

Internal Audit Annual Report

Fiscal Year 2019

October 2019



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

TEACHER RETIREMENT SYSTEM OF TEXAS

BOARD AUDIT, COMPLIANCE & ETHICS COMMITTEE

(As of October 01, 2019)

Christopher Moss, Chair
David Corpus
Greg Gibson, Ed.D.
James D. Nance
Nanette Sissney

BOARD MEMBERS

(As of October 01, 2019)

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Nanette Sissney

EXECUTIVE DIRECTOR

Brian Guthrie

INTERNAL AUDIT DEPARTMENT

(As of October 01, 2019)

Amanda Jenami, CPA, CISA, CIA, CRMA, CFE, Chief Audit Executive
Nick Ballard, CIA, CPA, CFA, Senior Audit Manager – Benefit Services
Lih-Jen Lan, CIA, CPA, CISA, CISSP, CCSA, Senior IT Audit Manager
Chris Chan, CISA, Senior IT Auditor
Rolando Delgado, Senior Data Analyst
Andrea Morales, CIA, CFE, Benefit Audit Manager
Alejandra Moreno, CPA, Senior Investment Auditor
Mary Presley, CISA, Senior Data Analyst/IT Auditor
Falguni Sampat, CQPA, Healthcare Auditor
Carol Casey, CPM, Internal Audit Benefit Consultant
Karen Marino, Internal Audit Administrative Coordinator

October 30, 2019   **Transmittal Letter**

Honorable Greg Abbott, Governor Members of the Legislative Budget Board
Members of the Sunset Advisory Commission
Ms. Lisa R. Collier, CPA, First Assistant State Auditor
Mr. Jarvis V. Hollingsworth, Chair, TRS Board of Trustees
Mr. Christopher Moss, Chair, TRS Board Audit, Compliance, and Ethics Committee
Members of the Board of Trustees, Teacher Retirement System of Texas
Mr. Brian Guthrie, Executive Director, TRS

Attached is the annual report of the Internal Audit department of the Teacher Retirement System of Texas (TRS). This report provides information on the audit plan, assurance, consulting, and advisory projects completed, and other Internal Audit activities. It also meets the annual reporting requirements of the Texas Internal Auditing Act (Texas Government Code, Chapter 2102.009 and Texas Government Code, Sections 2102.015 and 2102.0091). This report includes the following State Auditor's Office reporting guidelines:

- I. Compliance with Texas Government Code, Section 2102.015: Posting the Internal Audit Plan, Internal Audit Annual Report, and Other Audit Information on Internet Website
- II. Internal Audit Plan for Fiscal Year 2019
- III. Consulting Services and Nonaudit Services Completed
- IV. External Quality Assurance Review (Peer Review)
- V. Internal Audit Plan for Fiscal Year 2020
- VI. External Audit Services Procured in Fiscal Year 2019
- VII. Reporting Suspected Fraud and Abuse

The work performed by TRS Internal Audit contributes toward accountability, integrity, and good management practices within TRS operations. Fiscal year 2019 projects contributed to the improvement of risk management, control, and governance processes. Internal Audit (or those engaged by Internal Audit) issued 6 assurance and 10 agreed-upon procedures reports, followed-up and reported quarterly on the status of outstanding audit recommendations, and performed advisory services in various areas including TEAM (TRS Enterprise Application Modernization) Program initiatives.

For further information about the contents of this report or to request copies of Internal Audit reports, please contact Amanda Jenami at (512) 542-6124.

Sincerely,

Amanda Jenami, CIA, CISA, CPA, CFE
Chief Audit Executive

TEACHER RETIREMENT SYSTEM OF TEXAS
INTERNAL AUDIT ANNUAL REPORT

FISCAL YEAR 2019

October 2019

**I. Compliance with Texas Government Code, Section
2102.015:
Posting the Internal Audit Plan, Internal Audit Annual
Report, and Other Audit Information on Internet Website**

Teacher Retirement System of Texas

Internal Audit Annual Report for Fiscal Year 2019

I. Compliance with Texas Government Code, Section 2102.015: Posting the Internal Audit Plan, Internal Audit Annual Report, and Other Audit information on Internet Web site

Texas Government Code, Section 2102.015 requires state agencies and institutions of higher education, as defined in the statute, to post agency internal audit plans and internal audit annual reports on the agency's internet website within 30 days of approval. The statute also requires entities to update the posting on the Internet to include a.) a detailed summary of the weaknesses, deficiencies, wrongdoings, or other concerns raised by the audit plan or annual report and b.) a summary of the actions taken to address concerns, if any, that are raised by the audit plan or annual report.

TRS Internal Audit follows the following procedures to ensure compliance with the requirements of Texas Government Code, Section 2102.015:

- The **TRS Annual Internal Audit Plan** is approved each fiscal year by the TRS Board of Trustees as recommended by the TRS Audit, Compliance and Ethics Committee. The annual audit plan, as approved by the TRS Board of Trustees, is provided by Internal Audit staff to the TRS Website coordinators and posted to the TRS Website within 30 days of approval.
- The **TRS Internal Audit Annual Report** is prepared annually by Internal Audit staff in accordance with the Texas State Auditor's Office guidelines by the required deadline. This report, once approved by the Chief Audit Executive, is submitted to the Governor's Office, the Legislative Budget Board, the Sunset Advisory Commission, the State Auditor's Office and the TRS Board of Trustees by November 1 of each fiscal year. The annual report is provided by Internal Audit staff to the TRS Website coordinators to post to the TRS Website.
- **Summaries of the weaknesses, concerns, and actions** taken to address concerns in the audit plan or annual report are provided by Internal Audit in the quarterly TRS Audit, Compliance and Ethics Committee materials. The committee materials provide audit reports completed during each quarter, quarterly status reports on management action on outstanding audit recommendations, and the status of the current fiscal year audit plan. The individual audit reports provide the results, recommendations, and management actions taken to address the audit recommendations. The TRS Audit, Compliance and Ethics Committee materials are posted to the TRS Website, after dissemination to TRS Board of Trustees, through an administrative process of board and committee materials prior to the scheduled Board meeting.

