

April 2023

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. Walls, Jr., Chairman; Ms. Allred, Mr. Ball, Ms. Sissney, and Mr. Williams Committee Members)

*All or part of the April 28, 2023, meeting of the TRS Audit, Compliance and Ethics 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 Board 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, 5th Floor, Boardroom.***

The open portions of the April 28, 2023, meeting are being broadcast over the Internet. Access to the Internet broadcast and agenda materials of the meeting is provided at www.trs.texas.gov. A recording of the meeting will be available at www.trs.texas.gov.

**AGENDA
April 28, 2023 - 9:00 a.m.**

1. Call roll of Committee members.
2. Approve minutes of December 2022 Audit, Compliance and Ethics Committee meeting
– Mr. Robert H. Walls, Jr., Chair.
3. Receive an overview of the Audit, Compliance and Ethics Committee’s Calendar Year 2023 Work Plan – Amanda Jenami.
4. Receive TRS Compliance reports including those related to ethics and fraud, conflicts of interest, and investment policies – Heather Traeger and Chris Bowlin.
5. Consider recommending to the Board of Trustees proposed revisions to the Fiscal Year 2023 Audit Plan – Amanda Jenami.
6. Receive Internal Audit reports:
 - A. Review of Private Equity Portfolio Operations – Julie Toler and Neil Randall
 - B. Status of Prior Audit Recommendations – Amanda Jenami
 - C. Review of Dependent Eligibility for TRS-Care – Amanda Jenami and Monica Bernal
 - D. Audit of Malware Protection and Ransomware Readiness – Stephen Randall and Kristi Glasgall
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,

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.

or auditors' ability to perform duties – Robert H. Walls, Jr., 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.

Minutes of the Audit, Compliance and Ethics Committee December 8, 2022

The Audit, Compliance and Ethics Committee of the Board of Trustees of the Teacher Retirement System of Texas met on December 8, 2022, in the boardroom located on the Fifth Floor in the East Building of TRS' offices located at 1000 Red River Street, Austin, Texas, 78701.

Committee members:

Mr. Christopher Moss, Chair
Mr. John Elliott
Ms. Nanette Sissney

The following Committee member attended virtually:

Mr. Michael Ball

Other TRS Board Members Present:

Mr. David Corpus
Mr. Jarvis V. Hollingsworth
Mr. James D. Nance
Mr. Robert H. Walls, Jr.

Others who participated:

Brian Guthrie, TRS	Bill Hunter, SAO
Andrew Roth, TRS	Hillary Eckford, SAO
Don Green, TRS	Kevin W. Smith, Crowe LLP
Jase Auby, TRS	
Heather Traeger, TRS	
Amanda Jenami, TRS	
Chris Bowlin, TRS	
Teklehaimanot Derseh, TRS	
Yimei Zhao, TRS	
Syed Israr, TRS	
K.J. Van Ackeren, TRS	
Falguni Sampat, TRS	
Martin Cano, TRS	
Mark Chi, TRS	
Chris Cutler, TRS	
Frank Williams, TRS	
Katie Linczer, TRS	
Katherine Farrell, TRS	
Suzanne Dugan, Cohen Milstein	

Audit, Compliance and Ethics Committee Chair, Mr. Christopher Moss, called the meeting to order at 3:18 p.m.

1. Call roll of Committee members.

Ms. Farrell called the roll. A quorum was present.

2. Consider the approval of the proposed minutes of the September 2022 committee meeting – Chair Christopher Moss.

On a motion by Mr. Elliott, seconded by Ms. Sissney, the committee unanimously voted to approve the proposed minutes for the September 2022 Audit, Compliance and Ethics Committee meeting as presented.

3. Receive report of the financial audit of TRS Annual Comprehensive Financial Report (ACFR) for fiscal year ended August 31, 2022 – Bill Hunter and Hillary Eckford, SAO.

Mr. Bill Hunter with the State Auditor's Office provided the results of the financial statement opinion audit of the TRS ACFR as materially accurate. He described the audit opinion as unmodified, meaning it was clean. He stated that the audit was prepared in accordance with generally accepted auditing standards applicable to financial audits for government entities. He reviewed two items that were not significant to the results of the audit. He noted that these financial statements are specific to TRS and do not represent the State of Texas. He also noted that the financial statements include alternative investments valued at \$98.4 billion and that this valuation is based on estimates by management.

4. Receive Crowe LLP's report of the financial audit of TRS Investment Company (TRICOT) for fiscal year ended August 31, 2022 – Kevin W. Smith and Michelle Buss, Crowe LLP

Mr. Kevin Smith stated that the audit was conducted, and an unmodified opinion was issued. He noted that this is the highest level of assurance that can be provided. He stated that the audit was conducted in accordance with both government auditing standards as well as AICPA standards. He reported two matters of emphasis. He noted the audit was of TRICOT, not of TRS or the State of Texas. He also noted that TRICOT adopted the new GASB accounting guidelines on leases which brought leases onto the balance sheet. He noted that Crowe did not modify its opinion with respect to this change.

5. Receive TRS Compliance reports including those related to ethics and fraud, conflicts of interest, and investment policies – Heather Traeger and Chris Bowlin.

Mr. Chris Bowlin reported on the quarterly compliance testing of the Investment Policy Statement, the securities lending policy, the proxy voting policy, and board reporting requirements. He confirmed that requirements were being met.

Ms. Traeger reported two complaints were received for this quarter on the Hotline. She stated that both instances will be identified as unsubstantiated. She reported there were two 541(c) reports and two 541(e)s. She said all have been addressed.

6. Receive Internal Audit reports:

A. Analysis of Free-Standing Emergency Room Providers' Billing Patterns – Teklehaimanot Derseh and Yimei Zhao

Ms. Amanda Jenami reported that HIB noticed unusual billing from freestanding ER providers and requested Internal Audit (IA) to perform some analysis. She said the objective of the project was for IA to identify providers that present a high risk of inappropriate billing. Ms. Yimei Zhao provided background about freestanding ERs. She said these facilities charge three to four times what a typical physician would for the same services.

Mr. Teklehaimanot Derseh reviewed the results of the analysis to identify freestanding ER providers that presented an elevated risk to the TRS plan. He reported that members visited 215 freestanding ER providers between September 2020 and July 2022, with TRS paying more than \$31 million within that time period across more than 3,000 claims. He explained that the team used nine different measures to identify the high-risk freestanding ER providers. He reported 11 freestanding ER providers were identified as high risk to TRS plan. Ms. Zhao said HIB is working with the plan administrator to address this issue.

