

**December 2018**

ASSURANCE

**Audit, Compliance & Ethics  
Committee Meeting**



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

**TEACHER RETIREMENT SYSTEM OF TEXAS  
BOARD OF TRUSTEES  
AND  
AUDIT, COMPLIANCE AND ETHICS COMMITTEE**

*(Mr. Moss, Chairman; Mr. Corpus; Dr. Gibson, Ms. Sissney, Mr. Nance, Committee Members)*

*All or part of the December 13, 2018, meeting of the TRS Audit, Compliance and Ethics Committee (Committee) and Board of Trustees may be held by telephone or video conference call as authorized under Sections 551.130 and 551.127 of the Texas Government Code. The Committee intends to have a quorum and the presiding officer physically present at the following location, which will be open to the public during the open portions of the meeting: **1000 Red River, Austin, Texas 78701 in the TRS East Building, 5<sup>th</sup> Floor, Boardroom.***

*The open portions of the meeting are being broadcast over the Internet. Access to the Internet broadcast is provided at [www.trs.texas.gov](http://www.trs.texas.gov).*

**AGENDA**

**December 13, 2018 – 12:00 p.m.  
TRS East Building, 5<sup>th</sup> Floor, Boardroom**

1. Call roll of Committee members
2. Approve minutes of September 2018 Audit, Compliance and Ethics Committee meeting  
– Mr. Christopher Moss, Chair
3. Receive State Auditor’s Office (SAO) report on the Audit of Incentive Compensation Plans for FY17 – Hillary Eckford and Sarah Puerto, SAO
4. Receive Grant Thornton report for financial audit of TRS Investment Company (TRICOT) (for fiscal year ending August 31, 2018) – Richard Scheel; and Bhakti Patel, Grant Thornton
5. Receive reports for TRS health plan and pharmacy plan administration for TRS-Care and TRS-ActiveCare – Katrina Daniel and Yimei Zhao; Carol Hamilton, Amy Merrick, John Meka, and Bill Destache with IBM Watson Health
  - A. Results overview of TRS-Care and TRS-ActiveCare health plan and pharmacy benefit administration executive summaries for the most recent audit cycle
  - B. Review the executive summary of TRS-Care health plan administration by Aetna for September 1, 2016 to December 31, 2017
  - C. Review the executive summary of TRS-ActiveCare health plan administration by Aetna for September 1, 2016 to August 31, 2017
  - D. Review the executive summary of TRS-Care pharmacy plan administration by ESI for September 1, 2016 to August 31, 2017
  - E. Review the executive summary of TRS-Care pharmacy plan administration of the Employer Group Waiver Plan (EGWP) by ESI for January 1, 2016 to December 31, 2017
  - F. Review the executive summary of TRS-ActiveCare pharmacy plan administration by Caremark for September 1, 2016 to August 31, 2017

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Audit, Compliance and Ethics Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because the full Audit, Compliance and Ethics Committee constitutes a quorum of the Board, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

6. Receive Texas DIR Cybersecurity Assessments presentation – Frank Williams; and Andy Bennett, Department of Information Resources
7. Receive Business Continuity and Disaster Recovery presentation – Cristi Woods
8. Receive TRS Compliance reports including those related to ethics and fraud, conflicts of interest, and investment policies – Heather Traeger
9. Receive Internal Audit reports
  - A. Quarterly TRS compliance testing (Agreed-Upon Procedures) – Nick Ballard and Heather Traeger
  - B. Employers Testing (Agreed-Upon Procedures) – Kate Rhoden, Barbie Pearson, Melody Austin, and Mark Chi
  - C. Disability Retirement and Medical Board Audit – Toma Miller, Barbie Pearson, Melody Austin, and Adam Fambrough
  - D. Annual Internal Audit Report - FY18 – Amanda Jenami
  - E. Status of prior audit and consulting recommendations – Amanda Jenami
10. Discuss or consider Internal Audit and TRS Compliance administrative reports and matters related to governance, risk management, internal control, compliance violations, fraud, regulatory reviews or investigations, fraud risk areas, audits for the annual internal audit plan, or auditors' ability to perform duties – Christopher Moss, Amanda Jenami, and Heather Traeger

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Audit, Compliance and Ethics Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because the full Audit, Compliance and Ethics Committee constitutes a quorum of the Board, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

TAB 2

**Minutes of the Audit, Compliance and Ethics Committee  
September 20 and 21, 2018**

The Audit, Compliance and Ethics Committee of the Board of Trustees of the Teacher Retirement System of Texas met on September 20, 2018, in the boardroom located on the fifth floor of the TRS East Building offices at 1000 Red River Street, Austin, Texas.

**Committee Members present:**

Mr. Christopher Moss, Chair  
Mr. David Corpus  
Dr. Greg Gibson  
Mr. James D. Nance  
Ms. Nanette Sissney

**Other Board Members present:**

Mr. John Elliott  
Ms. Dolores Ramirez  
Mr. Joe Colonna

**Others present:**

Brian Guthrie, TRS	Toma Miller, TRS
Don Green, TRS	Anandhi Mani, TRS
Carolina de Onis, TRS	Kate Rhoden, TRS
Amy Barrett, TRS	Rodrigo Dominguez, TRS
Heather Traeger, TRS	Keith Brown, TRS Board Advisor
Karen Marino, TRS	Simin Pang, TRS
Mary Presley, TRS	Art Mata, TRS
Carol Casey, TRS	Falguni Sampat, TRS
Katherine Farrell, TRS	Jerry Albright, TRS
Jase Auby, TRS	Barbie Pearson, TRS
Lih-Jen Lan, TRS	Janet Bray, TRS
Nick Ballard, TRS	Richard Scheel, TRS
LaTresa Stroud, TRS	Michael Clayton, SAO
Anca Pinchas, SAO	Hillary Eckford, SAO

Audit, Compliance and Ethics Committee Chair Mr. Moss called the meeting to order at 3:56 p.m.

**1. Call roll of Committee members.**

Ms. Farrell called the roll. A quorum was present with Dr. Greg Gibson joined the meeting via telephone conference.

**2. Approve minutes of July 26, 2018 Audit, Compliance and Ethics Committee meeting – Committee Chair Mr. Christopher Moss**

On a motion by Mr. Nance, seconded by Ms. Sissney, the proposed minutes for the July 26, 2018 Audit Committee meeting were approved as presented.

**3. Receive State Auditor's Office (SAO) presentations**

**A. Planned audits of TRS' Comprehensive Annual Financial Report (CAFR) for Fiscal Year 2018 – Michael Clayton and Anca Pinchas, SAO**

Ms. Pinchas stated that she will be the project manager for the financial statement audit fiscal year 2018. She stated that the purpose of the audit is to issue an opinion on the System fiscal year 2018 financial statement.

**B. Results of the Audit of TRS' Fiscal Year 2017 Other Post-Employment Benefits (OPEB) and Employer Pension Liability Allocation Schedules – Hillary Eckard and Anca Pinchas, SAO**

Ms. Pinchas discussed the audit on the System's schedules of pension and their post-employment benefits, and liability allocation schedules. She reported two unmodified opinions were issued on this project. One was an unmodified opinion for the pension schedules, and the other unmodified opinion was post-employment benefit schedule.

**4. Receive TRS Compliance reports – Heather Traeger**

Ms. Traeger noted for the hotline reports, there were fewer complaints. She reported on the 541C, IPS, and compliance testing.

Dr. Greg Gibson joined the meeting via telephone conference.

**5. Receive Internal Audit reports**

**A. Quarterly TRS compliance testing (Agreed-Upon Procedures) – Nick Ballard, Rodrigo Dominguez, and Heather Traeger**

Ms. Barrett reviewed the quarterly compliance testing stating all of the reporting requirements have been met.

**B. Private equity management fee and carried interest audits – Nick Ballard, Kate Rhoden, Simin Pang, Rodrigo Dominguez, and Neil Randall**

Mr. Ballard reviewed the results on the oversight of private equity fund project and discussed the audit process. He stated there were no significant findings.

**C. Executive incentive pay testing (Agreed-Upon Procedures) – Toma Miller and Falguni Sampat**

Ms. Toma Miller discussed the audit procedures to verify the calculation for the executive incentive pay was calculated correctly. She concluded that everything was being calculated correctly.

**D. Annual benefits testing (Agreed-Upon Procedures) – Lih-Jen Lan and Mary Presley**

Ms. Barrett reviewed the annual benefits testing, reporting there were no issues.

**E. Employer testing of eligibility, contribution and surcharges (Agreed-Upon Procedures) (Sharyland ISD and Alvin ISD) – Kate Rhoden, Anandhi Mani, Art Mata, and Cari Casey**

Ms. Rhoden discussed the employer testing and explained the importance of it.

Mr. Mata presented the results of the employer testing and reported that there were no exceptions with the sample they used. He reported the recalculations of contributions and surcharges and said there were four minor exceptions. Mr. Mata said that as a result of the new requirement to report full payroll by employers, the number of findings have decreased.

**F. Internal Audit Quality Assurance and Improvement Practices (QAIP) self-assessment – Jan Engler and Cari Casey**

Ms. Barrett discussed Internal Audit's self-assessment. She said they met auditing standards and identified areas of focus for continuous improvement.

**G. Status of prior audit and consulting recommendations and update on procurement audit outstanding recommendations – Amy Barrett, LaTresa Stroud, and Richard Scheel**

Ms. Barrett reviewed the recommendations related to the HIPAA audit. She noted the HIPAA audit recommendations are the only ones that are past due. She stated that sufficient progress was being made towards implementation of outstanding recommendations.

**6. Consider recommending to the Board of Trustees – Amy Barrett**  
**A. Proposed revisions to the Internal Audit Charter**

Ms. Barrett discussed the proposed changes to the Internal Audit Charter that is updated every two years. She said they are recommending minimal changes.

**B. Proposed Audit Plan for Fiscal Year 2019**

Ms. Barrett discussed the proposed audit plan for fiscal year 2019. She discussed future projects including Building the Fleet Readiness audit, travel consulting, employer testing, business improvement, CAPPS IT controls audit, Cloud computing, and security projects. Ms. Barrett noted the two high risk areas they are not auditing are Records Management and Procurement.

On a motion by Mr. Corpus, seconded by Mr. Nance, the committee approved the revised Internal Audit Charter and the proposed audit plan for fiscal 2019 as presented.

7. **Discuss or consider Internal Audit and TRS Compliance administrative reports and matters related to governance, risk management, internal control, compliance violations, fraud, regulatory reviews or investigations, fraud risk areas, audits for the annual internal audit plan, or auditors' ability to perform duties – Christopher Moss, Amy Barrett, and Heather Traeger**

Ms. Barrett discussed the administrative reports, which she said they got through the entire audit plan and met all but one performance measure (KPI).

8. **Consider recommending to the Board of Trustees, in consultation with the executive director, the employment, replacement and compensation of the chief audit executive regarding the final candidates under consideration: Michael Apperley, Amanda Jenami, Kate Rhoden and Charles Wright – Christopher Moss.**

At 4:47 p.m., Mr. Moss announced without objection that the Committee meeting would recess to go into executive session an agenda item number 8 under Section 551.074 of the Government Code to discuss personnel matters concerning the employment, replacement and compensation of the chief audit executive regarding final candidates under consideration.

At 5:40 p.m. Mr. Moss reconvened the Committee meeting in an open session.

On a motion by Mr. Nance, seconded by Mr. Corpus, the Committee approved to recess the meeting until tomorrow morning, September 21, at 8:00 a.m.

At 5:46 p.m. the Committee recessed.

The Audit, Compliance and Ethics Committee of the Board of Trustees of the Teacher Retirement System of Texas reconvened on September 21, 2018, in the boardroom located on the fifth floor of the TRS East Building offices at 1000 Red River Street, Austin, Texas. The following board members were present:

**Committee Members present:**

Mr. Christopher Moss, Chair  
Mr. David Corpus  
Dr. Greg Gibson  
Mr. James D. Nance  
Ms. Nanette Sissney

**Other Board Members present:**

Mr. John Elliott  
Ms. Dolores Ramirez  
Mr. Jarvis Hollingsworth

**Others present:**

Brian Guthrie, TRS  
Amy Barrett, TRS

At 8:01 a.m. Mr. Moss reconvened the Board meeting into executive session.

**8. Consider recommending to the Board of Trustees, in consultation with the executive director, the employment, replacement and compensation of the chief audit executive regarding the final candidates under consideration: Michael Apperley, Amanda Jenami, Kate Rhoden and Charles Wright – Christopher Moss.**

At 8:01 a.m., Mr. Moss announced without objection that the Committee meeting would recess to go into executive session an agenda item number 8 under Section 551.074 of the Government Code to discuss personnel matters concerning the employment, replacement and compensation of the chief audit executive regarding final candidates under consideration. Mr. Jarvis Hollingsworth joined the meeting via telephone conference.

At 12:05 p.m., Mr. Moss reconvened the Committee in an open session.

On a motion by Dr. Gibson, seconded by Mr. Nance, the Board unanimously voted to recommend to the Board, authorizing the executive director to extend an offer of employment to Amanda Jenami for the position of TRS chief audit executive, as he deems reasonable within TRS policy and in the best interest of TRS.

Without further discussion, Mr. Moss adjourned the meeting at 12:08 p.m.

**APPROVED BY THE AUDIT, COMPLIANCE AND ETHICS COMMITTEE OF THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE 13<sup>th</sup> DAY OF DECEMBER 2018.**

\_\_\_\_\_  
Christopher Moss  
Chair, Audit, Compliance and Ethics Committee  
Board of Trustees  
Teacher Retirement Systems of Texas

\_\_\_\_\_  
Date

TAB 3



# Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System

SAO Report No. 19-003  
September 2018

## Overview

### Overall Conclusion - Teacher Retirement System (TRS)

- TRS calculated and paid incentive compensation in accordance with their policies and procedures for plan year 2017.
- TRS calculated and paid executive incentive compensation in accordance with its executive performance incentive pay plan, which is a separate plan from the regular incentive compensation plan discussed above.
  - However, it should ensure that controls have been strengthened over its executive incentive compensation calculation and review process by developing detailed calculation and review procedures.



# Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System

SAO Report No. 19-003  
September 2018

## Summary of TRS Chapters and Related Issue Ratings

Chapter	Title	Issue Rating <sup>a</sup>
4-A	TRS Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures	Low
4-B	TRS Calculated and Paid Plan Year 2017 Executive Performance Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Ensure That Controls Have Been Strengthened Over Its Calculation and Review Process	Low

<sup>a</sup> See report appendix 2 for the issue rating classifications and descriptions.



An Audit Report on

**Incentive Compensation  
at the Permanent School Fund,  
General Land Office,  
Employees Retirement System,  
and Teacher Retirement System**

September 2018

Report No. 19-003



An Audit Report on

# **Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System**

SAO Report No. 19-003  
September 2018

## **Overall Conclusion**

The Permanent School Fund Division (PSF Division) of the Texas Education Agency, the General Land Office (GLO), and the Teacher Retirement System (TRS) calculated and paid incentive compensation in accordance with their policies and procedures for plan year 2017.

The Employees Retirement System (ERS) generally calculated and paid incentive compensation in accordance with its policies and procedures for plan year 2017. However, ERS overpaid two employees a total of \$3,593 because it did not calculate those employees' incentive compensation awards in accordance with its policies and procedures.

TRS calculated and paid executive incentive compensation in accordance with its executive performance incentive pay plan. However, it should ensure that controls have been strengthened over its executive incentive compensation calculation and review process by developing detailed calculation and review procedures.

Auditors communicated other, less significant issues in writing separately to GLO and ERS management.

Table 1 on the next page presents a summary of the findings in this report and the related issue ratings. (See Appendix 2 for more information about the issue rating classifications and descriptions.)

### **Incentive Compensation for Plan Year 2017**

Through their incentive compensation plans for plan year 2017, the PSF Division, GLO, ERS, and TRS awarded a total of \$18,289,957 in incentive compensation to 260 employees. Specifically:

- TRS awarded \$9,099,574 to 135 employees (which included the incentive award to the executive director).
- ERS awarded \$5,300,467 to 71 employees.
- The PSF Division awarded \$3,577,833 to 49 employees.
- GLO awarded \$312,083 to 5 employees.

Sources: TRS, ERS, PSF Division, and GLO.

Table 1

Summary of Chapters/Subchapters and Related Issue Ratings		
Chapter/ Subchapter	Title	Issue Rating <sup>a</sup>
1	The PSF Division Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures	Low
2	GLO Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures	Low
3	ERS Generally Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Strengthen Controls Over Its Incentive Compensation Calculation and Review Process	Low
4-A	TRS Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures	Low
4-B	TRS Calculated and Paid Plan Year 2017 Executive Performance Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Ensure That Controls Have Been Strengthened Over Its Calculation and Review Process	Low

<sup>a</sup> A chapter/subchapter is rated **Priority** if the issues identified present risks or effects that if not addressed could critically affect the audited entity's ability to effectively administer the program(s)/function(s) audited. Immediate action is required to address the noted concern and reduce risks to the audited entity.

A chapter/subchapter is rated **High** if the issues identified present risks or effects that if not addressed could substantially affect the audited entity's ability to effectively administer the program(s)/function(s) audited. Prompt action is essential to address the noted concern and reduce risks to the audited entity.

A chapter/subchapter is rated **Medium** if the issues identified present risks or effects that if not addressed could moderately affect the audited entity's ability to effectively administer program(s)/function(s) audited. Action is needed to address the noted concern and reduce risks to a more desirable level.

A chapter/subchapter is rated **Low** if the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

## ***Summary of Management's Response***

At the end of the ERS and TRS chapters in this report, auditors made recommendations to address the issues identified during this audit. The agencies agreed with the recommendations in this report.

## ***Audit Objective and Scope***

The objective of this audit was to determine whether the PSF Division, GLO, ERS, and TRS calculate and pay incentive compensation in accordance with policies and procedures.

The scope of this audit covered incentive compensation plan years ending September 30, 2017, at the PSF Division; June 30, 2017, at GLO; August 31, 2017, at ERS; and September 30, 2017, and June 30, 2017, at TRS.

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## ***Detailed Results***

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# Detailed Results

Chapter 1

## The PSF Division Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures

**Chapter 1  
Rating:**

Low<sup>1</sup>

The Permanent School Fund Division (PSF Division) of the Texas Education Agency calculated and paid incentive compensation for its plan year ending September 30, 2017, in accordance with its policies and procedures.

The PSF Division awarded a total of \$3,577,833 in incentive compensation to 49 employees. The PSF Division awarded the most incentive compensation to its chief investment officer, who was awarded \$241,812 payable during a three-year period. That \$241,812 represented 6.8 percent of the \$3,577,833 in total incentive compensation that the PSF Division awarded.

### Gross-of-Fees and Net-of-Fees Basis

The PSF Division calculates incentive compensation awards using investment performance data reported on a gross-of-fees basis.

Gross-of-fees indicates that the return on investment does not include the effect of fees. Net-of-fees indicates that the return on investment does include the effect of fees.

Sources: The PSF Division and the *Guidance Statement on the Application of the [Global Investment Performance Standards] GIPS Standards to Asset Owners* at [https://www.gipsstandards.org/standards/Documents/Guidance/g\\_s\\_revised\\_asset\\_owner.pdf](https://www.gipsstandards.org/standards/Documents/Guidance/g_s_revised_asset_owner.pdf).

The PSF Division calculates incentive compensation based on an employee's achievement of performance goals related to total fund performance and the performance of the employee's assigned asset classes, as applicable. With the exception of the performance of certain asset classes, both fund and asset class performance are calculated based on a three-year rolling average of historical performance data. The PSF Division calculates incentive compensation awards using investment performance data reported on a gross-of-fees basis (see text box for more information on gross-of-fees and net-of-fees).

The PSF Division awards incentive compensation if the performance of the total fund or the individual asset classes, as applicable, exceeds selected benchmarks. Total fund investment performance exceeded the target benchmark by 0.63 percent (63 basis points) (see text box for additional information on basis points) for the three-year period from October 1, 2014, to September 30, 2017.

The PSF Division pays incentive compensation awards for a plan year over a three-year installment schedule. Specifically, for most employees, the PSF Division pays 50 percent of an incentive compensation award at the end of the performance period for the

### Basis Points

One basis point is 0.01 percent or one one-hundredth of a percentage point.

Source: Morningstar, Inc. Web site at [http://www.morningstar.com/InvGlossary/basis\\_point\\_definition\\_what\\_is.aspx](http://www.morningstar.com/InvGlossary/basis_point_definition_what_is.aspx).

<sup>1</sup> Chapter 1 is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

current plan year, 25 percent of that award at the end of the next year, and 25 percent of that award at the end of the third year. As a result, an employee may receive an incentive award payment that consists of partial awards from three plan years.

Table 2 on the next page presents the positions eligible to earn incentive compensation according to the PSF Division's incentive compensation plan, as well as the incentive compensation award, or award range, for each eligible position for plan year 2017.

Table 2

PSF Division Incentive Compensation Awards for Plan Year 2017	
Eligible Position <sup>a</sup>	Incentive Compensation Award or Award Range <sup>b</sup>
Chief Investment Officer	\$241,812
Deputy Chief Investment Officer and Director of Fixed Income	\$235,276
Director of Equities	\$212,862
Director of Private Markets	\$200,049
Deputy Executive Administrator	\$191,395
Director of Global Risk Control Strategies	\$161,617 to \$167,680
Portfolio Manager I - IV / Risk Manager	\$70,203 to \$128,507
Director of Investment Technology	\$77,798
Director of Operational Due Diligence	\$77,473
Director of Finance	\$73,150
Investment Analyst I - IV / Risk Analyst	\$35,092 to \$45,757
Director II	\$34,895 to \$40,310
Director of Legal and Compliance	\$31,862
Systems Analyst VII	\$31,345
Systems Analyst I - VI	\$17,178 to \$25,307
Attorney I - VI	\$18,822 to \$24,467
Business Analyst III	\$22,404
Financial Analyst I - IV	\$14,576 to \$20,387
Manager II	\$16,330
Staff Services Officer I - V	\$5,613
Director of Investment Operations	Position was vacant
Accountant I - VII	Position was vacant
Program Specialist I - VII	Position was vacant
Executive Assistant I - III	Position was vacant
<p><sup>a</sup> The Business Analyst III, Director II, Manager II, and Systems Analyst VII positions are not specifically listed in the PSF Division's incentive compensation plan as eligible positions. However, according to the PSF Division's incentive compensation plan, positions assigned to the PSF Division's cost center are considered eligible positions, and the State's commissioner of education has discretion to modify the definition of eligible positions.</p> <p><sup>b</sup> Award range applies to multiple employees in an eligible position.</p>	

Source: The PSF Division.

### Management's Response

*We wish to thank the SAO for the thorough and professional management of this audit.*

## ***GLO Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures***

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**Chapter 2  
Rating:**  
Low<sup>2</sup>

The General Land Office (GLO) calculated and paid incentive compensation for its plan year ending June 30, 2017, in accordance with its policies and procedures.

GLO awarded a total of \$312,083 in incentive compensation to five employees. GLO awarded the most incentive compensation to its chief investment officer, who was awarded \$221,453 payable during a two-year period. That \$221,453 represented 71 percent of the \$312,083 in total incentive compensation that GLO awarded.

GLO's incentive compensation plan compares investment performance of the total fund against a target benchmark on a one-year, three-year, and five-year performance period basis. GLO calculates incentive compensation based on an employee's achievement of an investment performance component (60 percent) and a qualitative performance component (40 percent).

GLO calculates incentive compensation awards using investment performance data reported on a gross-of-fees basis (see text box for more information on gross-of-fees and net-of-fees). The investment performance of the total fund exceeded the target benchmark; therefore, GLO awarded incentive compensation for plan year 2017. Total fund investment performance:

- Exceeded the target benchmark by 11.72 percent (1,172 basis points) for the one-year period from July 1, 2016, to June 30, 2017.
- Exceeded the target benchmark by 5.41 percent (541 basis points) for the three-year period from July 1, 2014, to June 30, 2017.
- Exceeded the target benchmark by 5.56 percent (556 basis points) for the five-year period from July 1, 2012, to June 30, 2017.

### **Gross-of-Fees and Net-of-Fees Basis**

GLO calculates incentive compensation awards using investment performance data reported on a gross-of-fees basis.

Gross-of-fees indicates that the return on investment does not include the effect of fees. Net-of-fees indicates that the return on investment does include the effect of fees.

Sources: GLO and the *Guidance Statement on the Application of the [Global Investment Performance Standards] GIPS Standards to Asset Owners* at

[https://www.gipsstandards.org/standards/Documents/Guidance/gs\\_revised\\_asset\\_owner.pdf](https://www.gipsstandards.org/standards/Documents/Guidance/gs_revised_asset_owner.pdf).

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<sup>2</sup> Chapter 2 is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

GLO pays incentive compensation awards for a plan year over a two-year installment schedule. Specifically, it pays 50 percent of an incentive compensation award on December 1 following the end of the performance period for the current plan year, and it pays the remaining 50 percent of that award on the anniversary of the first payment. As a result, an employee may receive an incentive award payment that consists of partial awards from two plan years.

Table 3 presents the positions eligible to earn incentive compensation awards according to GLO’s incentive compensation plan and the incentive compensation award for each eligible position for plan year 2017.

Table 3

GLO Incentive Compensation Awards for Plan Year 2017	
Eligible Position	Incentive Compensation Award
Chief Investment Officer	\$221,453
Real Assets Portfolio Manager	\$63,120
Program Specialist	\$12,483
Senior Financial Analyst	\$12,267
Investment Analyst	\$2,760

Source: GLO.

## ***ERS Generally Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Strengthen Controls Over Its Incentive Compensation Calculation and Review Process***

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**Chapter 3  
Rating:  
Low <sup>3</sup>**

The Employees Retirement System (ERS) generally calculated and paid incentive compensation for its plan year ending August 31, 2017, in accordance with its policies and procedures. However, ERS overpaid two employees a total of \$3,593 in incentive compensation because it did not apply the correct lengths of service according to its incentive compensation plan (plan) for the two employees' calculations. Specifically, the two employees obtained five years of service under the plan at the end of plan year 2017; however, ERS applied lengths of service of less than five years to the calculations for those employees. ERS did not detect those errors during its reviews.

ERS awarded a total of \$5,300,467 in incentive compensation to 71 employees. ERS awarded the most incentive compensation to its chief investment officer, who was awarded \$283,246 payable during a three-year period. That \$283,246 represented 5.3 percent of the \$5,300,467 in total incentive compensation that ERS awarded. In addition, the members of the ERS board of trustees approved the executive director to participate in the incentive compensation plan for plan year 2017.

ERS awards incentive compensation based on an employee's achievement of qualitative and quantitative performance goals. For investment professionals, the qualitative performance goal represents 25 percent of their overall participant goals. The quantitative performance goals represent the remaining 75 percent of those employees' overall participant goals, with a minimum of 25 percent of the overall participant goals to be evaluated based on relative trust fund performance.

For the executive director, the overall participant goals consist of a quantitative component (50 percent) based on relative trust fund performance and a qualitative component (50 percent) reflecting performance in overall agency leadership, management, communications, policy matters, staff development, and implementation of agency strategic initiatives.

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<sup>3</sup> Chapter 3 is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

ERS calculates incentive compensation awards using investment performance data reported on a net-of-fees basis (see text box for more information on gross-of-fees and net-of-fees). ERS calculates the investment performance goals based on (1) an employee's achievement of benchmarks related to the relative trust fund performance and (2) the performance of the employee's individual assigned asset classes for one-year, three-year, and five-year periods, depending on the employee's length of service. The total relative trust fund investment performance:

- Exceeded the target benchmark by 1.30 percent (130 basis points) for the one-year period from September 1, 2016, to August 31, 2017.
- Exceeded the target benchmark by 0.31 percent (31 basis points) for the three-year period from September 1, 2014, to August 31, 2017.
- Exceeded the target benchmark by 0.23 percent (23 basis points) for the five-year period from September 1, 2012, to August 31, 2017.

**Gross-of-Fees and Net-of-Fees Basis**

ERS calculates incentive compensation awards using investment performance data reported on a net-of-fees basis.

Gross-of-fees indicates that the return on investment does not include the effect of fees. Net-of-fees indicates that the return on investment does include the effect of fees.

Sources: ERS' Incentive Compensation Plan for Key Investment Professionals and the *Guidance Statement on the Application of the [Global Investment Performance Standards] GIPS Standards to Asset Owners* at [https://www.gipsstandards.org/standards/Documents/Guidance/g\\_s\\_revised\\_asset\\_owner.pdf](https://www.gipsstandards.org/standards/Documents/Guidance/g_s_revised_asset_owner.pdf).