II. Internal Audit Plan for Fiscal Year 2019

Teacher Retirement System of Texas
Internal Audit Annual Report for Fiscal Year 2019

Fiscal Year 2019 Audit Plan Status
As of September 2019

Department/Program, Project Title, Project #	Type	Status	Report Date
Executive and Finance			
Communications Audit (Project #19-602)	Audit	Complete	8/16/2019
Talent Management and Culture Audit (formerly Building the Fleet Readiness Audit) (Project #19-601)	Audit	Complete	3/8/2019
Coordination for State Auditor's Office (SAO) Comprehensive Annual Financial Report (CAFR) Audit for Fiscal Year 2018	Advisory	Complete	NA
Teacher Retirement Investment Company of Texas (TRICOT) Financial Audit Coordination (Grant Thornton)	Advisory	Complete	NA
Executive Incentive Pay Testing	Agreed-Upon Procedures	Cancelled	NA
Committee and Workgroup Meetings Participation	Advisory	Ongoing	NA
Special Requests and Emerging Issues	N/A	N/A	NA
TEAM Program			
TEAM Independent Program Assessment (IPA) Vendor Support	Advisory	Ongoing	NA
TEAM Phase II Annuity Payroll Testing	Advisory	In Progress	NA
HILOB Pre-Cutover Reconciliation Process	Advisory	In Progress	NA
TEAM Committees, Projects and Controls Assessment Participation	Advisory	Ongoing	NA
Pension Benefits			
Annuity Payment Testing for SAO CAFR Audit of FY 2018 (Project #19-100)	Audit	Complete	NA
Benefit Disbursement (Project #18-104)	Consulting	Complete	NA
Disability Retirement and Medical Board Audit (Project #19-104)	Audit	Complete	11/29/2018
Annual Benefits Testing (Project #19-101)	Agreed-Upon Procedures	Complete	8/5/2019
Employers Testing (13 ISDs) (Project #19-102)	Agreed-Upon Procedures	Completed 13 ISDs	11/16/2018 3/13/2019 6/1/2019 8/21/2019
Employer Data Analysis and Census Testing (Project #19-103)	Agreed-Upon Procedures	Complete	6/14/2019
TRS Reporting Entity Website Audit Information and Communication Activities	Advisory	Complete	NA

Teacher Retirement System of Texas

Internal Audit Annual Report for Fiscal Year 2019

Department/Program, Project Title, Project #	Type	Status	Report Date
Health Care			
Pharmacy Rebate Advisory	Advisory	Deferred	NA
TRS-Care Revenue Collection Processes (Project #19-204)	Consulting	Complete	8/30/2019
TRS-Care Surcharge Payments	Advisory	Complete	8/2019
TRS-Care Coverage for Members in Pending Ret. Status	Advisory	Complete	7/2019
Business Process Improvement and Rework	Advisory	Complete	NA
Health Care Vendor Update Meetings Attendance	Advisory	Ongoing	NA
Information Technology			
IT Governance (outsourced) (Project #18-501)	Consulting	Complete	12/11/2018
Cloud Computing (outsourced) (Project #19-501)	Consulting	Complete	8/30/2019
Active Directory Audit (Project #19-502)	Audit	Complete	5/31/2019
CAPPS IT Controls Audit (Project #19-504)	Audit	Cancelled	NA
IT Risk Assessment	Advisory	Complete	NA
Disaster Recovery, Network Penetration Tests, Security Risk Assessment Review	Advisory	Ongoing	NA
Investment Management			
Derivatives Accounting Audit (Project #19-304)	Audit	Complete	6/14/2019
Trustee Travel Project (Project #19-301)	Consulting	Complete	11/20/2018
Valuations Audit	Audit	Deferred	NA
Quarterly Investment and Ethics Policies Compliance Testing (Project #19-302)	Agreed-Upon Procedures	Transfer to L&C in Q4	11/16/2018 3/13/2019 6/13/2019
Annual Testing of Investment Incentive Pay Plan (Project #19-303)	Agreed-Upon Procedures	Complete	12/18/2018
Investment Committees Attendance	Advisory	Ongoing	NA
Internal Audit Department			
Annual Internal Audit Report – FY19	Administrative	Complete	NA
Data Analysis Process Buildout	Administrative	Ongoing	NA
Quarterly Audit Recommendations Follow-up	Administrative	Ongoing	NA
External Quality Assurance Review	Administrative	Complete	6/2019
Fiscal Year 2020 Audit Plan	Administrative	Complete	NA
Audit, Compliance and Ethics Committee Meetings Preparation	Administrative	Complete	NA

MEMORANDUM

TO: Audit, Compliance and Ethics Committee
Brian Guthrie, Executive Director

FROM: Amanda Jenami, Chief Audit Executive

SUBJECT: Proposed Revisions to the Audit Plan for Fiscal Year 2019

DATE: April 25, 2019

Per the approved *Fiscal Year 2019 Audit Plan*, amendments to the approved Audit Plan deemed to be significant will be submitted to the Board of Trustees for approval. The State Auditor's Office also requires notification of material changes to the Audit Plan. Staff requests that the Audit, Compliance, and Ethics Committee approve the proposed amendments to the FY19 Audit Plan and recommend that the Board of Trustees adopt the proposed revisions. Below is a list of proposed changes for your consideration:

Project	Change	Reason
Health Care		
Pharmacy Rebate Audit Support	Defer	Management requires more time to procure a vendor. Management expects to complete the process by First Quarter, FY 2020.
Consult on TRS-Care Revenue Collection Processes	Add	Management Request
Data Analytics Projects (Advisory): 1. TRS-Care Surcharge payments 2. TRS-Care Coverage for Members in Pending Retirement Status	Add	Management Request
Pension Benefits and Employer Reporting		
Employer Testing	Expand Scope	Management Request to increase number of reporting entities tested by 50%
Investment Management		
Audit of Investment Valuation	Defer	IA no longer has the capacity to perform this audit. IA lost approximately 700 audit hours due to a vacancy in the Investment Auditor position (from December 2018 to April 2019).
Technology		
CAPPS IT Controls Audit	Cancel	IA will rely on the work of the State Auditor's Office, State Comptroller's Internal Audit Division and periodic SOC reports (from an independent third party) to provide the necessary assurance that IT controls within the CAPPS system are suitably designed and operating effectively

April 2019 Board of Trustees Meeting

III. Consulting Services and Nonaudit Services Completed

Teacher Retirement System of Texas

Internal Audit Annual Report for Fiscal Year 2019

III. Consulting Services and Nonaudit Service Completed

During fiscal year 2019, Internal Audit conducted (or hired consultants to conduct) the following consulting (Nonaudit services) projects resulting in formal recommendations to management.

