) for this team's current organizational chart. Investment Accounting is organizationally separated from the Investment Management Division (IMD) and thus provides independent oversight over financial reporting on investment operations and activities performed by the IMD. The team's responsibilities have expanded over the years to include duties such as reconciliation of TRS' partnership investments (between the partnership statements and State Street Bank and Trust (State Street), TRS' custodian bank) and calculation of the IMD incentive awards per the Performance Incentive Pay Plan.

Historical Background of Investment Accounting

Prior to 2007, Investment Accounting had 15 Full Time Equivalent (FTE) employees and was located within the Financial Division of TRS. In 2007, Investment Accounting moved to the IMD and was renamed “Investment Operations.” At the beginning of fiscal year 2008, State Street became the official financial book of record for TRS’ investments in addition to the performance book of record. As part of this transition, one person was hired to be the new Investment Accountant under General Accounting (in the Financial Division), and played an integral role in mapping the State Street investment accounts to TRS’ General Ledger (GL) accounts.

During 2008, another person was added to Investment Accounting (under General Accounting). In 2009, Investment Accounting was further expanded with the transfer of two individuals from Investment Operations of the IMD. At this point, Investment Accounting became a stand-alone group in the Financial Division. Since then, several responsibilities, including the reconciliation of partnership investments, have been moved from Investment Operations to Investment Accounting. Another individual joined the team in 2011. Currently, Investment Accounting consists of five FTE employees.

Business Objectives and Responsibilities of Investment Accounting

The overall business objective of Investment Accounting is to ensure that information is reported accurately and properly reflects the financial condition and activities of TRS investments. The team’s primary responsibilities include:

- Ensuring accurate and sufficient investment reporting for the CAFR and management, which is achieved by performing a semi-annual review of the mapping of State Street’s investment accounts to TRS’ GL accounts, performing a monthly tie-out between State Street’s subsidiary ledgers and the TRS GL, continuously monitoring investment activities in the IMD, and monitoring Governmental Accounting Standards Board (GASB) accounting changes.
- Verifying that the values of TRS’ investments in partnerships (as a limited partner) are complete and accurate according to TRS valuation guidelines, which is achieved by comparing monthly or quarterly financial statements received from General Partners (GPs) to State Street reports, performing an annual review of State Street’s Statement on Standards for Attestation Engagement (SSAE) No. 16 (*Reporting on Controls at a Service Organization Relevant to User Entities’ Internal Control over Financial Reporting* (SOC 1), formerly Statement on Auditing Standards No. 70 (SAS 70)) report, tracking and comparing cumulative funding amounts to the total commitments, and reviewing the partnerships’ audited financial statements on an annual basis. As of November 30, 2011, the number of partnerships TRS invested in was 208 and the total market value of these investments was approximately \$21.8 billion.
- Ensuring that wire transfers of funds (between TRS and GPs or external managers) are complete and made as requested by the IMD, which is achieved by providing a segregation of duties between Investment Accounting and the IMD, establishing a wire

transfer agreement with State Street (which includes authorized TRS individuals who can approve wires), obtaining confirmations of wire transfers from State Street, and daily reconciling wire transfers executed.

In fiscal year 2011, Investment Accounting processed 1,084 wire transfer funding requests totaling \$8.9 billion as follows (per Scot Leith, Investment Accounting):

	Private Equity	Real Assets	Hedge Funds	Other Absolute Return	Long-Oriented	External Managers	Total
September 2010	363,240,366	721,772,224	-	43,892,869	-	2,896,091	1,131,801,611
October 2010	209,825,452	325,467,159	55,000,000	-	-	3,113,184	593,405,876
November 2010	251,306,268	199,904,766	-	-	-	10,041,696	461,252,799
December 2010	337,571,484	735,437,108	-	23,162,013	-	12,558,613	1,108,729,326
January 2011	205,719,274	161,624,946	35,000,000	-	-	7,490,904	409,835,198
February 2011	171,438,095	118,581,864	25,000,000	18,529,539	2,375,000	4,649,855	340,574,413
March 2011	139,289,827	435,299,417	40,000,000	-	271,000,000	9,174,087	894,763,423
April 2011	77,986,301	366,839,882	150,000,000	1,678,131	263,000	6,443,801	603,211,187
May 2011	391,849,518	491,467,941	-	-	-	6,379,059	889,696,595
June 2011	217,774,922	377,683,185	50,000,000	-	-	17,998,156	663,456,344
July 2011	310,923,173	237,077,456	100,000,000	22,197,055	220,000,000	5,432,440	895,630,224
August 2011	409,196,184	301,513,778	155,000,000	60,537,289	-	6,500,633	932,747,967
	3,086,120,864	4,472,669,726	610,000,000	169,996,896	493,638,000	92,678,519	8,925,104,005

- Independently calculating the amounts of performance incentive awards for IMD employees according to the design of the plan. These calculations are performed based on the information provided by State Street and the IMD.

Financial Reporting Process for Investments

Investment Accounting also plays a key role in the annual CAFR preparation process. For example, they monitor investment activities throughout the year and complete a checklist to ensure the completeness of investment disclosures.

The financial reporting process for TRS investments mainly consists of four components. First, the IMD engages in investing activities, buying or selling securities, including partnership investments. Second, State Street, as TRS' book of record, accounts for investment transactions and prepares financial account balances. These summary-level account balances are loaded to TRS' books on a monthly basis. Next, Investment Accounting reviews and oversees the accounting feed to ensure the entries are appropriate and compliant with applicable standards. Finally, General Accounting, with assistance from Investment Accounting, prepares monthly and annual financial statements for TRS.

See **Appendix C** (page 11) for a process map of the financial reporting for investments.

BUSINESS OBJECTIVES, RISKS, AND CONTROLS

For the audit of Investment Accounting, we obtained information about the following three business objectives and the related risks, as well as the controls management established to mitigate these risks:

Business Objective	To ensure accurate and sufficient investment reporting for Comprehensive Annual Financial Report (CAFR) and management	To verify that partnership investments are valued in accordance with TRS valuation guidelines	To ensure that wire transfers of funds are complete and made as requested
Inherent Risks (without considering controls)	(1) State Street's investments accounts are incompletely or incorrectly mapped to TRS general ledger accounts	(6) Under or over reporting of values of investments	(13) State Street wires funds without TRS authorization
	(2) TRS general ledger (GL) account balances do not match State Street GL account balances	(7) Incomplete reporting of values of TRS partnerships	(14) State Street does not wire funds requested by TRS
	(3) TRS investment accounts are misstated or misclassified in financial statements	(8) Funding of private market investments exceeds commitments	(15) State Street wires funds to wrong person/account or for the wrong amount
	(4) TRS financial statements not in compliance with GASB or notes are omitted for significant disclosure items	(9) Partnership financial statements do not follow accounting standards	(16) State Street does not credit incoming wires to TRS
	(5) Access to TRS GL system (i.e., GLAS) is inconsistent with job responsibilities	(10) Partnership financial statements are materially misstated and misstatements are not detected by TRS	(17) TRS fails to timely detect wiring errors or mistakes made by State Street
		(11) Data entry errors in spreadsheets	(18) Fraud – e.g., portfolio manager's collusion with GP or alteration of funding request information
	(12) Unauthorized access to spreadsheets	(19) Access to funding reconciliation spreadsheets is inconsistent with job responsibilities	
Controls Established	(1a) Semi-annual review of mapping of State Street's investment accounts to TRS GL accounts	(6a), (7a) Comparison of partnership statements to State Street's reports (RALI report and Private Edge report)	(13a) Approval – funding requests should come from GPs and IMD has to approve them first
	(2a), (3a) Tie-out between State Street's sub-ledger and TRS GL	(6b), (7b), (8a) Director's review of various reconciliations	(13b), (18a) Segregation of duties – IMD can only request funding and Investment Accounting can only authorize State Street to wire funds
	(3b) Preparation and review of financial or management reports	(6c), (7c), (8b) State Street SOC 1 (formerly SAS 70) review	(13c), (14a), (15a), (16a) Written agreement between TRS and State Street regarding wiring of funds
	(4a) Familiarity and continuous monitoring of accounting standard changes (e.g., GASB requirements)	(6d), (7d), (8c) On-site visits to State Street	(13d), (18b) List of authorized signatures in the Board-approved Incumbency Certificate
	(4b) Continuous monitoring of investing activities (e.g., by attending Internal Investment Committee)	(6e), (7e) TRS Security Valuation Guide	(13e), (14b), (15b), (16b), (17a), (18c) State Street's confirmation of funds wired
	(4c) Use of financial statement and note disclosure checklists	(6f), (7f) Establishment of the Valuation Committee	(13f), (14c), (15c), (16c), (17b), (18d) Daily reconciliation of funds wired between Investment Accounting's wire log and State Street's wire report
	(5) View-only access to GLAS	(8d) Tracking and comparing cumulative funded amount to the commitment amount	(15d), (18e) Investment Accounting's review of information accuracy in funding request
	(All) Written policies and procedures	(9a), (10a) Annual review of partnerships' audited financial statements	(15e), (18f) Callback requirements
		(11a), (12a) Spreadsheets reside on network drives with limited access	(19) Reconciliation spreadsheets reside on network drives with limited access
		(All) Written policies and procedures	(All) Written policies and procedures
Controls Tested	Verify existence and adequacy of semi-annual reviews of State Street's mapping	Verify existence of Limited Partner (LP) value reconciliations performed for sample months, comparing partnership statements with State Street's reports.	Verify existence of General Partner's (GP) funding request and authorized IMD employee's signature
	Verify tie-outs of GL account balances for sample months.	Obtain evidence of review of State Street SOC 1.	Verify that State Street wired funds only after requested by Investment Accounting
	Obtain information about management reports, or if no reports are prepared identify reports that need to be prepared on a regular basis.	Identify any individuals who inappropriately have access to the network with Investment Accounting's spreadsheets.	Verify Investment Accounting's checks on the information in Funding Request
	Determine whether only authorized people have access to GLAS (TRS' General Ledger Accounting System).	Obtain evidence of annual review of partnerships' audited financial statements.	Verify existence of State Street's confirmation
			Verify existence of wiring responsibilities in a written agreement (e.g., contract or service level agreement).

RESULTS AND RECOMMENDATIONS

OVERALL RESULTS

Based on audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified one opportunity to initiate securities lending reporting to executive management.

POSITIVE RESULTS

A. Financial reporting

Controls related to the accuracy of investment account balances and classifications for financial reporting were operating effectively. These controls include a semi-annual review of account classification mapping between TRS and State Street and monthly tie-outs of GL account balances. Additionally, Investment Accounting attends IMD meetings throughout the year to keep updated on investment activities, and also monitors other activities, such as financial accounting standards changes (e.g., GASB, etc.), throughout the year. This information is maintained and gathered at year-end to assist in the preparation of the CAFR, in addition to the completion of informal and formal checklists, to help ensure the completeness and accuracy of the CAFR disclosures.

B. Partnership reconciliations

Controls to ensure that partnership investments are valued in accordance with TRS valuation guidelines were operating effectively. These controls include monthly reconciliations of partnership statements to State Street reports and a review of the partnerships' audited financial statements on an annual basis. These controls provide evidence of the independent oversight and monitoring activities that Investment Accounting performs over State Street.

C. Wire transfers

Controls related to the complete and accurate execution of wire transfers were operating effectively. These controls include Investment Accounting's review of wire requests, signoff of requests by authorized individuals, and the ongoing reconciliation of completed wire transfers with State Street. These controls provide evidence of the segregation of duties that exists between Investment Accounting and the IMD. This segregation has been strengthened over time with the transition of further responsibilities to Investment Accounting, such as the partnership reconciliations. While this separation exists, the two groups continue to work well together to complete tasks timely and efficiently. Our tests also indicated that there were no unauthorized or incorrect amounts of wire transfers.

SIGNIFICANT RESULTS¹

No significant issues and recommendations were identified.

OTHER REPORTABLE RESULTS

Define Monitoring Activities for the Securities Lending Program

As previously mentioned, Investment Accounting has been expanding its responsibilities since this team was created under the CFO. Investment Accounting could also support the CFO in fulfilling his responsibilities outlined in the Board's Securities Lending Policy. This policy states that the CFO is responsible for monitoring the securities lending program and providing accurate and timely accounting for the securities lending program. Since the policy does not specify the monitoring activities, Investment Accounting has the opportunity to define them. Currently, Investment Accounting's activities related to securities lending are limited to ensuring that securities lending income is reported in monthly and annual financial statements and that information on securities lending activities is disclosed in the notes to the annual financial statements of the CAFR in accordance with GASB standards.

Recommendation

We recommend that Investment Accounting define and perform monitoring activities for the securities lending program as required by the Securities Lending Policy. These monitoring activities could include the following:

- Participation in the IMD's monthly conference calls with the securities lending agent
- Review of gross revenue generated from securities lending
- Review of securities lending income splits between the securities lending agent and TRS
- Review of compliance with certain Securities Lending Policy provisions
- Developing and reporting monthly standard securities lending reports to TRS executives

In addition to the above, Investment Accounting should meet with executive management to discuss any additional requirements for developing management reports to ensure sufficient information is available to support decision-making.

Management Response

Management agrees with the recommendation. The Investment Accounting Director will work with executive management to develop management reports and identify monitoring opportunities to ensure sufficient information is available for monitoring and accurate accounting for the securities lending program and to support decision-making. This recommendation should be completed by June 30, 2012.

* * * * *

¹ A significant result is defined as a control weakness that is likely to create a high risk of not meeting business objectives if not corrected.

We appreciate Investment Accounting management and staff for their cooperation, courtesy, and professionalism extended to us during this audit. We also appreciate the support provided by State Street and the TRS Information Technology Division.



Amy Barrett, CIA, CPA
Chief Audit Executive



Hugh Ohn, CFA, CIA, CPA, FRM
Director of Investment Audit and Compliance



Brian Gomolski, CIA, CPA
Senior Investment Auditor

APPENDIX A

AUDIT OBJECTIVE, SCOPE, METHODOLOGY, AND CONCLUSION

We conducted this performance audit in accordance with generally accepted government auditing standards contained in the *Government Auditing Standards* issued by the Comptroller General of the United States and the *International Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors, Inc.

These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our audit findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

AUDIT OBJECTIVE

The audit objective was to determine whether internal controls are in place and are working effectively to achieve the business objectives stated below and mitigate significant risks to meeting those objectives.