B. Review of Internal Fundamental Public Equity Portfolio Operations – Syed Israr and K.J. Van Ackeren.

Mr. Syed Israr stated the audit was a review of portfolio activities in supporting operations surrounding the TRS IFM Portfolio operations over the fiscal years 2021 and 2022. He said the IFM Team manages over \$10 billion in global equities across developed and emerging markets contributing a little over 5 percent to the Trust. He reported the audit to be a good audit and that the IFM operations demonstrated sufficient processes and controls to accomplish the objectives set forth by the Board for the areas of the portfolio in compliance with the policies and procedures. He noted opportunities to improve alignment between a few processes and across teams were identified. He said the audit is recommending IFM to consult with Legal and Compliance regarding research provider agreements, closure of breach log alerts, and establishing procedures for minimum research documentation.

Mr. K.J. Van Ackeren provided management's agreement with the recommendations and that implementation will be over the coming quarters.

Mr. Moss announced without objection taking up Agenda Item 6D.

D. Follow-Up of Procurement Audit – Falguni Sampat and Martin Cano.

Ms. Jenami noted that the procurement follow-up audit covered the period October 2021 through July 2022. She said the process under review was comprised of four different sub-processes: procurement planning, procurement method determination, vendor selection, and contract formation and award. She was pleased to report that there has been significant improvement in the procurement process at TRS since the original audit, issued in March 2021. She said 67% of the recommendations, 12 out of 18, have been fully implemented and the remaining six are considered in progress or partially implemented.

Ms. Falguni Sampat reviewed the recommendations as related to compliance with procurement requirements such as enhancing the quality assurance reviews and then using the error information for targeted coaching.

Mr. Martin Cano stated management continues to develop and enhance the overall procurement process, effectiveness, and transparency.

E. Reporting Employer Testing Results – Amanda Jenami and Mark Chi.

Ms. Jenami stated this was not an audit but an agreed upon procedures project where Benefit Services requested performance of specific procedures to test the data submitted by reporting employers. She said the project reviewed data from a sample of five independent school districts for the entire fiscal year. The review focused on three areas i.e., accuracy of Census data, gross compensation, eligibility. The review of eligibility focused on potential for underreporting. She said there was nothing to report on gross compensation or the census data. She said there was an underreporting on eligibility. She said while 41 percent exception rate is high, it is not surprising for a targeted sample as this one. She stated that Internal Audit reported the results to Benefit Accounting staff who will work with the reporting employers to perform the necessary adjustments.

Mr. Mark Chi provided the management response. He said Benefit Accounting will contact the employers with the instructions to provide the necessary corrections no later than December 31st of this year.

F. Internal Audit Annual Report for Fiscal Year 2022 – Katie Linczer.

Ms. Katie Linczer stated that Internal Audit disseminated the Internal Audit Annual Report on November 1st in compliance with the Texas Internal Auditing Act. She said the report shows the value of the Internal Audit department and its contributions to TRS over the last year. Ms. Jenami provided a year in review for Internal Audit.

G. Status of prior audit and consulting recommendations – Amanda Jenami.

Ms. Jenami highlighted the progress that has been made on the prior recommendations mainly from the implementation of the Procurement Audit. She said there are now 53 pending when last quarter there were 71.

7. Discuss and 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.

Ms. Jenami reviewed the administrative report that stated as of the first quarter performance targets were on track to achieve the annual target.

Mr. Moss announced without objection taking up Agenda Item 6C.

C. Audit of Information Systems Inventory and Data Classification – Stephen Randall, Chris Cutler, and Frank Williams.

At 4:30 p.m., Mr. Moss announced the committee would go into executive session under the following agenda item and sections of the Government Code: Item 6 C, under Section 825.115(d), 551.076 and 551.089 to discuss the Audit of Information Systems Inventory and Data Classification, and under Section 551.071 to consult with legal counsel as needed.

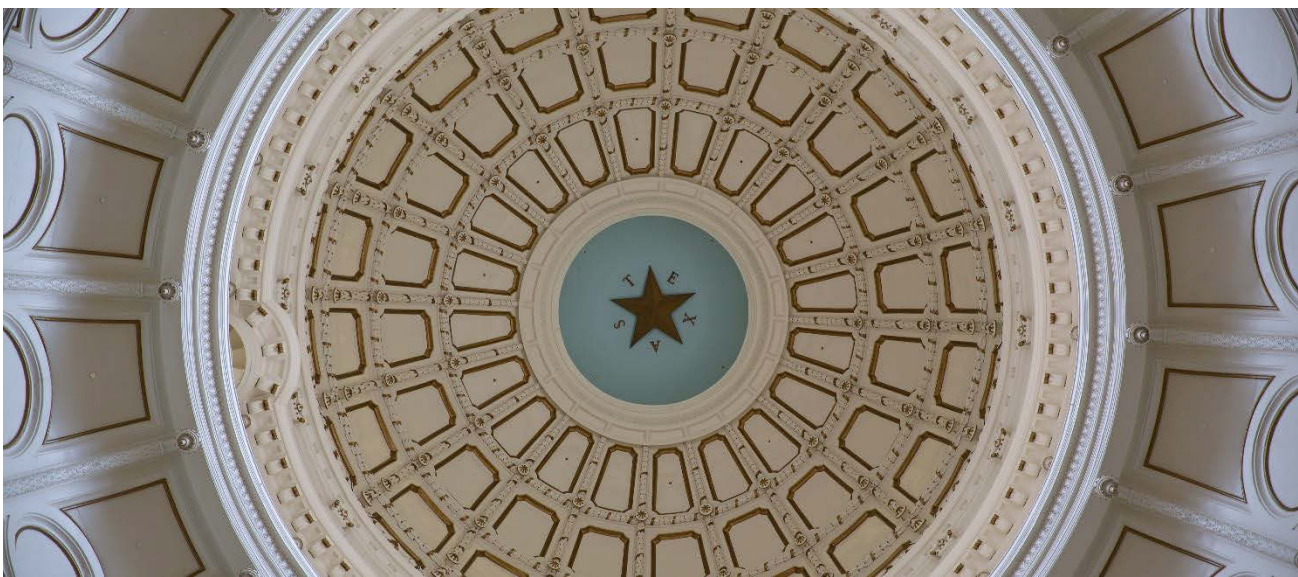
At 4:55 p.m. Mr. Moss reconvened the committee meeting.

With no further business before the Committee, the meeting adjourned at 4:55 p.m.

APPROVED BY THE AUDIT, COMPLIANCE AND ETHICS COMMITTEE OF THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE ____ DAY OF APRIL 2023.

Robert H. Walls, Jr.
Chair, Audit Compliance and Ethics Committee
Board of Trustees
Teacher Retirement Systems of Texas

Date



Internal Audit

Audit, Compliance & Ethics Committee Meeting

April 28, 2023



Audit, Compliance and Ethics Committee – CY 2023

Committee Workplan

Informative (Receive)

Pre-Action (Review)

Action (Consider)

February

April

May

July

September

December

N/A

Consider Revisions to the Annual Audit Plan for FY2023

Receive Compliance Reports

Receive Internal Audit Reports

Receive Administrative Reports

N/A

Receive Results of the Audit of TRS' Other Post-Employment Benefits (OPEB)

Receive Results of Audit of TRS' Employer Pension Liability Allocation Schedules

Receive Compliance Reports

Receive Internal Audit Reports

Receive Administrative Reports

Receive Presentation of Planned Audit of the Annual Comprehensive Financial Report (ACFR) for FY2023.