ERS pays incentive compensation awards for a plan year over a three-year installment schedule. Specifically, for most employees, ERS pays 50 percent of an incentive compensation award at the end of the performance period for the current plan year, 25 percent of that award at the end of the next plan year, and 25 percent of that award at the end of the third plan year. As a result, an employee may receive an incentive award payment that consists of partial awards from three plan years. For investment operations specialists, ERS pays 50 percent of an incentive compensation award at the end of the performance period for the current plan year, and it pays the remaining 50 percent of that award at the end of the next plan year. For investment administrative support staff, ERS pays 100 percent of an incentive compensation award at the end of the performance period for the current plan year.

Table 4 on the next page presents the positions eligible to earn incentive compensation according to ERS' incentive compensation plan and the incentive compensation award, or award range, for each eligible position for plan year 2017.

Table 4

ERS Incentive Compensation Awards for Plan Year 2017	
Eligible Position	Incentive Compensation Award or Award Range <sup>a</sup>
Chief Investment Officer	\$283,246
Executive Director	\$247,179
Deputy Chief Investment Officer	\$228,825
Asset Class Portfolio Managers/Directors	\$132,722 to \$209,651
Supervising Portfolio Manager	\$83,991 to \$135,417
General Counsel	\$127,337
Investments and Securities, Attorney	\$93,336 to \$105,313
Director of Investment Services	\$101,962
Portfolio Manager I - V	\$60,546 to \$101,255
Risk Management and Applied Research Portfolio Manager	\$89,069
Chief Trader I - II	\$64,190 to \$80,197
Investment Analyst III - IV	\$14,877 to \$62,814
Trader I - II	\$42,253
Financial Analyst I - IV (Investment Operations Specialist)	\$6,612 to \$24,980
Investment Analyst I - II	\$618 to \$24,021
Investment Administrative Support	\$967 to \$2,538
Investments and Securities, Paralegal	Position was vacant
<sup>a</sup> Award range applies to multiple employees in an eligible position.	

Source: ERS.

## Recommendation

ERS should strengthen controls over its incentive compensation calculation and review process to ensure accurate application of all variables used in the calculation.

## Management's Response

*ERS agrees with the recommendation and will continue to enhance its control and review process over the incentive compensation program. In the past few years the following key enhancements have been implemented to ensure alignment with program objectives and accuracy of incentive compensation awards:*

- *Human Resources Division now the primary division responsible for program implementation to ensure appropriate segregation of duties*
- *Additional divisions and staff members assigned to assist with incentive compensation award reviews and program evaluation*
- *Development of formal and documented incentive compensation award calculation procedures and guidelines*
- *Development of a centralized data warehouse for improved efficiency*

*In addition, per ERS' Incentive Compensation Plan policy, the clawback provision was exercised to obtain reimbursements to ERS for overpayments identified.*

***Responsible Position: Director of Human Resources***

***Implementation Date: Completed***

***TRS Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Ensure That Controls Have Been Strengthened Over Its Executive Incentive Compensation Calculation and Review Process***

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The Teacher Retirement System (TRS) calculated and paid incentive compensation in accordance with its policies and procedures for plan year 2017. TRS also calculated and paid executive incentive compensation in accordance with its executive performance incentive pay plan. However, it should ensure that controls have been strengthened over its executive incentive compensation calculation and review process by developing formal, detailed calculation and review procedures.

Chapter 4-A

**TRS Calculated and Paid Plan Year 2017 Incentive Compensation in Accordance with Its Policies and Procedures**

**Chapter 4-A  
Rating:  
Low<sup>4</sup>**

TRS calculated and paid incentive compensation for its plan year ending September 30, 2017, in accordance with its policies and procedures.

TRS awarded a total of \$9,083,202 in incentive compensation to 134 employees (excluding \$16,372 awarded to the executive director as part of the separate executive performance incentive pay plan discussed in Chapter 4-B). TRS awarded the most incentive compensation to a senior managing director, who was awarded \$318,136 payable during a two-year period. That \$318,136 represented 3.5 percent of the \$9,083,202 in total incentive compensation that TRS awarded. In addition, the executive director, exercising his authority to interpret the incentive compensation plan (plan), added the general counsel as a participant to the plan under the eligible position of senior associate effective January 1, 2017.

TRS awards incentive compensation based on an employee's achievement of investment performance and qualitative performance components. The investment performance component consists of two categories: (1) performance measured against established benchmarks (50 percent) and (2) performance measured against selected peer groups (30 percent). The qualitative performance component (20 percent) measures an employee's performance in a variety of areas such as interpersonal relationship skills, accountability, and teamwork.

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<sup>4</sup> Chapter 4-A is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

TRS's plan measures investment performance for both the benchmark and peer group categories on a one-year (33 percent) and three-year (67 percent) performance period basis. TRS awards incentive compensation if investment performance exceeds selected benchmarks or peer group performance for the one-year or three-year performance periods. Additionally, TRS evaluates the performance of internal public markets portfolio managers and sector managers based on their respective assigned regions and industry sectors.

TRS calculates incentive compensation awards using investment performance data reported on a net-of-fees basis (see text box for more information on gross-of-fees and net-of-fees). The total fund investment performance:

- Exceeded the target benchmark by 1.68 percent (168 basis points) for the one-year period from October 1, 2016, to September 30, 2017.
- Exceeded the target benchmark by 0.58 percent (58 basis points) for the three-year period from October 1, 2014, to September 30, 2017.

Moreover, TRS pays incentive compensation awards for a plan year over a two-year installment schedule. Specifically, TRS pays 50 percent of an incentive compensation award on or about February 1 following the end of the performance period for the current plan year, and it pays the remaining 50 percent of that award on the anniversary of the first payment. As a result, an employee may receive an incentive award payment that consists of partial awards from two plan years.

Table 5 on the next page presents the positions eligible to earn incentive compensation according to TRS's incentive compensation plan and the incentive compensation award, or award range, for each eligible position for plan year 2017.

**Gross-of-Fees and Net-of-Fees Basis**

TRS calculates incentive compensation awards using investment performance data reported on a net-of-fees basis.

Gross-of-fees indicates that the return on investment does not include the effect of fees. Net-of-fees indicates that the return on investment does include the effect of fees.

Sources: TRS and the *Guidance Statement on the Application of the [Global Investment Performance Standards] GIPS Standards to Asset Owners* at [https://www.gipsstandards.org/standards/Documents/Guidance/gips\\_revised\\_asset\\_owner.pdf](https://www.gipsstandards.org/standards/Documents/Guidance/gips_revised_asset_owner.pdf).

Table 5

TRS Incentive Compensation Awards for Plan Year 2017	
Eligible Position	Incentive Compensation Award or Award Range <sup>a</sup>
Senior Managing Director	\$174,841 to \$318,136
Deputy Chief Investment Officer	\$275,411
Senior Director	\$84,250 to \$231,033
Managing Director	\$145,186 to \$183,323
Director	\$90,976 to \$150,823
Senior Investment Manager	\$63,475 to 139,074
Investment Manager	\$41,527 to \$112,016
Senior Associate	\$23,900 to \$82,052
Associate	\$14,885 to \$36,197
Senior Analyst	\$9,048 to \$25,770
Analyst	\$2,437 to \$14,058
Junior Analyst	\$5,205
Administrative Assistant	\$1,219 to \$2,009
Chief Investment Officer	Position was vacant
<sup>a</sup> Award range applies to multiple employees in an eligible position.	

Source: TRS.

**TRS Calculated and Paid Plan Year 2017 Executive Performance Incentive Compensation in Accordance with Its Policies and Procedures, But It Should Ensure That Controls Have Been Strengthened Over Its Calculation and Review Process**

**Chapter 4-B  
Rating:  
Low <sup>5</sup>**

TRS calculated and paid executive incentive compensation for its plan year ending June 30, 2017, in accordance with its executive performance incentive pay plan (executive plan). However, TRS did not have detailed policies and procedures that document its calculation and review processes for the executive plan, which increases the risk of inaccurate incentive award payouts. That finding was originally reported in the State Auditor’s Office’s 2016 incentive compensation audit report.<sup>6</sup> TRS had not addressed that prior year finding for plan year 2017 because its executive plan year ended before the release of that report.

According to the executive plan, the TRS board of trustees selects the individual positions that will participate in the executive plan and may add or remove individual positions in the executive plan at any time. The TRS executive director was the only executive plan participant for the 2016-2017 performance period covering July 1, 2016, to June 30, 2017. TRS awarded \$16,372 in incentive compensation to its executive director.

TRS pays executive incentive compensation for a plan year over a two-year installment schedule. Specifically, TRS pays 50 percent of an incentive compensation award on or about October 1 following the end of the performance period for the current plan year, and it pays the remaining 50 percent of that award on the first anniversary of the first payment.

TRS awards executive incentive compensation based on an eligible participant’s total evaluation, which comprises four main qualitative performance categories, each representing 25 percent. Those qualitative performance categories are: (1) member satisfaction, (2) leadership effectiveness, (3) operational effectiveness, and (4) employee engagement. The executive incentive compensation calculation does not include a category for investment performance.

<sup>5</sup> Chapter 4-B is rated Low because the audit identified strengths that support the audited entity’s ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity’s ability to effectively administer the program(s)/function(s) audited.

<sup>6</sup> From *An Audit Report on Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System* (State Auditor’s Office Report No. 18-001, September 2017).

## **Recommendation**

TRS should ensure that written policies and procedures for its executive incentive compensation calculation and review process have been developed and implemented.

## **Management's Response**

*TRS agrees with the audit recommendation. Management has developed written policies and procedures for its executive performance incentive pay plan calculation and review process. The written Compensation Plan calculation and review procedures were finalized in December 2017. These procedures will be reviewed by the Talent Acquisition and Compensation Manager and updated as necessary on an annual basis.*

# Appendices

Appendix 1

## **Objective, Scope, and Methodology**

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### **Objective**

The objective of this audit was to determine whether the Permanent School Fund Division (PSF Division) of the Texas Education Agency, the General Land Office (GLO), the Employees Retirement System (ERS), and the Teacher Retirement System (TRS) calculate and pay incentive compensation in accordance with policies and procedures.

### **Scope**

The scope of this audit covered incentive compensation plan years ending September 30, 2017, at the PSF Division; June 30, 2017, at GLO; August 31, 2017, at ERS; and September 30, 2017, and June 30, 2017, at TRS.

### **Methodology**

The audit methodology included collecting information and documentation from the audited agencies; reviewing incentive compensation plans, policies, procedures, and other guidance related to incentive compensation; and analyzing and evaluating data and the results of tests.

Auditors tested sample items to determine whether selected recipients were eligible to receive incentive compensation payments, payment calculation data inputs were correct, payment calculations were correct based on the terms of the incentive compensation plans, and payment amounts distributed to recipients were properly recorded and matched amounts calculated for each recipient.

Auditors reviewed incentive compensation plans, calculations, personnel files, payroll data, and externally calculated fund performance results to determine whether the audited agencies calculated and paid incentive compensation in accordance with their policies and procedures. Auditors also tested access controls over the spreadsheets and data that the audited agencies used to calculate incentive compensation.

### **Data Reliability and Completeness**

Auditors assessed the reliability of the incentive compensation award data used in this audit by tracing the data to supporting documentation and by reviewing access to the data. Auditors verified the completeness of the incentive compensation award data by comparing pay calculation

information in the incentive compensation award spreadsheets that the audited agencies used to calculate payments to payment data in the Uniform Statewide Accounting System and the Uniform Statewide Payroll/Personnel System. Auditors determined that the incentive compensation award data was sufficiently reliable for the purposes of this audit.

#### **Sampling Methodology**

Auditors selected risk-based samples of incentive compensation awards for testing for the PSF Division, ERS, and TRS incentive compensation plans. Auditors tested the entire population of incentive compensation awards for the GLO incentive compensation plan and the TRS executive performance incentive pay plan.

Information collected and reviewed included the following:

- Incentive compensation plan documentation at the PSF Division, GLO, ERS, and TRS.
- TRS and ERS boards of trustees meeting minutes.
- Incentive compensation payment calculation spreadsheets for incentive compensation plan years ending September 30, 2017, at the PSF Division; June 30, 2017, at GLO; August 31, 2017, at ERS; and September 30, 2017, and June 30, 2017, at TRS.
- Incentive compensation recipients' personnel files.
- Payroll data related to incentive compensation recipients.
- Investment performance reports from custodian banks.

Procedures and tests conducted included the following:

- Interviewed management and key personnel at the PSF Division, GLO, ERS, and TRS.
- Tested and recalculated recipients' incentive compensation awards for incentive compensation plan years ending September 30, 2017, at PSF; June 30, 2017, at GLO; August 31, 2017, at ERS; and September 30, 2017, and June 30, 2017, at TRS.
- Verified that incentive compensation award payments matched award calculations.
- Reviewed and tested compliance with the audited agencies' policies and procedures.

- Reviewed access controls over the spreadsheets and data that the audited agencies used to calculate incentive compensation.

Criteria used included the following:

- PSF Division's *Performance Incentive Pay Plan*, effective October 1, 2016.
- GLO's *Performance Incentive Pay Plan*, effective July 1, 2016.
- ERS's *Incentive Compensation Plan for Key Investment Professionals and Leadership Employees*, effective September 1, 2016.
- TRS's *Performance Pay Plan*, effective October 1, 2016.
- TRS's *Executive Performance Incentive Pay Plan*, effective July 1, 2016.
- Section 44, Article III, Texas Constitution and related statutes.
- Rider 13, page III-33, and Rider 21, pages III-9 and III-10, General Appropriations Act (84th Legislature).
- Texas attorney general opinions related to incentive compensation.
- TRS's *Performance Incentive Calculation and Verification* procedures.
- ERS's *Incentive Compensation Plan – Procedure Reference*.
- ERS's *Incentive Compensation Plan Calculations Finance Process*.

## **Project Information**

Audit fieldwork was conducted from March 2018 through August 2018. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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

- Sarah Jane M. Puerto, CGAP, CFE (Project Manager)
- Kelly Bratton, CFSA, CRMA, MBA (Assistant Project Manager)
- Deepa M. Titus

- Tony White, CFE
- Dennis Ray Bushnell, CPA (Quality Control Reviewer)
- Hillary Eckford, CIA, CFE (Audit Manager)

## Issue Rating Classifications and Descriptions

Auditors used professional judgement and rated the audit findings identified in this report. Those issue ratings are summarized in the report chapters/sub-chapters. The issue ratings were determined based on the degree of risk or effect of the findings in relation to the audit objective.

In determining the ratings of audit findings, auditors considered factors such as financial impact; potential failure to meet program/function objectives; noncompliance with state statute(s), rules, regulations, and other requirements or criteria; and the inadequacy of the design and/or operating effectiveness of internal controls. In addition, evidence of potential fraud, waste, or abuse; significant control environment issues; and little to no corrective action for issues previously identified could increase the ratings for audit findings. Auditors also identified and considered other factors when appropriate.

Table 6 provides a description of the issue ratings presented in this report.

Table 6

Summary of Issue Ratings	
Issue Rating	Description of Rating
Low	The audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited <u>or</u> the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.
Medium	Issues identified present risks or effects that if not addressed could <u>moderately affect</u> the audited entity's ability to effectively administer program(s)/function(s) audited. Action is needed to address the noted concern(s) and reduce risks to a more desirable level.
High	Issues identified present risks or effects that if not addressed could <u>substantially affect</u> the audited entity's ability to effectively administer the program(s)/function(s) audited. Prompt action is essential to address the noted concern(s) and reduce risks to the audited entity.
Priority	Issues identified present risks or effects that if not addressed could <u>critically affect</u> the audited entity's ability to effectively administer the program(s)/function(s) audited. Immediate action is required to address the noted concern(s) and reduce risks to the audited entity.

## Related State Auditor's Office Work

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Related State Auditor's Office Work		
Number	Product Name	Release Date
18-001	An Audit Report on Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System	September 2017
16-030	An Audit Report on Incentive Compensation at the Permanent School Fund, General Land Office, Employees Retirement System, and Teacher Retirement System	June 2016
15-032	An Audit Report on Incentive Compensation at Selected Agencies	May 2015
14-033	An Audit Report on Incentive Compensation at the Teacher Retirement System, the Permanent School Fund, the General Land Office, and the Employees Retirement System	May 2014
13-033	An Audit Report on Incentive Compensation at the Teacher Retirement System, the Permanent School Fund, and the Employees Retirement System	April 2013

Copies of this report have been distributed to the following:

### **Legislative Audit Committee**

The Honorable Dan Patrick, Lieutenant Governor, Joint Chair  
The Honorable Joe Straus III, Speaker of the House, Joint Chair  
The Honorable Jane Nelson, Senate Finance Committee  
The Honorable Robert Nichols, Member, Texas Senate  
The Honorable John Zerwas, House Appropriations Committee  
The Honorable Dennis Bonnen, House Ways and Means Committee

### **Office of the Governor**

The Honorable Greg Abbott, Governor

### **Employees Retirement System**

Members of the Employees Retirement System Board of Trustees

Mr. I. Craig Hester, Chair

Ms. Ilesa Daniels, Vice Chair

Mr. Doug Danzeiser

Ms. Cydney Donnell

Ms. Catherine Melvin

Ms. Jeanie Wyatt

Mr. Porter Wilson, Executive Director

### **General Land Office**

The Honorable George P. Bush, Land Commissioner and Chairman of the  
School Land Board

Members of the School Land Board

Mr. Gilbert Burciaga

Mr. Scott Rohrman

## **Permanent School Fund**

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Ms. Donna Bahorich, Chair  
Mr. Marty Rowley, Vice Chair  
Mr. Ruben Cortez Jr., Secretary  
Mr. Lawrence A. Allen Jr.  
Ms. Erika Beltran  
Mr. David Bradley  
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Mr. Ken Mercer  
Ms. Geraldine Miller  
Ms. Georgina Perez  
Ms. Marisa B. Perez-Diaz

Mr. Mike Morath, Commissioner

## **Teacher Retirement System**

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Mr. David Corpus  
Mr. John Elliott  
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Mr. Christopher Moss  
Mr. James Nance  
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Mr. Brian Guthrie, Executive Director



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TAB 4



# 2018 Audit Planning Wrap Up Presentation and Discussion

Teacher Retirement  
Investment Company of  
Texas, Ltd.



# Our Responsibilities

We are responsible for:

Performing an audit under US GAAS of the financial statements prepared by management, with your oversight

Forming and expressing an opinion about whether the financial statements are presented fairly, in all material respects in accordance with US GAAP

Communicating specific matters to you on a timely basis; we do not design our audit for this purpose.

Reading other information and considering whether it is materially inconsistent with the financial statements

An audit provides reasonable, not absolute, assurance that the financial statements do not contain material misstatements due to fraud or error. It does not relieve you or management of your responsibilities. Our respective responsibilities are described further in our engagement letter.

# Those Charged With Governance and Management Responsibilities

## Those Charged with Governance are responsible for:

- Overseeing the financial reporting process
- Setting a positive tone at the top and challenging the Company's activities in the financial arena
- Discussing significant accounting and internal control matters with management
- Informing us about fraud or suspected fraud, including its views about fraud risks
- Informing us about other matters that are relevant to our audit, such as:
  - Entity strategies and related business risks that may result in heightened risks of material misstatement
  - Matters warranting particular audit attention
  - Significant communications with regulators
  - Matters related to the effectiveness of internal control and your oversight responsibilities
  - Your views regarding our current communications and your actions regarding previous communications

## Management is responsible for:

- Preparing and fairly presenting the financial statements in accordance with US GAAP
- Designing, implementing, evaluating, and maintaining effective internal control over financial reporting
- Communicating significant accounting and internal control matters to those charged with governance
- Providing us with unrestricted access to all persons and all information relevant to our audit
- Informing us about fraud, illegal acts, significant deficiencies, and material weaknesses
- Adjusting the financial statements, including disclosures, to correct material misstatements
- Informing us of subsequent events
- Providing us with written representations

# Audit Timeline & Scope

May 2018	Client continuance	<ul style="list-style-type: none"> <li>• Client continuance</li> <li>• Issue engagement letter</li> <li>• Conduct internal client service planning meeting, including coordination with audit support teams such as tax</li> </ul>
June 2018	Planning	<ul style="list-style-type: none"> <li>• Discuss scope of work and timetable as well as identify current year audit issues</li> </ul>
July 2018	Preliminary risk assessment procedures	<ul style="list-style-type: none"> <li>• Meet with management to confirm expectations and discuss business risks</li> <li>• Develop audit plan that addresses risk areas</li> <li>• Update understanding of internal control environment</li> <li>• Coordinate planning with management and develop work calendar</li> </ul>
August 2018	Interim fieldwork	<ul style="list-style-type: none"> <li>• Perform walk-throughs of business processes and controls</li> <li>• Perform selective substantive testing on interim balances</li> </ul>
October – December 2018	Final fieldwork and deliverables	<ul style="list-style-type: none"> <li>• Perform final phase of audit and year-end fieldwork procedures</li> <li>• Meet with management to discuss results including review of draft financial statements, misstatements (if any), and completeness/adequacy of disclosures</li> <li>• Present results to the Audit Committee</li> </ul>

# Materiality

Materiality is the magnitude of an omission or misstatement that likely influences a reasonable person's judgment. It is ordinarily evaluated against relevant financial statement benchmark.

- We believe that total revenues is the appropriate benchmark for the Company.

Financial statement items greater than materiality are within our audit scope. Other accounts or classes of transactions less than materiality may be in our scope if qualitative risk factors are present (for example, related party relationships or significant unusual transactions).

# Views of those charged with governance

## Discussion points

- Risks of fraud
- Awareness of fraud
- Awareness of related party transactions; understanding of purpose of related party transactions
- Awareness of whistleblower tips or complaints
- Oversight of management's risk assessment process
- Views about the Company's objectives and strategies and related risks of material misstatement
- Awareness of any internal control matters and views about management's response
- Oversight of financial reporting process
- Actions taken in response to developments in law, accounting standards and corporate governance matters
- Actions in response to our previous communications, if any

# Areas of focus

The following provides an overview of the areas of audit focus based on our risk assessments.

Areas of focus	Results
<ul style="list-style-type: none"><li>• VAT receivables</li><li>• Prepaid expenses</li><li>• Deposits and other assets</li><li>• Tax liabilities</li><li>• Revenues</li><li>• Expenses</li></ul>	All balances were determined to be materially stated based on the audit procedures.

# Summary of Misstatements

Increase (Decrease) to:

Description	Assets	Liabilities	Net Position	Change in Net Position
<b><u>Uncorrected misstatements</u></b>				
Transfers in of expense				(5,917)
Salaries and wages				5,917
Net impact	\$ -	\$ -	\$ -	\$ -

Management believes the uncorrected misstatements are immaterial to the financial statements. Uncorrected misstatements could be potentially material to future financial statements. As such, we request that these uncorrected misstatements be corrected.

# Other Required Communications

Professional standards require that we communicate the following matters to you, as applicable.

Going concern matters
Fraud and noncompliance with laws and regulations
Significant deficiencies and material weaknesses in internal control over financial reporting
Use of other auditors
Use of internal audit
Related parties and related party transactions



# Other Required Communications

(continued)

Disagreements with management
Management's consultations with other accountants
Significant issues discussed with management
Significant difficulties encountered during the audit
Other significant findings or issues that are relevant to you and your oversight responsibilities
Modifications to the auditor's report
Other information in documents containing audited financial statements



# Quality of Accounting Practices

Accounting policies	Accounting policies and their application are consistent and appropriate
Accounting estimates	No management bias identified in salary/ wage and intercompany allocations and depreciation expense
Disclosures	Disclosures are neutral, consistent and clear
Other related matters	No other related matters



# Internal Controls Matters

## Responsibility

We are responsible for obtaining reasonable assurance about whether the financial statements are free of material misstatement. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. Control deficiencies that are of a lesser magnitude than a significant deficiency will be communicated to management.

## Definitions

- A deficiency in internal control ("control deficiency") exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect, misstatements on a timely basis.
- A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

# Commitment to Promote Ethical and Professional Excellence

We are committed to promoting ethical and professional excellence. To advance this commitment, we have put in place a phone and internet-based hotline system.

The Ethics Hotline (1.866.739.4134) provides individuals a means to call and report ethical concerns.

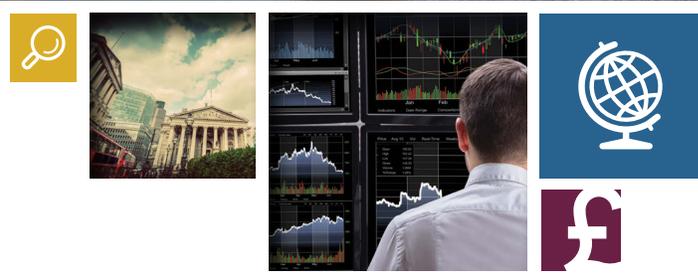
The EthicsPoint URL link can be accessed from our external website or through this link:

[https://secure.ethicspoint.com/domain/en/report\\_custom.asp?clientid=15191](https://secure.ethicspoint.com/domain/en/report_custom.asp?clientid=15191)

Disclaimer: EthicsPoint is not intended to act as a substitute for a company's "whistleblower" obligations.

# TRICOT 2018 - Annual Financial Report

Teacher Retirement Investment Company of Texas, Ltd.



A Component Unit of  
the Teacher Retirement System of Texas

Fiscal Year Ended August 31, 2018





# Teacher Retirement Investment Company of Texas Ltd.

Financial Statements  
For the Period Ended August 31, 2018

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## REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees  
Teacher Retirement Investment Company of Texas, Ltd.

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### **Report on the financial statements**

We have audited the accompanying financial statements of the Teacher Retirement Investment Company of Texas, Ltd. ("TRICOT"), which comprise the statement of fiduciary net position as of August 31, 2018, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the basic financial statements.

### **Management's responsibility for the financial statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to TRICOT's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of TRICOT's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Teacher Retirement Investment Company of Texas, Ltd. as of August 31, 2018, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 1, the financial statements present only the Teacher Retirement Investment Company of Texas, Ltd. and do not purport to, and do not, present fairly the financial position of the Teacher Retirement System as of August 31, 2018, or the changes in its financial position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

**Other matters***Required supplementary information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis be presented to supplement the basic financial statements. Such information, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. This required supplementary information is the responsibility of management. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America. These limited procedures consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



Austin, Texas

November 5, 2018

**Teacher Retirement Investment Company of Texas Ltd.**  
**Management's Discussion and Analysis (Unaudited)**

The following is Management's Discussion and Analysis (MD&A) of the Teacher Retirement Investment Company of Texas Ltd.'s (TRICOT) financial statements as of August 31, 2018 and for the year then ended. The information presented here should be considered in conjunction with other areas of the *TRICOT Annual Financial Report*.

**Financial Highlights**

Teacher Retirement Investment Company of Texas Ltd., (TRICOT), a private limited company incorporated in the United Kingdom (UK) began operations in fiscal year 2016. TRICOT, as a separate legal entity, is a wholly owned subsidiary and blended component unit of the Teacher Retirement System of Texas (TRS) Pension Trust Fund.

- TRICOT's primary purpose is to increase the size and number of investment opportunities for the TRS portfolio, especially in private equity funds, real assets funds, and co-investments for either of those investment types.
- TRICOT helps support the sourcing and portfolio management of TRS' \$10 billion in exposure to private investments in Europe through 80 investment vehicles and 30 manager relationships.
- Since inception, the TRICOT team has identified 189 potential deals totaling \$18.8 billion in equity, with 65 opportunities being identified for 2018. As of August 31, 2018, TRICOT-sourced deals had \$820 million in exposure to private investments in Europe through 8 investments vehicles under 8 manager relationships.
- TRICOT's net position was \$210,611 as of August 31, 2018.

**Overview of the Financial Statements**

This discussion and analysis is intended to serve as an introduction to TRICOT's financial presentation, which consists of fund financial statements, notes to the financial statements, and required supplementary information.

Collectively, this information presents the net position restricted for fiduciary activities as of August 31, 2018, and summarizes any changes in net position for the year then ended. The information available in each of these sections is summarized as follows:

**Fund Financial Statements**

Fiduciary fund financial statements are presented as of August 31, 2018. These financial statements reflect the resources available to pay administrative expenses related to TRICOT's mission.

**Teacher Retirement Investment Company of Texas Ltd.**  
**Management's Discussion and Analysis (Unaudited) - Continued**

**Notes to the Financial Statements**

The financial statement notes provide additional information that is essential to a full understanding of the data provided in the TRICOT financial statements. Information available in the notes to the financial statements is described below:

- Note 1 provides a general description of TRICOT and a summary of significant accounting policies, including the basis of accounting, budgets and appropriations, and explanations of major asset and liability classes.
- Note 2 provides information on capital assets.
- Note 3 describes cash, deposits and deposit risk factors.
- Note 4 provides information on operating leases.
- Note 5 presents tax disclosure information.

**Required Supplementary Information**

Required supplementary information for TRICOT consists of Management's Discussion and Analysis.

**Financial Analysis of TRICOT**

Net position restricted for fiduciary activities at August 31, 2018 was a \$210,611.

Additions from amounts paid on behalf of TRICOT and transfers in from Teacher Retirement System of Texas (TRS) totaled \$2,446,043.