- To ensure accurate and sufficient investment reporting for CAFR and management
- To verify that values of partnership investments are complete and accurate according to TRS valuation guidelines
- To ensure that wire transfers of funds are complete and made as authorized

SCOPE

The scope of the audit included testing of the activities performed by Investment Accounting from January 1, 2011 – January 31, 2012.

The scope of the audit did not include valuation controls related to the securities whose values are readily determinable, Valuation Committee activity, or incentive pay plan objectives.

METHODOLOGY

Our methodology included obtaining information on management's business objectives and risks, and focused on key processes and monitoring controls that management has established to address significant risks. To meet the audit objectives, we specifically performed the following procedures:

- Verified the existence and adequacy of semi-annual account mapping reviews
- Verified tie-outs of GL account balances for sample months
- Obtained information about management reports
- Determined whether only authorized people had access to TRS GL (GLAS)
- Verified existence of reconciliations (comparing partnership statements with State Street reports) for sample months

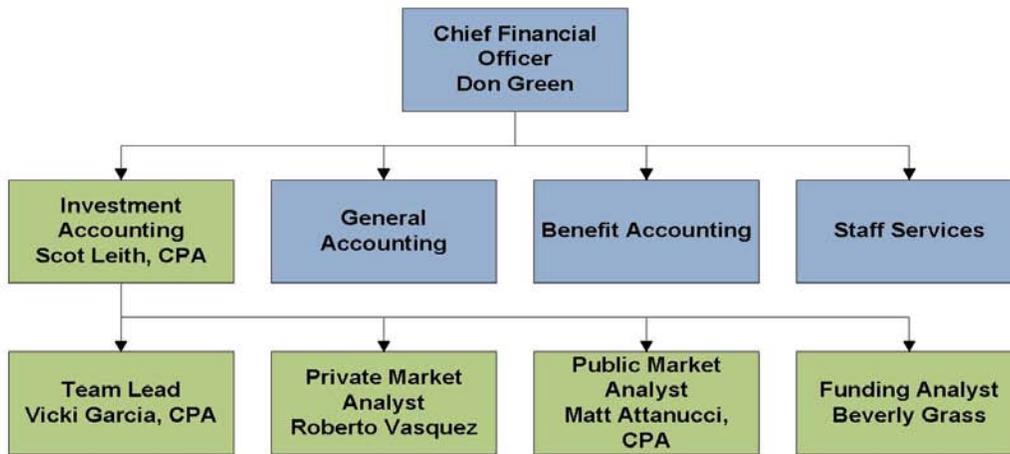
- Obtained evidence of SOC 1 (SAS 70) annual review
- Identified whether individuals inappropriately had access to the network with Investment Accounting's spreadsheets
- Obtained evidence of review of partnerships' audited financial statements
- Tested sample funds wired, including existence of GP's funding request, authorized IMD employee's signature, Investment Accounting's review of the funding request, State Street's confirmation of the wire, and Investment Accounting's reconciliation; and verified that State Street wired the funds only after requested by Investment Accounting
- Verified existence of wiring responsibilities in a written agreement with State Street
- Compared the list of authorized people in the TRS incumbency certificate with State Street's list in the Funds Transfer Operation Policy (FTTOP)

CONCLUSION

Based on our audit results, we determined that management controls are operating effectively to achieve business objectives. We did not identify any significant issues. We noted several positive results and identified one opportunity to improve securities lending reporting to management.

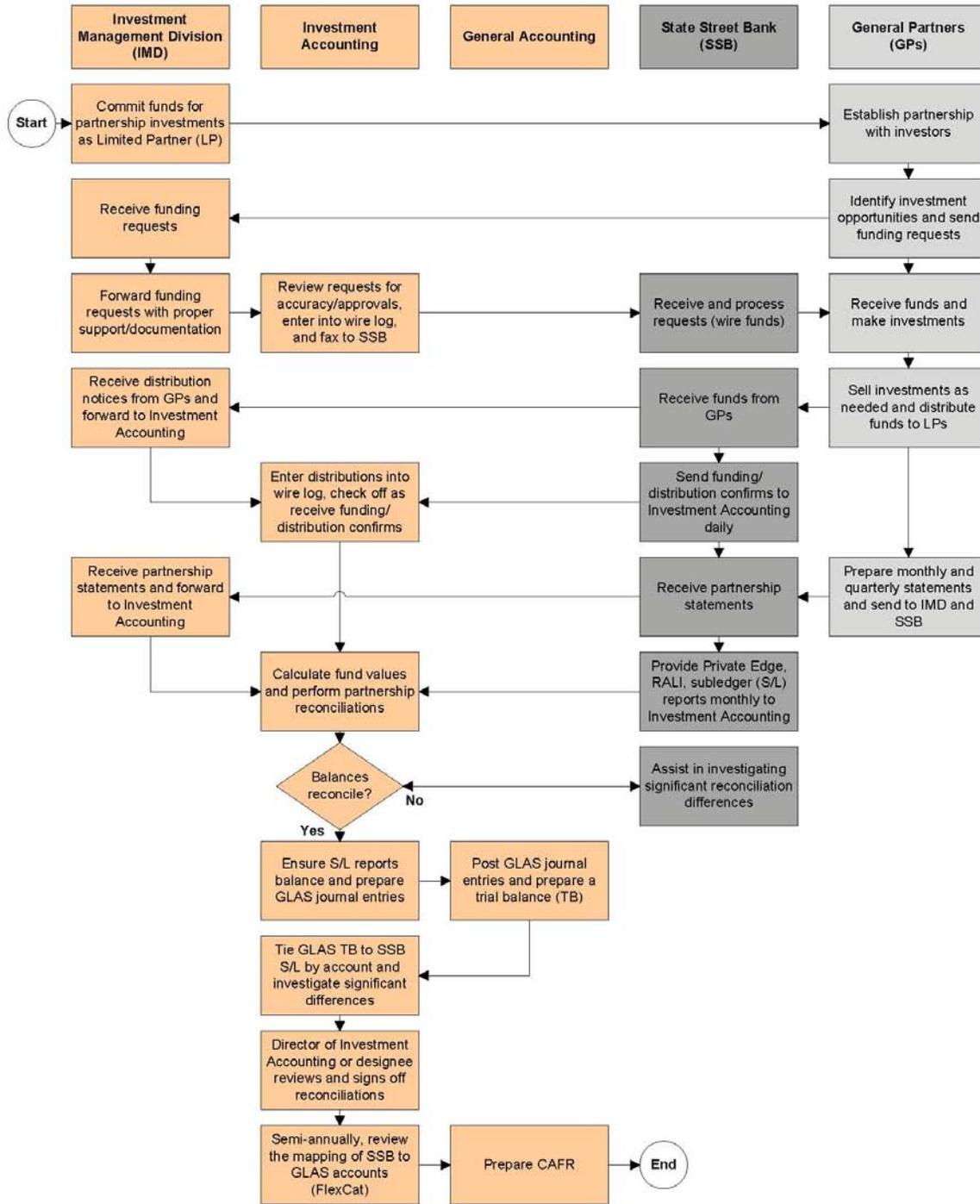
APPENDIX B

Investment Accounting Organizational Chart



APPENDIX C

Financial Reporting Process for Investments



TAB 4D

QUARTERLY TESTING – INVESTMENT POLICY STATEMENT (IPS) AND SECURITIES LENDING POLICY (SLP)
CALENDAR QUARTER ENDED DECEMBER 31, 2011, EXCEPT AS NOTED