Receive Presentation on the Planned Financial Audit of TRICOT for FY2023.

Consider Proposed Revisions to the Internal Audit Charter
Consider Proposed Annual Audit Plan for FY2024

Receive Compliance Reports

Receive Internal Audit Reports

Receive Results of the Audit of TRS' ACFR for Year Ended August 31, 2023.

Receive Results of the Financial Audit of TRICOT for Fiscal Year ended August 31, 2023.

Receive Compliance Reports

Receive Internal Audit Annual Report for FY2023.

Receive Internal Audit Reports

Receive Administrative Reports

Schedule as of March 2023. Note: all committee schedules are subject to change

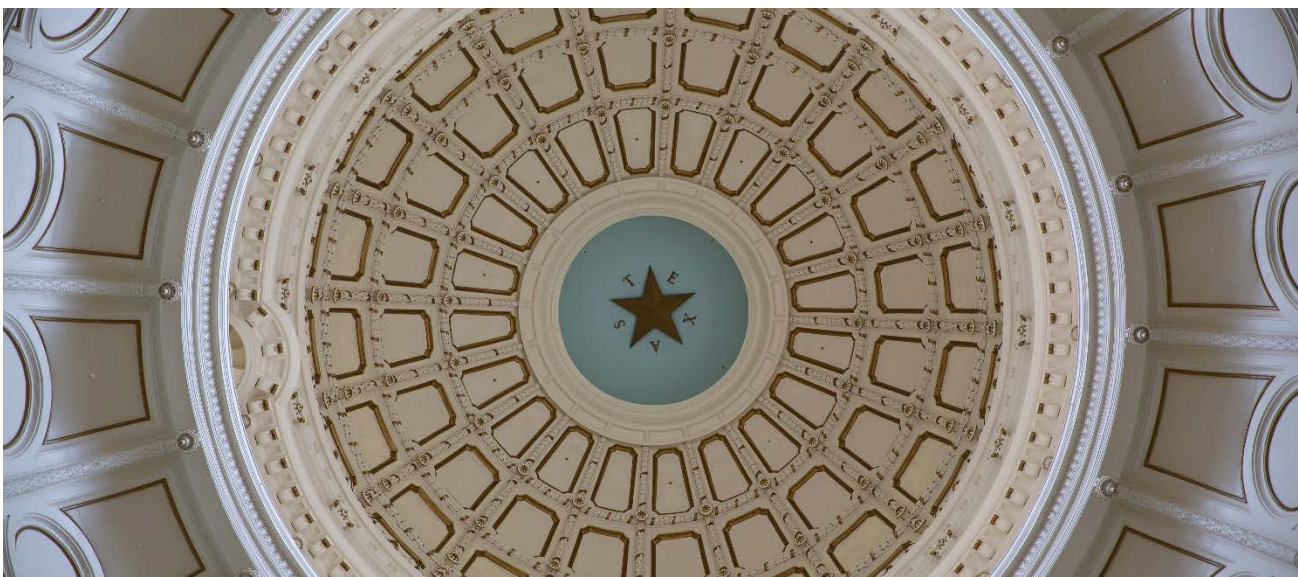
Fiscal Year 2023

Fiscal Year 2024



Internal Audit

Quarterly Compliance Testing



Heather Traeger & Chris Bowlin

April 28, 2023



Quarterly Investment Compliance Testing
Investment Policy Statement (IPS) and Securities Lending Policy (SLP)
Quarter ending December 31, 2022

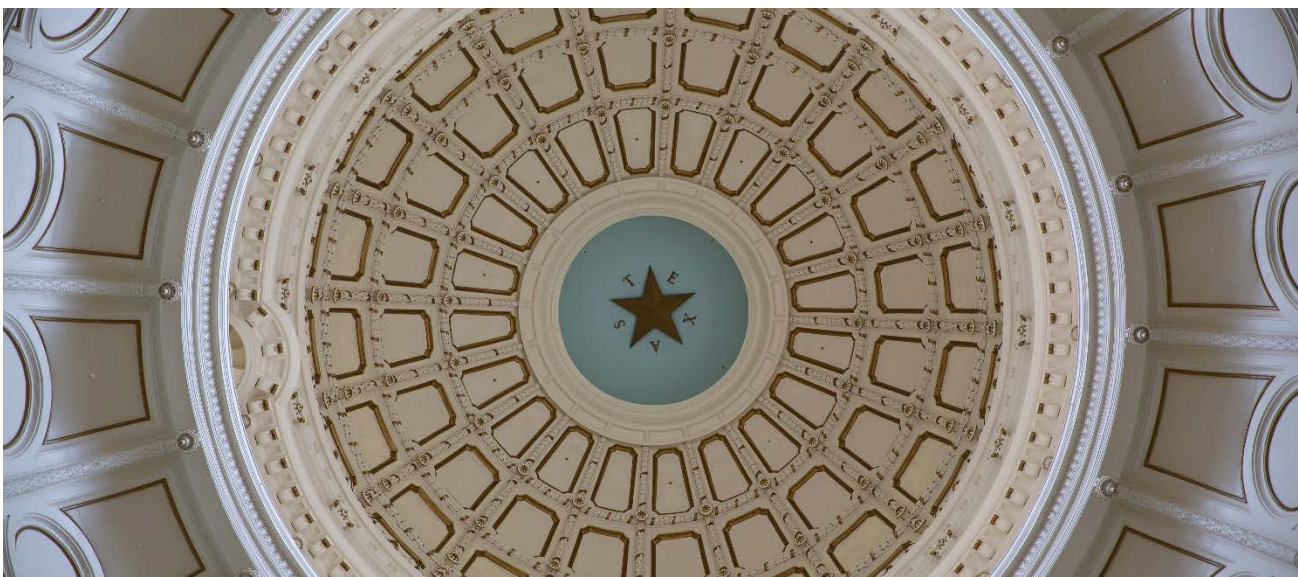
Procedures Performed	Test Results
<u>Business Objective 1: Board Reports</u> All required information is reported to the TRS Board of Trustees	
<ul style="list-style-type: none"> Obtain evidence that all requirements reported to Board of Trustees Trace sample information included in Board reports to supporting documentation 	<ul style="list-style-type: none"> All reporting requirements were met Documentation provided supported information tested
<u>Business Objective 2: Investment Selection and Approval</u> Investments made are within delegated limits and established selection criteria	
<ul style="list-style-type: none"> Obtain evidence that Investment Integrity Questionnaires (IIQs) were received prior to investing Obtain evidence that approved investments were within policy limits Obtain evidence that Restricted Securities lists updated and reports filed Obtain evidence that IMD evaluated hedge fund classification Obtain evidence that all board serving requirements are met. 	<ul style="list-style-type: none"> Each investment tested had a completed questionnaire prior to IIC date All investments made during the quarter were tested and found to be in compliance with approval limits All Restricted Securities Lists have been updated and reports filed. A hedge fund analysis was included in IIC materials (when required) for all investments tested All reporting requirements were met, and documentation provided supported information tested
<u>Business Objective 3: Other (IPS, SLP, other reporting)</u> Risk limits are followed for other investment and proxy voting policies and procedures were followed	
<ul style="list-style-type: none"> Obtain senior management disclosure about known compliance violations Obtain evidence that TRS securities lending program complied with the following guidelines 	<ul style="list-style-type: none"> Obtained quarterly compliance certification from IMD IIC and Legal No security lending violations were identified.