1. Benefit Disbursement (Project #18-104)

Objective: Identify fraud risk of misdirected payments and consult on any planned control changes proposed by management.

This was achieved by mapping disbursement processes that are managed by the TRS Benefits team. Process maps identified key process controls, including checks for completion and accuracy, segregations of duties, access limitations, authorizations, and compliance checks. Recommendations focused on considering implementing additional processes to strengthen identified controls.

2. TRS-Care Revenue Collection Processes (Project #19-204)

Objective: To gain an understanding in: (1) the TRS-Care revenue collection process in TRUST, and (2) the settlement of state contributions for fiscal year 2018.

This was achieved by mapping TRS-Care funding sources and the settlement of state contributions to TRS Pension and Healthcare funds. Using source data from TRS' TEAM system, the project team recalculated settlement amounts for fiscal year 2018 and communicated variances with TRS Health Insurance Benefits (HIB) management.

3. IT Governance (Project#18-501)

Objective: Assess the effectiveness of processes for identifying, evaluating, approving, funding, monitoring, and closing out major IT projects.

This was an outsourced project. The project was achieved by conducting interviews of TRS personnel, reviewing departmental documentation, and comparing TRS IT governance processes to best practices such as Control Objectives for Information and Related Technologies (COBIT) 5 and the Texas Department of Information Resources Project Delivery Framework and Project Management Lite guidance. Recommendations focused on ensuring significant IT project decisions involve the right personnel and that the appropriate level of expertise is established for translate business requirements into IT terms and requirements.

4. Cloud Computing (Project #19-501)

Objective: Assess whether TRS has an effective process for evaluating cloud vendors in terms of operational efficiency, IT security, and data protection.

This was an outsourced project. The project was achieved by conducting interviews of TRS personnel, reviewing departmental documentation, and identifying cloud computing services business needs, and comparing processes to best practices. Recommendations focused on finalizing cloud computing policies, identifying roles and responsibilities, and developing and maintaining a list of cloud vendors and services.

Teacher Retirement System of Texas

Internal Audit Annual Report for Fiscal Year 2019

5. Trustee Travel Project (Project#19-301)

Objective: Benchmark board travel policy with other retirement systems; review implementation of Concur travel system processes and procedures for consistency with TRS travel requirements.

This was achieved by conducting interviews of TRS personnel and reviewing departmental documentation, and analyzing board travel processes, and surveying other pension funds on travel processes. Recommendations focused on executive and legal and compliance reviews of board travel prior to booking travel to non-preapproved events and tracking and reporting board travel. Additional recommendations were made relating to board travel processes.

Internal Audit also performed various advisory (nonaudit services) as listed in section II.

IV. External Quality Assurance Review (Peer Review)

**Report on the External Quality Assurance Review of the
Teacher Retirement System of Texas
Internal Audit Department
June, 2019**



Performed by

**Kenneth R. Kasper, CIA, CPA, CFE, CPFO, CISA, CIDA, CGAP
Director of Internal Audit
New York State Teachers' Retirement System**

**Elizabeth Scott, CIA, CPA, CIDA
Manager of Internal Audit
SBA of Florida**

**Parsons Townsend, CIA, CGAP
Compliance Director
Texas Department of Transportation**

**Performed in Accordance with the State Agency Internal Audit Forum
Peer Review Policies and Procedures**

Overall Opinion

Based on the information received and evaluated during this external quality assurance review, it is our opinion that the Teacher Retirement System of Texas (TRS) Internal Audit Department receives a rating of **"Pass/Generally Conforms"** and is in compliance with the Institute of Internal Auditors (IIA) *International Professional Practices Framework* and Code of Ethics, the United States Government Accountability Office (GAO) *Government Auditing Standards*, and the Texas Internal Auditing Act (Texas Government Code, Chapter 2102). This opinion, which is the highest of the three possible ratings, means that policies, procedures, and practices are in place to implement the standards and requirements necessary for ensuring the independence, objectivity, and proficiency of the internal audit function.


We found that the Internal Audit Department is independent, objective, and able to render impartial and unbiased judgments on the audit work performed. The staff members are qualified, proficient, and knowledgeable in the areas they audit. Individual audit projects are planned using risk assessment techniques; audit conclusions are supported in the working papers; and findings and recommendations are communicated clearly and concisely.

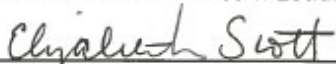
The Internal Audit Department is well managed internally. In addition, the Department has effective relationships with the Board and is well respected and supported by management. Surveys and interviews conducted during the quality assurance review indicate that management considers Internal Audit a useful part of the overall agency operations and finds that the audit process and report recommendations add value and help improve the agency's operations.


The Internal Audit Department has reviewed the results of the peer review team's work and has accepted them to be an accurate representation of the Department's operations.

Acknowledgements

We appreciate the courtesy and cooperation extended to us by the Chief Audit Executive, Internal Audit staff, the Board Chair, the Chair of the Audit, Compliance and Ethics Committee, the Executive Director, and the executive managers who participated in the interview process. We would also like to thank each person who completed surveys for the quality assurance review. The feedback from the surveys and the interviews provided valuable information regarding the operations of the Internal Audit Department and its relationship with management.


Kenneth R. Kasper, CIA, CPA, CFE, CPFO, CISA, CIDA, CGAP
Director of Internal Audit
New York State Teachers' Retirement System
SAIAF Peer Review Team Leader


Elizabeth Scott, CIA, CPA, CIDA
Manager of Internal Audit
SBA of Florida
SAIAF Peer Review Team Member


Parsons Townsend, CIA, CGAP
Compliance Director
Texas Department of Transportation
SAIAF Peer Review Team Member

V. Internal Audit Plan for Fiscal Year 2020



Fiscal Year 2020 Audit Plan

September 19, 2019



Executive Summary

Professional and Statutory Requirements

This document provides the *Fiscal Year 2020 Audit Plan* (Audit Plan) as required by professional auditing standards, the *Texas Internal Auditing Act* (Act), and *Texas Government Code 2102.008* for the Teacher Retirement System of Texas (TRS). The Act requires state agencies to conduct a program of internal auditing that includes an annual audit plan that is prepared using risk assessment techniques and identifies individual audit projects to be conducted during the year. The Audit Plan is required to be evaluated and updated annually for recommendation of approval by the TRS Audit, Compliance and Ethics Committee of the Board of Trustees (ACE Committee) to the TRS Board of Trustees (Board). Internal Audit is independent of management and provides objective assurance and consulting services designed to add value and improve TRS' operations.