Business Objectives	1. <u>Board Reports</u> All required information is reported to the TRS Board of Trustees	2. <u>Investment Selection and Approval</u> Investments made are within delegated limits & established selection criteria	3. <u>Investment Management Agreements (IMA)</u> Investment management agreements are consistent with IPS	4. <u>Other (IPS, SLP)</u> Risk limits are followed for other investment programs and activities	5. <u>Monitoring by Investment Compliance Specialist</u> Investment activities comply with IPS (for the four months ended February 29, 2012)
Business Risks	Board is not informed of key investment decisions & critical data	Approvals and funding exceed delegated limits	External managers take more risk than approved by TRS	Risks exceed board established tolerances	Noncompliance is undetected or not timely resolved
Management Assertions	All required reports are made to the board	Approval and funding are within limits and made for qualified managers	Investment management agreements are consistent with IPS requirements	Programs are within risk limits.	Investment activities comply with investment policies (proxy, securities lending, IPS)
Agreed-Upon Procedures	Compare board reports to IPS requirements. Obtain underlying supporting documentation for the following reports: Counterparty Exposure, Value at Risk, Leverage, and Tracking Error	Vouch Internal Investment Committee approved investments to supporting documentation	Compare provisions of IMA with IPS. Obtain documentation from Investment Management Division (IMD) staff that supports rebalancing analytics	Obtain senior management disclosures about known compliance violations. Validate monitoring of securities lending program	Perform various compliance checks and monitor State Street's daily compliance reports
Test Results	<ul style="list-style-type: none"> One new investment not reported to Board prior to IMD approval Inaccurate information for one reporting element included in the Tear Sheet ("Due Diligence Summary") 	All supporting documentation exists	All provisions of IMA are within IPS parameters	All other requirements of the IPS and SLP are in compliance	One Public Market Strategic Partner Network (SPN) purchased shares of a company on the Sudan restricted list. Upon TRS' request, all shares were sold
Management Responses	Both errors were oversights. IMD will enhance the review process	None	None	None	SPN pre-trade compliance system did not capture security identifier. Security sold immediately, and SPN is reconciling restricted list

Legend: **Red** - Significant to TRS **Orange** - Significant to Business Objectives **Yellow** - Other Reportable Exception **Green** - Positive Test Result/ No Exception



March 21, 2012

Britt Harris, Chief Investment Officer

We have completed the **Quarterly Testing of compliance with the requirements of the Investment Policy Statement (IPS) and Securities Lending Policy (SLP)** as included in the *Fiscal Year 2012 Audit Plan*.

We performed the procedures listed below that were agreed to by management of the Investment Management Division (IMD). These procedures include tests that supplement the current compliance monitoring procedures performed by the Investment Compliance Specialist and State Street Bank.

This agreed-upon procedures engagement was performed in accordance with generally accepted government auditing standards contained in the *Government Auditing Standards* issued by the Comptroller General of the United States.

The sufficiency of the agreed-upon procedures performed is solely the responsibility of the specified users of the report. Consequently, we make no representations regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The results of testing indicated the following exceptions:

- One new investment was not reported to the Board prior to IMD approval at the Internal Investment Committee (IIC), as required under Article 1.7d of the IPS.
- The Tear Sheet (“due diligence summary”) for a new investment included inaccurate information for one of the required reporting components, as required under Article 1.7d.
- One Public Market Strategic Partner Network (SPN) purchased shares of a company on the Sudan restricted list.

Our testing procedures and results are included in **Appendix A**. The monitoring results of the Investment Compliance Specialist are included in this report in **Appendix B**.

Internal Control Structure

We were not engaged to and did not perform an examination of the internal controls nor the operating effectiveness pertaining to the subject areas tested. Accordingly, we do not express an opinion on the suitability of the design of internal controls nor the operating effectiveness of the subject areas tested.

Had we performed additional procedures, or had we made an examination of the system of internal control, other matters might have come to our attention that would have been reported to you. This report relates only to the procedures specified above and does not extend to the internal control structure.

This report is intended solely for information and use by TRS management, the Board of Trustees, and oversight agencies, and is not intended to be and should not be used by anyone other than those specified parties. However, this report is a matter of public record and its distribution is not limited.

* * * * *

We express our appreciation to management and key personnel of the Investment Management Division for their cooperation and professionalism shown to us during this quarterly testing.



Amy Barrett, CIA, CPA
Chief Audit Executive



Dinah G. Arce, CIA, CPA, CFE, CIDA
Senior Auditor



Hugh Ohn, CFA, CPA, CIA, FRM
Director of Investment Audit and Compliance

APPENDIX A

AGREED UPON PROCEDURES AND RESULTS

STEP #	OBJ. #	TEST PURPOSE	TEST DESCRIPTION	TEST RESULT	MANAGEMENT RESPONSE
1	1	IPS Article 1.7 - Verify that all requirements were reported to Board of Trustees	<ul style="list-style-type: none"> Obtain copies of all reports required to be reported to the Board of Trustees for the testing period Compare the report information to the required information per the IPS 	<ul style="list-style-type: none"> All required reports were made to the Board of Trustees or the relevant Committee with the exception of required information on one new investment selected for testing. The required information was not provided to the Board prior to IIC approval. Reports contained the required reporting information with the exception of one new investment selected for testing. The Tear Sheet (“Due Diligence Summary”) for the investment incorrectly disclosed that there was no placement agent. The correct information on the existence of the placement agent was subsequently reported to the Board. 	<ul style="list-style-type: none"> In October 2011, TRS changed Section 1.7 of the IPS from providing certain investment information on external manager mandates after IIC approval to providing the information before IIC approval. For one investment slated for approval at the October IIC, the IMD inadvertently omitted the required information. This information along with a summary of the entire deal was provided to the Board in the February 2012 Transparency Report. The error was an oversight on the part of the investment consultant in the Emerging Managers program. In the future, the IMD will enhance the review process to ensure all data elements reported on the Tear Sheet are present and accurate.
2	2	Article 4.2 – Test private equity (PE) approval limits	<ul style="list-style-type: none"> Obtain names of approved PE Investments from the IIC minutes Obtain the Tear Sheet for each investment tested and observe the approved amount is within the authorized limits Obtain documentation from IMD staff that supports the calculations of the authorized limits 	<ul style="list-style-type: none"> Obtained names of approved PE Investments from the IIC minutes Obtained the Tear Sheet for each investment tested and observed that the approved amount is within the authorized limits Obtained documentation from IMD staff that supported the calculations of the authorized limits 	No response required