Legend: Significant to TRS Significant to Business Objectives Other Reportable Exception Positive Test Result/ No Exception



Internal Audit

Summary of New and OS Complaints



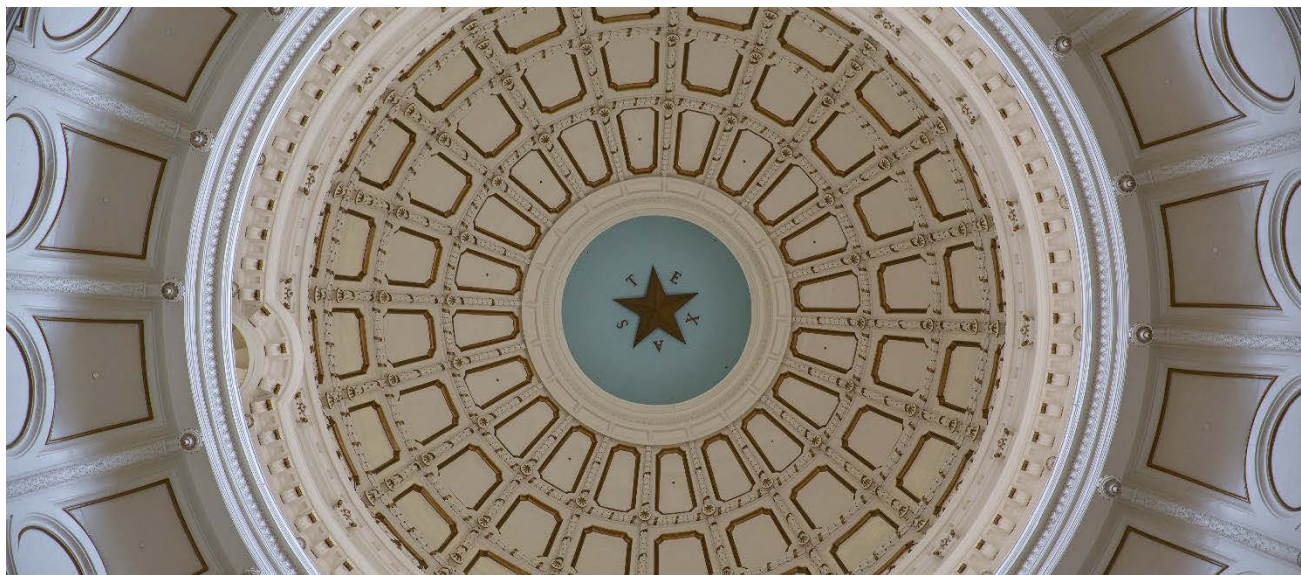
Heather Traeger & Chris Bowlin

April 28, 2023





Proposed Revisions to the Audit Plan For Fiscal Year 2023



Amanda Jenami, CPA, CISA, CIA,
CIDA, CFSA, CRMA, CFE

April 28, 2023



Consider recommending to the Board of Trustees proposed revisions to the Fiscal Year 2023 Audit Plan.

Background

Per the approved Fiscal Year 2023 Audit Plan, amendments to the approved Audit Plan deemed to be significant will be submitted to the Board of Trustees for approval. The State Auditor's Office also requires notification of material changes to the Audit Plan. Staff requests that the Audit, Compliance, and Ethics Committee approve the proposed amendments to the Fiscal Year 2023 Audit Plan and recommend that the Board of Trustees adopt the proposed revisions.









Risk Considerations

The Revised Audit Plan is designed to provide coverage of key risks, given the existing staff and approved budget.

Staff Recommendation

Staff requests that the Committee recommends to the Board of Trustees the following proposed revisions to the Fiscal Year 2023 Audit Plan.

Proposed Revisions to the Audit Plan for FY 2023

Project	Risk Level	Change	Reason	
Technology				
Audit of the Cybersecurity Incident Response Program		Defer to FY2024	Management needs six to nine months to develop and implement an action plan following a recent tabletop exercise. The action plan will include updating necessary policies and plans, and a review by an outside 3rd party.	
Audit of MyTRS		Add to FY2023	The audit would seek to determine whether the MyTRS application has adequate application controls to protect the confidentiality, integrity, and availability of member data.	
Pension Benefits and Reporting Employers				
Reporting Employer Testing (Agreed Upon Procedures)		Cancel	Internal Audit no longer has the resources to perform this project due to staff turnover. Management has since downgraded the ERM risk for this area.	
Risk Category Level – Threat to Achieving TRS Goal & Objectives				
 High	 Elevated	 Caution	 Guarded	 Low

Note: The proposed revisions reduce the number of audits originally approved for FY2023 by 5% (1 out of 19).