Deductions from TRICOT's net position restricted for fiduciary activities are predominantly administrative expenses. During fiscal year 2018, administrative expenses and transfers out totaled \$2,440,149.

A condensed summary of TRICOT's financial statements are presented as of August 31, 2018 and for the year then ended. Comparative data in total as of August 31, 2017, and for the year then ended has also been presented.

Fiscal year 2018 decrease in cash and receivables is due to fewer expenditures reimbursements outstanding at year end. Prepaid and other increased due to the lease renegotiations which resulted in higher lease payments. Amounts paid on behalf of TRICOT decreased due to a reduced need for consulting services. Transfers in from TRS and administrative expenses increased due to an additional seconded employee and related expenses associated with that addition.

*Teacher Retirement Investment Company of Texas Ltd.  
Management's Discussion and Analysis (Unaudited) - Continued*

**Statement of Net Fiduciary Position (Condensed)**

**August 31, 2018**

	<b>Fiscal Year 2018</b>	<b>Fiscal Year 2017</b>	<b>Dollar Change</b>	<b>Percentage Change</b>
<b>Assets</b>				
Cash and Receivables	\$ 124,856	\$ 163,094	\$ (38,238)	(23.4) %
Prepays and Other	193,822	131,981	61,841	46.9
Capital Assets	4,795	7,193	(2,398)	(33.3)
<b>TOTAL ASSETS</b>	<b>\$ 323,473</b>	<b>\$ 302,268</b>	<b>\$ 21,205</b>	<b>7.0 %</b>
<b>Liabilities</b>				
Accounts Payable and Other	\$ 112,862	\$ 96,734	\$ 16,128	16.7 %
Due to TRS		817	(817)	(100.0)
<b>TOTAL LIABILITIES</b>	<b>\$ 112,862</b>	<b>\$ 97,551</b>	<b>\$ 15,311</b>	<b>15.7 %</b>
<b>Total Fiduciary Net Position</b>	<b>\$ 210,611</b>	<b>\$ 204,717</b>	<b>\$ 5,894</b>	<b>2.9 %</b>

**Changes in Fiduciary Net Position (Condensed)**

**For the Fiscal Year Ended August 31, 2018**

	<b>Fiscal Year 2018</b>	<b>Fiscal Year 2017</b>	<b>Dollar Change</b>	<b>Percentage Change</b>
<b>Additions</b>				
Amounts Paid on Behalf of TRICOT	\$ 337,153	\$ 432,840	\$ (95,687)	(22.1) %
Transfers In from TRS - Cash	948,170	570,796	377,374	66.1
Transfers In from TRS - Expenditures	1,160,720	1,053,371	107,349	10.2
<b>TOTAL ADDITIONS</b>	<b>\$2,446,043</b>	<b>\$2,057,007</b>	<b>\$ 389,036</b>	<b>18.9 %</b>
<b>Deductions</b>				
Administrative Expenses	\$2,440,149	\$1,952,559	\$ 487,590	25.0 %
Transfer out to TRS		817	(817)	(100.0)
<b>TOTAL DEDUCTIONS</b>	<b>\$2,440,149</b>	<b>\$1,953,376</b>	<b>\$ 486,773</b>	<b>24.9 %</b>
<b>Change in Fiduciary Net Position</b>	<b>\$ 5,894</b>	<b>\$ 103,631</b>	<b>\$ (97,737)</b>	<b>(94.3) %</b>

*Teacher Retirement Investment Company of Texas Ltd.  
Management's Discussion and Analysis (Unaudited) - Continued*

**Request for Information**

This financial report is designed to provide a general overview of the Teacher Retirement Investment Company of Texas Ltd. for those with an interest in TRICOT's finances.

Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Communications Department of the Teacher Retirement System of Texas, 1000 Red River Street, Austin, Texas 78701.

**Teacher Retirement Investment Company of Texas Ltd.**  
**Statement of Fiduciary Net Position**

AS OF AUGUST 31, 2018

**ASSETS**

**Cash**

Cash in Bank (Note 3)	\$	99,207
TOTAL CASH	\$	99,207

**Receivables and Other Assets (Note 1E)**

VAT (Value Added Tax) Receivable		23,162
Corporate Taxes Receivable		2,487
Prepaid Expenses		96,368
Deposits and Other Assets		97,454
TOTAL RECEIVABLES AND OTHER ASSETS	\$	219,471

**Capital Assets (Note 2)**

Depreciable Assets	\$	11,989
Less Accumulated Depreciation		(7,194)
TOTAL CAPITAL ASSETS	\$	4,795

<b>TOTAL ASSETS</b>	<b>\$</b>	<b>323,473</b>
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**LIABILITIES (Note 1E)**

Accounts Payable and Other	\$	48,412
Payroll Taxes Payable		40,608
Corporate Taxes Payable		23,842
TOTAL LIABILITIES	\$	112,862

**NET POSITION**

Net Investment in Capital Assets	\$	4,795
Restricted for Fiduciary Activities		205,816

<b>NET POSITION RESTRICTED FOR FIDUCIARY ACTIVITIES</b>	<b>\$</b>	<b>210,611</b>
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*The accompanying Notes to the Financial Statements are an integral part of this financial statement.*

**Teacher Retirement Investment Company of Texas Ltd.**  
**Statement of Changes in Fiduciary Net Position**

FOR FISCAL YEAR ENDED AUGUST 31, 2018

**ADDITIONS**

Amounts Paid On Behalf of TRICOT	\$	337,153
Transfers In from Teacher Retirement System of Texas:		
of Cash		948,170
of Expense		1,160,720
<b>TOTAL ADDITIONS</b>	<b>\$</b>	<b>2,446,043</b>

**DEDUCTIONS**

Administrative Expenses		
Seconded Employees and Other Services	\$	1,116,677
Professional Fees and Services		387,403
Materials and Supplies		2,901
Communications and Utilities		3,482
Repairs and Maintenance		11,754
Travel		46,796
Rentals and Leases		456,497
Payroll Tax Expense		286,381
Corporate Tax Expense		22,229
Foreign Transaction (Gain)/Loss/Fees		4,436
Depreciation Expense		2,398
Other Expenses		57,605
Transfers Out To Teacher Retirement System of Texas		41,590
<b>TOTAL DEDUCTIONS</b>	<b>\$</b>	<b>2,440,149</b>

<b>Net Change in Net Position</b>	<b>\$</b>	<b>5,894</b>
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<b>NET POSITION RESTRICTED FOR FIDUCIARY ACTIVITIES-BEGINNING OF YEAR</b>	<b>\$</b>	<b>204,717</b>
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<b>NET POSITION RESTRICTED FOR FIDUCIARY ACTIVITIES-END OF YEAR</b>	<b>\$</b>	<b>210,611</b>
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*The accompanying Notes to the Financial Statements are an integral part of this financial statement.*

**Note 1: Summary of Significant Accounting Policies**

**A. Reporting Entity**

The accompanying financial statements reflect the financial position of the Teacher Retirement Investment Company of Texas Ltd., (TRICOT), a private limited company incorporated in the United Kingdom (UK). TRICOT, as a separate legal entity, is a wholly owned subsidiary and blended component unit of the Teacher Retirement System of Texas (TRS) Pension Trust Fund. The primary purpose of TRICOT is to increase the size and number of investment opportunities for the TRS portfolio, especially in private equity funds, real assets funds, and co-investments for either of those investment types. TRICOT's Board of Directors is composed of one Managing Director. This Managing Director position is appointed by the Executive Director of TRS.

TRICOT provides investment advisory services exclusively to TRS pursuant to an intercompany agreement. TRICOT does not make investment decisions or enter into investment contracts and has no authority to legally bind TRS. All investment opportunities are referred to TRS for consideration, due diligence, decision-making, and authorization.

**B. Measurement Focus, Basis of Presentation and Basis of Accounting**

The financial statements present only the financial position and changes in financial position of TRICOT and include all activities for which TRICOT exercises fiscal control and responsibility. They are not intended to, and do not, present fairly the financial position or changes in financial position of TRS. The reporting period is for the fiscal year ended August 31, 2018.

As a blended component unit of the TRS Pension Trust Fund, TRICOT reports its accounts in the same manner, which is as a fiduciary fund. Fiduciary funds are used to report assets held in a trustee or agency capacity on behalf of others. TRICOT operations are accounted for with a self-balancing set of accounts that comprise its assets, liabilities, additions and deductions. The fiduciary financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Additions are recognized when earned, and deductions are recognized when the liability is incurred, regardless of the timing of related cash flows. All economic resources, including financial and capital assets, and related liabilities, both current and long-term, and the changes therein are reported in the fund financial statements.

TRICOT is not an employer under UK law and does not make contributions to any retirement plans. TRS employees are seconded from the Austin, Texas headquarters to TRICOT and remain employees and members of TRS for all purposes, including health insurance, pension contributions, benefits, and Social Security and Medicare taxes. The salary and benefit costs to TRS for seconded employees are allocated and transferred to TRICOT for transfer pricing and UK corporate income tax reporting purposes. Additionally, TRS employees provide legal, accounting and administrative services for TRICOT. When non-seconded TRS employees perform work on behalf of TRICOT, the proportionate cost of that labor is allocated to TRICOT. No allocation of the pension liabilities and expense for non-seconded TRS employees is necessary or required. TRS' risk management programs apply to TRICOT.

TRICOT's accounting records are maintained in United States (US) dollars. Purchases and receipts made in Great Britain Pounds (GBP) are translated into US dollars at the exchange rate on the dates of the transactions.

### **C. New Accounting Pronouncements**

The accompanying financial statements were prepared in conformity with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB).

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, relates to governmental employers that provide postemployment benefits other than pensions and is effective for fiscal years beginning after June 15, 2017.

GASB Statement No. 84, *Fiduciary Activities*, establishes criteria for identifying fiduciary activities of all state and local governments and is effective for fiscal years beginning after December 15, 2018.

GASB Statement No. 85, *Omnibus 2017*, addresses practice issues related to blending component units, goodwill, fair value measurement and application of postemployment benefits that have been identified during the implementation and application of certain GASB Statements. It is effective for fiscal years beginning after June 15, 2017.

GASB Statement No. 86, *Certain Debt Extinguishment Issues*, provides guidance for transactions in which cash and other monetary assets acquired with only existing resources are placed in an irrevocable trust for the sole purpose of extinguishing debt. It is effective for fiscal years beginning after June 15, 2017.

GASB Statement No. 87, *Leases*, requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows or outflows of resources based on the payment provisions of the contract. It is effective for fiscal years beginning after December 15, 2019.

GASB Statement No., 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* will improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. It is effective for fiscal years beginning after June 15, 2018.

### **D. Budgets and Appropriations**

The administrative costs and capital asset outlay for TRICOT are controlled by annual budgets approved by TRS and the Managing Director of TRICOT.

### **E. Assets and Liabilities**

#### **Receivables**

Receivables represent the amount of money owed to TRICOT for goods or services delivered or used for which payments have not been received at fiscal year-end. Value Added Tax (VAT) receivables represent amounts owed at fiscal year-end to TRICOT by the United Kingdom for the refund of value added taxes that will not be received until the next fiscal year. Corporate Taxes receivable represent a tax deferral based upon timing differences.

#### **Prepaid and Other Assets**

Prepaid expenses reflect payment for expenses related to rental and lease costs applicable to a future accounting period. Other Assets are deposits made to retain services and rental properties.

### Capital Assets

Capital assets associated with the entity's activities are included in the statement of net position. Purchases of capital assets are reported at cost on the acquisition date. Depreciation of all exhaustible capital assets is charged as an expense against operations. Depreciation is calculated using the straight-line method over the asset's useful life.

### Liabilities

Liabilities represent the amount of money owed by TRICOT for goods or services received at fiscal year-end for which payment has not been made as of the balance sheet date. Accounts Payable represents the liability for assets or services received at fiscal year-end for which payment has not been made. Taxes Payable represents amounts owed by TRICOT at fiscal year-end but not paid to the United Kingdom until the next fiscal year.

### Related Party Transactions

As a blended component unit of TRS, TRICOT relies upon TRS for financial resources. Those resources are recognized through three basic types of revenue. Amounts paid on behalf of TRICOT represent amounts paid by TRS on behalf of TRICOT and recognized as revenue in accordance with GASB 24. The associated expenses are also recorded on an accrual basis at the same time in order to present the full costs of operations. Transfers in of cash from TRS represent cash contributions for operational expenses, net of any reimbursements from TRICOT back to TRS. The cash transfers are to TRICOT's bank account to provide operating funds to TRICOT. For fiscal year 2018, TRS contributed \$948,170 in cash. Transfers in of expense from TRS represent monies paid directly by TRS then allocated to TRICOT for reporting purposes. For fiscal year 2018, TRS contributed \$1,160,720 in transferred expenses.

### Note 2: Capital Assets

Capital assets are presented at historical cost or, if not purchased, at fair value at the date of acquisition. To the extent assets are purchased by TRICOT for use in operations, appropriate straight-line depreciation has been charged over the estimated useful lives of the assets. Capitalization thresholds for applicable capital asset classes and useful lives for exhaustible assets are shown below:

Asset Class	Capitalization Threshold	Depreciable Life
Furniture and Equipment	\$5,000	5 years

The table below presents the composition of TRICOT's capital assets.

Asset Class	Balance 09/01/2017	Additions	Deletions	Balance 08/31/2018
<b>Depreciable Assets</b>				
Furniture and Equipment	\$ 11,989			\$ 11,989
<b>Less Accumulated Depreciation</b>				
Furniture and Equipment	(4,796)	(2,398)		(7,194)
<b>Capital Assets, Net</b>	<b>\$ 7,193</b>	<b>\$ (2,398)</b>	<b>\$ -</b>	<b>\$ 4,795</b>

**Note 3: Deposits**

**A. Cash and Deposits**

Cash and deposits of TRICOT are maintained in demand deposit accounts with J.P. Morgan Chase Bank, N.A. in the United States (US) and the United Kingdom (UK). As of August 31, 2018 the balance in these accounts and the carrying amount totaled \$99,207.

**B. Deposit Risk Factors**

**Custodial Credit Risk**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the system will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. TRICOT does not have a formal deposit policy for custodial credit risk.

Deposits in US bank accounts are covered by the Federal Deposit Insurance Corporation (FDIC) which insures bank balances less than \$250,000. Deposits in UK bank accounts are covered by the Financial Services Compensation Scheme (FSCS) which insures bank balances less than £75,000. Deposits in excess of these insured amounts are uninsured and uncollateralized. As of August 31, 2018, deposits in TRICOT US and UK bank accounts were not exposed to custodial credit risk.

**Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of a deposit or an investment. TRICOT does not have a formal deposit policy for foreign currency risk. As of August 31, 2018, TRICOT held \$44,071 in GBP.

**Note 4: Operating Leases**

During fiscal year 2018, TRICOT renegotiated and extended the non-cancelable operating lease agreement for office building space until June 12, 2019. Rental expenses related to the lease for the fiscal year ended August 31, 2018 were \$328,064.

In fiscal year 2018, TRICOT maintained four operating lease agreements for apartments for the TRS seconded employees. The first lease expires August 14, 2018 and is currently being renegotiated for another year. The second lease expires November 15, 2018. The third lease expires December 2018. A fourth lease expired in December 2017 and was not renewed. Rental expenses related to the leases for the fiscal year ended August 31, 2018 totaled \$123,427. Future minimum lease payments for 2019 are \$338,901.

**Note 5: Tax Disclosure**

**A. Tax on Ordinary Activities**

For the period ended August 31, 2018, TRICOT had tax on profit on ordinary activities. The current income tax charge is presented below:

• <b>Current tax</b>		
UK corporation tax at 19.00%		<u>\$23,842</u>
Total current tax		<u>\$23,842</u>
• <b>Deferred tax</b>		
Origination and reversal of timing differences	\$ 327	
Effect of changes in tax rate	<u>0</u>	
Total deferred tax		<u>327</u>
Tax on profit on ordinary activities		<u>\$ 24,169</u>

**B. Factors Affecting the 2018 Total Tax Charge**

The tax assessed on profit/loss on ordinary activities for the year is lower than the standard rate of corporation tax in the UK of 19.00% (2017 19.58%). The differences are reconciled below:

Profit on ordinary activities before taxation	<u>\$127,202</u>
Profit on ordinary activities at standard United Kingdom corporation tax rate of 19.00%	24,168
Effects of;	
Effect of tax rate changes	<u>1</u>
Total tax expense	<u>\$ 24,169</u>

**C. Factors That May Affect Future Tax Charges**

The UK Government legislated in the Finance (No.2) Act 2016, which received Royal Assent on September 15, 2016, that the main rate of corporation tax statutory rate would be reduced from 19% to 17% effective from April 1, 2020. This will affect the rate at which future UK cash tax will be payable and has been taken into account in calculating deferred tax.

**D. 2018 Deferred Tax**

Deferred tax asset at September 1, 2017	\$ 2,814
Deferred tax credit/ (charge) to income statement	<u>(327)</u>
Deferred tax asset at August 31, 2018	<u>\$ 2,487</u>
Made up of:	
Depreciation in excess of capital allowances	\$2,487

**E. Other Tax Expense**

Tax expense also includes amounts paid to Her Majesty's Revenue and Customs office by TRS for seconded employees working in the UK. These costs were allocated to TRICOT per the intercompany agreement. Refer to Note 1.B for more information on seconded employees.





**Teacher Retirement System of Texas**

1000 Red River Street • Austin, Texas 78701-2698 • (512) 542-6400 • [www.trs.texas.gov](http://www.trs.texas.gov)

TAB 5A



PRESENTATION FOR THE AUDIT COMMITTEE BY:  
TRS HIB & IBM WATSON HEALTH

DECEMBER 13, 2018



# Background of Audited Plans

## TRS-ActiveCare

- Total Enrollment – 438,000
- Three self-funded plans:
  - TRS-ActiveCare 1-HD
  - TRS-ActiveCare Select
  - TRS-ActiveCare 2
- Health Plan Administrator - Aetna
- Pharmacy Benefits Manager - CVSHealth/Caremark

## TRS-Care

- Total Enrollment – 156,000
- Three self-funded plans:
  - TRS-Care 1
  - TRS-Care 2
  - TRS-Care 3
- Health Plan Administrator - Aetna
- Pharmacy Benefits Manager - Express Scripts

## Audit Time Scope

- Fiscal Year 2017 (09/01/2016 – 08/31/2017) for most plans, with the following exceptions:
  - TRS-Care – extended audit period of 9/01/2017 – 12/31/2017 due to the fiscal year to calendar year transition
  - Calendar Years 2016 and 2017 for the Medicare Part D plan, also called the Employer Group Waiver Plan (EGWP)

## Audit Focus

- Claim accuracy
- Operation review
- Performance guarantee verification

## Audit Result Summary

- All 3 companies performing above acceptable levels on claim adjudication accuracy and timeliness
- All 3 companies primarily operating within contractual terms
  - Additional shortfalls identified for EGWP discounts – 2016 & 2017
- All 3 companies accurately reporting performance guarantees
- Insignificant weaknesses were identified and will be discussed by IBM

# IBM Watson Health – TRS Audits

## Audit Methodology – Claims

- Obtain Summary Plan Descriptions (SPDs) and other benefit documentation
- Develop benefit templates based on SPDs
- Obtain claims files from administrators
- Use proprietary software to electronically re-adjudicate 100% of claims
  - Benefit determinations (coinsurance, copayments, deductibles, etc.)
  - Compare to industry standards

Administrator	Claim Count	Paid
Aetna TRS-Care	4,115,781	\$1,048,354,580
Aetna TRS-ActiveCare	4,367,890	\$1,451,643,764
ESI – Commercial	2,329,110	\$264,016,467
ESI – EGWP (2016 & 2017)	10,565,796	\$1,297,854,646
Caremark	4,638,475	\$430,483,565

## Audit Methodology - Claims (continued)

- Potential exceptions grouped into various categories
- Select claims samples from exception categories
- Test claims samples and perform other audit work
  - Medical - on site claims audit and remote operational review for ActiveCare and Care
  - Rx - remote claims audit and operational review for ActiveCare, Care Commercial and EGWP
  - Rx – remote pricing validation (discounts & dispensing fees)
- Evaluate administrator sample responses
- Complete 100% claims analysis based on remaining sample exceptions
  - “Agree to”
  - “Agree to disagree”

## TRS-Care Standard Health Plan Administration by Aetna for September 1, 2016 to December 31, 2017

- Aetna performing above acceptable levels
- Overall claims findings in dollars are below IBM benchmark (1%-2%)
  - TRS-Care 0.12% (FY16 – 0.21%)
- Opportunities to clarify benefit intentions
  - 100% covered services (\$225K), coinsurance application (\$350K)
- Other claims opportunities
  - Surgery payments (\$375K), payment integrity (\$196K)

## TRS-Care Standard Health Plan Administration by Aetna for September 1, 2016 to December 31, 2017 (continued)

- Other findings
  - Delayed performance guarantee reporting on provider access, but met the guarantee
- Recommendations
  - Work with Aetna to clarify intent of benefit design
  - Pursue recoveries where appropriate
  - Review multiple surgery reduction edits and payment integrity edits with Aetna
  - Aetna should enhance procedures to ensure reporting of all performance guarantees

## TRS-ActiveCare Health Plan Administration by Aetna for September 1, 2016 to August 31, 2017

- Aetna performing above acceptable levels
- Overall claims findings in dollars are below IBM benchmark (1%-2%)
  - TRS-ActiveCare 0.19% (FY16 – 0.04%)
- Opportunities to clarify benefit intentions
  - Coinsurance application (\$1M), copayment application (\$484K)
- Other claims opportunities
  - Surgery payments (\$443K), payment integrity (\$411K)
- Recommendations
  - Work with Aetna to clarify intent of benefit design
  - Pursue recoveries where appropriate
  - Review multiple surgery reduction edits and payment integrity edits with Aetna

## TRS-Care Standard Plan Pharmacy Administration by ESI for September 1, 2016 to August 31, 2017

- ESI is performing above acceptable levels for claims processing
  - After final review of all information provided by ESI, no significant claims findings noted for Fiscal Year 2017
- Pricing validation (discounts and dispensing fees)
  - IBM Watson Health determined the mail guarantee was not met and concurs with ESI's self-reported results to TRS
- ESI limited information provided for operational review
- Recommendations
  - Recommend TRS accept ESI's payment of ≈\$127,000 for the missed mail guarantee for not meeting contract terms

# IBM Watson Health – TRS Audits

## TRS-Care EGWP Plan Pharmacy Administration by ESI for January 1, 2016 to December 31, 2016

- ESI is performing above acceptable levels for claims processing
  - No significant benefit findings for 2016
- Pricing Validation
  - IBM determined ESI did not meet the mail guarantees for 2016
  - ESI including adjusted claims with no ingredient cost – inflates discount and is not industry standard
  - IBM determined additional \$530,000 is due for 2016 for missed mail guarantee
  - ESI disagrees with this finding
- ESI limited information provided for operational review
- ESI does not maintain supporting documentation for emergency enrollments for PG reporting
- Recommendations
  - Review claims with no ingredient cost with ESI and pursue additional shortfall for mail guarantee

# IBM Watson Health – TRS Audits

## TRS-Care EGWP Plan Pharmacy Administration by ESI for January 1, 2017 to December 31, 2017

- ESI is performing above acceptable levels for claims processing
  - No significant benefit findings for 2017
- Pricing Validation
  - IBM determined ESI did not meet the mail guarantees for 2017
  - ESI including adjusted claims with no ingredient cost – inflates discount and is not industry standard
  - IBM determined additional \$368,000 is due for 2017 for missed mail guarantee
  - ESI disagrees with this finding
- ESI limited information provided for operational review
- ESI does not maintain supporting documentation for emergency enrollments for PG reporting
- Recommendations
  - Review claims with no ingredient cost with ESI and pursue additional shortfall for mail guarantee

## TRS-ActiveCare Pharmacy Plan Administration by Caremark for September 1, 2016 to August 31, 2017

- Caremark is performing above acceptable levels for claims processing
  - Overall claims findings are below IBM benchmark (<1%)
  - TRS-ActiveCare 0.58%
- Payment Exceptions
  - Prior Authorization – Fluocinonide (\$1.1M), Copayment (\$653K), Coinsurance/Deductible (\$766K)
  - Caremark self-identified \$155K for Fluocinonide
  - Caremark agreed with copayment findings; performing claims analysis
- Pricing Validation
  - Caremark did not meet the retail brand and generic guarantees
  - Additional \$267,000 due for Fiscal Year 2017

## TRS-ActiveCare Pharmacy Plan Administration by Caremark for September 1, 2016 to August 31, 2017 (continued)

- Recommendations
  - Review differences for Fluocinonide results with Caremark
  - Compare Caremark's impact analysis for copayment to IBM's 100% results
  - Review out-of-pocket maximum issue with Caremark for coinsurance/deductible issue
  - Pursue recoveries where appropriate
  - Accept Caremark's determination of \$267,000 owed for pricing guarantee shortfall

## Vendor Responses

- Vendors agree to some findings but disagree with the others
- Our investigation indicates that most of the findings disagreed by vendors from last year's audit turned out to be false positives

## Management Responses

- HIB will research identified potential erroneous claims and seek corrective actions
- HIB will work with vendors to resolve underlying control deficiencies to reduce errors going forward

**TAB 5B**



# Teacher Retirement System of Texas (TRS)

Review of Health Plan Administration by Aetna  
for September 1, 2016, to December 31, 2017

TRS-Care

# EXECUTIVE SUMMARY

## Engagement Overview and Scope

The Teacher Retirement System of Texas (TRS) engaged IBM Watson Health to conduct a health claims review to:

- Assess the administration of TRS's self-funded employee health plans by Aetna.
- Determine whether Aetna is in compliance with the terms of the Administrative Services Agreement (ASA), Summary Plan Description (SPD), and other applicable documents.

This engagement primarily examined Aetna's claims adjudication accuracy relative to all claims incurred by TRS's plan members for TRS-Care plans from September 1, 2016 to December 31, 2017 and paid through March 31, 2018. The benefit year for TRS-Care was on a fiscal year basis from September through August. However, TRS changed the benefit year for TRS-Care to a calendar year effective January 1, 2018. As a result, the audit period was extended to include four additional months from September 1, 2017 through December 31, 2017. In addition, IBM Watson Health was engaged to perform an operational review to assess the policies, procedures, and controls that support the administration of the TRS-Care health plans and to review the reporting of several performance guarantees in place between TRS and Aetna for the TRS-Care plans. The health plans included in the review were the following:

- TRS-Care 1
- TRS-Care 2
- TRS-Care 3

From the population of potential exceptions, IBM Watson Health selected a sample of 150 TRS-Care claims for onsite review. Of the 150 claims reviewed, IBM Watson Health determined during the onsite review that 114 claims were processed and paid correctly. Of the remaining 36 exceptions, Aetna agreed with IBM Watson Health's assessment that there was an exception in processing 18 claims. The remaining 18 exceptions are in an "agree to disagree" status. Based on the 36 exceptions, IBM Watson Health determined which types of exceptions represented systemic claims processing exceptions. This process resulted in the identification of 18,361 claims and \$1,296,580 in total potential exceptions with \$398,816 in net overpayments.

The following charts compare the total cost of all exceptions that were identified. The analysis is separated into two categories: exceptions identified based on the SPD analysis and those identified based on Industry Standard and Best Practices edits. Of the 150 sample claims reviewed onsite 104 sample claims represented SPD potential exceptions and 46 sample claims represented Industry Standard and Best Practices potential exceptions.



**SPD Analysis**

<b>Initial 100% Claims Analysis for SPD Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,115,781	\$1,048,354,580	100%
Claims passing IBM Watson Health edits	4,026,022	\$1,005,848,740	95.95%
Claims identified for further testing and analysis	89,759	\$42,505,840	4.05%
Total claims selected for onsite review	104	\$159,892	0.02%
<b>Onsite Review Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	76	\$150,391	94.06%
Exceptions identified from sample	28	\$9,501	5.94%
Exceptions agreed to by Aetna	13	\$3,581	2.24%
“Agree to disagree” exceptions	15	\$5,920	3.70%
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	16,596	\$664,065	0.06%

**Industry Standards and Best Practices Analysis**

<b>Initial 100% Claims Analysis for Industry Standards and Best Practices Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,115,781	\$1,048,354,580	100%
Claims passing IBM Watson Health edits	3,973,247	\$682,143,817	65.07%
Claims identified for further testing and analysis	142,534	\$366,210,763	34.93%
Total claims selected for onsite review	46	\$794,830	0.08%
<b>Onsite Review Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	38	\$793,695	99.86%
Exceptions identified from sample	8	\$1,135	0.14%
Exceptions agreed to by Aetna	5	\$641	0.08%
“Agree to disagree” exceptions	3	\$494	0.06%
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	1,765	\$632,515	0.06%

## Key Findings

The following is a description of the most significant claims exception categories from a financial perspective and other issues from the operational review and performance guarantee verification. The claims results include findings which may be systemic within Aetna's claims processing system.