Audit Plan Development and Scope

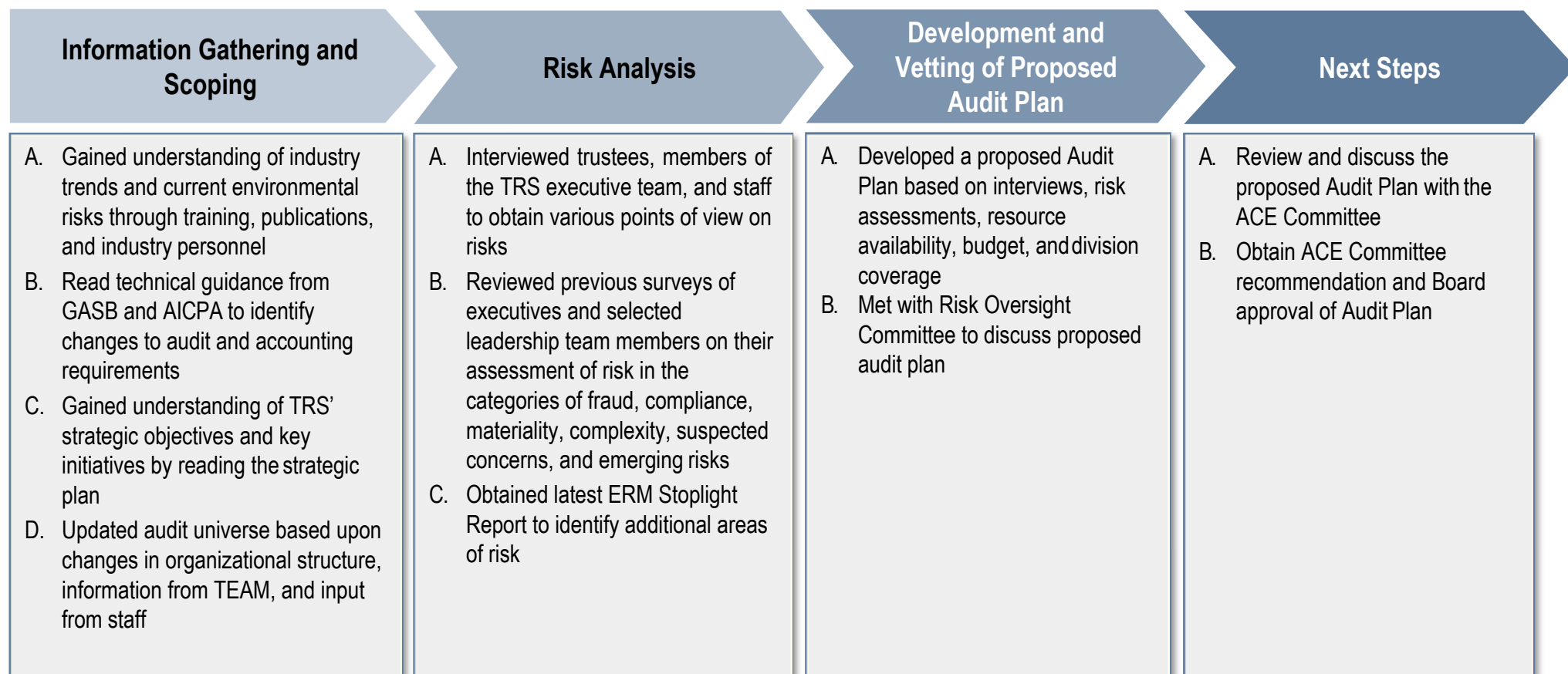
Our Audit Plan is designed to provide coverage of key risks, given the existing staff and approved budget. See the **Appendices** for information regarding the internal audit budget, performance measures, and audit plan mapped to the TRS Risk Assessment.

Changes Subsequent to Approval

Interim changes to the Audit Plan will occur from time to time due to changes in business risks, timing of TRS' initiatives, and staff availability. We will report Audit Plan changes to executive management and present changes to the ACE Committee at the next quarterly ACE Committee meeting. Amendments to the approved Audit Plan deemed to be significant (based on discussions with the executive director and audit committee chair) will be submitted to the ACE Committee for recommendation to the Board for approval. We will also notify the State Auditor's Office of material changes to the Audit Plan.

Risk Assessment & Audit Planning Approach

Interviews of TRS trustees, executives and staff, risk assessment surveys from prior years, and the current TRS Risk Assessment developed by the Enterprise Risk Management (ERM) team were used to identify areas of risk and potential internal audit projects. This information was combined into an overall audit plan designed to address critical risks to achieving TRS objectives while being sensitive to operational requirements. The Audit Plan also includes hours for ad hoc projects and special requests. The following approach was taken in creating the Audit Plan:



Types of Projects to Cover Risk Areas

An important part of the Audit Plan is that the identified processes, systems, and initiatives should receive differing types and levels of review based on their importance, perceived risk, and most efficient approach. Our suggested levels of review activities are as follows:

Audit

- Audit Focus: Assess evidence available in order to provide assurance on an audit objective
- Deliverable: Audit report for public distribution unless protected by statute
- Estimated level of effort per project: 400 - 500 hours

Agreed-Upon Procedures

- Agreed-Upon Procedures Focus: Determine specific steps to test with management's agreement and report on results; used for data analytics and quarterly testing of specific data and transactions
- Deliverable: Agreed-upon procedures report for public distribution (use is limited to those with understanding of procedures performed)
- Estimated level of effort per project: 100 - 300 hours

Formal Consulting

- Consulting Focus: Respond to requests for formal study or assessment with recommendations; no assurance provided
- Deliverable: Consulting report or memo for limited distribution; significant material weaknesses identified would be reported to executive management and the ACE Committee as required by professional auditing standards
- Estimated level of effort per project: 100 - 200 hours

Informal Consulting (Advisory)

- Advisory Focus: Participate in activities in a non-voting capacity, e.g., provide training and input on policies and procedures
- Deliverable: Verbal discussion or a brief memo to management
- Estimated level of effort per year: 10 – 100 hours