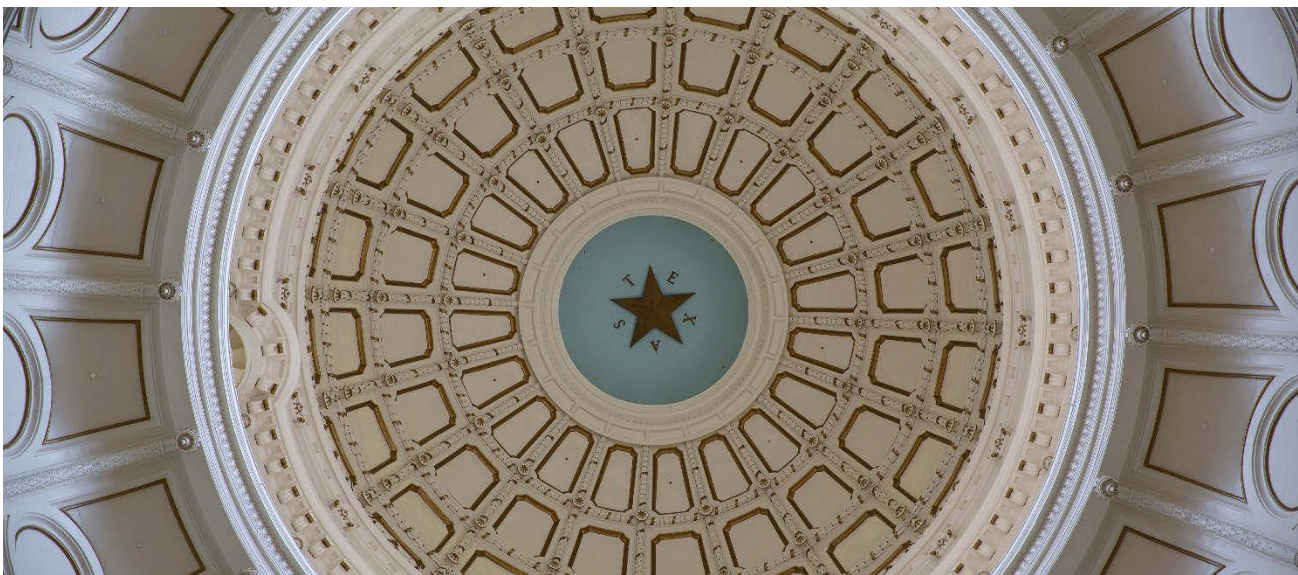
Note: The proposed revisions reduce the number of audits originally approved for FY2023 by 5% (1 out of 19).



Questions



Internal Audit Review of Private Equity Operations



Julie Toler and Neil Randall
April 28, 2023



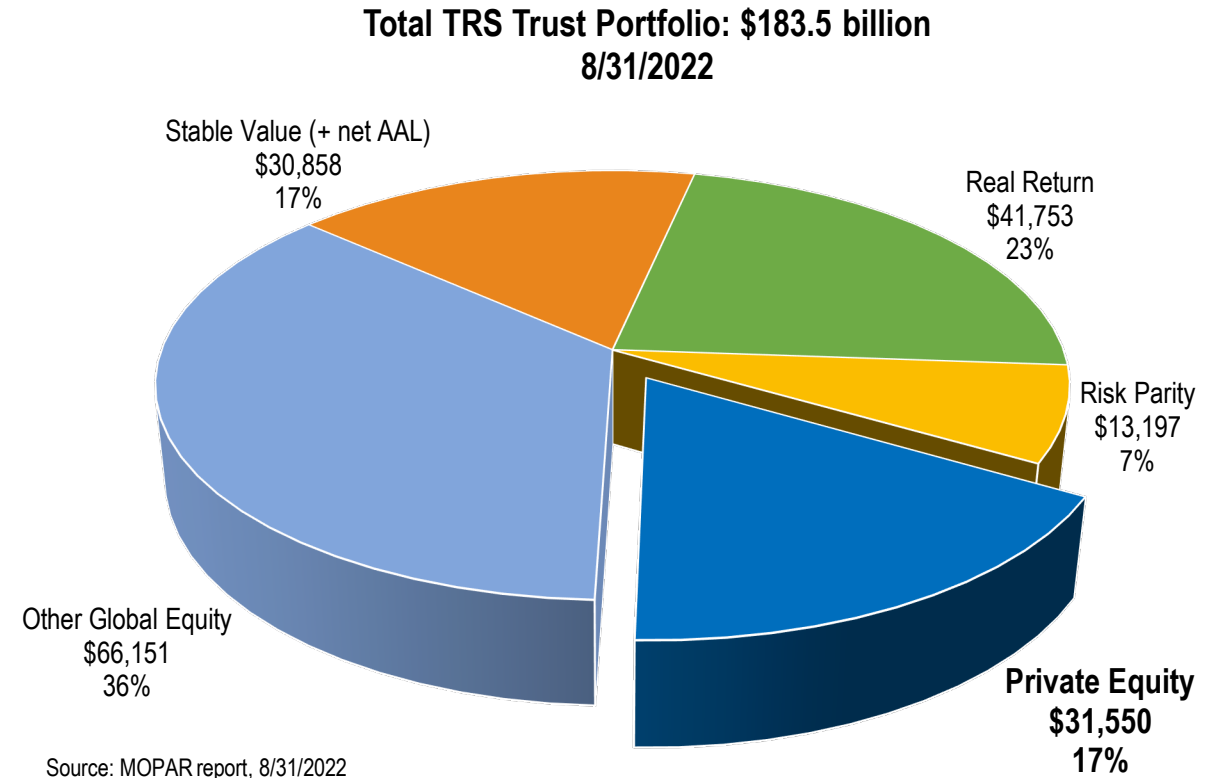


Private Equity Portfolio

- ✓ \$31.55 Billion
- ✓ 17% of Trust

Audit Scope

- ✓ September 2020 – December 2022
- ✓ Activities and reporting related to private equity portfolio management operations and controls





AUDIT CONCLUSION

The Teacher Retirement System's (TRS) private equity (PE) operations include sufficient controls to provide reasonable assurance that PE portfolio objectives are accomplished effectively, efficiently and in compliance with the TRS Investment Policy Statement and relevant procedures.

Key controls include:

- Investment Policy Statement
- Internal Investment Committee (IIC) & Private Equity Investment Committee (PEIC) guidelines & procedures
- Investment due diligence & monitoring procedures
- Annual capital planning activities
- Third party monitoring and validation of external manager fees

Private Equity Business Objectives:

1. Achieve TRS Board objectives for Trust portfolio exposure, investment performance & reporting transparency.
2. Develop and retain team talent and maintain operational procedures for robust and consistent investment diligence & oversight.

<u>Positive Results</u>	<u>Issues</u>	<u>Management Response</u>
<ul style="list-style-type: none">• New investment diligence & approval procedures• Monitoring & oversight of portfolio holdings• Annual capital planning activities• External manager fees oversight & transparency• Documentation of investment key business terms	<ul style="list-style-type: none">• N/A	<ul style="list-style-type: none">• N/A