Surgery Payments	<p>IBM Watson Health uses guidelines established by the Centers for Medicare &amp; Medicaid Services (CMS) and the American Medical Association (AMA) to identify situations where appropriate reductions should be made for claims for surgical procedures. Based on industry standards, assistant surgeon charges, when covered, are typically reimbursed at 20% of the provider's fee schedule or negotiated rate. Also, when multiple surgical procedures are performed on the same day, by the same individual physician or other healthcare professional, reduction in reimbursement for the secondary and subsequent procedures should occur. Payment at 100% for secondary and subsequent procedures would represent reimbursement for duplicative components of the primary procedure. The analyses and claim sample results found claims for surgical procedures where reductions were not taken.</p> <p>In all, there were 776 surgical claims where appropriate reductions were not applied for assistant surgeons and multiple surgical procedures. These claims resulted in overpayments of \$375,075. The findings for assistant surgeon claims totaled approximately \$344,000 and the findings for multiple surgical procedures totaled approximately \$31,000. Modification of the claims adjudication system to prevent these exceptions would result in future savings for TRS.</p>
Coinsurance Application	<p>IBM Watson Health identified 8,418 claims where either an incorrect coinsurance amount was applied, or no coinsurance was taken when it should have been taken. These claims resulted in a total exception amount of \$350,303 of which \$127,129 were overpayments and \$223,174 were underpayments. The sample findings were related to inpatient acute care room and board, radiology-complex imaging, outpatient surgery-facility, emergency care transportation - ambulance, inpatient physician services, outpatient home infusion services and independent lab. The majority of the net underpayments were for inpatient physician services and the majority of the net overpayments were for outpatient surgery – facility. Aetna agreed to all eight sample exceptions for Coinsurance Application.</p>
100-Percent Coverage	<p>There were 6,202 claims identified throughout the claims population where the SPD provides for 100% coverage (no member liability), however, member liabilities were incorrectly applied. These claims totaled \$225,708 in underpayments by TRS but overpayments by TRS-Care members. Based on the sample findings, the claims were related to laboratory services provided by Quest Labs and mammograms for members over age 35 which are covered in full</p>

	for specific benefit plans. Laboratory services accounted for the majority of the findings from a financial perspective.
Payment Integrity	There were 551 claims where the claims should have been pended or denied due to wrong coding and additional information should have been requested from the provider. These claims resulted in overpayments of \$196,061. The sample findings were related to CPT/age conflict, CPT/sex conflict and diagnosis/sex conflict, with the majority of the exception dollars being for diagnosis/sex conflict.
Performance Guarantee Reporting	IBM Watson Health found that, for the review period, Aetna had not reported the results for the performance guarantees for the TRS-Care plans for access rates to the various providertypes (e.g. PCPs, Specialists, Hospitals). Aetna acknowledged this when information and supporting documentation was requested for the performance guarantee verification process.

## Recommendations

- Request and review financial and claim impact analyses for all “Agreed To” exceptions and other exceptions where Aetna was not properly adjudicating claims according to the SPD language for the TRS-Care plans. Where applicable, recoveries should be pursued on overpaid claims.
  - Aetna should address the issues identified that are related to the correct application of member liability such as coinsurance to assure that members are assessed the correct amount and that claims are paid correctly for claims that require coinsurance. Aetna should provide TRS with the root cause of any systemic exceptions and confirm that the system has been corrected for the auto-adjudicated claims. Additional processor training should also be considered by Aetna for these types of claims.
  - Aetna should address the processing of surgical claims for assistant surgeons and multiple procedure reduction applied to surgical claims. Aetna should be applying industry standards and best practices for claims processing for surgical claims and make the appropriate reductions when applicable.
  - Aetna should review the coding logic in place for CPT/age conflict and CPT/sex conflict and diagnosis/sex conflict the claims processing system and make the necessary changes to either pend these claims or reject them for further information. Additional processor training should be provided by Aetna for these claim types.
  - Additional processor training should be provided regarding duplicate claims.
  - Work with Aetna to clarify the intent of all the plan design features with focus on services covered at 100% and non-covered (ineligible) services. Further clarifying language in the SPD related to ineligible services and 100% coverage may be helpful.
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- Aetna should address the issues identified that are related to visit limitations and that the correct application of benefits is applied based on the language in the SPD.
- Aetna should review its procedures for monitoring the reporting of performance guarantee results to ensure all annual performance guarantees are reported on a timely basis. A formal comprehensive performance guarantee report card should be considered. TRS should also closely monitor that Aetna reports on all performance guarantees included in the TRS-Care contract.

## Exception Categories Compared to Industry Benchmarks

The following chart compares Aetna's experience for the identified exception categories to that of other Health Plans (Benchmark Exception Rate). The benchmarks are based on the claims counts for the exception category from the 100 percent results. The exception rate identified on the Aetna claims is below that of other commercial and government health plans audited by IBM Watson Health with the exception of the Duplicate Claim Payment category.

### Benchmarks

Exception Category	Benchmark Exception Rate	Aetna Exception Rate September 2016 – December 2017	Aetna Score
100-Percent Coverage	0.25%	0.151%	Below average exception rate
Coinsurance Application	7.04%	0.205%	Below average exception rate
Duplicate Claim Payment	.008%	0.010%	Above average exception rate
Ineligible Services	0.075%	0.037%	Below average exception rate
Other Party Liability	0.024%	0.0003%	Below average exception rate
Surgery Payments	0.02%	0.019%	Below average exception rate
Visit Limitation	0.05%	0.011%	Below average exception rate

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TAB 5C

# Teacher Retirement System of Texas (TRS)

Review of Health Plan Administration by Aetna  
for September 1, 2016 to August 31, 2017

TRS-ActiveCare



# EXECUTIVE SUMMARY

## Engagement Overview and Scope

The Teacher Retirement System of Texas (TRS) engaged IBM Watson Health to conduct a health claims review to:

- Assess the administration of TRS’s self-funded employee health plans by Aetna.
- Determine if Aetna is in compliance with the terms of the Administrative Services Agreement (ASA), Summary Plan Description (SPD), and other applicable documents.

This engagement primarily examined Aetna’s claims adjudication accuracy relative to all claims incurred by TRS’s ActiveCare plan members from September 1, 2016 to August 31, 2017 and paid through November 30, 2017. In addition, IBM Watson Health was engaged to perform an operational review to assess the policies, procedures, and controls that support the administration of TRS’s health plans and to review the reporting of several performance guarantees in place between TRS and Aetna. The health plans included in the review included the following:

- TRS-ActiveCare 1-HD
- TRS-ActiveCare Select
- TRS- ActiveCare 2

From the population of potential exceptions, IBM Watson Health selected a sample of claims for onsite review that consisted of 150 claims for the TRS-ActiveCare plan. Of the 150 claims reviewed, IBM Watson Health determined during the onsite review that 124 claims were processed and paid correctly. Of the remaining 26 exceptions, Aetna agreed with IBM Watson Health’s assessment that there was an exception in processing the claim on 22 claims. The other four exceptions are in an “agree to disagree” status. Based on the 26 exceptions, IBM Watson Health determined which types of exceptions represented systemic claims processing exceptions. For these exception categories, 100% of the claims identified are considered exceptions. This process resulted in the identification of 26,233 claims and \$2,798,469 in total potential exceptions resulting in \$1,302,651 in net overpayments.

The following charts compare the total cost of all exceptions that were identified. The analysis is separated into two categories: exceptions identified based on the SPD analysis and exceptions identified based on Industry Standard and Best Practices edits. Of the 150 sample claims reviewed onsite, 95 claims represented potential SPD exceptions and 55 claims represented potential Industry Standard and Best Practices exceptions.

### SPD Analysis

<b>Initial 100% Claims Analysis for SPD Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,367,890	\$1,451,643,764	100%

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Claims passing IBM Watson Health edits	3,955,998	\$1,114,502,426	76.78%
Claims identified for further testing and analysis	411,892	\$337,141,338	23.22%
Total claims selected for onsite review	95	\$256,853	0.02%
<b>Onsite Review Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	76	\$245,566	95.61%
Exceptions identified from sample	19	\$11,287	4.39%
Exceptions agreed to by Aetna	19	\$11,287	4.39%
“Agree to disagree” exceptions	-	-	-
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	24,223	\$1,896,772	0.13%

#### Industry Standards and Best Practices Analysis

<b>Initial 100% Claims Analysis for Industry Standards and Best Practices Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,367,890	\$1,451,643,764	100%
Claims passing IBM Watson Health edits	4,056,042	\$940,834,086	64.81%
Claims identified for further testing and analysis	311,848	\$510,809,678	35.19%
Total claims selected for onsite review	55	\$1,006,223	0.07%
<b>Onsite Review Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	48	\$1,004,270	99.81%
Exceptions identified from sample	7	\$1,953	0.19%
Exceptions agreed to by Aetna	3	\$1,223	0.12%
“Agree to disagree” exceptions	4	\$730	0.07%
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	2,010	\$901,697	0.06%

## Key Findings

The following is a description of the most significant findings from a financial perspective and includes those exception categories with exceptions which may be systemic within Aetna’s claims processing system. For further details on the exceptions by category and type, please refer to Section 3, “Summary of Findings by Exception Area,” and Appendix A, “Detailed Claims Findings.”

<p>Coinsurance Application</p>	<p>There were 9,901 claims where an incorrect coinsurance amount was applied. These claims resulted in an exception amount of \$1,054,730 of which \$996,471 were overpayments and \$58,259 were underpayments. The sample exceptions were for emergency room care (facility and physician services), inpatient hospital care, outpatient diabetic education, global maternity care, outpatient laboratory services and office surgery. Aetna agreed to all seven sample exceptions in this category. The majority of the net overpayments were for inpatient hospital care and global maternity care.</p>
<p>Copayment Application</p>	<p>There were 11,940 claims where an incorrect copayment amount was applied, or no copayment was taken when one should have been taken. These claims resulted in an exception amount of \$484,109 of which \$24,108 were overpayments and \$460,001 were underpayments. The findings were related to primary care physician office visits. Aetna agreed to the two sample claims in this category.</p>
<p>Surgery Payments</p>	<p>There were 656 claims where reductions were not applied for assistant surgeon services based on industry standards. This resulted in an overpayment of \$443,235. Aetna agreed to the sample claim in this category. This represents a future savings opportunity for TRS.</p>
<p>Payment Integrity</p>	<p>There were 690 claims where the claims should have been pended or denied due to wrong coding and additional information should have been requested from the provider. These claims resulted in overpayments of \$411,729. The sample findings were related to CPT/age conflict, CPT/sex conflict and diagnosis/sex conflict, with the majority of the exception dollars being for CPT/age conflict and diagnosis/sex conflict. Aetna only agreed with one of five sample claims in this category.</p>

## Recommendations

- Request and review financial and claim impact analyses for all “Agreed To” exceptions and other exceptions where Aetna was not properly adjudicating claims according to the SPD language. Where applicable, recoveries should be pursued.
- Aetna should address the issues noted that affected the correct application of copayments and



coinsurance to assure that members are assessed the correct amount and that claims are paid correctly. Aetna should provide TRS with the root cause of any systemic exceptions and confirm that the system has been corrected for the auto-adjudicated claims. Additional claims processor training should also be provided by Aetna for these types of claims.

- Aetna should review the coding logic in place in the claims processing system for CPT and age conflict, CPT and sex conflict and diagnosis and sex conflict and make the necessary changes to either pend these claims or reject them for further information. Additional processor training should be provided by Aetna for these claim types.
- Aetna should address the processing of assistant surgeon claims. Aetna should be applying industry standards and best practices for claims processing whereby a 20 percent reduction is applied on an assistant surgeon's claim.
- Additional processor training should be considered regarding duplicate claims.
- Work with Aetna to clarify the intent of all the plan design features with focus on services covered at 100% and non-covered (ineligible) services. Further clarifying language in the SPD related to ineligible services and 100% coverage may be helpful.

## Exception Categories Compared to Industry Benchmarks

The following chart compares Aetna's results for the identified exception categories to that of other Health Plans (Benchmark Exception Rate). The benchmarks are based on the claims count for the exception categories from the 100 percent results. The exception rate identified on the Aetna claims is well below that of other commercial and government health plans audited by IBM Watson Health with the exception of the Duplicate Claim Payment category.

### Benchmarks — TRS-ActiveCare

Exception Category	Benchmark Exception Rate	Aetna Exception Rate FY2017	Aetna Score
100-Percent Coverage	0.25%	0.039%	Below average exception rate
Coinsurance Application	7.04%	0.227%	Below average exception rate
Copayment Application	2.52%	0.273%	Below average exception rate
Copayment/Coinsurance	0.77%	0.021%	Below average exception rate
Duplicate Claim Payment	0.008%	0.015%	Above average exception rate
Ineligible Services	0.075%	0.001%	Below average exception rate
Surgery Payments	0.02%	0.015%	Below average exception rate

**TAB 5D**

# Teacher Retirement System of Texas (TRS)

Review of Pharmacy Drug Plan Administration

by Express Scripts for September 1, 2016, to August 31, 2017

TRS-Care - Commercial



# EXECUTIVE SUMMARY

## Engagement Overview

The Teacher Retirement System of Texas (TRS) engaged the services of IBM Watson Health to conduct a pharmacy claims review to assess Express Scripts, Inc.'s (ESI's) administration of TRS's self-funded pharmacy plans for TRS-Care and determine if ESI complied with the terms of the contract in place for the commercial prescription drug plan. This engagement encompassed an audit of ESI to assess the accuracy and appropriateness of its fiduciary responsibility as TRS's administrative agent including the prescription adjudication process, compliance with pricing agreements and contract terms, and review of quality control procedures. IBM Watson Health performed an electronic audit of all claims adjudicated by ESI from September 1, 2016 through August 31, 2017 (fiscal year 2017).

The prescription drug plans included in this review included the following:

- TRS-Care 1
- TRS-Care 2
- TRS-Care 3

In addition, IBM Watson Health performed an operational review of ESI and verified the reporting of selected performance guarantees in place between TRS and ESI for the TRS-Care plans for fiscal year (FY) 2017.

IBM Watson Health analyzed 100% of TRS's claims incurred by TRS's plan participants during the audit period and selected a sample of 75 claims for testing and review. The sample was selected based on IBM Watson Health exception areas identified in the claims processed during the audit period. These exception areas were based on standard administrative rules such as quantity limits, ample day supply, copayments, and eligibility specific to the plan benefits described in the Summary Plan Description (SPD).

The sample claims were reviewed based on ESI's responses, and no exceptions were identified. The following chart compares the total cost of all initial exceptions identified by this audit against the total cost of TRS's entire claims population. After further review of ESI's responses to the claims sample, IBM Watson Health determined ESI was processing claims according to the benefit design.

Initial 100% Claims Analysis for Exceptions	Claims	Paid	% Total Paid
Total claims analyzed	2,329,110	\$264,016,467	100%
Claims passing IBM Watson Health edits	1,904,951	\$199,179,657	75.44%
Claims identified for further testing and analysis	424,159	\$64,836,810	24.56%
Total claims selected for Desk audit review	75	\$66,988	0.03%

<b>Desk Audit Review Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	75	\$66,988	100%
Exceptions identified from sample	0	0	0%
	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	0	0	0%

## Recommendations

The following summarizes the key recommendations based on the result of the audit work performed for the engagement.

- For the pricing validation, IBM Watson Health determined no additional monies is due to TRS above what ESI is reporting in their performance report. Therefore, IBM Watson Health recommends that TRS accept ESI's proposed settlement for not meeting the contractual obligations for discount for mail order claims for Fiscal Year 2017.



TAB 5E



# Teacher Retirement System of Texas (TRS)

Review of Pharmacy Drug Plan Administration

by Express Scripts for January 1, 2016, to December 31, 2016

TRS-Care - EGWP

# EXECUTIVE SUMMARY

## Engagement Overview

The Teacher Retirement System of Texas (TRS) engaged the services of IBM Watson Health to conduct a pharmacy claims review to assess Express Scripts, Inc.'s (ESI's) administration of TRS's self-funded pharmacy plans for the TRS-Care EGWP and determine if ESI complies with the terms of the contract in place for the EGWP Medicare Part D prescription drug plan. This engagement encompassed an audit of ESI to assess the accuracy and appropriateness of its fiduciary responsibility as the plan's administrative agent including the prescription adjudication process, compliance with pricing agreements, contract terms, and review of quality control procedures. IBM Watson Health performed an electronic audit of all claims adjudicated by ESI from January 1, 2016 through December 31, 2016.

The prescription drug plans included in this review included the following:

- TRS-Care EGWP 2
- TRS-Care EGWP 3

In addition, IBM Watson Health performed an operational review of ESI and verified the reporting of selected performance guarantees in place between TRS and ESI for the TRS-Care EGWP plans for calendar year 2016.

IBM Watson Health analyzed 100% of TRS's claims incurred by TRS's EGWP participants during the audit period and selected a sample of 75 claims for testing and review. The sample was selected based on IBM Watson Health exception areas identified in the claims processed during the audit period. These exception areas were based on standard administrative rules such as quantity limits, ample day supply, early refills, duplicate claims, co-payments, coinsurance, and eligibility specific to the plan benefits described in the Summary Plan Document (SPD).

The sample claims were reviewed based on ESI's responses and no exceptions were identified. IBM Watson Health determined ESI processed claims according to the benefit design and standard administrative rules. The following chart provides information on the population of claims that were analyzed and the sample information.

<b>Initial 100% Claims Analysis for Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,886,682	\$558,090,898	100.00%
Claims passing IBM Watson Health edits	4,134,430	\$451,032,290	80.82%



Claims identified for further testing and analysis	752,252	\$107,058,608	19.18%
Total claims selected for review	75	\$27,871	0.004%
<b>Desk Audit Review Results</b>	<b>Claims</b>	<b>Sample Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	75	\$27,871	100%
Exceptions identified from sample	0	\$0	0.00%
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	0	\$0	0.00%

IBM Watson Health found that ESI is processing copay and coinsurance, clinical, and industry standard claims such as eligibility, early refill and duplicate claims according to EGWP Medicare Part D contract terms for calendar year 2016.

## Key Findings

- **Pricing Validation:** IBM Watson Health determined there is a net shortfall in the mail order category that is approximately \$530,000 higher than the net shortfall determined by ESI.
- **Performance Guarantees:** As noted above, ESI does not maintain documentation that supports the processing of emergency eligibility transactions.

## Recommendations

- **Pricing Validation:** IBM Watson Health recommends ESI provide support that the inclusion of claims with zero-ingredient cost but with an AWP cost is appropriate and contractually allowed.
  - **Performance Guarantees:** ESI should maintain documentation regarding the processing of emergency eligibility transactions.
-



# Teacher Retirement System of Texas (TRS)

Review of Pharmacy Drug Plan Administration

by Express Scripts for January 1, 2017, to December 31, 2017

TRS-Care - EGWP

# EXECUTIVE SUMMARY

## Engagement Overview

The Teacher Retirement System of Texas (TRS) engaged the services of IBM Watson Health to conduct a pharmacy claims audit to assess Express Scripts, Inc.'s (ESI's) administration of TRS's self-funded pharmacy plans for TRS-Care Employer Group Waiver Plan (EGWP) and determine if ESI complies with the terms of the contract in place for the prescription drug plan. This engagement encompassed an audit of ESI to assess the accuracy and appropriateness of its fiduciary responsibility as the plan's administrative agent including the prescription adjudication process, compliance with pricing agreements, contract terms, and review of quality control procedures. IBM Watson Health performed an electronic audit of all claims adjudicated by ESI from January 1, 2017 through December 31, 2017.

The prescription drug plans included in this review included the following:

- TRS-Care EGWP 2
- TRS-Care EGWP 3

In addition, IBM Watson Health performed an operational review of ESI and verified the reporting of selected performance guarantees in place between TRS and ESI for the TRS-Care EGWP plans for calendar year 2017.

IBM Watson Health analyzed 100% of TRS's claims incurred by TRS-Care EGWP participants during the audit period and selected a sample of 75 claims for testing and review. The sample was selected based on IBM Watson Health exception areas identified in the claims processed during the audit period. These exception areas were based on standard administrative rules such as quantity limits, ample day supply, early refills, duplicate claims, co-payments, coinsurance, and eligibility specific to the plan benefits described in the Summary Plan Description (SPD).

The sample claims were reviewed based on ESI's responses and no exceptions were identified. IBM Watson Health determined ESI is processing claims according to the plan design in place for calendar year 2017 and standard administrative rules. The following chart provides information on the population of claims that were analyzed and the sample information.

Initial 100% Claims Analysis for Exceptions	Claims	Paid	% Total Paid
Total claims analyzed	5,679,114	\$739,763,748	100.00%
Claims passing IBM Watson Health edits	4,961,511	\$608,291,981	82.23%
Claims identified for further testing and analysis	717,603	\$131,471,767	17.77%
Total claims selected for onsite review	75	\$21,539	0.003%

<b>Desk Audit Review Results</b>	<b>Claims</b>	<b>Sample Impact</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	75	\$21,539	100%
Exceptions identified from sample	0	\$0	-
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% Total Paid</b>
Total exceptions identified in claims population	0	\$0	-

## Key Findings

- **Pricing Validation:** IBM Watson Health determined there is a net shortfall in the mail order category that is approximately \$368,000 higher than the net shortfall determined by ESI.
- **Performance Guarantees:** As noted, ESI does not maintain documentation to support the processing of emergency eligibility transactions.

## Recommendations

- **Pricing Validation:** IBM Watson Health recommends ESI provide support that the inclusion of claim with zero-ingredient cost but with an average wholesale price (AWP) cost is appropriate and contractually allowed.
- **Performance Guarantees:** ESI should maintain adequate documentation to support the processing of emergency eligibility transactions.



TAB 5F



# Teacher Retirement System of Texas (TRS)

Review of Pharmacy Drug Plan Administration

by CVS/Caremark for September 1, 2016 to August 31, 2017

TRS-ActiveCare

# EXECUTIVE SUMMARY

## Engagement Overview

The Teacher Retirement System of Texas (TRS) engaged the services of IBM Watson Health to conduct a pharmacy claims review to assess CVS/Caremark’s (Caremark’s) administration of TRS’s self-funded pharmacy plans and determine if Caremark complies with the terms of the administrative agreement. This engagement encompassed an audit of Caremark to assess the accuracy and appropriateness of its fiduciary responsibility as the plan’s administrative agent including the prescription adjudication process, compliance with pricing agreements, contract terms, and review of quality control procedures. IBM Watson Health performed an electronic audit of all claims adjudicated by Caremark from September 1, 2016 through August 31, 2017 (Fiscal Year 2017).

The pharmacy drug plans included in this review consisted of the following:

- TRS-ActiveCare 1 HD
- TRS-ActiveCare Select
- TRS-ActiveCare 2

In addition, IBM Watson Health performed an operational review of Caremark and verified the reporting of selected performance guarantees in place between TRS and Caremark for Fiscal Year 2017.

IBM Watson Health analyzed 100% of TRS’s claims incurred by TRS’s plan participants during the audit period and selected a sample of 150 claims for testing and review from fiscal year 2017. The sample was selected based on IBM Watson Health exception areas identified in the claims processed during the audit period. These exception areas were based on standard administrative rules such as quantity limits, ample day supply, copayments, and eligibility specific to the plan benefits described in the Summary Plan Description (SPD).

The sample claims were reviewed based on Caremark’s responses, and seven exceptions were identified. IBM Watson Health evaluated all 4,638,475 claims processed during the audit period based on Caremark’s responses and identified \$2,492,059 in total exceptions. The following chart compares the total cost of all exceptions identified by this audit against the total cost of TRS’s entire claims population.

<b>Initial 100% Claims Analysis for Exceptions</b>	<b>Claims</b>	<b>Paid</b>	<b>% Total Paid</b>
Total claims analyzed	4,638,475	\$430,483,565	100.00%
Claims passing IBM Watson Health edits	4,269,931	\$417,254,020	96.93%
Claims identified for further testing and analysis	368,544	\$13,229,545	3.07%
Total claims selected for review	150	\$125,370	0.03%



<b>Onsite Review Results</b>	<b>Claims</b>	<b>Paid</b>	<b>% of Sample</b>
Total sample claims confirmed as correctly processed	143	\$121,812	97.16%
Exceptions identified from sample	7	\$3,559	2.84%
Exceptions agreed to by Caremark	4	\$3,268	2.68%
“Agree to disagree” exceptions	3	\$291	0.24%
<b>Final 100% Claims Analysis Results</b>	<b>Claims</b>	<b>Financial Impact</b>	<b>% of Sample</b>
Total exceptions identified in claims population	270,353	\$2,492,059	0.58%

As noted, the \$2,492,059 is the absolute amount of the overall findings, irrespective of overpayments and underpayments. The net dollar impact of all findings is a net overpayment of \$1,419,175, which represents a combination of potential recoveries, savings opportunities and benefit clarification opportunities for TRS.

## Key Findings

- Claims were paid at copayments other than outlined in the contract for brand drugs that members chose to get when a generic drug was available. Members should have paid the generic drug copayment plus a penalty. Caremark agreed that members were assessed the incorrect copayment for dispense as written (DAW) claims and will submit a service warranty to determine the financial liability for the time period of September 1, 2016 through July 25, 2018 when their system was updated.
- Claims were paid by the plan for products that did not undergo proper protocol review (i.e. prior authorization). Caremark agreed the prior authorization was not in place at the time of fill for one (1) sample exception. This issue was identified by Caremark prior to the audit and TRS was reimbursed \$155,791 through an invoice for the impact period of December 9, 2016 through April 4, 2017 when Caremark updated their system. IBM Watson Health’s Analysis determined a total of 694 claims were processed for the drug Fluocinonide without proper protocol review causing a potential overpayment of \$1,072,835.
- Claims were paid at 100% prior to members meeting their out of pocket maximum. Based on information provided in the claims file for both the medical and pharmacy audits, and after reviewing the screen shots provided by Caremark, IBM Watson Health is unable to verify whether members reached their out of pocket maximum on sample claims that adjudicated at no cost to the member. The screen shots provided by Caremark did not show the accumulator detail as IBM requested. Caremark disagreed with this finding and indicated fields in the claims file to verify the members out of pocket accumulation. After further review of information provided by Caremark, the claims file still does not support the members reached their out of pocket prior to claim adjudication.

- For the pricing validation, as noted above based on the analysis performed, IBM Watson Health determined the brand and generic guarantees for discounts and dispensing fees were not achieved for Fiscal Year 2017 and an overall shortfall of approximately \$6.3M was due to TRS. The pricing shortfall was previously disclosed and reimbursed by Caremark, however as a result of the audit, Caremark determined an additional \$267,372 is due to TRS as government claims were erroneously included in the original pricing results. IBM Watson Health agrees with Caremark's determination of the additional amount owed to TRS.