Audit Plan: Executive

Title	Type	Preliminary Scope	Timing
Enterprise Risk Management (ERM) Program Maturity Assessment	Consulting	Perform a maturity assessment of TRS' ERM program (266 hours)	Q1
Actuarial Audit	Advisory	Participate in the activities of the Actuarial Audit Working Group (25 hours)	Q1 – Q3
Follow-up of Talent Management Audit	Audit	Determine the extent to which management has implemented recommendations from Project # 19-601 (400 hours)	Q4
Follow-up of Procurement and Contracts Audit – Addresses Contract Management	Audit	Determine the extent to which management has implemented recommendations from Project # 18-201 (600 hours)	Q4
Special Requests and Emerging Issues	Advisory or Consulting	Set aside time to address special requests and emerging issues during the year as requested by management	Q1 – Q4
Meetings Participation	Advisory	Participate (non-voting) in various TRS-wide meetings such as Executive Counsel Leadership Team, and Strategy and Risk Oversight Committee	Q1 – Q4

Title	Type	Preliminary Scope	Timing
TEAM Phase II Annuity Payroll Testing	Advisory	Participate in TEAM Phase II Annuity Payroll Testing project team meetings and provide advisory services, as needed.	Q4
HILOB Pre-Cutover Reconciliation	Advisory	Participate in Health Insurance Line of Business application (HILOB) pre-cutover reconciliation project team meetings and provide advisory services, as needed.	Q4
TEAM Independent Program Assessment (IPA) Vendor Support	Advisory	Coordinate and facilitate activities of the IPA vendor and ensure direct access to executive management and the board	Q1 – Q4
TEAM Committees, Projects, and Controls Assessment Participation	Advisory	<p>Participate in TEAM Executive Steering Committee (ESC) and other committees and requirements-gathering sessions in a non-voting capacity, and provide advisory services related to TEAM project activities as outlined in the TEAM charter of internal audit activities. Provide input into controls identification projects. In FY17, Internal Audit participated in the following TEAM committees and projects:</p> <ul style="list-style-type: none"> - Executive Program Oversight Committee (including TEAM budget) - Organizational Change Management Advisory Groups - Business Procedures and Training Project - Monthly meetings with TEAM program manager and DXC executives 	Q1 – Q4

The tables on this page and the following pages provide the name of each project, type of project, and preliminary scope of work to be performed. Scope of work will be finalized as part of each project's formal planning phase.

Title	Type	Preliminary Scope	Timing
Review of the 1099-R Process	Audit	Determine whether TRS' 1099-R process ensures accurate and timely reporting (1,150 hours)	Q4
Review of Collections	Audit	Determine whether collections for EAR etc. are processed accurately, timely and in accordance with TRS rules, policies and procedures (1,000 hours)	Q1
Annual Benefits Testing	Agreed-Upon Procedures	Recalculate a sample of benefit payments annually and determine whether documentation on file supports the calculation; scope in other tests related to benefits as agreed-upon with management (750 hours)	Q4
Employer Testing	Agreed-Upon Procedures	Test reports submitted to TRS based on procedures agreed to with management, especially in the areas of eligibility, compensation, contributions, and surcharges (pension and healthcare) (1,150 hours)	Q1 – Q4
Employer Data Analysis and Testing	Consultancy	Gather and use full payroll data to risk assess reporting entities for audit, to identify noncompliance with TRS Laws and Rules, and identify errors in system edit checks and missing data (400 hours)	Q1 – Q4
TRS Reporting Entity Website Audit Information Update and Communication Activities	Advisory	Update audit-related information and tools on the TRS employer (reporting entity) website. Information may include self-audits, audit programs, audit results, technical guidance, and frequently asked questions about reporting entity audits	Q1 – Q4

Audit Plan: Investment Management

Title	Type	Preliminary Scope	Timing
Review of Contract Oversight – Addresses Contract Management	Audit	Determine the extent to which HIB contract administration and oversight activities ensure HIB goals are accomplished effectively, efficiently and in compliance with relevant regulations, policies and procedures (1,200 hours)	Q2
Review of Claims Data Warehouse	Audit	Determine the extent to which HIB's Claims Data Warehouse ensures data confidentiality, integrity, accuracy, and usability (1,200 hours)	Q1
Review of Compliance with Federal Regulations	Audit	Determine the extent to which HIB has processes in place to ensure compliance with key federal regulations (1,000 hours)	Q3
Claims Data Analysis	Consultancy	Perform data analysis on claims, and share results with management. Develop data analysis scripts for future automated tests. (700 hours)	Q2
Pharmacy Rebate Audit Support	Advisory	Participate in external audit verifying accuracy of pharmacy rebates received by TRS-Care and TRS-ActiveCare (200 hours)	
Health Care Vendor Update Meetings Attendance	Advisory	Attend quarterly meetings with health care vendors to understand results, issues, and TRS management's monitoring controls	Q1 – Q4
Health Care Vendor Selection Observation	Advisory	Observe selection process of large vendors and service providers, when applicable	Q1

member 2019 Board Audit, Compliance

Audit Plan: Investment Management

	Type	Preliminary Scope	Timing
Quantitative Equity Strategies (QES)	Audit	Determine whether IMD's Quantitative Equity Strategies (QES) program has controls to ensure investment management goals are met effectively and efficiently, and in compliance with TRS policies and procedures (1,200 hours)	Q2
Review of Energy, Natural Resources and Infrastructure Operations	Audit	Determine whether ENRI processes ensure ENRI goals are accomplished effectively, efficiently and in compliance with relevant laws, policies and procedures (1,200 hours)	Q3
Review of Cash Management	Audit	Determine if adequate controls exist over cash management to ensure the safeguarding of assets, the effectiveness and efficiency of operations, compliance with applicable laws, and the reliability and integrity of financial and operational information. Cash management comprises several key processes, including trust rebalance, controller payment, liquidity management, trade settlement, funding and wire processing. (1,200 hours)	Q1
Follow-up of Derivatives Controls Audit	Audit	Determine the extent to which management has implemented recommendations from Project # 19-304 (400 hours)	Q4
Investment Committees Attendance	Advisory	Stay current on Investment Management Division initiatives by attending the Internal Investment Committee, Derivatives Operations, monthly staff, and other meetings such as the Annual Town Hall meeting and meeting with risk, compliance, and operations staff	Q1 – Q4