Investment Audit Services Team



Julie Toler, CFA, CFP®, CIA, CRMA
Investment Audit Services Director



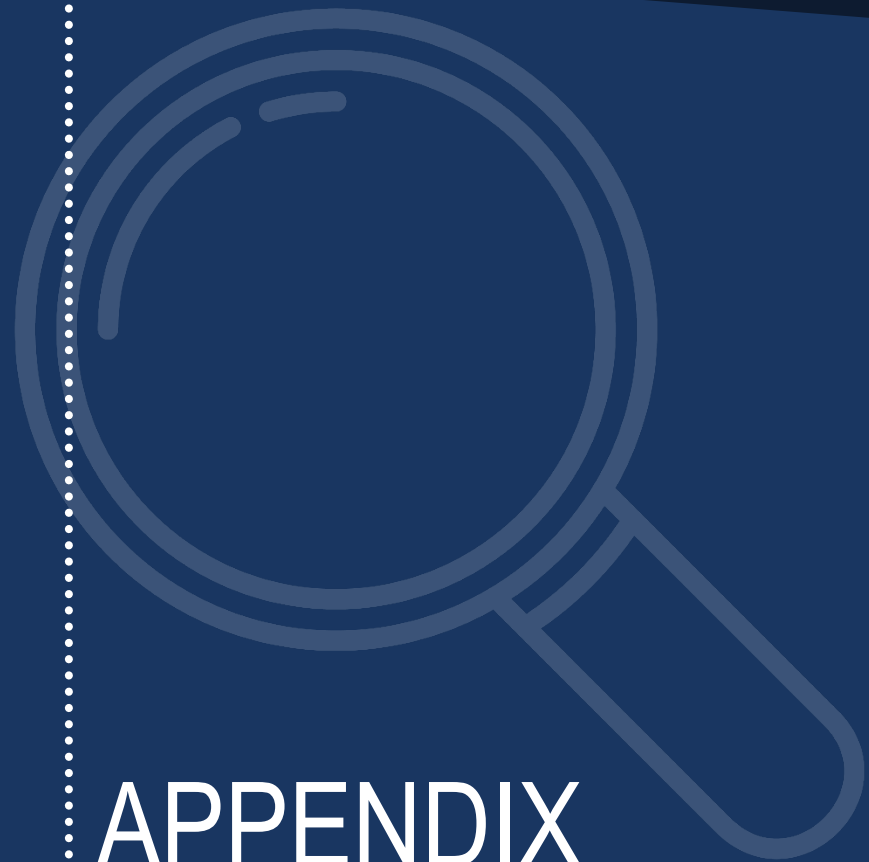
Syed Israr
Senior Investment Auditor



Nathan Ward
Senior Investment Auditor



Katie Linczer, CPA, CIA, CRMA
Senior Investment Auditor

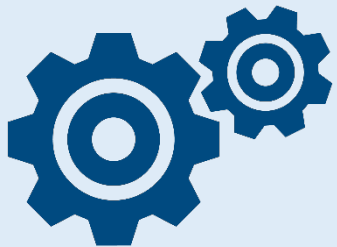


APPENDIX



AUDIT OBJECTIVE

Determine whether Private Equity portfolio operations include sufficient controls to ensure investments are made and managed effectively, efficiently and in compliance with relevant policies, guidelines and procedures.



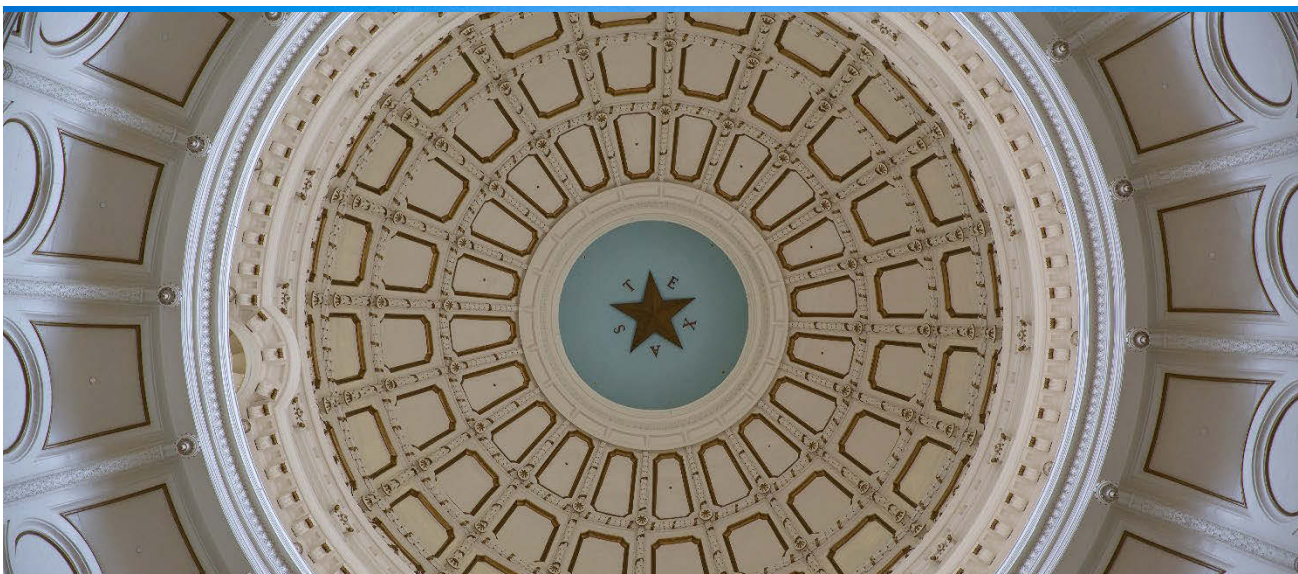
METHODOLOGY

- ✓ Identify key risks and controls
- ✓ Review Investment Policy Statement
- ✓ Interview management and staff
- ✓ Review TRS processes and documents
- ✓ Review data accuracy and integrity



AUDIT SCOPE

- ✓ September 2020 – December 2022
- ✓ Activities and reporting related to private equity portfolio operations



Internal Audit

Summary of Audit Recommendations As of March 28, 2023

Amanda Jenami, CPA, CIA,
CISA, CIDA, CFSA

April 28, 2023



Highlights

70

Recommendations
(Total)