## Recommendations

- For claims paid with incorrect copayments, IBM Watson Health recommends Caremark provide an impact analysis to TRS showing the financial liability of this issue. Those results should be compared to the results reported by IBM Watson Health and any significant discrepancies, as they relate to the audit period, should be investigated.
  - For claims paid for Fluocinonide without proper prior authorization review, IBM Watson Health recommends Caremark conduct an impact analysis on the post-audit claims detail IBM Watson Health will provide to determine if there are additional monies owed to TRS for this issue. Based on IBM Watson Health's analysis, an additional \$917,000 is due to TRS for claims processed for Fluocinonide without a prior authorization.
  - For claims that were paid at 100% prior to members meeting their out of pocket maximum, IBM Watson Health recommends Caremark work with TRS to determine why the claims file provided for this audit does not support Caremark's response. IBM Watson Health also recommends that Caremark conduct an impact analysis using the post-audit claims detail provided by IBM Watson Health to determine if claims were assessed a zero copayment incorrectly.
  - For the pricing validation, IBM Watson Health recommends TRS accept Caremark's determination of the additional \$267,732 owed to TRS as a result of the missed retail brand and generic guarantees for discounts and dispensing fees for Fiscal Year 2017.
-

TAB 6



**Texas DIR Cybersecurity Assessments**  
**TRS ISO and DIR      December 2018**





# Texas DIR Cybersecurity Assessments

## Non-Technical Assessments

- Texas Cybersecurity Framework Assessment

## Technical Assessments

- Vulnerability Assessments/Network Scans
- Web Application Vulnerability Scans
- Penetration Tests

**TAB 7**



**Business Continuity and Disaster Recovery**  
**TRS ERM**      **December 2018**



# Continuity of Operations Plan (COOP) Framework



**FEMA**



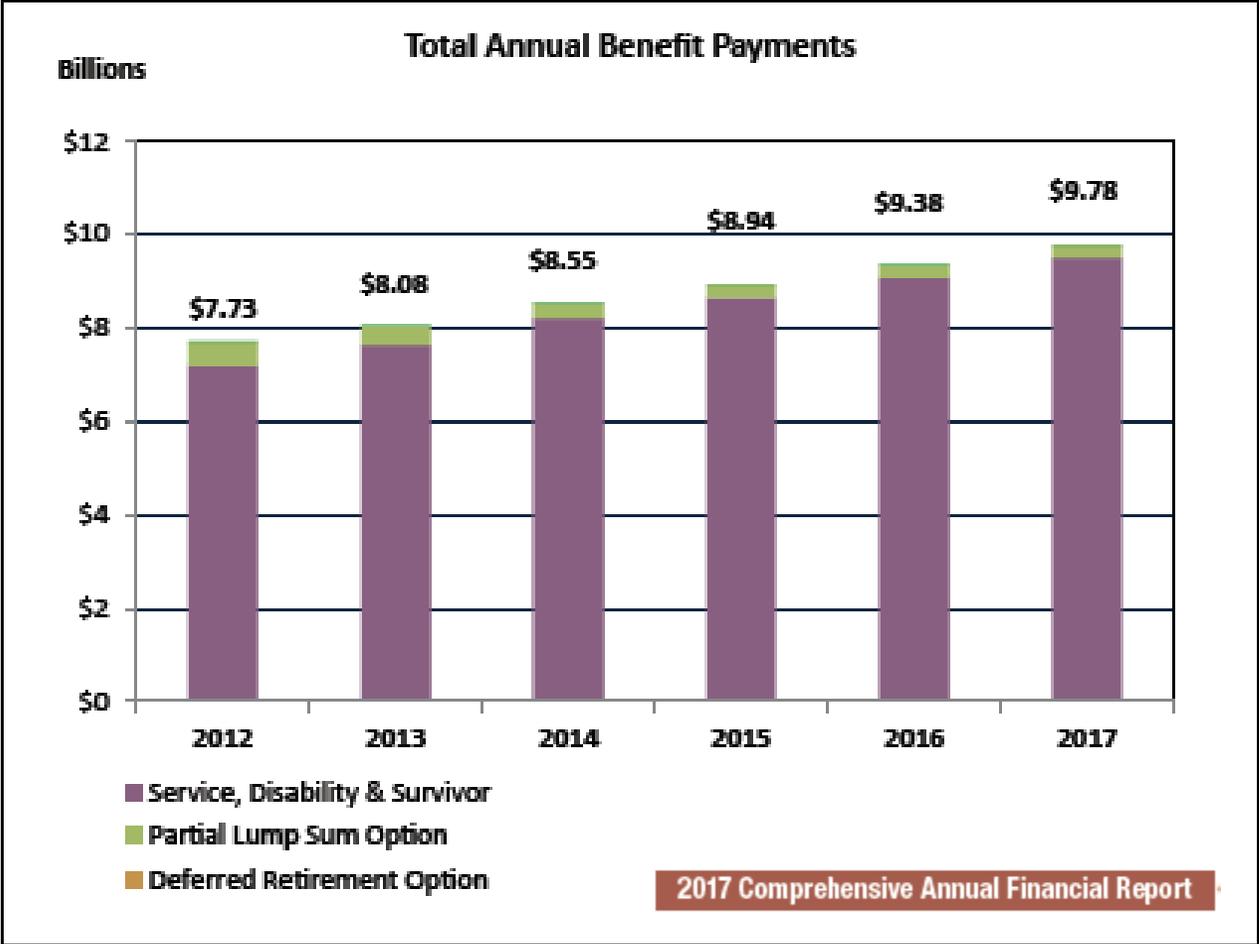
## *The vision*

*for continuity is a more resilient Nation through whole community integration of continuity plans and programs to sustain essential functions under all conditions.*

**SORM**  
State Office of Risk Management

# Texas Essential Function

## Texas Essential Function #7: Maintain Economic Stability



For fiscal year 2017, TRS paid pension benefit payments to more than 407,000 members.

\$9.2 billion dollars was distributed to members residing in Texas.

*Every \$1 in gross benefits paid by TRS generates \$2.34 in economic activity (as measured by aggregate spending).*

# Internal Audit Contributions

## Members of Internal Audit

- Review planning process for exercises
- Add value by contributing to exercise objectives
- Observe the execution of DRBC events
- Provide resources and independent feedback for improvements



# Successful Execution



## February 2010 IRS Incident

- ✓ Emergency Notifications
- ✓ Safety of employees
- ✓ Protection of Data and Vital Records
- ✓ Emergency Procurements
- ✓ Coordination of services
- ✓ Employee support

# Preparedness



Figure 1: Relationship between elements of BCM.

# Coordination and Execution

**Incident Management Team** has the ultimate responsibility for making decisions related to business resumption



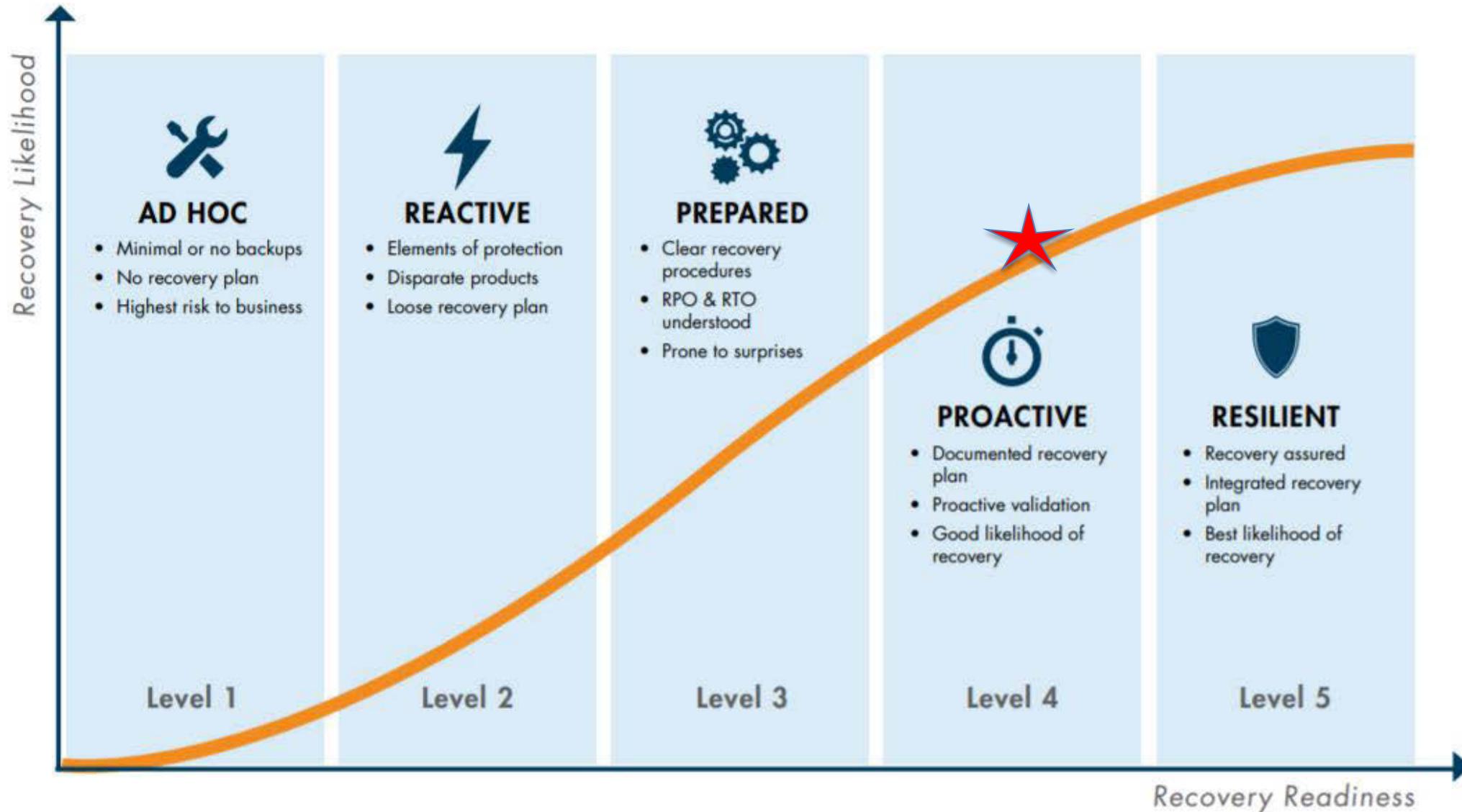
**Disaster Recovery Teams** are needed to recover the technological aspects of mission-critical functions in the event of a major interruption



**Business Continuity Teams** consist of business units necessary to resume TRS' critical functions in the event of a major business interruption



# Self-Assessment of Program Maturity



# TAB 8

The information for this agenda item is confidential

TAB 9A



Quarterly TRS Compliance Testing  
Internal Audit                      December 2018



# Quarterly TRS Compliance Testing

## Business Objectives

- All information required by Investment Policy Statement (IPS) is reported to the TRS Board of Trustees
- Investments made are within delegated limits and established selection criteria
- Risk limits are followed for other investment programs and activities (IPS, Securities Lending Policy, Proxy Voting Policy, wire transfers)
- Ethics policy requirements are met

# Quarterly TRS Compliance Testing

## Agreed-Upon Procedures

Testing period – July to September 30, 2018

### **Board Reports**

- Compare Board reports to IPS requirements
- Trace sample information included in Board reports to supporting documentation

### **Investment Selection and Approval**

- Trace investments approved by the Internal Investment Committee (IIC) to supporting documentation

# Quarterly TRS Compliance Testing

## Test Results

### **Investment Policy Statement 1.7.f. Derivatives Reporting**

Noted an error in the reporting of derivatives due to excluding securities from an internal equity strategy.

- Gross derivatives under reported by \$142 million (0.5% of Trust gross derivatives)
- Net derivatives over reported by \$142 million (2.3% of Trust net derivatives)

### **Management Response**

We agree with the issue identified. We have updated the derivatives report. Going forward, we will implement additional quality checks to reconcile total reported amounts to individual strategies to ensure that all strategies are included.

# Quarterly TRS Compliance Testing

## Agreed-Upon Procedures

### **Other Investment Policies and Processes**

- Securities lending assets & collateral meet requirements
- Wire transfers trace to supporting documentation
- Confirm TRS managers' awareness of any compliance violations
- Commission Credits –obtain evidence that recommendations from FY 2017 Commission Credits Audit were implemented

### **Ethics Policies**

- Employee Ethics - Executive Director filed personal financial statement
- Code of Ethics for Contractors – Financial service providers file annual financial disclosure statement

# Quarterly TRS Compliance Testing



## Test Results

All testing requirements were met for other investment policies and processes with no issues noted

Employee ethics policy requirement met

### **Code of Ethics for Contractors**

Noted that 1 (out of 12) tested financial disclosures was submitted late.

### **Management Response**

We agree with the issue identified. To ensure timely reporting going forward, we are seeking to move current manual processes to an automated system.

# Quarterly TRS Compliance Testing

Questions?

**QUARTERLY INVESTMENT COMPLIANCE TESTING**  
**INVESTMENT POLICY STATEMENT (IPS), SECURITIES LENDING POLICY (SLP), WIRE TRANSFER PROCEDURES, COMMISSION**  
**CREDITS GUIDELINES, AND ETHICS POLICIES FOR EMPLOYEES AND CONTRACTORS**  
 CALENDAR QUARTER ENDED SEPTEMBER 30, 2018, EXCEPT AS NOTED

<b>Business Objectives</b>	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 and established selection criteria	3. <u>Other (IPS, SLP, wire transfers, Commission Credits)</u> Risk limits are followed for other investment programs and activities	4. <u>Ethics Policies</u> Ethics filing and reporting requirements are met
<b>Business Risks</b>	Board is not informed of key investment decisions and critical information	Approvals and fundings exceed delegated limits	Risks exceed Board-established tolerances or management policies and procedures	Ethics policy requirements are not filed or reported
<b>Management Assertions</b>	All required information is reported to the Board	Approvals and fundings are within delegated limits and made for qualified managers	Programs are within risk limits and activities follow established policies and procedures	Ethics policies and requirements are being followed
<b>Agreed-Upon Procedures</b>	<ul style="list-style-type: none"> <li>Compare Board reports to IPS requirements</li> <li>Trace sample information included in Board reports to supporting documentation</li> </ul>	<ul style="list-style-type: none"> <li>Trace investments approved by the Internal Investment Committee (IIC) to supporting documentation</li> <li>Compare approval limits of new investments with IPS, including Emerging Managers (EM)</li> <li>Obtain prudence letters for private markets investments</li> </ul>	<ul style="list-style-type: none"> <li>Check securities lending pool for compliance with investing guidelines</li> <li>Trace wires transfers to support</li> <li>Obtain senior management disclosure about known compliance violations</li> <li>Obtain evidence that IMD has strengthened its monitoring of contractual allowance balance to ensure no available amounts are lost according to previous audit of commission credits</li> </ul>	<ul style="list-style-type: none"> <li>Obtain evidence that executive director's financial disclosures were made to the Texas Ethics Commission</li> <li>Obtain evidence that financial service providers filed annual disclosure statements on conflicts of interest</li> </ul>
<b>Test Results</b>	<ul style="list-style-type: none"> <li>All reporting requirements were met, except as noted below</li> <li>Noted an error in the reporting of derivatives use due to excluding securities from an internal public equity strategy</li> </ul>	<ul style="list-style-type: none"> <li>All investments tested had supporting documentation and were in compliance with approval limits</li> </ul>	<ul style="list-style-type: none"> <li>All policy and procedure requirements tested were met</li> <li>IMD has strengthened its monitoring of the contractual allowance</li> </ul>	<ul style="list-style-type: none"> <li>All ethics filing and reporting requirements tested were met, except as noted below</li> <li>One tested contractor did not submit their disclosure statement until requested during the testing</li> </ul>
<b>Management Responses</b>	Agree	N/A	N/A	Agree

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



**Brian K. Guthrie**  
*Executive Director*

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

November 16, 2018

Carolina de Onis, TRS General Counsel

**Subject: Report on Independent Testing of TRS Compliance**

We have completed the **Quarterly TRS Compliance Testing** for the quarter ended September 30, 2018, as included in the *Fiscal Year 2019 Audit Plan*. The scope of this engagement included the requirements of the Investment Policy Statement (IPS), Securities Lending Policy (SLP), Employee Ethics Policy, Code of Ethics for Contractors, Wire Transfer Procedures, and Commission Credits Guidelines. We have also considered any compliance violations that came to our attention as of the report date.

We performed the procedures that were agreed to by the TRS Legal and Compliance division. These procedures include tests that supplement the current compliance monitoring procedures performed by State Street Bank and the Chief Compliance Officer.

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 those parties specified in this report. Consequently, we make no representations regarding the sufficiency of the procedures described in **Appendix A** either for the purpose for which this report has been requested or for any other purpose.

Our testing procedures and results are included in **Appendix A**.

We were not engaged to and did not perform an examination, the objective of which would be the expression of an opinion. Accordingly, we do not express an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

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, Investment Accounting, and Legal and Compliance for their cooperation and professionalism shown to us during this quarterly testing.

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

Nick Ballard, CIA, CPA, CFA  
Director of Investment Audit Services

Rodrigo Dominguez  
Investment Auditor

**APPENDIX A**  
**AGREED-UPON PROCEDURES AND RESULTS**

STEP #	BUS. OBJ. #	TEST PURPOSE	TEST DESCRIPTION	TEST RESULT	MANAGEMENT RESPONSE
1	1	<p>IPS Article 1.7a - 1.7o – Obtain evidence that requirements tested were reported to Board of Trustees.</p> <p>Quarterly: investment performance, policy compliance monitoring, asset class exposures, external investments under consideration, external investment activities, liquidity positions, and consultant engagements.</p> <p>Semi-annual: outstanding derivatives, risk limits, leverage, transparency reports, Placement Agent Disclosures.</p> <p>Annual: reports include staffing, Private Markets strategy review, and Governing Boards participation.</p>	<ul style="list-style-type: none"> <li>• Obtain all information required to be reported to Board of Trustees and compare to reporting requirements per Investment Policy Statement (IPS).</li> <li>• Trace sample information included in Board reports to supporting documentation for the following:               <ul style="list-style-type: none"> <li>○ 1.7f – Derivatives</li> <li>○ 1.7g – Risk limit</li> <li>○ 1.7i – Leverage</li> <li>○ 1.7j – Transparency report</li> </ul> </li> </ul>	<p>Information required to be reported to Board of Trustees complied with IPS requirements.</p> <p>Obtained support for information tested.</p> <p>Noted an error in the reporting of derivatives due to excluding securities from an internal equity strategy. This resulted in gross derivatives being under reported by \$142 million (0.5% of Trust gross derivatives) and net derivatives being over reported by \$142 million (2.3% of Trust net derivatives).</p>	<p>We agree with the issue identified. We have updated the derivatives report to ensure that the identified strategy is captured in the data. Going forward, we will implement additional quality checks to reconcile total reported amounts to individual strategies to ensure that all strategies are included.</p>

STEP #	BUS. OBJ. #	TEST PURPOSE	TEST DESCRIPTION	TEST RESULT	MANAGEMENT RESPONSE
2	2	IPS Article 1.3c – Obtain evidence of existence of IMD’s prudent underwriting objectives for advisor’s due diligence.	Select sample of Private Market investments approved during testing period, obtain evidence of existence of advisor’s report stating investment opportunity meets prudent underwriting standards and merits inclusion within respective portfolios.	For selected Private Markets approved investments for the quarter, confirmed that the prudence letter from the advisor was included in the Internal Investment Committee (IIC) materials.	No response required
3	2	IPS Article 7 – Obtain evidence that new investments in emerging managers meet size and track record requirements.	For sample of approved investments obtain evidence that: <ul style="list-style-type: none"> <li>• Each is an independent private investment management firm with less than \$2 billion assets under management</li> <li>• Each has a performance track record as a firm of less than 5 years, or both</li> </ul>	New investments in emerging managers met the policy requirements	No response required
4	2	IPS Appendix B – Obtain evidence that investments approved are within policy limits.	<ul style="list-style-type: none"> <li>• Select sample of approved investments, obtain tear sheet for each, and observe the approved amounts are within authorized limits <ol style="list-style-type: none"> <li>a) Initial allocation – .50%</li> <li>b) Additional or follow-on – 1%</li> <li>c) Total Manager Limits – 3%</li> <li>d) Total limit each manager organization – 6%</li> </ol> </li> <li>• Trace tear sheet calculations to the supporting documentation to ensure that the above authorized limits were not exceeded by any manager or partner organization</li> <li>• Inquire if any “Special Investment Opportunities” were made for the quarter</li> </ul>	For the sample investments tested, no manager or partner organization exceeded the authorized limits and documentation existed for IMD staff calculations of authorized limits. There were no Special Investment Opportunities.	No response required
5	3	Quarterly Compliance Certification – Obtain evidence that all known compliance violations have been reported.	Confirm with the Chief Compliance Officer that she has received compliance certification from IMD management, Legal Investment staff, and CIO regarding any known compliance violations that occurred during the testing period	Obtained confirmation from the Chief Compliance Officer. No compliance exceptions were identified as a result of the quarterly compliance certification	No response required.

<b>STEP #</b>	<b>BUS. OBJ. #</b>	<b>TEST PURPOSE</b>	<b>TEST DESCRIPTION</b>	<b>TEST RESULT</b>	<b>MANAGEMENT RESPONSE</b>
6	3	Wire Transfers – Obtain evidence that wire transfers are authorized and properly supported	Obtain wire transfer reports for testing period, select a sample of wire transfers, and trace each to supporting documentation to check amount and appropriate manager authorizations	All wire transfers tested were properly authorized and amounts were supported.	No response required
7	3	Securities Lending Policy – Obtain evidence that IMD reviews the securities lending program and performance of lender.	Obtain evidence from the monthly securities lending program performance reviews conducted by the TRS Asset Allocation team and the Securities Lending Agent that investments in the securities lending program comply with the following policy requirements:  Sec 3.1. Securities eligible for lending Sec 3.3. Collateral received	Obtained Information about approved borrowers, including loan limits.  Diversification requirements are met.  No investments in structured notes are included in investment holdings.	No response required
8	4	Employee Ethics Policy, Section XIII.A – Obtain evidence that the executive director filed a personal financial statement with the Texas Ethics Commission.	Verify that the Executive Director filed a personal financial statement with the Texas Ethics Commission for the year ended December, 31, 2017, prior to the April 30th deadline.	The Executive Director’s 2017 personal financial statement was filed with the Texas Ethics Commission. The document was dated prior to the April 30th deadline.	No response required

STEP #	BUS. OBJ. #	TEST PURPOSE	TEST DESCRIPTION	TEST RESULT	MANAGEMENT RESPONSE
9	4	Code of Ethics for Contractors, Section III.B – Obtain evidence that all TRS brokers, financial advisors, and financial service providers filed annual disclosure statements with TRS General Counsel.	Obtain evidence that all TRS brokers, financial advisors, and financial service providers complied with the Code of Ethics for Contractors by filing annual disclosure statements with the TRS General Counsel. Annual filing deadline is April 15th.	11 of 12 tested contractors submitted their annual disclosures statements timely. One tested contractor did not submit their disclosure statement until requested during testing.	We agree with the issue identified. To ensure timely reporting going forward, we are seeking to move current manual processes to an automated system.
10	3	Determine if IMD has strengthened its monitoring of contractual allowance balance to ensure no available amounts are lost.	<ul style="list-style-type: none"> <li>• Obtain evidence that State Street Bank allowance account and commission credits are being tracked and monitored. Determine if State Street reporting is on both a calendar and fiscal year end basis.</li> <li>• Obtain evidence that TRS Commission Credit Guidelines and Procedures have been updated</li> <li>• Obtain evidence that investment staff review and update access to information technology systems (The original recommendation relating to Commission Credits)</li> </ul>	<p>SSB funds are monitored on a yearly, fiscal, and contract year.</p> <p>Procedures and guidelines were updated.</p> <p>Obtained evidence of staff review.</p>	No response required

**Note: Testing procedures for the Investment Policy Statement (IPS), Securities Lending Policy (SLP), Employee Ethics Policy, Code of Ethics for Contractors, Wire Transfer Procedures, and Commission Credits Guidelines are for the activities for the quarter ending September 30, 2018.**

**TAB 9B**



**Employer Testing  
Internal Audit December 2018**





# Key moments this quarter

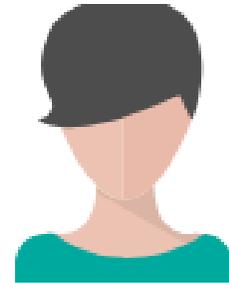
- Test May 2018
- Two Reporting Entity Partners
- Focus on Eligibility
- Census data, compensation

# Results



**Eligibility  
continues to be  
the biggest issue  
(75%)**

~ \$9,800 in  
contributions  
due for May  
2018



**Census Data  
(5%)**

No support in  
personnel files  
for 2 employees  
out of 40 tested

# Takeaways

- 10 entities in FY 2019
- Eligibility
- Testing of source data is still necessary



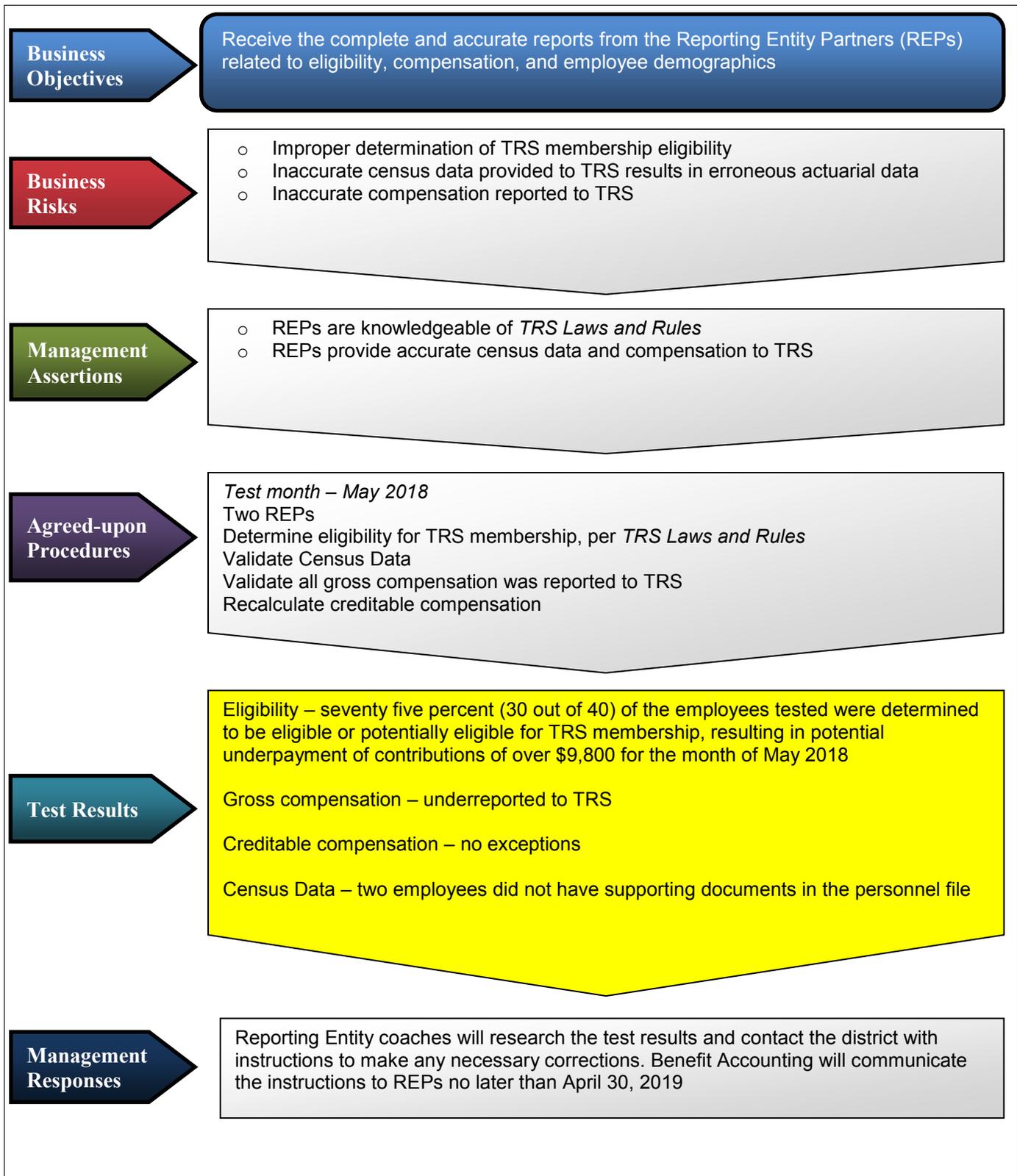


**Thank  
You**

# EMPLOYER TESTING AGREED-UPON PROCEDURES

TRS Internal Audit Department

November 16, 2018



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

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



November 16, 2018

Barbie Pearson, Chief Benefit Officer

**Subject: Independent Auditor’s Report on Employer Testing Agreed-Upon Procedures**

We have completed the first phase of the **Employer Testing** Agreed-Upon Procedures, as included in the *Fiscal Year 2019 Audit Plan*.

We performed the procedures agreed to by you. These procedures include testing of data submitted to TRS for the test month of May 2018 by two Reporting Entity Partners<sup>1</sup> (REPs), Aldine Independent School District and Houston Independent School District. Tests performed related to the following areas:

1. Eligibility for TRS membership
2. Census Data
3. Compensation

The detailed procedures and results are described 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 those parties specified in this 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.

We were not engaged to and did not conduct an examination, the objective of which would be the expression of an opinion. Accordingly, we do not express an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. 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, except as protected by statute.

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<sup>1</sup> “Reporting Entity Partner” is the “Employer” for the purposes of this test

\* \* \* \* \*

We express our appreciation to management and key personnel of Benefit Services and to the reporting officials at Aldine ISD and Houston ISD for their cooperation and professionalism shown to us during the testing.

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

Kate Rhoden, CIA, CPA  
Director of Benefit Audit Services

Art Mata, CEBS, CPM  
Senior Benefit Audit Consultant

Carol Casey, CPM  
Benefit Audit Consultant

**APPENDIX A**  
**AGREED-UPON PROCEDURES AND RESULTS**

TEST #	TEST PURPOSE	TEST DESCRIPTION	TEST RESULT
1	<i>Eligibility</i> - obtain evidence that eligible employees are correctly reported to TRS, and employees not eligible for TRS membership are not reported	Obtain TRS eligibility evidence for a sample of (i) employees reported as eligible by the REPs and (ii) employees reported as ineligible by the REPs	(i) Employees reported as eligible – no exceptions (ii) Non-member employees reported as ineligible by the REPs:  Seventy-five percent (30 out of 40) of non-member employees tested were found to be eligible or potentially eligible for TRS membership. The 13 non-member employees found to be eligible resulted in potential underpayments of contributions of over \$9,800 for the month of May 2018.
2	<i>Census data</i> - obtain evidence that census data for TRS eligible employees working at (REPs) is correct	Agree census data (name, social security number, date of birth, gender, date of hire, years of service, job classification) provided by the REPs	Five percent (2 out of 40) of employees tested did not have documents in their personnel files supporting census information
3	<i>Compensation</i> - obtain evidence that REPs are reporting the correct compensation amounts to TRS	Obtain REPs payroll registers and compare to what was reported as compensation to TRS	The two REPs tested underreported gross compensation by 0.4% and 1.3% due to various allowances, incentives, and deletion of employees from TRS reports. No exceptions were noted in creditable compensation.