3	2	IPS Article 5.3 – Test real assets (RA) approval Limits	<ul style="list-style-type: none"> • Obtain names of approved RA Investments from the IIC minutes • Obtain the Tear Sheet for each investment tested and observe the approved amount is within the authorized limits • Obtain documentation from IMD staff that supports the calculations of the authorized limits 	<ul style="list-style-type: none"> • Obtained names of approved RA Investments from the IIC minutes • Obtained the Tear Sheet for each investment tested and observed that the approved amount is within the authorized limits • Obtained documentation from IMD staff that supported the calculations of the authorized limits 	No response required
4	4	IPS Article 8.8 – International Swaps and Derivates Association (ISDA) Agreements	<p>1. Sample over-the-counter (OTC) derivative transactions (including those managed through Agency Agreements) and obtain evidence that:</p> <ul style="list-style-type: none"> • Each counterparty has a credit rating of at least A- (Standard & Poor’s or Fitch) or A3 (Moody’s) • Determine that each is subject to established ISDA Master Agreements and have full documentation of all legal obligations of TRS under the transactions • Determine that all ISDA Master Agreements entered into by or on behalf of TRS by Investment Division or an external manager engaged pursuant to an Agency Agreement provides that netting applies • Determine if collateral arrangements were used and if so, determine: <ul style="list-style-type: none"> a.) That the net market value of all OTC derivative positions, less collateral posted, for any individual counterparty did not exceed \$500 million b.) That the net market value of all OTC derivative positions, without consideration of collateral, did not exceed 5% 	<p>1. Sampled OTC derivative transactions (including those managed through Agency Agreements) and obtained evidence that:</p> <ul style="list-style-type: none"> • Each counterparty tested met the credit rating requirement • N/A - There were no new counterparties. • N/A – There were no new counterparties • Determined that collateral arrangements included: <ul style="list-style-type: none"> a.) The net market value of all OTC derivative positions, less collateral posted, for any individual counterparty did not exceed \$500 million b.) The net market value of all OTC derivative positions, without consideration of collateral, did not exceed 5% of the total 	No response required

			<p>of the total market value of the fund</p> <p>2. Consider the following:</p> <ul style="list-style-type: none"> • If market value limits were breached, did the Investment Division staff inform the Chief Investment Officer (CIO), Executive Director (ED), and Chairman of the appropriate board committee as soon as practicable? • Was corrective action taken within a 90-day period or was a corrective action plan presented to the board at its next regularly scheduled meeting? 	<p>market value of the fund</p> <p>2. No market value limits were breached</p>	
5	4	IPS Article 9.9 – Verify whether leverage resulted in risk parameters being exceeded	<ul style="list-style-type: none"> • Verify leverage was used only as authorized • Inquire if any risk parameters were exceeded and if so, was the limit caused by leverage 	<ul style="list-style-type: none"> • Verified that leverage was used only as authorized • No risk parameters were exceeded 	No response required
6	4	Appendix A – Test for compliance with tracking error limits	Discuss various tracking error reports for the different portfolios as well as the total fund for the period ending December 31, 2011 with staff. Select a sample of tracking error reports and compare to tracking error policy limits.	Reports tested indicated tracking error was within policy limits	No response required
7	2	IPS Appendix B – Test total exposure of each organization and approvals of special investment opportunities	<ul style="list-style-type: none"> • For each investment selected for testing, observe the approved amount is within the authorized limits • Obtain documentation from IMD staff that supports the calculations of the authorized limits • Inquire if any “Special Investment Opportunities” were made for the quarter, and if so: <ul style="list-style-type: none"> - Obtain documentation that the Special Investment Opportunity was either a distressed situation or market dislocation - Obtain documentation that the 	<ul style="list-style-type: none"> • No manager or partner organization exceeded the 6% total exposure limits • Obtained documentation from IMD staff that supported the calculations of the authorized limits • There have been no investments in Special Investment Opportunities 	No response required

			<p>CIO notified the ED of each Special Investment Opportunity</p> <ul style="list-style-type: none"> - Obtain documentation that the CIO and the ED requested comments from the chairman of the appropriate board committee and TRS consultants and advisers - Verify that the Special Investment Opportunity did not exceed \$1 billion - Verify that no further investment in a special Investment Opportunity was made until the board reauthorized the CIO's authority to designate a Special Investment Opportunity 		
8	2	IPS Appendix C – Verify new Emerging Managers were approved by IIC and limits are within policy requirements	<ul style="list-style-type: none"> • Validate that new Emerging Managers were approved by IIC • If applicable, obtain documentation that each new emerging manager is registered with the appropriate authorities • Validate that each new investment is a minimum size of \$5 million • Validate that the total External Manager investment by TRS with each Emerging Manager did not exceed 40% of such Emerging Manager's assets under management • Validate that the total investment raised by an Emerging Manager into a Private Equity or Real Assets investment did not exceed 40% of the size of such fund 	<ul style="list-style-type: none"> • Validated that new Emerging Managers were approved by IIC • No investments were required to register with appropriate authorities • Investments were a minimum of \$5 million • The total External Manager did not exceed 40% of such Emerging Manager's assets • The total investment raised by an Emerging Manager into a PE or RA investment did not exceed 40% of the size of such fund 	No response required
9	1	IPS Placement Agent Agreements, Addendum to IPS - Verify placement agent disclosures are being obtained	<ul style="list-style-type: none"> • For each investment selected for testing, verify that a placement agent certification exists for each • Determine that investment staff compiled responses to the questionnaires and reported results to the Board semi-annually. Verify that reports included the amounts 	<ul style="list-style-type: none"> • Each investment tested had a placement agent certification, if it had been closed • IMD reported placement agent information and included all required reporting criteria 	No response required

			and recipients of any political contribution of placement fee and relationship of the recipients to the placement agent		
10	4	SLP – Section 3.5.3- Determine cash collateral was invested in repurchase agreements	<ul style="list-style-type: none"> • Determine whether cash collateral was invested in repurchase agreements. If so, determine whether repurchase agreements are collateralized by authorized instruments • Verify that market value of collateral received under any repurchase agreement exceeds the market value of the cash distributed by a margin of not less than 2% 	<ul style="list-style-type: none"> • All cash collateral was authorized instruments. • Custodian monitors market value of collateral to ensure that market value of the cash distributed exceeds margin by 2% 	No response required
11	4	SLP – 4.1.3 Test that fair market value of portfolio did not decline by more than .0035 per 1 basis point in interest rates	Obtain IMD reports showing fair market value of the portfolio did not decline by more than .0035 per 1 basis point in interest rates	Obtained IMD reports. The fair market value of the portfolio did not decline by more than .0035 per 1 basis point in interest rates	No response required
12	5	Disclose compliance issues identified by Investment Compliance Specialist	Obtain investment compliance report from the Investment Compliance Specialist	Obtained the investment compliance report. See Appendix B .	Refer to Appendix B
13	4	Obtain disclosures from Investment Senior Managing Directors and Chief Investment Officer regarding their knowledge of compliance violations	Send request for disclosure to Senior Managing Directors and Chief Investment Officer requesting disclosure of any known compliance violations for the period November 1, 2011 through February 29, 2012. Report violations to the Investment Compliance Officer for reporting to the Board of Trustees	Obtained all disclosures	No response required

Note: Testing procedures for the Investment Policy Statement (IPS), Securities Lending Policy (SLP), are for the quarter ending December 31, 2011, except as noted.