Audit Plan: Technology

Title	Type	Preliminary Scope	Timing
Follow-up of HIPAA Security and Privacy Audit	Audit	Determine the extent to which management has implemented audit recommendations from Project# 17-501 (400 hours)	Q3
Review of Claims Data Warehouse	Audit	Determine the extent to which HIB's Claims Data Warehouse ensures data confidentiality, integrity, accuracy, and usability (1,200 hours)	Q1
Review of Investment Data and Systems	Audit	Assess the completeness, integrity, accuracy, and reliability of TRS databases that are used for tracking and reporting investment activity. (1,000 hours)	Q4
IT Risk Assessment	Advisory	Obtain an understanding of various IT processes that have not been audited in a while for purposes of determining their risk level (200 hours)	Q4
Disaster Recovery, Network Penetration Tests; Security Risk Assessment Review	Advisory	Observe, obtain, read, and follow-up on any issues identified during the network disaster recovery, penetration tests, and the security risk assessment conducted by the TRS Information Security Officer	Q1 – Q4

Audit Plan: Finance and Staff Services

Title	Type	Preliminary Scope	Timing
Comprehensive Annual Financial Report (CAFR) testing of annuity payments	Audit	Conduct pension benefits testing on behalf of the State Auditor's Office (SAO) to be used in completion of the CAFR audit (400 hours)	Q1
Review of Accounting Operations	Audit	Determine whether Accounting Operations' processes ensure that TRS goals are accomplished effectively and efficiently and in a manner that complies with federal and state laws, agency policies and procedures (1,700 hours)	Q2

Audit Plan: Internal Audit Activities

Title	Project Description
Annual Internal Audit Report	Prepare annual report of audit activities in accordance with SAO instructions
Quarterly Audit Recommendations Follow-Up	Follow-up and report on the status of outstanding audit recommendations
Data Analysis Process Buildout	Continue to build out data analysis skills of audit staff; incorporate into audit projects and annual audit plan development; and pilot analysis projects in various business units. Work towards a continuous auditing program by researching and developing a key risk indicator dashboard and automated scripts (reserve project)
Assurance Map	Develop and maintain an assurance map. An assurance map is a matrix comprising a visual representation of the organization's risks and the related coverage provided by all internal and external providers of assurance services. This visual depiction exposes coverage gaps and duplications, and is a useful tool in (1) developing the annual internal audit plan [Standard 2010] and (2) coordinating efforts with other assurance providers [Standard 2050]
Staff Training Initiative	Develop and launch auditor training in key areas including report writing, workpaper documentation, and audit risk assessment
Fiscal Year 2021 Audit Plan	Prepare annual audit plan based on a documented risk assessment in accordance with professional auditing standards and the Texas Internal Auditing Act
Audit, Compliance & Ethics Committee Meetings Preparation	Prepare communications and attend Audit, Compliance & Ethics Committee and Board Meetings

Audit Plan: High Risk Areas

High Risk Areas are defined as (High, Elevated, or Caution). Areas of interest to the SAO (Procurement and IT Security) excluded from the Audit Plan.

Area	Reason for Exclusion
Cybersecurity	TRS is scheduled to undergo a Texas Cybersecurity Framework Assessment, conducted by a third-party vendor on behalf of the Department of Information Resources. Internal Audit has reviewed the methodology, scope, and timing of this assessment and plans to rely on this important assessment.
Records Management	TRS is completing implementation of major records management conversion to SharePoint.
Investment Accounting	Investment Accounting is in the process of documenting accounting related processes performed by the custodian bank for TRS Investment Accounting. The process documentation will cover each service area including derivatives processing, securities finance, alternative asset servicing, pricing and valuation, trade settlement and funding and wire processing. Internal Audit plans to perform control effectiveness tests on each area after the documentation is completed.

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Appendix A

Internal Audit Operating Budget

Appendix A: Internal Audit Operating Budget

Line Item	Budget FY 2020	Budget FY 2019
000 – Salaries	1,415,900	\$1,188,488
000 – Benefits	329,400	297,029
200 – Professional Fees for Internal Audit Services	463,400	450,000
200 – Professional Fees for External Audit Services (CAFR, GASB Schedules, TRICOT)	464,600	382,500
505 – Travel-In-State	15,100	12,500
510 – Travel-Out-of-State	35,900	28,100
600 – Offsite Retreat	0	0
705 – Dues, Fees, and Staff Development	28,800	28,000
710 – Subscriptions and Reference Materials	2,100	2,000
Total Operating Budget	2,755,200	\$2,391,117
Full Time Equivalent (FTE) Positions (excluding interns)	14.0	11.0

Resources are sufficient to complete the annual audit plan.

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Appendix B

Internal Audit Goals and Performance Measures

Appendix B: Internal Audit Goals and Performance Measures

For the internal audit function, the FY 2020 goals and performance measures are as follows:

Goal 1: Facilitate Audit, Compliance and Ethics Committee Governance

Objective 1: Provide assurance and advice to the Audit, Compliance and Ethics Committee and executive management on risk mitigation activities related to the pension and healthcare trusts

Performance Measures

- a. 75% or more of audit and agreed-upon procedures projects are completed in the fiscal year
(75% allows for flexibility due to changes in TRS business practices and special requests)
- b. 70% or more of total available department hours (excluding uncontrollable leave) are spent for internal audit staff on direct assurance, consulting, and advisory services
- c. 100% of internal audit processes are in accordance with internal auditing standards as reported in the annual quality assurance and improvement report
- d. 75% (3.0/4.0) or higher score received for audit project client surveys in overall satisfaction

Appendix B: Internal Audit Goals and Performance Measures (continued)

Goal 1: Facilitate Audit, Compliance and Ethics Committee Governance, continued

Objective 2: Improve Internal Audit Communication

Performance Measures

- a. 75% (3.0/4.0) or higher score received for audit project client surveys regarding communication of the audit purpose, results, and reports
- b. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of verbal and written communication and collaborative audit perspective

Objective 3: Provide information on effective Audit Committee practices

Performance Measures

- a. 90% of relevant current “Tone at the Top” articles uploaded to Diligent

Appendix B: Internal Audit Goals and Performance Measures (continued)