Management response: Reporting Entity coaches will research the test results and contact the district with instructions to make any necessary corrections. Benefit Accounting will communicate the instructions to REPs no later than April 30, 2019.

TAB 9C



**Disability Retirement and Medical Board Audit  
Internal Audit                      December 2018**



# Objectives

## Business

- ✓ Texas Statutes
- ✓ TRS Rules
- ✓ Internal Procedures
- ✓ Health Insurance Portability and Accountability Act (HIPAA)



## Audit

- Are we compliant?
- Are controls in place to remain compliant?
- How do we compare with our peers?

# Positive Findings



**1**

**Procedures  
are well  
documented**

**2**

**Procedures  
are being  
followed**

**3**

**HIPAA related  
controls continue  
to strengthen**

# Recommendations

Management has agreed with the following recommendations:

- ✓ Improve staff consistency in monitoring compliance with employment after retirement rules and enhance management oversight
- ✓ Continue cross-training staff for performance of critical functions associated with administering disability retirement benefits
- ✓ Strengthen secondary review process for confirmation of Medical Board opinions
- ✓ Enhance the documentation for calculating creditable months of service for disability retirees with less than 10 years of service



# Benchmarking

According to TRS's actuary, based on current trends:

About 1% of members entering TRS will become disabled during their career. Other teacher retirement systems range from .5% to 3%.

An analysis of 2017 financial statements for TRS and three other large teacher retirement systems found that:

TRS' disability retirements accounted for less than 2% of total annuity payroll. Other teacher retirement systems ranged from .64% - 3.09%.



# DISABILITY RETIREMENT AND MEDICAL BOARD AUDIT

November 29, 2018

## TRS Internal Audit Department

### Business Objectives

- Ensure disability retirement certifications and administration processes are operating in accordance with Texas statutes, TRS rules and internal procedures
- Ensure disability retirements and the Medical Board process is carried out in accordance with applicable Health Insurance Portability and Accountability Act (HIPAA) standards

### Business Risks

- Approval of disability retirements is not in accordance with statutes or rules
- Monitoring of disability retirees is not occurring and ineligible annuity payments are being paid out
- Breach of protected health information (PHI) for members
- Sanctions and reprimands from the Office of Civil Rights or other oversight bodies

### Controls Tested

- Medical Board review process
- Compliance with policies and procedures
- Effectiveness of secondary review processes
- Status of control reports, tracking spreadsheets
- Validation of SFTP security monitoring
- Employee HIPAA training

### Results

- Well documented policies and procedures within Benefit Processing
- Compliance with policies and procedures was evident during testing
- Upcoming improvements could further strengthen HIPAA controls
- Activities related to enforcement of employment after retirement (EAR) rules have fallen behind in fiscal year 2018
- Secondary review process does not identify input errors for Medical Board opinions
- Calculation of creditable months of service for disability retirees with less than 10 years of service is not well documented
- Critical disability retirement functions are dependent on key personnel and overall interdepartmental process flow and roles and responsibilities are not documented

### Recommended Actions

- Monitor the status of EAR reports, improve the current process, and continue to cross-train additional staff
- Strengthen secondary review process for confirmation of Medical Board opinions and enhance documentation for calculating creditable months of service for retirees with <10 years of service
- Cross-train additional staff to perform key activities, document the overall process flow, roles and responsibilities, and interdependencies

### Management Responses

- Management agrees and has already begun addressing recommendations:
- Implemented a spreadsheet to track EAR reports
  - Enhanced EAR report documentation
  - Exploring options for improving metadata related to EAR reports
  - Two full-time employees are currently in training to perform EAR activities
  - Long-term, TRUST Phase 2 is expected to replace the EAR reports with a workflow process that will help with management oversight and eliminate issues related to duplicate items
  - Procedure steps will be added to identify input errors for Medical Board opinions
  - Documentation will be added to the retiree's file to detail calculation of creditable months
  - Additional benefit consultants will be trained on the disability retirement process
  - Will review and document current process flows, roles, responsibilities, and departmental interdependencies

Legend of Results:

**Red** - Significant to TRS  
**Yellow** - Other Reportable Issue

**Orange** - Significant to Business Objectives  
**Green** - Positive Finding or No Issue

Project # 19-104



November 29, 2018

Audit, Compliance and Ethics Committee, Board of Trustees  
Brian Guthrie, Executive Director

## Executive Summary

### Overview

TRS' Benefit Services Division has processes in place to provide reasonable assurance that business objectives regarding disability retirements are met effectively, and in compliance with Health Insurance Portability and Accountability Act (HIPAA) standards (privacy and security), Texas statutes, and TRS Rules and agency procedures. Key compliance controls include a robust disability retirement approval process that includes a determination from a Medical Board of three independently contracted physicians. In addition, the Benefit Services Division has established comprehensive policies and procedures, including secondary/management reviews. Improvement is needed in the consistency with which staff is monitoring compliance with employment after retirement rules. Opportunities for improvement exist in cross-training staff for performance of two critical functions associated with administering disability retirement benefits, strengthening secondary review processes and enhancing the documentation related to the calculation of creditable months of service for disability retirees with less than 10 years of service.

In Fiscal Year 2017, the Medical Board approved 99% (808 out of 817) of disability retirement applications. While this is a higher approval rate than the peer benchmark<sup>1</sup>, disability retirement payments account for less than 2% of TRS' total annuity payroll, which is lower than CalSTRS<sup>1</sup> and STRSOH<sup>1</sup>. The differences in the rate of disability could be due to differences in the statute or plan design of each retirement system, the high level details of which are included in **Appendix D**. According to the TRS actuary, based on current trends, about 1% of members entering TRS will become disabled during their career. Other teacher retirement systems range from .5% to 3%.

TRS Disability Retirement Statistics Fiscal Year 2017			
Total # Disability Retirees Receiving Annuities	Average Monthly Disability Annuity Payment	% of Total TRS Annuitants that are Disability Retirees	% of Total TRS Annuity Payments that are Disability Annuities
11,802	\$1,254	2.89%	1.92%

Additional statistics related to TRS disability retirement, a comparison of TRS statistics and TRS statute to similar teacher retirement systems and other Texas pension plans are included in **Appendices B, C, D, and E**.

<sup>1</sup> Benchmark included: New York State Teachers' Retirement System (NYSTRS), California State Teachers' Retirement System (CalSTRS), and State Teachers Retirement System of Ohio (STRSOH)

Benefit Services management has been responsive to the audit and is already in the process of addressing the issues identified in this report. An action plan has been developed with the aim of implementing most of the recommendations by March 2019. Additional long-term enhancements are expected with the implementation of TRUST Phase 2.

## **Background**

*Texas Administrative Code 824.302* states that a TRS member is eligible to retire and receive a disability retirement annuity if the member: (1) is mentally or physically disabled from the further performance of duty; and (2) has a disability that is probably permanent.

To be approved for disability retirement, members submit required forms and medical information, including evaluation forms from doctors of their choice, to the Benefit Services Division. The information is reviewed by the Medical Board and a final determination is rendered regarding whether or not the member meets the qualifications for disability retirement.

The Medical Board is comprised of three independently contracted physicians licensed to practice as a Doctor of Medicine (M.D.) or a Doctor of Osteopathic Medicine (D.O.) in the state of Texas. Each member of the Medical Board independently submits an opinion on the disability status of applicants. When a consensus is reached by at least two of the three Medical Board members, a final determination is rendered.

When approving an applicant for disability retirement, the Medical Board has the option to approve the applicant for permanent disability retirement or with the requirement of yearly re-certification. Re-certifications can be required until the retiree reaches the age of 60 or until the Medical Board determines the re-certification is no longer needed<sup>2</sup>.

If required to undergo yearly re-certification, the retiree must submit an annual re-examination report from their doctor. The Medical Board reviews the report and determines whether or not the retiree still meets the qualifications for disability retirement. If necessary, the Medical Board can request the retiree provide additional medical information before making a disability determination.

Retirees receiving disability annuity payments are restricted in the number of hours and/or days that they are allowed to work for a TRS covered employer and still receive annuity payments. Non-compliance will result in the retiree's annuity payments being suspended for the month(s) in which the violation occurred. If the annuity payment has already been issued when the violation is identified, the retiree is required to reimburse TRS for the full amount of the monthly annuity. Additionally, the annual income allowed for disability retirees is limited to levels outlined by Texas Government Code<sup>3</sup>. Annuity payments are suspended for any retirees earning more than allowable limits until a time in which the earned income ceases or drops below the income limit.

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<sup>2</sup> Texas Government Code Section 824.305 (a) Once per year during the first five years after a member retires for disability, and once in each three-year period after that, the board of trustees may require a disability retiree who is less than 60 years old to undergo a medical examination by one or more physicians the board designates.

<sup>3</sup> Texas Government Code Section 824.310(b) The board of trustees shall adopt rules under which the disability retirement annuity paid in this subchapter is reduced on a sliding-scale basis or is suspended for a period in which the compensation earned by the retiree for work performed in a 12-month period during the disability retirement, as determined under the rules of the board, exceeds the compensation earned by the retiree during the 12-month period in which the retiree earned the highest compensation for actual service as a member of the retirement system.

## Summary of Management’s Response

Management appreciates Internal Audit’s efforts in identifying opportunities for improvement and will promptly address the processes and oversight for Employment After Retirement (EAR).

## Closing

We appreciate Benefit Services management and staff for their cooperation, courtesy, and professionalism during this audit. We also appreciate the support provided by Information Technology staff.

## Audit Objectives and Scope

We had two audit objectives during the project. The first was to determine whether internal controls are in place and are working effectively to mitigate significant risks to achieving business objectives. The second was to benchmark TRS disability statistics against similar teacher retirement plans and other Texas pension plans.

The audit focused primarily on Disability Retirement activities from fiscal year 2015 to fiscal year 2017. Fieldwork was conducted in October and November 2018. The audit objective, scope, methodology are described in more detail in **Appendix A**.

## Business Objectives, Risks and Controls

We obtained information about the following business objectives, as well as the related risks and the controls established by management to mitigate these risks:

Business Objectives	Compliance with Texas Statutes, TRS Rules, and Internal Procedures	HIPAA Compliance (Privacy and Security)
<b>Business Risks</b>	<ul style="list-style-type: none"> <li>• Disability retirements are not approved in accordance with statute resulting in TRS paying annuities to ineligible individuals</li> <li>• Ongoing monitoring of disability retirees is not occurring and ineligible annuity payments are being paid out</li> </ul>	<ul style="list-style-type: none"> <li>• Breach of member protected health information (PHI)</li> <li>• Sanctions and reprimands from the Office of Civil Rights or other oversight bodies</li> </ul>
<b>Management Controls</b>	<ul style="list-style-type: none"> <li>• Medical Board review process</li> <li>• Policies and procedures</li> <li>• Secondary review processes</li> <li>• Monitoring reports and tracking spreadsheets</li> </ul>	<ul style="list-style-type: none"> <li>• Secure transmission of PHI to Medical Board via Secure File Transfer Protocol (SFTP) site</li> <li>• Employee HIPAA training</li> </ul>
<b>Controls Tested</b>	<ul style="list-style-type: none"> <li>• Compliance with Medical Board process</li> </ul>	<ul style="list-style-type: none"> <li>• Validation of SFTP security monitoring</li> <li>• Employee HIPAA training</li> </ul>

<b>Business Objectives</b>	<b>Compliance with Texas Statutes, TRS Rules, and Internal Procedures</b>	<b>HIPAA Compliance (Privacy and Security)</b>
	<ul style="list-style-type: none"> <li>• Compliance with policies and procedures</li> <li>• Effectiveness of secondary review processes</li> <li>• Status of control reports and tracking spreadsheets</li> </ul>	

# Detailed Results and Recommendations

## Overall Results

Based on our audit results, we found that the controls in place are generally working effectively to meet business objectives. We are making recommendations to address one significant finding related to reports used for monitoring employment after retirement and three recommendations related to other reportable results.

A summary of positive test results as well as opportunities for management to strengthen controls are described below.

## Positive Results

### A. Procedures are well documented in the Benefit Processing Department

Testing found that disability retirement procedures outlining activities performed by the Benefit Processing Department are very detailed and comprehensive.

### B. Testing found that policies and procedures are being followed

Of the 83 disability retirements reviewed, compliance with test attributes was evident in over 95% (79) of cases. In the four instances where opportunities for improvement were identified, all were related to strengthening documentation. No errors in the processing of disability retirements were found.

### C. Upcoming improvements could further strengthen controls around transmission of protected health information to the Medical Board

As part of TRUST Phase 2, TRS is implementing a process that could allow the Benefit Processing Department to further strengthen controls around the transmission of protected health information between TRS and members of the Medical Board. One of these improvements will include the ability of Medical Board members to submit their disability determinations electronically without the need for hard copy forms.

## **Significant Results<sup>4</sup>**

### **Activities related to enforcement of employment after retirement rules have fallen behind during fiscal year 2018**

Under TRS rules, the amount of time that a disability retiree can work for a TRS covered employer is limited. In order to detect when a retiree is working more than allowed, TRS has established a series of control reports that scan employment information from reporting entities and identify disability retirees that may be out of compliance with the employment after retirement rules. These reports are then worked by staff to determine whether a retiree received ineligible annuity payments and whether future payments need to be suspended while the retiree continues employment.

Working these reports is a very detailed and manual process requiring numerous activities on the part of TRS. Our testing determined that these activities have fallen behind during fiscal year 2018 resulting in a backlog of reports. Testing also found that management does not currently have a process in place to monitor or track the performance of these control activities and was not aware of the extent of the backlog.

Discussions indicated that several factors led to these activities falling behind. With the implementation of TRUST Phase 1, new employer reporting requirements resulted in larger numbers of individuals being reported to TRS than in the past. This included retirees that had returned to work but were not previously reported. As a direct result, larger numbers of retirees were identified and appeared on employment after retirement reports. However, the initial reports generated from TRUST were inaccurate and could not be used by staff. By the time the reports were corrected, a backlog had developed. During this same time, the number of staff responsible for working these reports dropped from three employees to just one. All of this culminated in a substantial backlog of reports and related activities.

Another challenge that arose from the implementation of TRUST Phase 1 was the loss of anticipated workflow capabilities that would have allowed management to easily monitor the status of exception items being identified from employer reports. This would have included individuals that are not complying with employment after retirement rules. Due to unforeseen issues, the full capabilities of this tool have yet to be implemented. In the meantime, management has not implemented an alternative monitoring process for tracking the status of these key reporting related activities.

### **Recommendation**

Management should implement a process for monitoring the status of key activities related to employment after retirement reporting. To allow for reporting activities to become current and avoid a backlog in the future, opportunities for improving the current process should be explored and additional staff should continue to be cross-trained to assist with these activities.

### **Management Response**

Management agrees with the recommendation and has already begun addressing the oversight issue by:

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<sup>4</sup> 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.

- Implementing a spreadsheet to track reports and allows EAR employees to document the number of members on the report and the status of each. This can be refreshed daily without affecting previously added documentation. This is a temporary solution to facilitate proper management oversight.
- Written procedures will be published to ensure employees responsible for addressing reports are consistently working items on each EAR report.
- Reports will be printed and action taken will be documented on reports and placed in an EAR file for future reference.
- Exploring options for adding metadata information to the report itself without jeopardizing the integrity of the report. Discussions are underway related to this option.

Manual oversight processes will not resolve issues related to the backlog. All reports are under review to ensure that reports are providing relevant information for EAR employees to act on. There are currently 22 defects logged to address report deficiencies. EAR employees will identify and log any additional deficiencies.

In August 2018, after receiving Board of Trustee approval, Benefit Accounting hired two full-time employees that are currently in training to perform EAR activities.

Long-term, TRUST Phase 2 is expected to eliminate the reports in favor of a workflow process that will lend itself to management oversight. The workflow is also expected to eliminate report issues related to duplicate items.

### **Target Implementation Date:**

TRUST Phase 2 implementation is projected for October 2019.

## **Other Reportable Results**

### **1. Secondary review process does not identify input error for Medical Board opinions**

Under current processes, Medical Board opinions are submitted to TRS in hard copy form and are manually entered into the TRS system by a Benefit Processor. Our testing identified two instances where one of the Medical Board opinions was entered into the system incorrectly. In both cases, the doctor had approved the retiree with the requirement of yearly re-certification but the opinion was entered into the system as approved with no indication of yearly re-certification. Neither of these input errors impacted the final determination for the retiree as the other two members of the Medical Board approved the retiree with no yearly certification.

A secondary review process is in place to require another processor to confirm that the final determination matches the opinions entered into the system, however, this process should be strengthened to prevent input errors from going undetected.

### **Recommendation**

As part of the disability retirement secondary review process, require Benefit Processors to confirm the accuracy of the Medical Board opinions reflected in the system by comparing them to the forms submitted by the doctors.

## **Management Response**

Management agrees with the recommendation. Procedures will be updated to reflect that the secondary reviewer shall refer to the forms submitted by the doctors when verifying final benefit calculations.

**Target Implementation Date:** January 2019

### **2. The calculation of creditable months of service for disability retirees with less than 10 years of service is not well documented**

If a disability retiree has less than 10 years of creditable service at the time of retirement, the number of annuity payments they receive is limited by Texas statute<sup>5</sup>. When processing the approved retirement application, the length of the annuity payments is determined by the number of creditable months of service the individual has.

During testing, we found that it is not always easy to determine how a processor arrived at their final calculation of creditable months of service. Currently, the final calculation result is documented on the TRS 186D form, but no support for that number is included. In cases where credit is being given for months that are not part of a creditable year of service, it is not always easy to determine which months are included in the calculation and which are not.

## **Recommendation**

Benefit Processing should incorporate a process for clearly documenting the calculation for determining creditable months of service for disability retirees with less than ten years of service.

## **Management Response**

Management agrees with the recommendation. Documentation will be added to the retiree's file that indicates how the creditable months of service was calculated.

**Target Implementation Date:** March 2019

### **3. Critical disability retirement functions are entirely dependent on key personnel and overall interdepartmental process flow and roles and responsibilities are not documented**

Enforcement of employment after retirement rules and coordination of annual re-examination requirements are two critical functions associated with administering disability retirement benefits. Currently, each function is administered by one employee. Consolidating the performance and knowledge of key activities into isolated resources increases the risk of TRS falling behind on performance of these activities, or the activities failing to be performed in the absence of the key employee.

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<sup>5</sup> Texas Government Code Section 824.304 (a) Subject to Section 824.310, if a member has a total of less than 10 years of service credit in the retirement system on the date of disability retirement, the retirement system shall pay the person a disability retirement annuity of \$150 a month for the shortest of the following periods:

(1) the duration of the disability; (2) the number of months of creditable service the person has at retirement; or (3) the duration of the person's life.

Additionally, testing found that the disability retirement process and related activities cross back and forth between several departments. The specific roles and responsibilities of each area as well as the order of events and any interdependencies are not currently documented.

**Recommendation**

To ensure uninterrupted performance of key disability retirement activities, management should cross-train additional staff to assist with these duties. Further, given the detailed nature of the activities, the overall process flow, roles and responsibilities, and interdependencies between departments should be documented.

**Management Response**

Management agrees with the recommendation. Benefit Processing is working to ensure that at least two benefit consultant positions are trained on the disability retirement process.

**Target Implementation Date:** August 2019

\* \* \* \* \*

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

Kate Rhoden, CIA, CPA  
Director of Benefit Audit Services

Toma Miller, CIA, CGAP  
Senior Internal Auditor

Falguni Sampat  
Internal Auditor

# APPENDIX A

## Objective, Scope and Methodology

The Disability Retirement and Medical Board Audit is included in the *Fiscal Year 2019 Audit Plan*.

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 OBJECTIVES

There were two audit objectives for this project. The first was to determine whether internal controls are in place and are working effectively to achieve the business objectives stated below. The second was to benchmark TRS disability approval percentages against similar teacher retirement plans and other Texas pension plans.

#### Business Objectives:

- Ensure disability retirement certifications and administration processes are operating in accordance with Texas statutes, rules, and internal procedures.
- Ensure disability retirements and the Medical Board process are carried out in accordance with applicable HIPAA standards (privacy and security).

### SCOPE

The scope of the audit included disability applications and retirements that occurred during fiscal years 2015 – 2018.

The audit scope did not include a re-calculation of annuity amounts for disability retirees with more than 10 years of service.

Benchmarking activities included information reported to TRS Internal Audit by benefit services areas of the following pension plans: California State Teachers' Retirement System (CalSTRS), New York State Teachers' Retirement System (NYSTRS), State Teachers Retirement System of Ohio (STRSOH), Employees Retirement System of Texas (ERS), and Texas County & District Retirement System (TCDRS). Information reported covered the years of 2015 – 2018.

Texas Municipal Retirement System was not included in the benchmarking activity because they do not offer non-occupational disability retirement benefits.

## **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:

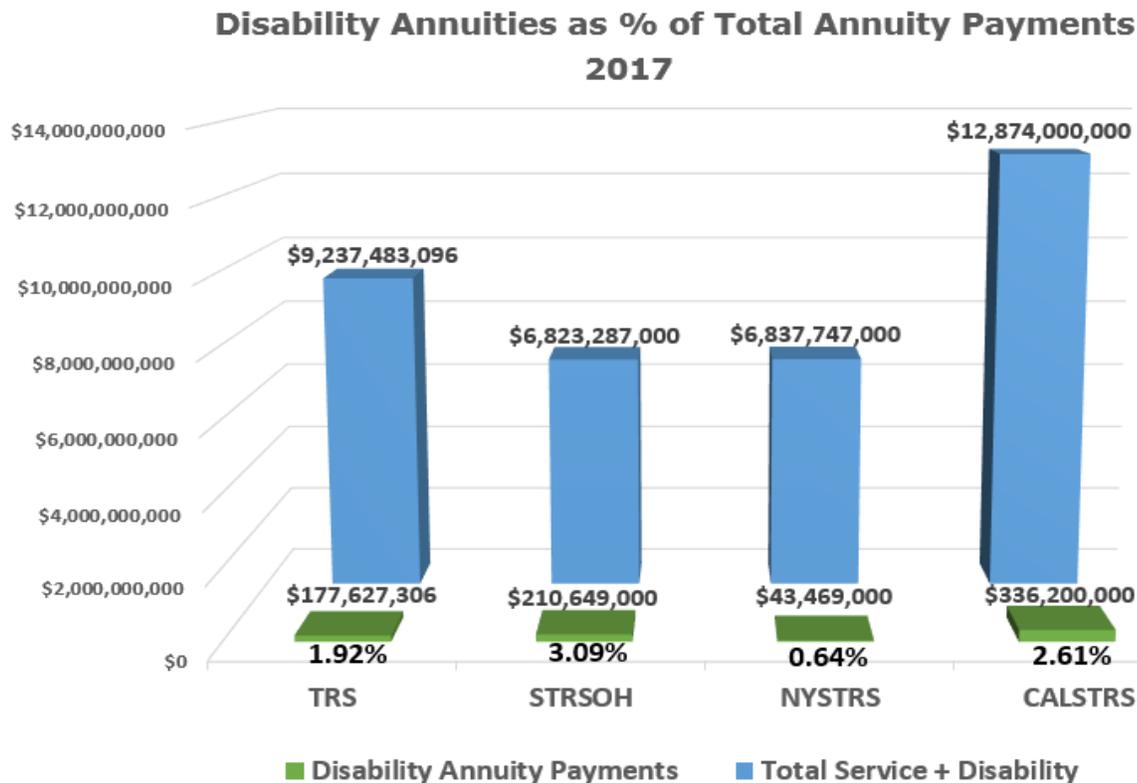
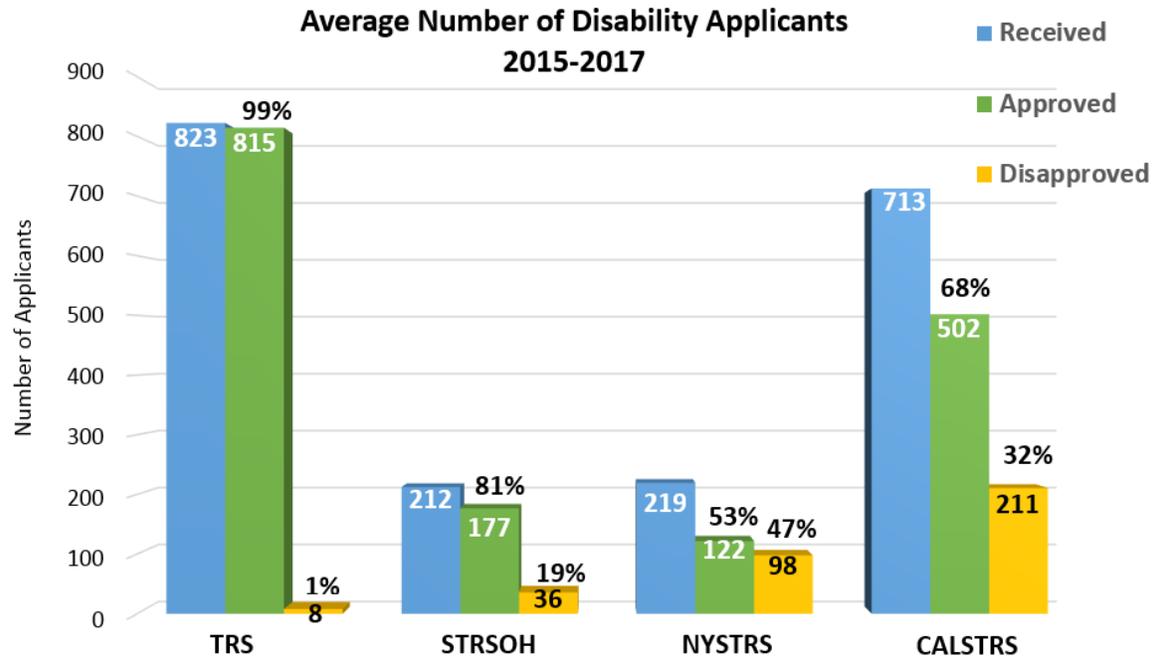
- Tested 30 disability retirements for compliance with Medical Board certification procedures, income verification requirements, internal turnaround times, and compliance with internal imaging and coding procedures
- Tested 19 disability retirements for individuals with less than 10 years of service to confirm compliance with applicable statute and internal procedures
- Tested 24 disability retirements approved with the requirement for annual re-certification to verify compliance with TRS Rules and internal procedures
- Tested 10 disability applications that were disapproved to verify compliance with TRS Rules and internal procedures
- Tested compliance with procedures for key reporting activities related to employment after retirement, annual re-certification, and income verification processes
- Surveyed pension plans to gather data necessary to perform benchmarking exercise
- Analyzed data obtained from pension plans and from annual financial reports available online to complete benchmarking exercise

# APPENDIX B

## TRS Compared to Similar Teacher Retirement Systems

TRS: Teacher Retirement System of Texas  
 CALSTRS: California State Teachers' Retirement System

STRSOH: State Teachers Retirement System of Ohio  
 NYSTRS: New York State Teachers' Retirement System



# APPENDIX C

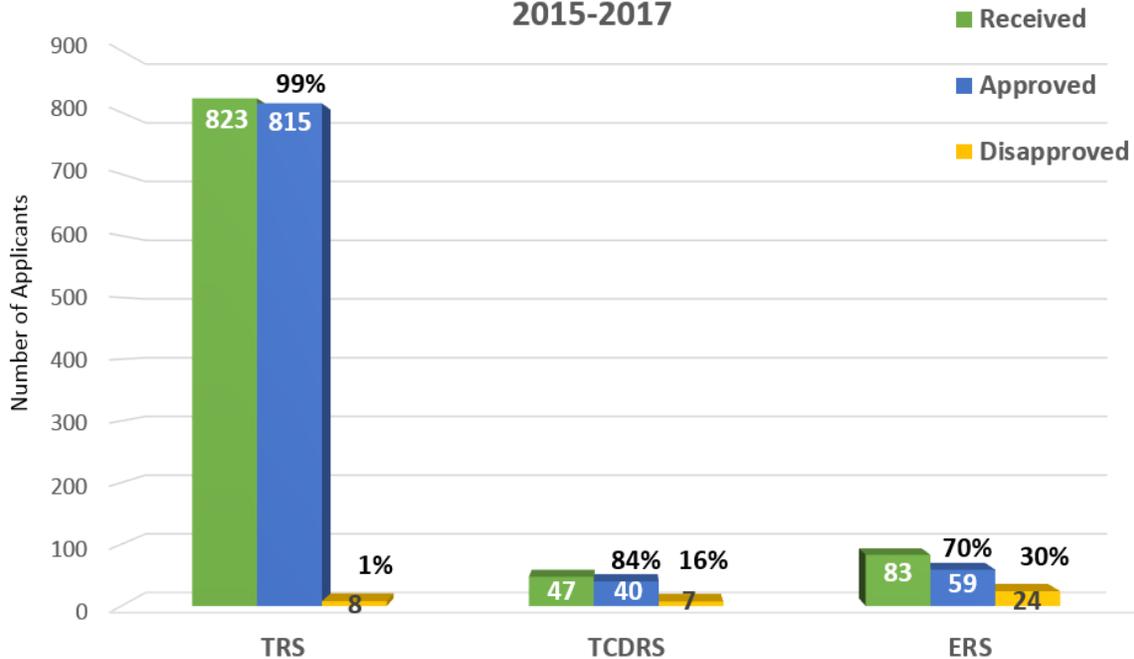
## TRS Compared to Texas Retirement Systems