APPENDIX B

COMPLIANCE WITH INVESTMENT AND RELATED POLICIES As of and for the four months ended February 29, 2012

Policy	Compliance Exceptions	Reportable Exceptions	Management Responses
Investment Policy Statement (IPS)	Yes	<p>Sudan Restricted Company List Purchase</p> <p>One of TRS' Public Market Strategic Partner Networks (SPN) purchased shares of a company on the Sudan restricted company list. On February 13, 2012, SPN staff purchased 45,800 shares of Dongfeng Motor Group valued at approximately \$91,000. The exception was identified on February 14, 2012 and all shares of the company were sold on February 15, 2012.</p>	<p>The error was because the Strategic Partner Network (SPN) pre-trade compliance system did not properly capture the Sedol (security identifier) used for the Dongfeng Motor Group purchase. The SPN Asset Management Guideline Oversight Group is currently conducting a full reconciliation of the TRS Restricted List against restrictions coded to their pre-trade compliance system to ensure that no other gaps are identified. Please note that upon learning of their error, SPN was able to sell the security immediately and no financial loss was incurred in the TRS account.</p>
Securities Lending Policy (SLP)	No	None	N/A
Proxy Voting Policy	No	None	N/A



■ Unsatisfactory progress is being made or there have been significant delays in resolving issue.
■ Timely or satisfactory progress is being made toward resolving issue.
■ No exception or satisfactorily resolved issue.

TAB 5

TRS Internal Audit Summary of Audit Recommendations Status

April 2012

Project	Recommendation	Status	Issue Type	Estimated Date	Revised / Actual Date
10-504 Monitoring Controls - Network Access Management					
	Implement processes and procedures to protect confidential data	In Progress*	Significant	8/2011	4/2012
11-600 TRS Employee Training Compliance					
	Implement centralized program for required training and strengthen training policy	Implemented	Significant	3/2012	3/2012
11-103 Records Retention					
	Develop and implement records management procedures at departmental level	Implemented	Other Reportable	3/2012	3/2012
11-305 Investment Travel Paid by Third Parties					
	Develop Investment Management Division (IMD) travel policy	In Progress	Other Reportable	8/2011	12/2012
11-306 Investments Performance Calculations and Reporting					
	Include the performance calculation methodology used by State Street in TRS written operating policies and State Street Service Agreement	In Progress	Other Reportable	8/2011	1/2013
	Work with State Street to ensure that consistent investment returns for cash are reported to the Board	In Progress	Other Reportable	8/2011	9/2012

* See page 3 for more information on the status and management actions.

Significant to Business Objectives

	<ul style="list-style-type: none"> Past <i>original</i> estimated completion date No management action plan <u>or</u> No progress on management action plan
	<ul style="list-style-type: none"> Past <i>original</i> estimated completion date Progress on management action plan
	<ul style="list-style-type: none"> <i>Original</i> estimated completion date has not changed Progress on management action plan
	Satisfactory implementation of management action plan <u>or</u> Acceptance of risk by management

Other Reportable

	<ul style="list-style-type: none"> Past <i>original</i> <u>or</u> first <i>revised</i> estimated completion date No management action plan <u>or</u> No progress on management action plan
	<ul style="list-style-type: none"> Past <i>original</i> <u>or</u> first <i>revised</i> estimated completion date Progress on management action plan
	<ul style="list-style-type: none"> Within <i>original</i> <u>or</u> first <i>revised</i> estimated completion date Progress on management action plan
	Satisfactory implementation of management action plan <u>or</u> Acceptance of risk by management

TRS Internal Audit Summary of Audit Recommendations Status

April 2012

Project	Recommendation	Status	Issue Type	Estimated Date	Revised / Actual Date
11-307 Actively-Managed Internal Equity Portfolios, including Commission Sharing Arrangements (CSA)					
	Store emails containing reasons for trade decisions in a document management system	In Progress	Other Reportable	5/2012	12/2012
12-301 Audit of State Street's Compliance Calculations					
	Correct the errors in calculation formulas and follow established procedures to prevent future recurrence of calculation errors or mistakes	Implemented	Other Reportable	12/2011	12/2011
10-601 Human Resources Recruitment and Selection Policies and Procedures					
	Strengthen contractor workforce practices and controls	In Progress*	Consulting	10/2010	5/2012
	Strengthen recruitment and selection practices	In Progress*	Consulting	10/2010	6/2012
11-201 TRS-ActiveCare External Claims Audit					
	Meet the 99% contractual standard for financial accuracy in claims payments during the 2009 fiscal year (Blue Cross and Blue Shield of Texas, BCBSTX)	Implemented	SAO & External	7/2012	12/2011

* See page 3 for more information on the status and management actions.

TRS Internal Audit
Summary of Management Actions for Significant Past Due Recommendations
April 2012

10-504 Monitoring Controls – Network Access Management (Assurance Project)

The revised Confidentiality Policy, new Information Classification Policy, and new Confidential Information Procedures have been submitted to the subject matter experts for feedback. The next step is to provide final drafts of the policies and procedures to management for review and approval. In addition, based on the feedback received, we will work with Human Resources to refine the current new hire orientation training if needed and develop online refresher training for current employees. The estimated completion date is April 30, 2012.

10-601 Human Resources Recruitment and Selection Policies and Procedures (Consulting Project)

Strengthen recruitment and selection practices

Draft policy and procedures have been prepared and submitted to Legal Services for initial review. The retirement of the Director of Human Resources has placed this action on hold until a new Director is hired. The revised estimated completion date is June 30, 2012.

Strengthen contractor workforce practices and controls

The Contract Worker Task Force met on March 13 and will meet again on March 27 and April 10, 2012. The Task Force is currently in process of revising existing procedures and developing new policy regarding managing and monitoring contract workers. Contract Worker Project Lead also met with the Deputy Director, Purchasing and Contracts Team Leader and Manager of Staff Services, plus collected additional information from the Security Team Leader and the Deputy Information Officer. The Deputy Director assigned Human Resources (HR) the responsibility for centralized Contract Worker record keeping. The HR Project Lead developed an initial spreadsheet of current contract workers, identifying important information for risk control such as where the contract worker is assigned, their building access and information technology access. The revised estimated completion date is May 30, 2012.

TAB 6

Internal Audit Reporting Entity Study Project Plan

1. Gather executive management feedback and develop study and overall project approach	
Procedures:	Actual Completion
<ul style="list-style-type: none"> • Interview executive management, staff, and contractors • Determine parameters for the “study” with input from management; identify peer organizations • Communicate information to executive management for their input regarding the final study approach and overall project 	<p>2/2012</p> <p>2/2012</p> <p>3/2012</p>
Deliverable: Overall Study and Project Approach – Project Plan to April 2012 Audit Committee	
2. Gather relevant information about TRS existing controls and available existing data with TRAQS, Employer Reporting	
Procedures:	Estimated Completion
Gather information via project Benefit Accounting Employer Reporting	4/2012
Deliverable: Summarize key information (risks, controls) pertinent to the study and the options cost/benefit development	
3. Identify practices of peer organizations – referred to as the “Study”	
Procedures:	Estimated Completion
<ul style="list-style-type: none"> • Internal Audit conducts study of peer organizations’ practices; conducts web conferencing interviews with peers and includes TRS management in interviews • Internal Audit summarizes results; presents to executive management for input 	<p>4/2012</p> <p>5/2012</p>
Deliverable: Study results summarized and reported at the June 2012 Audit Committee	
4. Identify options for reporting entity audits and evaluate the feasibility and costs associated with these options.	
Procedures:	Estimated Completion
<ul style="list-style-type: none"> • Using information from the “Study” and the Benefit Accounting Project, identify options, including pilot audits, and clearly and develop parameters for each option • Gather information for each option and determine cost/benefit of each option; engage vendor for option study and potential pilot planning • Provide draft to executive management for input • Summarize options and costs/benefits for Audit Committee 	<p>6/2012</p> <p>7/2012</p> <p>7/2012</p> <p>8/2012</p>
Deliverable: Options and related costs/ benefits are presented at the September 2012 Audit Committee Meeting	