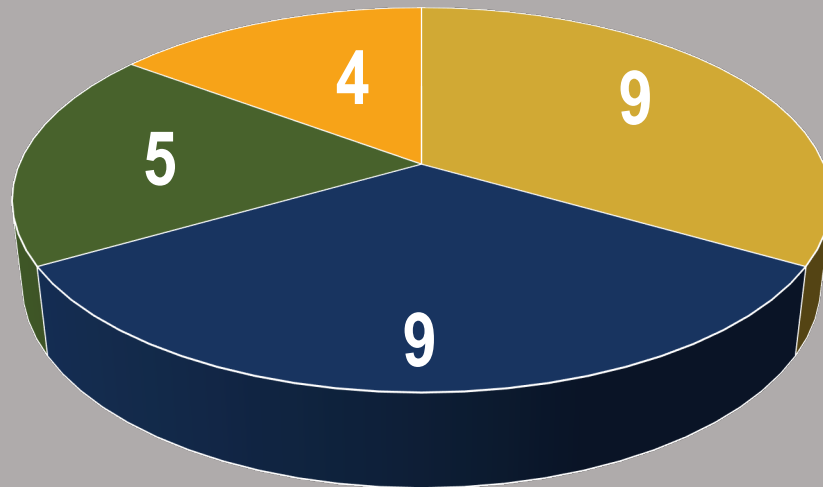
19

Audit Reports

47

Recommendations
rated significant

Ownership of Open Recommendations



Business Admin

IMD

IT

ISO

Implementation Status

27²⁻

Open

4⁴⁺

Closed

39¹⁵⁺

Implemented,
pending IA
validation

Age of Open Recommendations

24

1-12
months

3

13-24
months

0

25-36
months

0

37-48
months

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
19-601 Talent Management and Culture Audit					
2. Strengthen shared services alignment - (c) Performance metrics	Implemented	Significant	4/2019	12/2020	5/2022
20-104 Review of Collections					
1.1 Strengthen death claim-related collection process	Implemented	Significant	7/2020	8/2020	11/2020
1.2 Develop procedures for death claim-related payments and update death notification procedures	Implemented	Significant	7/2020	3/2020	8/2020
1.3 Document and implement procedures for writing off post-death overpayments	Implemented	Significant	7/2020	3/2020	12/2020
2.1.1 Identify and pursue all forfeited annual payment collections	Implemented	Other Reportable	7/2020	8/2020	12/2022

Significant to Business Objectives		Other Reportable	
	<ul style="list-style-type: none"> Past original estimated completion date, and No management action plan or No progress on management action plan 		<ul style="list-style-type: none"> Past first revised estimated completion date No management action plan or No progress on management action plan
	<ul style="list-style-type: none"> Past original estimated completion date Progress on management action plan 		<ul style="list-style-type: none"> Past first revised estimated completion date Progress on management action plan
	<ul style="list-style-type: none"> Original estimated completion date has not changed Progress on management action plan 		<ul style="list-style-type: none"> Within original or first revised estimated completion date Progress on management action plan
	<ul style="list-style-type: none"> Satisfactory implementation of management action plan or Acceptance of risk by management 		<ul style="list-style-type: none"> Satisfactory implementation of management action plan or Acceptance of risk by management
	<ul style="list-style-type: none"> Implementation of management action plan pending Internal Audit validation 		<ul style="list-style-type: none"> Implementation of management action plan pending Internal Audit validation

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
20-105 Review of 1099-R Processes					
1.1 Identify and implement improvements to address system defects	Implemented	Significant	10/2020	9/2021	12/2021
2.2 Strengthen controls for oversight of vendor performance	Implemented	Significant	10/2020	12/2020	12/2020
20-401 Review of Accounting Operations					
3.1.i Accrual and Reporting Accuracy: ACFR - Receivables	Implemented	Significant	7/2020	9/2020	3/2021
3.1.ii Accrual and Reporting Accuracy: ACFR - Payables	Implemented	Significant	7/2020	9/2020	3/2021
21-202 Review of Contract Oversight (HIB)					
1.1 Strengthen contract monitoring efforts	Implemented	Significant	9/2021	2/2023	2/2023
1.2 Assist contract managers in setting up PAVES deliverables	Implemented	Significant	9/2021	10/2021	10/2021
1.3 Strengthen invoice review processes	Implemented	Significant	9/2021	2/2023	2/2023
1.4 Develop and implement contract monitoring procedures	Implemented	Other Reportable	9/2021	2/2023	2/2023
1.5 Establish and implement criteria for using SOWs	Implemented	Significant	9/2021	2/2023	2/2023
2.1 Strengthen change control processes	Implemented	Significant	9/2021	2/2023	2/2023

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
2.2 Ensure sufficient involvement of P&C	Implemented	Significant	9/2021	2/2023	2/2023
3.1 Complete risk assessments for executed contracts	Implemented	Significant	9/2021	2/2023	2/2023
3.2 Document the risk assessment process	Implemented	Significant	8/2021	2/2023	2/2023
21-304 Review of Personal Trading					
2.1.1 Opportunity to Enhance StarCompliance Security	Implemented	Other Reportable	11/2021	12/2022	12/2022
21-401 Review of Procurement					
1.1.2 Associate IMD-funded payments with contracts	Implemented	Significant	11/2020	9/2021	9/2021
1.1.3 Identify and address IMD contracts with unknown values	Implemented	Significant	11/2020	9/2021	9/2021
21-402 Review of the HUB Program					
1.1 Implement a TRS HUB Policy	Implemented	Significant	5/2021	9/2021	9/2021
1.2 Finalize the HUB Program Manual	Implemented	Significant	5/2021	9/2021	9/2021
1.3 Develop a HUB Strategic Plan	Implemented	Significant	5/2021	9/2021	9/2021
1.4 Implement documentation, tracking, and effective reviews of outreach activities	Implemented	Significant	5/2021	9/2021	9/2021
1.5 Implement HUB Program tools for TRS staff	Implemented	Significant	5/2021	12/2021	12/2021

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
1.6 Increase the number of HUB Vendor Outreach tools	Implemented	Significant	5/2021	9/2021	9/2021
1.7 Increase the HUB Program resources	Implemented	Significant	5/2021	9/2021	9/2021
1.8 Enhance the TRS HUB Webpage	Implemented	Significant	5/2021	9/2021	9/2021
22-302 Review of Strategic Asset Allocation Procedures and Governance					
1.4.1 Alignment with SAA target allocations	In Progress	Other Reportable	6/2022	12/2024	
22-303 Review of Investment Performance Measurement					
1.1.1 Internal Control Assurance for Third-Party Service Provider	In Progress	Other Reportable	8/2022	8/2022	5/2023
2.2.2 Reliance on Excel Workbooks / Scalability	In Progress	Other Reportable	8/2022	8/2023	
22-304 Review of Internal Fundamental Public Equity Portfolio Operations					
2.1.1 Consultation between Legal & Compliance and IFM	In Progress	Other Reportable	1/2023	9/2023	
2.2.1 Compliance of monitoring alert resolution with IPMA Compliance Testing Procedure	In Progress	Other Reportable	1/2023	6/2023	
2.3.1 Establish research documentation criteria	In Progress	Other Reportable	1/2023	6/2023	
22-401 Review of Records Management					
1.1 Assist business units in weighing benefits against risks of longer retention timeframe	In Progress	Other Reportable	6/2022	2/2023	2/2024