TRS: Teacher Retirement System of Texas

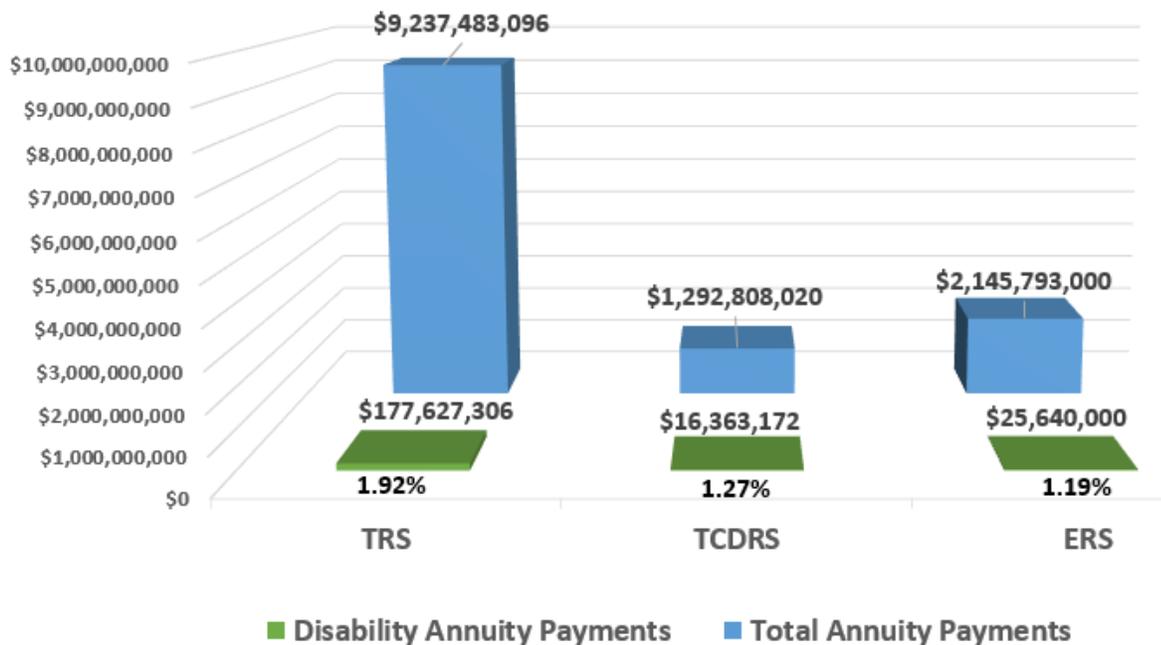
ERS: Employees Retirement System of Texas

TCDRS: Texas County and District Retirement System

Average Number of Disability Applicants  
2015-2017



Disability Annuities as % of Total Annuity Payments  
2017



## APPENDIX D

### TRS Statute Compared to Similar Teacher Retirement Systems (Significant differences are shown in blue)

	Definition of Disabled per Statute	Service Credit Requirement and Annuity Benefit Calculation per Statute
<b>TRS</b>	<p>Mentally or physically disabled from the further performance of duty</p> <p>Disability is probably permanent</p>	<p>No minimum amount of service credit required</p> <p>&lt;10 years of Service - \$150/month for the number of creditable service months the retiree has at the time of retirement</p> <p>10+ years of Service – standard annuity or \$150/month, whichever is greater</p>
<b>STRSOH</b>	<p>Disabling medical condition prevents the individual from performing most recent job duties</p> <p>Condition is expected to last at least 12 continuous months from the date STRS Ohio receives the application</p> <p><b>Disability must have occurred since last becoming a member or increased in severity since that time</b></p>	<p><b>Must have at least 5 years of service credit if member before July 1, 2013. If member after July 1, 2013, must have 10 years of service.</b></p> <p>Monthly annuity is between 30-75% of final average salary dependent on age and years of service. <b>For applicants after July 1992, payments generally end on or around age 65 with the maximum age to receive benefits being age 70.</b></p>
<b>NYSTRS</b>	<p><b>Physically or mentally incapacitated for the performance of gainful employment</b></p> <p>Deemed permanently disabled such that the end of the disability cannot be foreseen for at least one year</p> <p><b>Disability benefits are not available for an impairment that existed before the individual became a NYSTRS member unless the impairment has substantially worsened</b></p>	<p><b>Must have at least 10 years of service credit</b></p> <p>Generally one-third of final average salary; however, the benefit may be more or less depending on age and service credit</p>
<b>CALSTRS</b>	<p>Must prevent individual from performing all of the following job duties:</p> <ul style="list-style-type: none"> <li>➤ Usual duties with or without reasonable accommodation from employer</li> <li>➤ <b>Duties of a comparable level position, which individual is qualified for or can become qualified for in a reasonable period of time with education, training or experience. A “comparable level position” is employment at which the individual earns at least two-thirds of their final compensation</b></li> </ul>	<p><b>Must have at least 5 years of service credit</b></p> <p>2 different coverages (A &amp; B) depending on whether the individual was a member before 1992</p> <p>For both coverages, the disability benefit is generally 50% of final compensation</p> <p>Coverage A stipulation - if between ages 45-60 with &lt;10 years of service, the annuity is 5% of final compensation for each year of service credit</p>

## APPENDIX D

	Physical or mental impairment that is permanent or expected to last continuously for at least 12 months <b>Not the result of a willful self-inflicted injury</b>	An additional 10% of final compensation is added for each eligible dependent child (maximum of 40%).
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## APPENDIX E

### TRS Statute Compared to Texas Retirement Systems

(Significant differences are shown in blue)

	Definition of Disabled per Statute	Service Credit Requirement and Annuity Benefit Calculation per Statute
<b>TRS</b>	<p>Mentally or physically disabled from the further performance of duty</p> <p>Disability is probably permanent</p>	<p>&lt;10 years of Service - \$150/month for the number of creditable service months the retiree has at the time of retirement</p> <p>10+ years of Service – Standard annuity or \$150/month, whichever is greater</p>
<b>ERS</b>	<p>Individual has tried to get workplace accommodations to allow them to work and was denied by the employer</p> <p><b>Physically or mentally unable to hold current job or any other job offering comparable pay (80% of member's final state base pay before deductions).</b></p> <p>The employee's education, training, and experience must be considered when making a determination of incapacity.</p>	<p>Elected Class – must have 8 years of service credit</p> <p>Employee Class – must have 10 years of service credit</p> <p>Standard annuity calculation - 2.3 percent for each year of service credit in that class, times the member's average monthly compensation.</p>
<b>TCDRS</b>	<p><b>Mentally or physically incapacitated for any gainful occupation</b></p> <p>Incapacity is likely to be permanent.</p>	<p>Must be vested based on service in TCDRS on or before the date the member attains age 60</p> <p>Standard annuity calculation</p>

TAB 9D



**FY18 Internal Audit Annual Report**  
**Internal Audit                      December 2018**



# FY18 Internal Audit Annual Report

The Internal Audit Annual Report provides information on the audit plan, assurance, consulting, and advisory projects completed, and other Internal Audit activities in fiscal year 2018. It meets the annual reporting requirement of the Texas Internal Auditing Act (Texas Government Code, Chapter 2102.009 and Texas Government Code, Sections 2102.015 and 2102.0091).

This report follows the State Auditor's Office reporting guidelines and includes the following:

- 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 2018
- III. Consulting Services and Nonaudit Services Completed
- IV. External Quality Assurance Review (Peer Review)
- V. Internal Audit Plan for Fiscal Year 2019
- VI. External Audit Services Procured in Fiscal Year 2018
- VII. Reporting Suspected Fraud and Abuse

# **Internal Audit Annual Report**

## **Fiscal Year 2018**

**October 2018**



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 09, 2018)**

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

## **BOARD MEMBERS (As of October 09, 2018)**

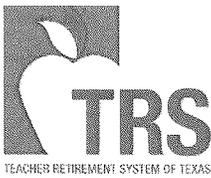
Jarvis V. Hollingsworth, Chair  
Dolores Ramirez, Vice Chair  
Joe Colonna  
David Corpus  
John Elliott  
Greg Gibson, Ed.D.  
Christopher Moss  
James D. Nance  
Nanette Sissney

## **EXECUTIVE DIRECTOR**

Brian Guthrie

## **INTERNAL AUDIT DEPARTMENT**

Amy L. Barrett, CIA, CISA, CPA, Chief Audit Executive  
Nick Ballard, CFA, CIA, CPA, Director, Investment Audit Services  
Lih-Jen Lan, CIA, CPA, CISA, CISSP, CCSA, Senior IT Audit Manager  
Kate Rhoden, CPA, CIA, Investment Audit Manager  
Toma Miller, CIA, CGAP, Senior Healthcare Auditor  
Simin Pang, CIA, CISA, Senior IT Auditor  
Anandhi Mani, CPA, CIA, Senior Benefits Auditor  
Mary Presley, CISA, Internal Audit IT Consultant  
Rodrigo Dominguez, Investment Auditor  
Falguni Sampat, Healthcare Auditor  
Art Mata, CEBS, CPM, Senior Internal Audit Benefit Consultant  
Carol Casey, CPM, Internal Audit Benefit Consultant  
Karen Marino, Internal Audit Administrative Coordinator



Brian K. Guthrie  
*Executive Director*

800.223.8778  
512.542.6400  
www.trs.texas.gov

1000 Red River Street  
Austin, Texas 78701

Amy L. Barrett,  
CIA, CISA, CPA  
*Chief Audit Executive*

October 9, 2018

Honorable Greg Abbott, Governor  
Ms. Lisa R. Collier, CPA, First Assistant State Auditor  
Members of the Legislative Budget Board  
Members of the Sunset Advisory Commission  
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 requirement 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 2018
- III. Consulting Services and Nonaudit Services Completed
- IV. External Quality Assurance Review (Peer Review)
- V. Internal Audit Plan for Fiscal Year 2019
- VI. External Audit Services Procured in Fiscal Year 2018
- 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 2018 projects contributed to the improvement of risk management, control, and governance processes. Internal Audit (or those engaged by Internal Audit) issued 5 assurance and 10 agreed-upon procedures reports, followed-up and reported quarterly on the status of all 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 Amy Barrett at (512) 542-6559.

Sincerely,

Amy L. Barrett, CIA, CISA, CPA  
Chief Audit Executive

**TEACHER RETIREMENT SYSTEM OF TEXAS**  
**INTERNAL AUDIT ANNUAL REPORT**

**FISCAL YEAR 2018**

**October 2018**

**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 2018

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### 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 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 Committee materials. The audit 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 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 2018**

**Teacher Retirement System of Texas**  
**Internal Audit Annual Report for Fiscal Year 2018**

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**Fiscal Year 2018 Audit Plan Status**  
**As of August 2018**

<b>Title and Project #</b>	<b>Type</b>	<b>Status</b>
<b>Executive and Finance</b>		
Board Reporting Process and Materials Review	<b>Consulting</b>	Complete
General Accounting Change in Management Audit	<b>Audit</b>	Cancel
Capital Improvement Planning Process	<b>Consulting</b>	Defer
Coordination for State Auditor’s Office (SAO) Comprehensive Annual Financial Report (CAFR) Audit for Fiscal Year 2017	<b>Advisory</b>	Complete
Teacher Retirement Investment Company of Texas (TRICOT) Financial Audit Coordination (Grant Thornton)	<b>Advisory</b>	Complete
Executive Incentive Pay Testing	<b>Agreed-Upon Procedures</b>	Complete
New Financial System – CAPPs Implementation Meeting Participation	<b>Advisory</b>	Ongoing
Committee and Workgroup Meetings Participation	<b>Advisory</b>	Ongoing
TRS Investment Company of Texas (TRICOT) Cost-Benefit Audit	<b>Audit</b>	Complete
Special Requests and Emerging Issues (IT Governance – outsourced project)	<b>Consulting</b>	In progress
<b>TEAM Program</b>		
TEAM Independent Program Assessment (IPA) Vendor Support	<b>Advisory</b>	Ongoing
TEAM Committees, Projects and Controls Assessment Participation	<b>Advisory</b>	Ongoing
<b>Pension Benefits</b>		
Annuity Payment Testing for SAO CAFR Audit of FY 2017	<b>Audit</b>	Complete
Annual Benefits Testing	<b>Agreed-Upon Procedures</b>	Complete
Employer Data Analysis Testing	<b>Agreed-Upon Procedures</b>	Complete
Employer Audits	<b>Audit</b>	Complete
TRS Reporting Entity Website Audit Information and Communication Activities	<b>Advisory</b>	Complete
Benefit Disbursement Review	<b>Consulting</b>	In Progress

## Teacher Retirement System of Texas Internal Audit Annual Report for Fiscal Year 2018

<b>Health Care</b>		
TRS-Care Legislative Change Management Review	<b>Consulting</b>	Complete
TRS-ActiveCare Eligibility, Enrollment, and Billing Process Pre-implementation Audit	<b>Audit</b>	Complete
Vendor Procurement Audit	<b>Audit</b>	Complete
Health Care Administrative Expenses Audit	<b>Audit</b>	Defer
Health Insurance Benefit Resources Assessment	<b>Consulting</b>	Complete
Health Care Vendor Update Meetings Attendance	<b>Advisory</b>	Ongoing
<b>Information Technology</b>		
Disaster Recovery, Network Penetration Tests, Security Risk Assessment Review	<b>Advisory</b>	Complete
<b>Investment Management</b>		
Private Equity Management Fees and Carried Interest Desk Audits	<b>Audit</b>	Complete
Performance Calculations Audit	<b>Audit</b>	Complete
Quarterly Investment and Ethics Policies Compliance Testing	<b>Agreed-Upon Procedures</b>	Complete
Annual Testing of Investment Incentive Pay Plan	<b>Agreed-Upon Procedures</b>	Complete
Investment Committees Attendance	<b>Advisory</b>	Ongoing
<b>Internal Audit Department</b>		
Annual Internal Audit Report	<b>Administrative</b>	Complete
Data Analysis Process Buildout	<b>Administrative</b>	Complete
Quarterly Audit Recommendations Follow-up	<b>Administrative</b>	Ongoing
Internal Quality Assurance Review	<b>Administrative</b>	Complete
Fiscal Year 2019 Audit Plan	<b>Administrative</b>	Complete
Employer Audit Process Re-engineering	<b>Administrative</b>	Complete
Internal Audit Staff Training Initiative	<b>Administrative</b>	Complete
Audit Committee Meetings Preparation	<b>Administrative</b>	Ongoing

## MEMORANDUM

TO: TRS Board of Trustees  
 Brian Guthrie, Executive Director

FROM: Amy Barrett, Chief Audit Executive

SUBJECT: Proposed Revisions to the Audit Plan for Fiscal Year 2018

DATE: February 16, 2018

Per the approved *Fiscal Year 2018 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. Below is a list of proposed changes for your consideration:

Project	Change	Reason
TRS Investment Company of Texas (TRICOT) Cost-Benefit Audit	Add	<ul style="list-style-type: none"> <li>• Validate cost-benefit of TRICOT office since inception</li> </ul>
General Accounting (GA) Change in Management Audit	Cancel	<ul style="list-style-type: none"> <li>• Provide time for TRICOT audit</li> <li>• Alleviate burden on General Accounting staff who are in process of implementing a new financial system (CAPPS)</li> </ul>
Health Insurance Benefits (HIB) and Support Functions Resource Review (Consulting)	Add	<ul style="list-style-type: none"> <li>• Validate resource request of health care function proposed to Board in June</li> </ul>
Healthcare Administrative Fees Audit	Defer	<ul style="list-style-type: none"> <li>• Provide time for HIB resource review</li> </ul>
TRS-ActiveCare Billing, Reporting and Exceptions Process; and, Eligibility and Enrollment Process Audit	Increase scope	<ul style="list-style-type: none"> <li>• Increase scope of audit to include the eligibility and enrollment process</li> </ul>
Vendor Procurement Audit	Refine scope	<ul style="list-style-type: none"> <li>• Expand procurement scope to include other divisions within TRS besides HIB based on planning results and feedback</li> <li>• Defer vendor oversight assessment to future</li> </ul>
Benefit Disbursement Review (Consulting)	Add	<ul style="list-style-type: none"> <li>• Identify fraud risk of misdirected payments</li> <li>• Consult on any planned control changes proposed by management</li> </ul>
Capital Projects Initiation Process Consulting	Defer	<ul style="list-style-type: none"> <li>• Provide time for Benefit Disbursement Review</li> </ul>

### **III. Consulting Services and Nonaudit Services Completed**

# **Teacher Retirement System of Texas**

## **Internal Audit Annual Report for Fiscal Year 2018**

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### **III. Consulting Services and Nonaudit Service Completed**

During fiscal year 2018, Internal Audit conducted (or hired consultants to conduct) the following consulting (Nonaudit services) projects resulting in formal recommendations to management.

#### **1. Board Reporting Process and Materials Review (Project #18-601)**

Objective: The Executive Director requested that Internal Audit conduct a consulting project to identify improvement opportunities around the timeliness and content of board materials and the number of meetings.

This was achieved by conducting interviews of TRS staff and management, surveying of staff time spent preparing documents and surveying trustees for items such as the amount of board materials received, review of ongoing board reporting process improvements, and surveying other pension funds on their board reporting process. Recommendations were in four areas including timeliness of board materials, number of board meetings, board committee structure and other (strategic planning, staff recognition, presentation skills training, evaluations, public comments).

#### **2. TRS-Care Legislative Change Management Review (Project #17-203)**

Objective: To ensure all TRS-Care Participants (retirees and their dependents) are moved to the correct new insurance plan coverage and premiums on January 1, 2018 and that healthcare premiums are correctly deducted.

This was achieved by identifying data and correcting and errors before conversion, validating the data such as addresses, premiums, and prescription plan codes. Identified key resources that needed to be addresses such as the need for a business analyst and a resource to handle quality assurance.

## **Teacher Retirement System of Texas**

### **Internal Audit Annual Report for Fiscal Year 2018**

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#### **3. Health Insurance Benefit Resources Assessment (Project#18-203)**

Objective: To determine the resource capacity needs of the Health and Insurance Benefits (HIB) Division within the Teacher Retirement System (TRS).

This was achieved by conducting interviews of TRS personnel and reviewing departmental documentation, and analyzing resource levels to resource needs.

Recommendations included cross-training of phone counseling staff to answer more complex health insurance benefit inquiries, hiring an attorney specializing in Medicare to support day-to-day HIB operations, and developing proactive communications for plan or legislative changes.

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  
INTERNAL AUDIT DEPARTMENT**

**April 2016**



**PERFORMED BY**

Benito Ybarra, CIA, CISA, CFE  
Chief Audit and Compliance Officer  
Texas Department of Transportation

Greg Royal, CPA, CIA, CRMA, CGAP  
Chief Audit Executive  
Texas Department of Insurance

Byron Williams, CPA  
Chief Audit Executive  
Oregon State Treasury

PERFORMED IN ACCORDANCE WITH THE  
STATE AGENCY INTERNAL AUDIT FORUM  
PEER REVIEW POLICIES AND PROCEDURES

## OVERALL OPINION

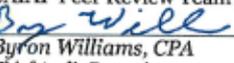
Based on the information received and evaluated during this external quality assurance review, it is our opinion that the Teacher Retirement System (TRS) Internal Audit Department receives a rating of "pass" and is in compliance with the Institute of Internal Auditors (IIA) *International Professional Practices Framework* and Code of Ethics, the United States Government Accountability Office (GAO) *Government Auditing Standards*, and the Texas Internal Audit 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 objective conclusions 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 appropriately.

The Internal Audit Department is well-managed. In addition, the Department has effective relationships with the Board of Trustees and is well-respected and supported by Executive Council management. Surveys and interviews conducted during the quality assurance review indicate that management considers Internal Audit a useful part of the agency and demonstrated a knowledge of the audit team's mission.

## ACKNOWLEDGEMENTS

We appreciate the courtesy and cooperation extended to us by the Chief Audit Executive, Internal Audit staff, the Chairman of the Board of Trustees, the Audit Committee Chair, 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 perceived value to the organization.

 Benito Ybarra, CIA, CISA, CFE Chief Audit and Compliance Officer Texas Department of Transportation SAIAF Peer Review Team Leader	04/15/16 Date
 Greg Royal CPA, CIA, CRMA, CGAP Chief Audit Executive Texas Department of Insurance SAIAF Peer Review Team Member	4/13/16 Date
 Byron Williams, CPA Chief Audit Executive Oregon State Treasury SAIAF Peer Review Team Member	4/11/16 Date

April 15, 2016

**V. Internal Audit Plan for Fiscal Year 2019**



# Teacher Retirement System of Texas Internal Audit Department

## Fiscal Year 2019 Audit Plan

*September 20, 2018*



# Executive Summary

## Professional and Statutory Requirements

This document provides the *Fiscal Year 2019 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 Committee of the Board of Trustees (Audit 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

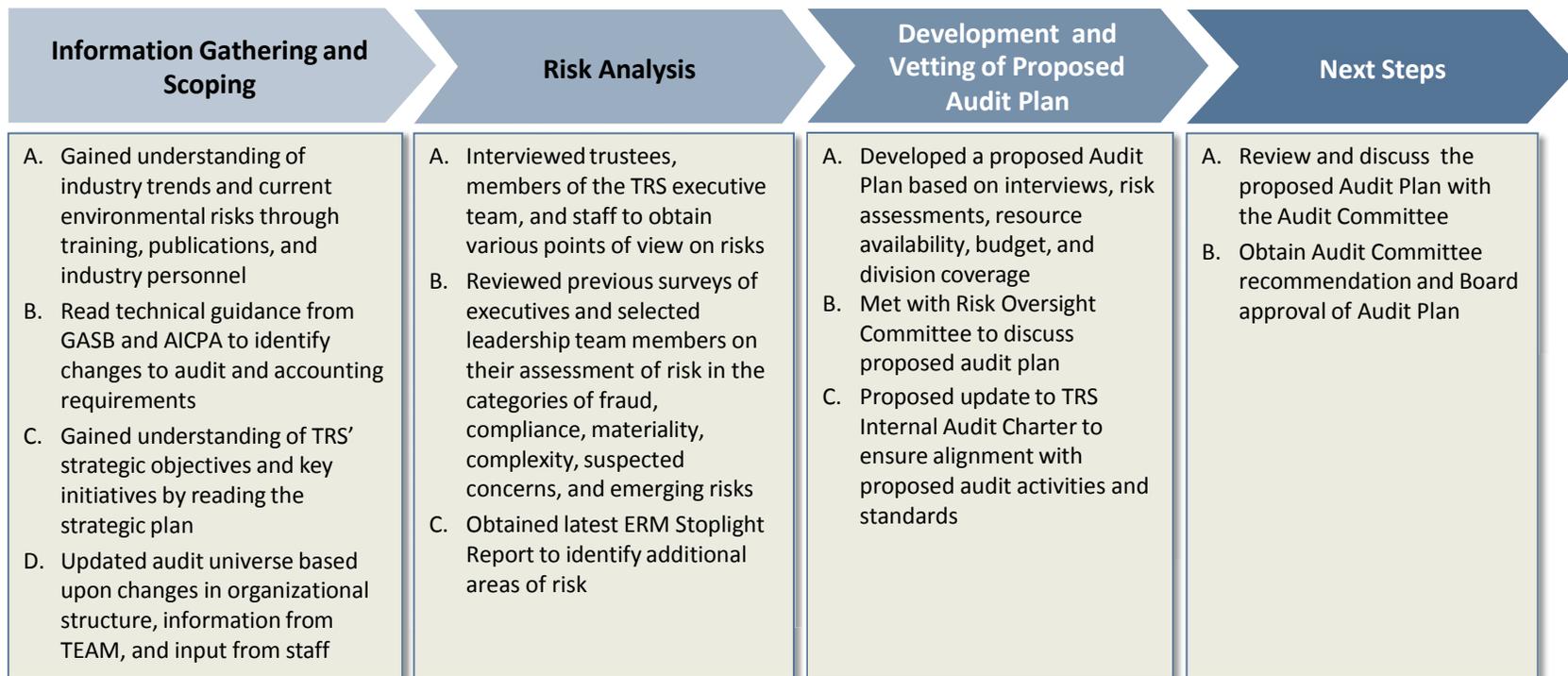
Our Audit Plan is designed to provide coverage of key risks, given the existing staff and approved budget. See the **Appendices** for information regarding the internal audit budget, performance measures, and audit plan mapped to the TRS Risk Assessment.

## 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 Audit Committee at the next quarterly Audit 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 Audit Committee for recommendation to the Board for approval. We will also notify the State Auditor's Office of material changes to the Audit Plan.



*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:*





***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 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 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

- 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 Audit Committee as required by professional auditing standards
- Estimated level of effort per project: 100 - 200 hours

- 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



Title	Type	Preliminary Scope
Communications Audit	Audit	Assess effectiveness of external communications processes, including overall strategies/plans, policies, procedures, training/awareness program, and execution of communications plans to TRS stakeholders by TRS trustees, executives, employees, and vendors
Building the Fleet Readiness Audit	Audit	Assess TRS's preparedness to build the fleet. Talent areas to evaluate may include processes and controls related to human resource strategy, governance and operational processes (recruiting, hiring, onboarding, performance management and incentives, employee separation, and termination). Other areas to evaluate may include diversity and inclusiveness programs, organization culture, work-from-home program, and the linkage of division and department performance measures to headcount plans
Executive Incentive Pay Testing	Agreed-Upon Procedures	Independently recalculate executive incentive pay in order to test the accuracy of the calculation by management
Travel Consulting	Consulting	Benchmark board travel policy with other retirement systems; review implementation of Concur travel system processes and procedures for consistency with TRS travel requirements
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
Meetings Participation	Advisory	Participate (non-voting) in various TRS-wide meetings such as Executive Council, Leadership Team, and Strategy and Risk Oversight Committee



Title	Type	Preliminary Scope
TEAM Phase II Annuity Payroll Testing	Advisory	Assist management with testing of TEAM phase II annuity payroll conversion testing prior to go live
HILOB Pre-Cutover Reconciliation	Advisory	Assist with development of criteria to be used in the pre-cutover reconciliation for Health Insurance Line of Business application (HILOB)
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
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 FY 17, Internal Audit participated in the following TEAM committees and projects:</p> <ul style="list-style-type: none"> <li>- Executive Program Oversight Committee (including TEAM budget)</li> <li>- Organizational Change Management Advisory Groups</li> <li>- Business Procedures and Training Project</li> <li>- Monthly meetings with TEAM program manager and DXC executives</li> </ul>



# Audit Plan: Pension Benefits and Employer Audits

*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
Medical Board Audit	Audit	Assess the effectiveness of the process for approving disability retirements and benchmark our retirements with similar systems to determine reasonableness of payments
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
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)
Employer Data Analysis Testing	Agreed-Upon Procedures	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 edit checks and missing data
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



Title	Type	Preliminary Scope
Business Process Improvement Project	Consulting or Advisory	In conjunction with Enterprise Risk Management (ERM) staff, consult with Health Insurance Benefits (HIB) and Benefit Service (in areas overlapping HIB) on ways to improve efficiencies of operations and reduce rework
Pharmacy Rebate Audit Support	Advisory	Participate in external audit verifying accuracy of pharmacy rebates received by TRS-Care and TRS-ActiveCare
Health Care Vendor Update Meetings Attendance	Advisory	Attend quarterly meetings with health care vendors to understand results, issues, and TRS management’s monitoring controls
Health Care Vendor Selection Observation	Advisory	Observe selection process of large vendor and service providers, when applicable



Title	Type	Preliminary Scope
Derivatives Accounting Audit	Audit	Assess the accuracy of derivatives accounting and adequacy of processes supporting those activities
Valuations Audit	Audit	Assess the accuracy of investment valuations and adequacy of processes supporting those activities
Quarterly TRS Compliance and Ethics Policies Compliance Testing	Agreed-Upon Procedures	Test compliance with TRS policies including the Investment Policy Statement, ethics policies, and other policies as agreed upon with the TRS Compliance Officer
Annual Testing of Investment Incentive Pay Plan	Agreed-Upon Procedures	Prior to payment, recalculate the investment incentive compensation award amounts to determine if they are calculated in accordance with plan provisions; reconcile performance to the service provider.
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



Title	Type	Preliminary Scope
CAPPS IT Controls Audit	Audit	Evaluate general IT controls relating to IT change management and IT security practices administered by the Comptrollers for the CAPPS financial application
Cloud Computing Consulting	Consulting	Assess whether TRS has an effective process for evaluating cloud vendors in terms of operational efficiency, IT security, and data protection
Active Directory Audit	Audit	Determine whether Active Directory is configured to ensure effective and efficient access control to TRS systems
IT Governance Consulting	Consulting	Assess the effectiveness of processes for identifying, evaluating, approving, funding, monitoring, and closing out major IT projects
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
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



Title	Type	Preliminary Scope
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
CAFR Audit Coordination (SAO, auditors)	Advisory	Coordinate activities of the SAO to ensure deadlines are met; coordinate quarterly update meetings with executive management and the SAO; maintain SAO document request SharePoint site; walkthrough CAFR development process and identify opportunities for efficiencies
Teacher Retirement Investment Company of Texas (TRICOT) Financial Audit Coordination (Grant Thornton, auditors)	Advisory	Coordinate a financial audit of TRICOT, a wholly-owned subsidiary of TRS in London



Title	Project Description
External Quality Assurance Review	Obtain an independent assessment of Internal Audit’s compliance with auditing standards and make recommendations for improvement.
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
Staff training initiative	Develop and launch auditor training in key areas including report writing, workpaper documentation, and audit risk assessment
Fiscal Year 2020 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 Committee Meetings Preparation	Prepare communications and attend Audit Committee and Board Meetings



***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
Records & Information Management	TRS is in process of revising its records management system and procedures
Procurement & Contracting	TRS in in process of implementing recommendations made in the prior year's procurement audit



# Fiscal Year 2018 Audit Plan

## Appendix A

### Internal Audit Operating Budget



## Appendix A Internal Audit Operating Budget

Line Item	Budget FY 2019	Budget FY 2018
000 – Salaries	\$1,188,488	\$1,094,123
000 – Benefits	297,029	280,233
200 – Professional Fees for Internal Audit Services	450,000	450,000
200 – Professional Fees for External Audit Services (CAFR, GASB Schedules, TRICOT)	382,500	442,500
505 – Travel-In-State	12,500	14,600
510 – Travel-Out-of-State	28,100	26,000
600 - Offsite Retreat	0	500
705 – Dues, Fees, and Staff Development	28,000	27,500
710 – Subscriptions and Reference Materials	2,000	2,000
<b>Total Operating Budget</b>	<b>\$2,391,117</b>	<b>\$2,337,456</b>
Full Time Equivalent (FTE) Positions (excluding interns)	14.0	13.0

Resources are sufficient to complete the annual audit plan.