Goal 2: Support TRS Initiatives

Objective 1: Support the success of the TEAM Program

Performance Measures

- a. 75% (3.0/4.0) or higher score received for audit project client surveys in TEAM-related projects

Objective 2: Integrate TRS Core Values into Internal Audit activities

Performance Measures

- a. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of organizational awareness
- b. 80% (4.0/5.0) or higher score for departmental organizational health on the annual Engage Survey

Appendix B: Internal Audit Goals and Performance Measures (continued)

Goal 3: Enhance Internal Audit Staff Competence and Expertise

Objective 1: Cultivate in-house Subject Matter Experts (SME's)

Performance Measures

- a. 75% (3.0/4.0) or higher score received for audit project client surveys regarding the usefulness of audit recommendations in improving business processes and controls
- b. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of audit acumen

Objective 2: Ensure continued competence and expertise of Internal Audit

Performance Measures

- a. 90% of audit staff complete annual training plans and obtain a minimum of 40 hours of continuing education credits
- b. 90% of audit staff maintain professional certifications or actively pursue certifications and related eligibility requirements
- c. 90% of audit staff participate in professional organizations
- d. 90% of audit staff acknowledge an understanding of their career path
- e. 80% or more of audit staff remain in internal audit or TRS (excluding retirements)

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Appendix C

Audit Universe Mapped to TRS Risk Assessment

Appendix C: Audit Universe Mapped to TRS Risk Assessment

#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
1	Elevated	TRS-Care Funding	Facilitate long-term soundness of TRS-Care in order to provide sustainable retiree health care benefits.	Inadequate funding and/or unanticipated external forces would affect solvency of the program over the current biennium and future years, requiring significant premium increases or benefit reductions.	Employer audits and data analytics of TRS-Care surcharges; Pharmacy claims data analysis, Pharmacy rebate audit participation	Audits, AUP, Consulting, Advisory
2	Elevated	Records & Information Management	Manage the organization, retention and disposition of TRS information and records with adherence to laws, rules, policies and best practices.	An ineffective records and information management program results in wasted resources; and does not protect, preserve, retain, dispose, or make records accessible in an accountable or transparent manner.	None. TRS is completing implementation of major records management conversion to SharePoint	n/a
3	Elevated	Employer Reporting	Accurately capture and utilize employer reported data to project and calculate future benefits of TRSmembers and to properly allocate the total pension liability across districts.	Incorrect reporting could lead to calculated benefits being inaccurate; Improperly allocating actuarial liability across districts.	Employer audits and data analytics of TRS-Care surcharges	Audits and AUP
4	Elevated	Pension Benefit Services	Deliver accurate benefits and superior service to TRS participants and stakeholders.	Inadequate delivery of benefits or customer service could lead to inaccurate information or benefits/payments, dissatisfied participants, loss of credibility, adverse public perception, increased scrutiny, and oversight.	Benefit testing for SAO CAFR audit, benefit testing AUP	Audits AUP
5	Elevated	Procurement & Contracts	Maintain effective procurement and contract management systems. Inappropriate procurement practices could result in purchases of substandard products and services, unfavorable pricing or contract terms, and violation of laws, ineffective contract management could result in contractors not fulfilling their contractual obligations.	Inappropriate procurement practices could result in purchases of substandard products and services, unfavorable pricing or contract terms, and violation of laws, ineffective contract management could result in contractors not fulfilling their contractual obligations.	Follow-up on outstanding procurement audit recommendations	Follow-up
6	Elevated	TEAM Program	Implement cost effective, efficient, and sustainable processes and systems that enable TRS to serve its members, employers, and annuitants.	System design, implementation and functionality of the new processes and systems do not meet the growing demands of TRS in service of its members. Program/ project implementation schedule and cost exceeds original estimates.	IPA vendor coordination, TEAM phase II annuity payment testing; EPOC and other committee participation	Advisory
7	Elevated	Investment Accounting	Ensure all TRS Investments are properly and completely accounted for; Ensure investments are valued correctly; Ensure investment fees are accurately reported and disclosed; Ensure cash flows into and out of the Fund are complete and properly controlled; Accurately calculate performance incentive pay (PIP)	TRS investments are not properly accounted for, valued correctly or properly reported, and investment-related cash is not properly controlled.	Participate in meetings with custodian bank.	Advisory

Appendix C: Audit Universe Mapped to TRS Risk Assessment (continued)

#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
8	Caution	TRS-ActiveCare Affordability	Facilitate financial soundness of TRS-ActiveCare in order to provide affordable health care benefits.	Inadequate funding by the state and participating entities and/or unanticipated external forces could affect affordability.	Pharmacy rebate audit participation	Advisory
9	Caution	Pension Funding	Sustain a financially sound pension trust fund.	A lack of sound funding for the plan could lead to insufficient assets to pay for long-term benefits and financial obligations.	Collections Audit, 1099-R Process Audit, Employer audits and data analytics of employer contributions	Audits and AUP
10	Caution	Legacy Information Systems	Provide information systems to meet TRS' business and customer service needs.	Inability to provide adequate and consistent information in a timely fashion via the preferred delivery mechanism.	EPOC and other committee participation, IT risk assessment.	Advisory
11	Caution	Information Security & Confidentiality	Maintain the integrity, availability, and protection in the storage, use, and transfer of TRS information resources (in any form or medium).	Unauthorized or unintentional release/access of TRS confidential information could result in state or federal law violations, sanctions against TRS or its employees, and harm the best interests of TRS.	Follow-up of HIPPA Security and Privacy Audit, Review of Claims Data Warehouse.	Audits and Consulting
12	Caution	Cyber Security	To prevent malicious attacks and unauthorized access of TRS information resources.	Ineffective cyber threat controls could lead to breaches or sabotage of TRS systems.	DIR's Cybersecurity Framework Assessment; DIR penetration tests	Consulting, Pen test
13	Caution	Health Care Plans Administration	Administer retiree and active member health care programs that are valued by enrollees.	Inadequate administration of the health care programs could possibly affect the quality of health care services provided to those who depend on the delivery of TRS health care benefits which would in turn increase health care costs.	Contract Oversight; Review of compliance with Federal Regulations	Audits
14	Caution	Talent Continuity	Attract, retain and develop a highly competent staff.	The delivery of member services and pension fund management could be negatively impacted by turnover, the inability to retain qualified staff, lack of a sufficient knowledge transfer program, and an inconsistent performance management process.	Follow-up of the Talent Management Audit	Audit
15	Caution	Facilities Management & Planning	Provide a physical work environment that is safe and enhances productivity.	Inadequate facilities management or ineffective space utilization could result in less than desirable conditions for TRS members, visitors, and staff and could jeopardize our ability to continue providing an exemplary level of service to our members.	None	n/a
16	Caution	Accounting & Reporting	Maintain and monitor the integrity, accuracy, and completeness of financial information and timeliness of reporting.	Materially inaccurate financial information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	CAFR audit Review of Accounting Operations.	External Audit Internal Audit