Teacher Retirement System of Texas
Audit Committee Agenda Items Mapped to TRS Enterprise Risk Inventory-2012

Enterprise		Operations	Finance	Investments
Pension Funding	Communications & External Relations	Pension Benefit Administration Agenda Item 4d	General Accounting & Reporting Agenda Item 4b	Investment Operations
Retiree Health Care	Governmental/ Association Relations	Health Care Administration Agenda Items 3 & 4d	Budget	Investment Reporting Agenda Item 4c
Workforce Continuity	TEAM	403(b)	Employer Reporting Agenda Item 6	Market
Governance Agenda Items 2 & 5	Legacy Information Systems	Customer Service	Procurement & Contract Management	Credit
Business Continuity	Information Security Agenda Item 4e	Tax Qualification Status		Liquidity/Leverage
Fraud Preventions & Detection	Confidential Information Agenda Item 4a			
Records Management				

Fiscal Year 2012 Internal Audit Advisory Services

January - March 2012

BENEFIT SERVICES
TEAM PROJECT <ul style="list-style-type: none">• Executive Steering Committee Participation• Business Rules Committee Participation• Commitments Gathering Participation• Monthly meetings with TEAM Project Manager
HEALTH BENEFITS
<ul style="list-style-type: none">• Medicare Advantage Vendor Selection Participation• Pharmacy Benefits Manager Selection Participation• TRS-Care Audit Committee Presentation Coordination• HIPAA Privacy Policy and Procedures Examples• Segregation of Duties Control Discussion
INVESTMENTS
<ul style="list-style-type: none">• Personal Trading Monitoring, Investigation of Potential Front-running jointly with Legal Services staff, Weekly Meetings with Legal Services, Quarterly Reporting to Executive Director• Vendor Assessment of Security Controls for Compliance 11 Personal Trading System• Derivatives Operations Group Meetings Participation• Monthly Securities Lending Update Meetings Participation• Internal Investment Committee (IIC) Attendance• Investment Management Division (IMD) Staff Meeting Attendance• Technology and Operations Working (TOW) Group Meeting Attendance• Coordination of State Auditor's Office Audit of Incentive Pay Plan• Key Employee Definition Discussion
FINANCIAL SERVICES
<ul style="list-style-type: none">• Wire Transfer Controls Discussion• Valuation Committee Participation• 1099 Survey to Pension Peers
EXECUTIVE
<ul style="list-style-type: none">• Electronic Records Retention Meetings• Contract Workers Policy Memo• Training Policy Input• Hot Line Call Facilitation• Incident Management Team Tabletop Participation• Data Classification Policy and Procedures Input• New Employee Orientation Training• Social Media Advisory Committee• Fraud, Waste and Abuse Prevention Committee• Employee Ethics Training Pilot
INFORMATION TECHNOLOGY
<ul style="list-style-type: none">• Cloud Computing Assessment Tool Development• Internal Vulnerability Scan Project Discussion

Status of Fiscal Year 2012 Planned Assurance, Consulting, and Advisory Services as of February 2012

AREA	ASSURANCE	CONSULTING/ADVISORY
Benefit Services and Benefit Accounting	<ul style="list-style-type: none"> ✓ Benefit payments: testing on behalf of State Auditor's Office (SAO) in support of the Comprehensive Annual Financial Report (CAFR) audit Benefit quarterly testing: <ul style="list-style-type: none"> • Gross annuity payments, manual payments • Key controls • Legislative changes • TRS Rules and Laws compliance ✓ 1st QTR ✓ 2nd QTR 3rd QTR 4th QTR 	<p>Key process flowcharts and controls identification:</p> <p>Benefit Accounting -</p> <ul style="list-style-type: none"> • District Reports • Disbursements • Special Service Buyback <p>★ Reporting entity study of other pension system practices</p>
Health Benefits		<ul style="list-style-type: none"> ❖ Health benefits vendor quarterly meetings attendance ✓ Healthcare auditor contract award participation (non-voting)
Investments	<p>Private partnership selection and monitoring controls (especially co- investments)</p> <p>★ Investment risk management</p> <ul style="list-style-type: none"> ✓ State Street compliance calculations ✓ Bloomberg access controls (incorporated into technology security testing procedures) <p>Investment policy compliance: Continuous testing (including board reports and wire transfers)</p> <ul style="list-style-type: none"> ✓ 1st QTR ✓ 2nd QTR 3rd QTR 4th QTR 	<ul style="list-style-type: none"> ❖ Investment Compliance program: <ul style="list-style-type: none"> • Investment Policy Statement • Securities Lending • Proxy Voting • Employee Trading ❖ Trade pre-clearance ❖ Committee participation/attendance: <ul style="list-style-type: none"> • Internal Investments Committee • Technology and Operations Workgroup • Derivatives • Securities Lending <p>Investment Policy Statement review</p> <ul style="list-style-type: none"> ✓ Incentive pay calculation review <p>Key process flowchart:</p> <ul style="list-style-type: none"> • Corporate actions • Passive portfolio
Financial Services and Staff Services	<ul style="list-style-type: none"> ✓ Investment accounting and valuation <p>Compensation, payroll, and position control (including Human Resources)</p> <ul style="list-style-type: none"> ✓ Building security 	<ul style="list-style-type: none"> ✓ SAO coordination for financial audit ❖ Valuation committee participation

Legend: ✓ Project or activity completed
 ★ Project in progress
 ❖ Ongoing during the quarter

Status of Fiscal Year 2012 Planned Assurance, Consulting, and Advisory Services as of February 2012

AREA	ASSURANCE	CONSULTING/ADVISORY
Executive	<p>Follow-up status report on outstanding audit recommendations</p> <ul style="list-style-type: none"> ✓ 1st QTR ✓ 2nd QTR 3rd QTR 4th QTR 	<p>Internal controls opinion planning</p> <ul style="list-style-type: none"> ★ Internal Audit quality assurance self-assessment ❖ Committee participation: <ul style="list-style-type: none"> • Fraud, Waste, and Abuse Prevention Committee • Website Advisory Committee • Leadership Committee • Risk Oversight Committee • Executive Council • Issues Management Team • Social Media Advisory Committee ❖ Policy reviews and training participation: <ul style="list-style-type: none"> • Ethics policy • Internal policies ❖ Fraud and ethics hotline <p>Key process flowcharts:</p> <ul style="list-style-type: none"> • Legal Services: Securities class action claims • Human Resources: Performance management, compliance and administration <p>Surprise inspections – various</p>
Information Technology	<p>Quarterly testing of security controls</p> <ul style="list-style-type: none"> ✓ 1st QTR 2nd QTR (deferred to 3rd QTR) 3rd QTR 4th QTR <p>Change management controls</p>	<ul style="list-style-type: none"> ❖ Committee participation: <ul style="list-style-type: none"> • TRS Enterprise Application Modernization (TEAM) Executive Steering Committee <ul style="list-style-type: none"> ○ Business Rules team ○ Commitments Gathering • Information Resources Operations Committee • MyTRS • Information Security Program Core Team <p>Hot site observation</p>