# Fiscal Year 2018 Audit Plan

## Appendix B

### Internal Audit Performance Measures



*For the internal audit function, the FY 2019 goals and performance measures are as follows:*

**Goal 1: Facilitate Audit Committee Governance**

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

Performance Measures

- a. 80% or more of audit and agreed-upon procedures projects are completed in the fiscal year (80% allows for flexibility due to changes in TRS business practices and special requests)
- b. 75% 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
- e. 80% (4.0/5.0) or higher score on staff 360 evaluations in identifying and addressing issues, critical thinking, and getting the job done



## **Goal 1: Facilitate Audit 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



## **Goal 2: Support TRS Initiatives**

### **Objective 1: Support the success of the TEAM Program and Financial Software Implementations**

#### 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 Energage Survey



### **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)



## Appendix C

# Audit Plan Mapped to TRS Risk Assessment



#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
1	High	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 rebate audit participation	Audits, AUP, 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 TRS members 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	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
5	Caution	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
6	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.	Employer audits and data analytics of employer contributions	Audits and AUP
7	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.	IT governance consulting, cloud computing audit, IT risk assessment	Audit, Consulting, AUP
8	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.	Active Directory audit, CAPPs IT controls audits, Cloud computing consulting	Audits and Consulting



#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
9	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.	Cloud computing consulting; DIR penetration tests	Consulting, Pen test
10	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.	Business process improvement/rework consulting	Consulting
11	Caution	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, work from home audit; Medical Review Board audit	Audits
12	Caution	Procurement & Contracts	Maintain effective procurement and contract management systems. Inappropriate procurement practices could result in purchases of sub-standard 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 sub-standard 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
13	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.	Culture audit: are we prepared to build the fleet?	Audit
14	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.	Compliance testing	AUP
15	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
16	Guarded	Global Initiatives	Ensure employee safety by complying with laws and regulations and providing awareness of challenges when traveling abroad.	Not being aware of safety, compliance, and other challenges when traveling abroad could jeopardize the safety of our employees.	None	n/a





#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
17	Guarded	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.	Business process improvement/rework consulting	Consulting
18	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.	TRS compliance testing, hotline triage team participation	AUP, advisory
19	Guarded	Credit	Maintain effective management of counterparty and securities lending risks.	Unmanaged counterparty and securities lending exposures could result in losses to the investment portfolio.	Securities lending meeting attendance	Advisory
20	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.	Communications audit	Audit
21	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
22	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.	Culture audit: Are we prepared to build the fleet?	Audit
23	Guarded	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	Audit



#	TRS Risk Level	TRS Risk Category	TRS Goal	TRS-Assessed Overall Risk	Planned Approach	Project Type
24	Guarded	403(b)	Maintain a list of certified companies and a list of registered products and investment options which meet requirements of law and TRS rule. Adopt fee caps to help ensure fees paid by members are competitive.	Public education employees purchase products and investment options from companies that are not on either list.	None	n/a
25	Guarded	Investment Operations	<ul style="list-style-type: none"> <li>•Maintain the integrity of transaction, position, and investment reporting information in a risk-controlled environment for optimal investment management decisions.</li> <li>•To support the successful operation of the Investment Management Division.</li> </ul>	<ul style="list-style-type: none"> <li>•Inefficient or ineffective transaction or position management processes which could result in losses to the fund.</li> <li>•Investment reports contain material inaccuracies.</li> <li>•Inefficient and ineffective support of IMD operations.</li> </ul>	Valuation and derivatives accounting audit	Audit
26	Low	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.	Valuation and derivatives accounting audit, real estate management fees and carried interest audit	Audit
27	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.	TRS compliance testing	Advisory
28	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.	TRS compliance testing	Advisory
29	Low	Government Relations	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
30	Other	Governance and Administration	n/a	n/a	Culture audit: are we prepared to build the fleet?; IT Governance consulting	Audit and consulting

## **VI. External Audit Services Procured in Fiscal Year 2018**

**Teacher Retirement System of Texas**  
**Internal Audit Annual Report for Fiscal Year 2018**

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**VI. External Audit Services Procured in Fiscal Year 2018**

Review of Health Plan Administration	Truven Health Analytics	In Progress
Comprehensive Annual Financial Report (CAFR) – Fiscal Year 2017	State Auditor’s Office	12/15/2017
Comprehensive Annual Financial Report (CAFR) – Fiscal Year 2018	State Auditor’s Office	In Progress
TRS Investment Company (TRICOT) Financial Audit Fiscal Year 2017	Grant Thornton	12/15/2017
TRS Investment Company (TRICOT) Financial Audit Fiscal Year 2018	Grant Thornton	In Progress

## **VII. Reporting Suspected Fraud and Abuse**

## **Teacher Retirement System of Texas**

### **Internal Audit Annual Report for Fiscal Year 2018**

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#### **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.

TAB 9E



**Status of Prior Audit and Consulting Recommendations**  
**Internal Audit                      December 2018**



**TRS Internal Audit  
Summary of Audit Recommendations Status  
As of November 2018**

Project	Recommendation	Status	Issue Type	Estimated Date	Revised / Actual Date
<b>17-305 Commission Credit (soft dollar) Audit</b>					
	Strengthen monitoring of contractual allowance balances to ensure no available amounts are lost	Implemented	Significant to Business	12/2017	12/2017
<b>18-201 Vendor Procurement Audit</b>					
	1.1 Procurement Guidance should be used throughout the contracting process - Training	In Progress	Significant	3/2019	9/2019
	1.2 Procurement Guidance should be used throughout the contracting process - Job aides, guides, manuals	In Progress	Significant	12/2018	9/2019
	2.1 Obtain BAAs for the contracts with the employers with access to PHI	Implemented	Significant	7/2018	7/2018
	2.2 Process for contracts associated with PHI have an associated BAA - risk assessment questionnaire	In Progress	Significant	12/2018	9/2019
	2.3 Process for contracts associated with PHI have an associated BAA - guidance and procedure	In Progress	Significant	9/2019	
	3. Include in TRS CAP referenced procedural guidance where needed	In Progress	Other Reportable	9/2019	
	4. Follow internal procedures throughout contracting process	In Progress	Other Reportable	12/2018	9/2019
	5.2 Work with management to overcome the following shortcomings of the current legacy system - RFO	In Progress	Other Reportable	12/2018	9/2019

**Significant to Business Objectives**

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

**Other Reportable**

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

**TRS Internal Audit  
Summary of Audit Recommendations Status  
As of November 2018**

Project	Recommendation	Status	Issue Type	Estimated Date	Revised / Actual Date
<b>18-304 Private Equity Management Fees and Carried Interest Desk Audit</b>					
	Complete evaluation of private equity fund fees monitoring	In Progress	Other Reportable	8/2019	
<b>18-602 Internal Audit Quality Assurance Review</b>					
	1. Implement a formal process to update automated project templates when needed and provide staff with training	In Progress	Other Reportable	12/2018	
	2. Enhance current performance measurement by adding routine trend analysis	In Progress	Other Reportable	12/2018	
	3. Formalize and expand collaboration with internal risk oversight groups by interpreting and sharing risk information received	In Progress	Other Reportable	12/2018	
	4. Administer business unit training opportunities on the audit project and audit follow-up processes	In Progress	Other Reportable	8/2019	
	5. Create a user-friendly, centrally-located Internal Audit department management tool box for guidance documents in key areas	Implemented	Other Reportable	9/2018	10/2018
	6. Develop a process to ensure maintenance of current job descriptions	Implemented	Other Reportable	9/2018	11/2018
<b>SAO Audits of FY 2014 - 2017 Comprehensive Annual Financial Report</b>					
	Strengthen controls over census data	Implemented	Significant	8/2016	06/2018

**TRS Internal Audit  
Summary of Audit Recommendations Status  
As of November 15, 2018**

**Status of Reporting Entity Audit Recommendations**

	<b>Audit Project #</b>	<b>Audit Report Date</b>	<b>Reporting Entity (RE)</b>	<b>Status</b>
1	17-401b	8/31/2017	Dallas ISD	In Progress (See note below)

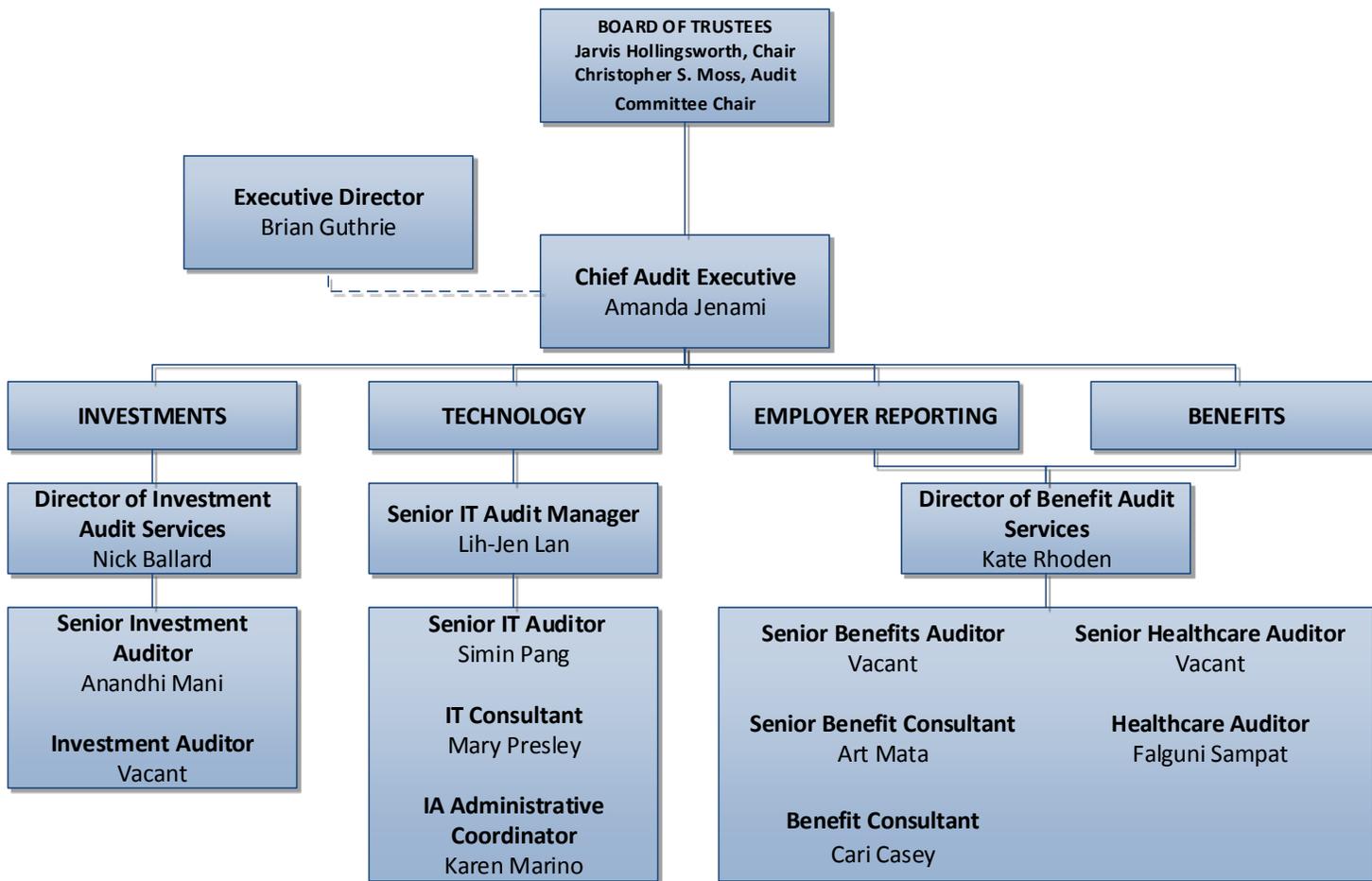
Note: The Benefit Accounting Reporting Team has resolved the issue with the school. Fixes to system defects have been implemented on 6/28/2018. Inputs into the TRUST system are being made. This is taking longer than expected due to the large number of manual entries required.

**Statuses:**

- Under Legal Services Review – TRS Benefits team has requested Legal Services review before taking any further action
- In Progress – TRS Benefits team is working with RE on corrections/adjustments
- Closed – TRS Benefits team has resolved all RE audit findings
- No Audit Findings – the audit resulted in no audit findings

**TAB 10**

# Internal Audit



# Chief Audit Executive Goals for FY 2019

## Goal 1

Sustain a Financially Sound Pension System

Coordinate CAFR and TRICOT financial audits (Q1)

Test compliance with investment policies (Q1 – Q4)

Provide assurance on TRS readiness for building the fleet (Q2)

Provide assurance on derivatives and investment valuation (Q3)

Provide assurance on TRS communications (Q4)

## Goal 2

Continuously Improve Our Benefit Delivery

Consult on benefit disbursements (Q1)

Coordinate TEAM program assessment vendor activities (Q1 – Q4)

Analyze full payroll data and provide assurance on employer reports (Q1 – Q4)

Test TEAM phase 2 annuity payments prior to go live (Q2 – Q4)

Test actual benefit annuity and manual payments in legacy system (Q4)

## Goal 3

Facilitate Access to Competitive, Reliable, Health Care Benefits

Follow-up on outstanding HIPAA audit recommendations (Q1 – Q4)

Consult on health administration business process improvements (Q2 – Q3)

Participate in pharmacy rebate audit led by vendor selected by HIB (Q4)

Assist in testing cutover from old TRS-Care enrollment system to new system (Q2 – Q4)

 -- Complete

 -- In Progress

 -- Planned

# Chief Audit Executive Goals for FY 2018

## Goal 4

Align People to Achieve the TRS Mission

Participate in the leadership development program (Q1)

Test investment incentive compensation (Q2)

Test executive incentive compensation (Q4)

## Goal 4

Align Processes to Achieve the TRS Mission

Consult on Trustee Travel Project (Q1)

Consult on IT governance (Q1)

Participate in hotline triage team (Q1-Q4)

Participate in Executive Council & Risk Oversight Committees (Q1-Q4)

Undergo an external quality assessment review (Q3)

## Goal 4

Align Technology to Achieve the TRS Mission

Observe disaster recovery and business continuity tests (Q4)

Consult on cloud computing (Q2)

Provide assurance on IT controls for CAPPs financial application (Q3)

Provide assurance on Active Directory (tool for provisioning access) (Q4)

**Internal Audit Goals and Performance Measures  
Fiscal Year 2019 – 1st Quarter Ending November 2018**

Target Performance	2019 Cumulative Score	2019 Annual Target	2018 Cumulative Score	Activity / Comment	Status
<b>Goal 1: Facilitate Audit Committee Governance</b>					
1. 80% or more of audit and agreed-upon procedures projects are completed in the fiscal year (80% allows for flexibility due to changes in TRS business practices and special requests)	18%	80%	100%		On Task
2. 75% or more of total available department hours (excluding uncontrollable leave) are spent for internal audit staff on direct assurance, consulting, and advisory services	73%	75%	78%	Direct time to projects projected to increase beginning in second quarter	On Task
3. 100% of internal audit processes are in accordance with internal auditing standards as reported in the annual quality assurance and improvement (QAIP) report	100%	100%	N/A	QAIP completed in September 2018	Achieved
4. 75% (3.0/4.0) or higher score received for audit project client surveys in overall satisfaction	N/A	75%	92%	No client survey for FY19 first quarter projects yet	N/A
5. 80% (4.0/5.0) or higher score on staff 360 evaluations in accountability, critical thinking, and initiative	84%	80%	79%	Score based on staff 360 evaluations completed in October 2018	Achieved
6. 75% (3.0/4.0) or higher score received for audit project client surveys regarding communication of the audit purpose, results, and reports	N/A	75%	90%	No client survey for FY19 first quarter projects yet	N/A
7. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of verbal and written communication and collaborative audit perspective	80%	80%	81%	Score based on staff 360 evaluations completed in October 2018	Achieved
8. 90% of relevant current “Tone at the Top” articles uploaded to Diligent	25%	90%	100%	Score based on 25% per quarter	On Task

**Internal Audit Goals and Performance Measures  
Fiscal Year 2019 – 1st Quarter Ending November 2018**

Target Performance	2019 Cumulative Score	2019 Annual Target	2018 Annual Score	Activity / Comment	Status
<b>Goal 2: Support TRS Initiatives</b>					
1. 75% (3.0/4.0) or higher score received for audit project client surveys in TEAM-related projects	N/A	75%	N/A	No client survey for FY19 first quarter projects yet	N/A
2. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of organizational awareness	81%	80%	81%	Score based on staff 360 evaluations completed in October 2018	Achieved
3. 80% (4.0/5.0) or higher score for departmental organizational health on the annual Energage Survey	92%	80%	N/A	Survey results reported in September 2018	Achieved
<b>Goal 3: Enhance Internal Audit Staff Competence and Expertise</b>					
1. 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	N/A	75%	94%	No client survey for FY19 first quarter projects yet	N/A
2. 80% (4.0/5.0) or higher score on staff 360 evaluations in the area of audit acumen	78%	80%	79%	Score based on staff 360 evaluations completed in October 2018	Not Achieved
3. 90% of audit staff complete annual training plans and obtain a minimum of 40 hours of continuing education credits	7%	90%	100%	Staff expected to complete 40 hours/each towards year end	On Task
4. 90% of audit staff maintain professional certifications or actively pursue certifications and related eligibility requirements	N/A	90%	100%	Biannual survey conducted in February and July	N/A
5. 90% of audit staff participate in professional organizations	N/A	90%	100%	Biannual survey conducted in February and July	N/A

**Internal Audit Goals and Performance Measures  
Fiscal Year 2019 – 1st Quarter Ending November 2018**

Target Performance	2019 Cumulative Score	2019 Annual Target	2018 Annual Score	Activity / Comment	Status
6. 90% of audit staff acknowledge an understanding of their career path	N/A	90%	100%	Biannual survey conducted in February and July	N/A
7. 80% or more of audit staff remain in internal audit or TRS (excluding retirements and transfers)	100%	80%	93%	No turnover in first quarter FY19	On Task

**Legend: Target Status**

	Target not achieved
	Below target but expect to achieve
	On task to achieve
	Achieved target

## Fiscal Year 2019 Audit Plan Status As of November 2018

Title and Project #	Type	Status
<b>Executive and Finance</b>		
Communications Audit	<b>Audit</b>	
Culture Audit: Are we prepared to build the fleet?	<b>Audit</b>	In Progress
Coordination for State Auditor's Office (SAO) Comprehensive Annual Financial Report (CAFR) Audit for Fiscal Year 2018	<b>Advisory</b>	Complete
Teacher Retirement Investment Company of Texas (TRICOT) Financial Audit Coordination (Grant Thornton)	<b>Advisory</b>	Complete
Executive Incentive Pay Testing	<b>Agreed-Upon Procedures</b>	
Committee and Workgroup Meetings Participation	<b>Advisory</b>	Ongoing
Special Requests and Emerging Issues	<b>TBD</b>	
<b>TEAM Program</b>		
TEAM Independent Program Assessment (IPA) Vendor Support	<b>Advisory</b>	Ongoing
TEAM Phase II Annuity Payroll Testing	<b>Advisory</b>	
HILOB Pre-Cutover Reconciliation Process	<b>Advisory</b>	In Progress
TEAM Committees, Projects and Controls Assessment Participation	<b>Advisory</b>	Ongoing
<b>Pension Benefits</b>		
Annuity Payment Testing for SAO CAFR Audit of FY 2018	<b>Audit</b>	Complete
Benefit Disbursement	<b>Consulting</b>	In Progress
Disability Retirement and Medical Board Audit	<b>Audit</b>	Complete
Annual Benefits Testing	<b>Agreed-Upon Procedures</b>	
Employers Testing (10 ISDs)	<b>Agreed-Upon Procedures</b>	Complete 2 ISDs
Employer Data Analysis and Census Testing	<b>Agreed-Upon Procedures</b>	In Progress
TRS Reporting Entity Website Audit Information and Communication Activities	<b>Advisory</b>	Complete

## Fiscal Year 2019 Audit Plan Status As of November 2018

Health Care		
Pharmacy Rebate Advisory	Advisory	
Business Process Improvement and Rework	Advisory	In Progress
Health Care Vendor Update Meetings Attendance	Advisory	Ongoing
Information Technology		
IT Governance (outsourced)	Consulting	Complete
Cloud Computing (outsourced)	Consulting	
Active Directory Audit	Audit	
CAPPS IT Controls Audit	Audit	
IT Risk Assessment	Advisory	
Disaster Recovery, Network Penetration Tests, Security Risk Assessment Review	Advisory	Ongoing
Investment Management		
Derivatives and Valuations Audit	Audit	
Trustee Travel Project	Consulting	Complete
Quarterly Investment and Ethics Policies Compliance Testing	Agreed-Upon Procedures	1 <sup>st</sup> Qtr complete
Annual Testing of Investment Incentive Pay Plan	Agreed-Upon Procedures	In Progress
Investment Committees Attendance	Advisory	Ongoing
Internal Audit Department		
Annual Internal Audit Report – FY18	Administrative	Complete
Data Analysis Process Buildout	Administrative	
Quarterly Audit Recommendations Follow-up	Administrative	Ongoing
External Quality Assurance Review	Administrative	
Fiscal Year 2020 Audit Plan	Administrative	
Audit Committee Meetings Preparation	Administrative	Ongoing

**Internal Audit Advisory Services<sup>1</sup>**  
**Fiscal Year 2019 – 1st Quarter**

<b>BENEFIT SERVICES</b>
<ul style="list-style-type: none"> <li>• Participated in the TEAM Program <ul style="list-style-type: none"> <li>○ Enterprise Projects Oversight Committee (EPOC)</li> <li>○ Organizational Change Management Advisory Group (OCM)</li> <li>○ Monthly meetings with TEAM Program Manager and vendor personnel</li> <li>○ Independent Program Assessment (IPA) Vendor Coordination</li> <li>○ Pension Administration and Health Care Data Governance Team</li> <li>○ TRUST Phase II payroll data reconciliation meetings and status updates</li> </ul> </li> </ul>
<b>HEALTH INSURANCE BENEFITS (HIB)</b>
<ul style="list-style-type: none"> <li>• Participated in discussions with Legal and Compliance related to outstanding audit recommendations from the HIPAA Gap Assessment Project</li> <li>• Participated in discussions related to HILOB pre-implementation reconciliation process</li> </ul>
<b>INVESTMENT MANAGEMENT DIVISION (IMD)</b>
<ul style="list-style-type: none"> <li>• Attended Internal Investment Committee (IIC) meetings</li> <li>• Participated in quarterly Proxy Voting Committee meeting</li> <li>• Participated in monthly Securities Lending monitoring calls</li> <li>• Participated in discussions related to Fleet Fee Savings estimate calculation</li> </ul>
<b>FINANCIAL SERVICES</b>
<ul style="list-style-type: none"> <li>• Liaison for the State Auditor’s Office (SAO) Fiscal Year 2018 Comprehensive Annual Financial Report (CAFR) Audit and associated Census Data and Allocation Schedule Audits</li> <li>• Participated in workgroup discussions related to obtaining and monitoring of Business Associate Agreements associated with the procurement process</li> <li>• Participated in a workgroup discussions relating to review of current agency-wide procurement guidance documents</li> </ul>
<b>EXECUTIVE</b>
<ul style="list-style-type: none"> <li>• Facilitated SAO’s Quarterly Update Meetings</li> <li>• Participated in the Risk Oversight Committee</li> <li>• Participated in Health and Safety Committee Quarterly Meetings</li> <li>• Participated in monthly collaboration meetings with Enterprise Risk Management (ERM) management</li> </ul>
<b>INFORMATION TECHNOLOGY (IT)</b>
<ul style="list-style-type: none"> <li>• Tracking outstanding audit recommendations from HIPAA Gap Assessment Project and Audit of On/Off Boarding Processes of Non-TRS Workers</li> <li>• Liaison for an outsourced consulting project on IT Governance</li> <li>• Participated in the Information Security Advisory Team (ISAT) meetings</li> <li>• Participated as core team members in TRS Pension Administration and Healthcare Data Governance Council</li> </ul>

<sup>1</sup> Advisory Services (non-audit services) - The scope of work performed does not constitute an audit under Generally Accepted Government Auditing Standards (GAGAS).

# Internal Audit Staff Accomplishments

## New Hires

- Amanda Jenami joined TRS as the Chief Audit Executive in October

Amanda brings extensive audit leadership experience as the former Internal Audit Director at the Texas Facilities Commission (TFC) and the Texas Water Development Board. Amanda has also audit experience with Texas A&M University, the Scottish Higher Education Funding Council, Deloitte, and PricewaterhouseCoopers.

## Promotions, Certifications and Recognition

- Kate Rhoden was promoted to Director of Benefit Audit Services
- Nick Ballard was accepted into Cohort IX of the State Agency Internal Audit Forum's (SAIAF) Internal Audit Leadership Development Program
- Mary Presley passed the Certified Information System Auditor (CISA) exam and obtained the CISA designation in October
- Amy Barrett was nominated for the 2018 Outstanding Women in Texas Government award in the leadership category
- Toma Miller received a TRS Golden Apple award
- Amanda Jenami received a certification in Risk Management Assurance (CRMA) from the Institute of Internal Auditors

## Professional Organization Activities and Conferences

- Art Mata participated in a panel on Employer Audits at the P2F2 conference in Savannah, GA. Others attending the conference include Anandhi Mani, Rodrigo Dominguez, and Falguni Sampat
- Cari Casey participated in a panel on Deceased Member Fraud at the Association of Public Pension Fund Auditors (APPFA); Nick Ballard participated in a panel on Insourcing Investment Management at the APPFA; others attending the conference include Amanda Jenami, Kate Rhoden, and Amy Barrett
- Kate Rhoden spoke to students at Concordia University and Austin Community College on accounting careers and the importance of certifications

## Transfers, Departures, and Retirements

- Toma Miller transferred to Strategic Planning to spearhead business process improvement initiatives across the agency
- Rodrigo Dominguez accepted a position at ERS conducting investment operational due diligence
- Amy Barrett is retiring after nearly 11 years of service to TRS as its Chief Audit Executive