Appendix C: Audit Universe Mapped to TRS Risk Assessment (continued)

#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
17	Guarded	Regulatory, Compliance, & Litigation	Adhere to and analyze current laws, rules, and policies (e.g., maintain tax qualification status); Render competent advice on legal risk management and awareness, manage litigation risks, and negotiate contracts to address risks.	Non-compliance with laws and rules could lead to penalties, fines, liability and litigation; impaired ability to conduct business; burdensome oversight; third-party investigations/audits; adverse legislation; increased scrutiny; or loss of tax qualification status.	Review of Compliance with Federal Regulations	Audit
18	Guarded	Open Government	Ensure compliance with laws and rules related to open records and meetings.	Non-compliance could lead to penalties and fines or voiding of board actions.	None	n/a
19	Guarded	Global Travel	Ensure employee safety by complying with laws and regulations and providing awareness of challenges when traveling or working abroad.	Not being aware of safety, compliance, and other challenges when traveling or working abroad could jeopardize the safety of our employees.	None	n/a
20	Guarded	Ethics & Fraud Prevention	Maintain a culture that upholds ethical behavior and values that contribute and promote the fiduciary duties of prudence and loyalty, and reduces fraud risks.	A lack of ethics could undermine the duties of prudence and loyalty and create fraud risks resulting in loss of assets, credibility, and business opportunities, adverse publicity, violations of law, and increased scrutiny and oversight.	Hotline triage team participation	Advisory
21	Guarded	Communications & External Relations	Maintain effective communication and positive relations with members, retirees, employers, TRS employees, news media, and the public.	Poor communication could lead to confusion resulting in increased calls to TRS, poor or inappropriate decision-making regarding TRS benefits, and incorrect information provided to external parties.	None. TRS is implementing recommendations from the FY 2019 Communications audit.	n/a
22	Guarded	Business Continuity	Recover and resume operations in the event of a major business interruption.	Members do not receive statutorily required services timely.	Observation of offsite BCP tests	Advisory
23	Guarded	Budget	Ensure TRS has appropriate budget to provide and sustain resources necessary to successfully carry out TRS' mission, goals, and objectives to serve our members.	Lack of a sufficient operating budget could jeopardize our ability to effectively serve our members.	Attend FTE Committee meetings	Advisory

Appendix C: Audit Universe Mapped to TRS Risk Assessment (continued)

#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
24	Guarded	Investment Operations	<ul style="list-style-type: none"> •Maintain the integrity of transaction, position, and investment reporting information in a risk-controlled environment for optimal investment management decisions. •To support the successful operation of the Investment Management Division. 	<ul style="list-style-type: none"> •Inefficient or ineffective transaction or position management processes which could result in losses to the fund. •Investment reports contain material inaccuracies. •Inefficient and ineffective support of IMD operations. 	Review of Cash Management	Audit
25	Low	Credit	Maintain effective management of counterparty and securities lending risks.	Unmanaged counterparty and securities lending exposures could result in losses to the investment portfolio.	None	n/a
26	Low	Market	Maintain market risk exposures consistent with investment objectives.	Too little or too much exposure to market risk could each lead to undesirable investment outcomes.	Rely on TRS compliance testing	n/a
27	Low	Liquidity / Leverage	Maintain levels of liquidity appropriate for the support of fund disbursements, anticipated investment funding needs and trust level leverage.	Inadequate liquidity could lead to cash shortfalls.	Review of Cash management Follow-up of Derivative Controls Audit	Audit Audit
28	Low	Governmental / Association Relations & Legislation	Maintain effective communications and positive relations with the Legislature, associations, and other public parties.	Poor communications could lead to adverse relations, unfavorable legislation, and restricted funding.	Quarterly SAO update meetings	Advisory
29		Global Operations (Coming Fall 2019)				

VI. External Audit Services Procured in Fiscal Year 2019

Teacher Retirement System of Texas
Internal Audit Annual Report for Fiscal Year 2019

VI. External Audit Services Procured in Fiscal Year 2019

External Audit Services Procured by TRS	Provided by	Report Date
TRS Investment Company (TRICOT) Financial Audit Fiscal Year 2018	Grant Thornton	11/5/2018
Comprehensive Annual Financial Report (CAFR) – Fiscal Year 2018	State Auditor’s Office	12/20/2018
Talent Management and Culture Audit (Project #19-601)	Ernst and Young	3/8/2019
Derivatives Accounting Audit (Project #19-304)	Guidehouse	6/14/2019
Communications Audit (Project #19-602)	Ernst and Young	8/16/2019

VII. Reporting Suspected Fraud and Abuse

Teacher Retirement System of Texas

Internal Audit Annual Report for Fiscal Year 2019

VII. Reporting Suspected Fraud and Abuse

TRS has taken the following actions to implement the fraud detection and reporting requirements of Section 7.09 of the General Appropriations Act and Section 321.022 of the Texas Government Code:

- Updated in September 2018, *TRS Fraud, Waste, and Abuse Policy* establishes a fraud, waste, and abuse prevention awareness program that includes employee training and guidelines for reporting suspected fraud, waste, and abuse. Key elements of the policy include definitions, covered acts, reporting procedures of detected or suspected fraud, waste, or abuse, detection and investigation, awareness training, and corrective action.
- The TRS Internet site includes the contact number of the State Auditor's Office Hotline and a link for reporting instructions.
- Links are available on the TRS Intranet for both the State Auditor's Office Hotline and the TRS Internal Fraud and Ethics Hotline.
- Administration of the TRS Internal Fraud and Ethics Hotline is vested with the Chief Compliance Officer & Compliance Counsel since fiscal year 2016.
- In compliance with the reporting requirement of fraud, waste, and abuse, TRS reports all instances of suspected fraud, waste, and abuse to SAO.