Source: Approved Fiscal Years 2012-2014 Audit Plan

**Internal Audit Performance Measures - Fiscal Year 2012
2nd Quarter Ending February 2012**

Target Performance	Status
1. Complete 90% of original assurance projects.	On Task
2. Facilitate success of external financial audit.	Achieved
3. Increase risk coverage by increasing use of data-mining tools (quarterly testing of benefits, information security, and investment compliance).	On Task
4. Ensure adequate expertise to perform audits by publishing a request for qualifications.	Achieved
5. Ensure outstanding audit recommendations are fully implemented by following up and reporting on their status quarterly.	On Task
6. Improve identification and maintenance of risks and controls through implementation of an automated tool (TeamRisk).	On Task
7. Achieve 75% or higher utilization (direct time/total available hours) of professional staff time on assurance, consulting, and advisory services.	On Task
8. Provide training on internal controls to TRS' managers and staff.	On Task
9. Implement fiscal year 2012 objectives and initiatives of the Internal Audit strategic plan.	On Task
10. Provide the Audit Committee with quarterly and annual status reports (performance measures, Quality Assurance and Improvement Program, and annual report).	On Task

Legend: Target Status

	Target not achieved
	Behind in achieving target
	On task to achieve target
	Achieved target

Teachers Retirement System of Texas
Internal Ethics and Fraud Hotline
Incident Report Activity Summary
1/1/2010 (inception) through 3/30/2012

Time Period	Number of Calls	Status
1/1/2010 – 8/31/2010	1	Resolved
9/1/2010 – 8/31/2011	2	Resolved
9/1/2011 – 11/30/2011	0	N/A
12/1/2011 – 3/30/2012	1	Resolved

Resolved – fully investigated by the Triage Team and all actions agreed to by the Triage Team have occurred.

Per the TRS Fraud and Ethics Hotline Procedures:

- The Audit Committee Chair will be kept apprised of the status of investigations and will be notified of any suspected fraud in accordance with TRS’s Fraud, Waste, and Abuse Prevention Policy.
- The Audit Committee will be provided with statistics quarterly regarding calls received, their disposition, and those resulting in identification of fraud and notification to the State Auditor’s Office hotline.
- The Audit Committee may instruct Internal Audit to perform an audit of matters relating to issues identified with the allegation in accordance with the Audit Committee Charter.
- Internal Audit will consider results of hotline calls and actions by the Triage Team in developing the annual audit plan or amendments to that plan.

ACCOUNTING AND AUDITING UPDATES
2nd Quarter
Fiscal Year 2012

1. COSO releases draft update to internal control

The Committee of Sponsoring Organizations of the Treadway Commission (COSO), an organization that provides thought leadership and guidance on internal control, enterprise risk management, and fraud deterrence, has released an update to its internal control framework for public comment. The updated framework addresses changes in the business environment and associated risks since its original publication in 1992. The framework retains its core definition of internal control and the five components of a system of internal control (control environment, risk assessment, control activities, information and communication, and monitoring), but makes significant enhancements, including codifying the original internal control concepts into 17 principles and supporting attributes.

2. SEC launches private equity inquiries

The Securities and Exchange Commission (SEC) has launched a wide-ranging inquiry into the private equity industry to examine how firms value their investments, among other topics. The SEC's enforcement division sent letters to private equity firms of various sizes in early December 2011. The inquiries are thought to stem from recent scandals in the financial industry and the ensuing financial crisis, and the passage of the Dodd-Frank Act, which made sweeping financial regulatory reforms. The inquiries include extensive document requests, in particular support for asset valuations.

3. SEC releases risk alert on unauthorized trading

The Securities and Exchange Commission (SEC) has released an alert that helps companies prevent and detect unauthorized trading in brokerage and advisory accounts. The alert was issued by the SEC's Office of Compliance Inspections and Examinations (OCIE). It notes that activities such as changes in trading patterns, high volumes of trade cancellations or corrections, manual trade adjustments, or unexplained profits for a particular trader or client may indicate wrongdoing. It suggests the implementation of compliance measures, such as stress tests and independent trading reviews, to protect against unauthorized trading. It also discusses policies that a company can implement to detect and prevent unauthorized trading, such as requiring traders to take vacations, which would allow auditors to review the trader's activities for signs of unusual trades.

4. GAO issues revision of Government Auditing Standards

The Government Accountability Office (GAO) has issued the 2011 revision of the Government Auditing Standards. This revision supersedes the 2007 revision. Changes include adding a conceptual framework to help auditors assess their independence for activities not expressly prohibited in the standards; removing references to certain American Institute of Certified Public Accountants (AICPA) Statements on Auditing Standards (SAS) and Statements on Standards for Attestation Engagements (SSAE) since standards have converged on those issues; and clarifying the definition of validity for performance audits. The effective date is December 15, 2011 for performance audits and December 15, 2012 for financial audits and attestation engagements.

5. IIA proposes changes to Standards

The Institute of Internal Auditors (IIA) is proposing changes to the International Standards for the Professional Practice of Internal Auditing (the Standards). The changes are meant to clarify wording, not change the intent of the Standards. These changes include clarifying the responsibilities of internal auditors, the Chief Audit Executive (CAE), and the internal audit activity; increasing focus on the Quality Assurance and Improvement Program (QAIP); clarifying the CAE's role to communicate unacceptable risk; explicitly requiring timely adjustments to the audit plan for changes; and adding more examples of functional reporting to the Board.

Internal Audit Staff Quarterly Accomplishments

TRS Internal Audit Department

- Internal Audit is hosting three University of Texas at Austin (UT) students during their master's level internal auditing onsite class project. For several years we have worked with UT to provide an opportunity for students to take the internal auditing profession out of the textbook and into an actual internal audit function.

This year the following students are assisting us with phase one of our annual self-assessment where they are taking a firsthand look at our compliance with the professional auditing standards for planning and performing an assurance engagement as well as communicating the results.

Nick Jankovsky – Nick is a student in the University of Texas at Austin's five-year Integrated Master in Professional Accounting program. He will be graduating in May with undergraduate degrees in Business Honors, Accounting, and minor in Spanish, while attaining a Masters in Accounting. A native of Houston, he plans to start working for Bain & Co. in Dallas upon graduation.

Sameer Patwary – Sameer is a student in the University of Texas at Austin's one-year Master in Professional Accounting program. He graduated Magna Cum Laude in 2011 from State University of New York at Geneseo with a degree in Mathematics and Accounting. A native of New York City, he plans to start working for KPMG in Dallas upon graduation.

Scott Wingo – Scott is a student in the University of Texas at Austin's one-year Master in Professional Accounting program. He graduated Phi Beta Kappa in 2010 from Georgetown University's School of Foreign Service with a degree in international politics. A native of Dallas, he plans to work at a public accounting firm in Houston upon graduation.

Terry Harris

- Promoted from Investment Compliance Specialist to Senior Investment Compliance Specialist effective 2/1/2012.