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
1.2 Require written justification and executive management approval for longer retention timeframes	In Progress	Other Reportable	6/2022	2/2023	2/2024
3.1 Continue efforts to implement record management automated features	In Progress	Other Reportable	6/2022	3/2023	1/2024
3.2 Include shared and personal drives to Microsoft project	In Progress	Other Reportable	6/2022	5/2023	
22-402 Follow-Up of Procurement Audit					
1.2.1 Implement enhancement feature to tie IMD payments to their relevant contracts	In Progress	Other Reportable	11/2022	9/2023	
1.2.2 P&C management should separate invoice creation from the review and approval steps within PAVES	In Progress	Other Reportable	11/2022	9/2023	
1.2.3 P&C management should implement enhancements to limit the number of instances users have to manually enter data in key fields	In Progress	Other Reportable	11/2022	9/2024	
1.2.4 P&C management should improve quality assurance reviews to ensure accuracy and completeness of data.	In Progress	Other Reportable	11/2022	9/2023	
2.1 TRS management should assist P&C in bringing a cultural shift to comply with P&C's lead times	In Progress	Other Reportable	11/2022	9/2023	
22-502 IT Contract Oversight					
1.1 Implement contract monitoring policies and procedures	Implemented	Significant	1/2023	2/2023	1/2023
1.2 Align contract monitoring efforts with key contract requirements	Implemented	Significant	1/2023	2/2023	2/2023
1.3 Strengthen invoice review processes	Implemented	Significant	1/2023	2/2023	2/2023
2.1 Enhance and document the risk assessment process	Implemented	Other Reportable	1/2023	2/2023	2/2023

**TRS Internal Audit
Summary of Audit Recommendations Status
As of March 28, 2023**

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
2.2 Perform risk assessment for executed contracts	Implemented	Significant	1/2023	2/2023	2/2023



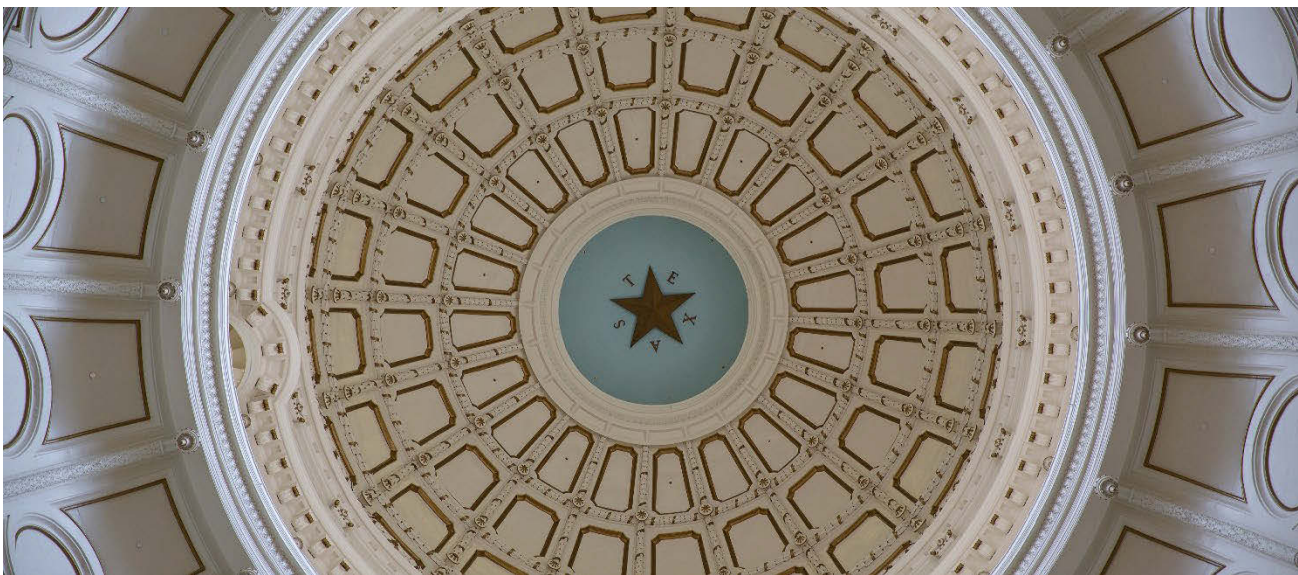
Review of Dependent Eligibility for TRS-Care

CONFIDENTIAL

Amanda Jenami and Monica Bernal

April 28, 2023





Audit of Malware Protection and Ransomware Readiness

CONFIDENTIAL

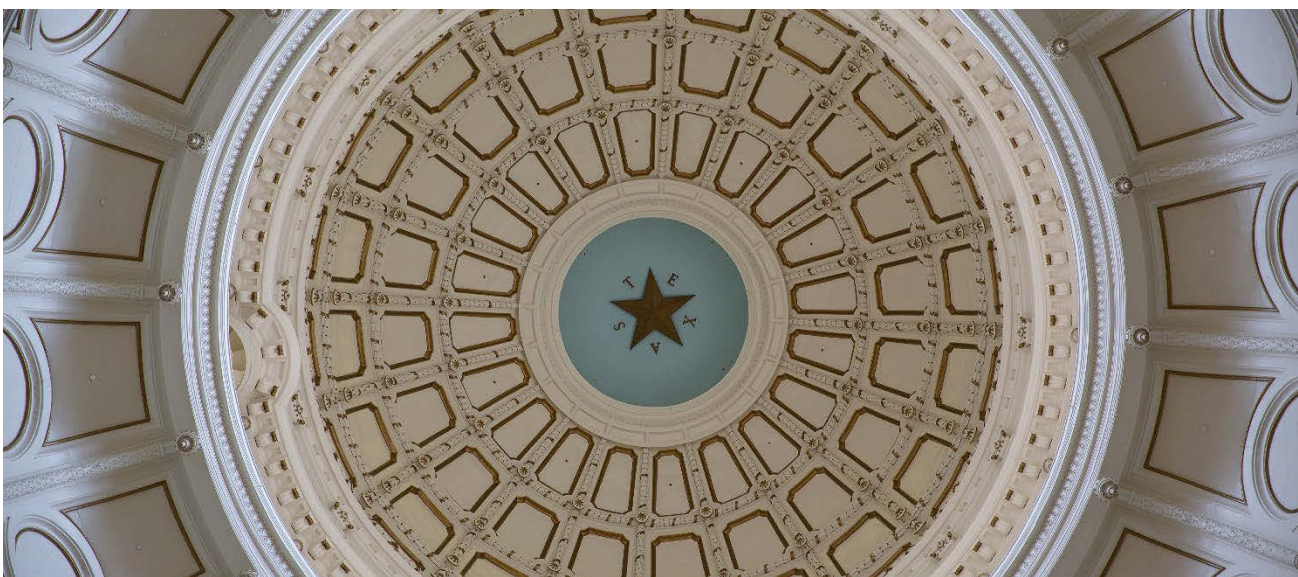
Stephen Randall and Kristi Glasgall

April 28, 2023






Internal Audit Administrative Reports 2nd Quarter 2023



Amanda Jenami, CPA, CIA, CISA, CFE,
CGAP, CRMA

April 28, 2023





Internal Audit Performance Measures 2nd Quarter 2023

FY2023 Strategic Plan

Goal 1: Provide assurance to the Board of Trustees and Senior Management (3 KPIs)

Goal 2: Serve as trusted advisor to the Board of Trustees and Management (4 KPIs)

Goal 3: Attract, develop and retain diverse and outstanding talent (7 KPIs)

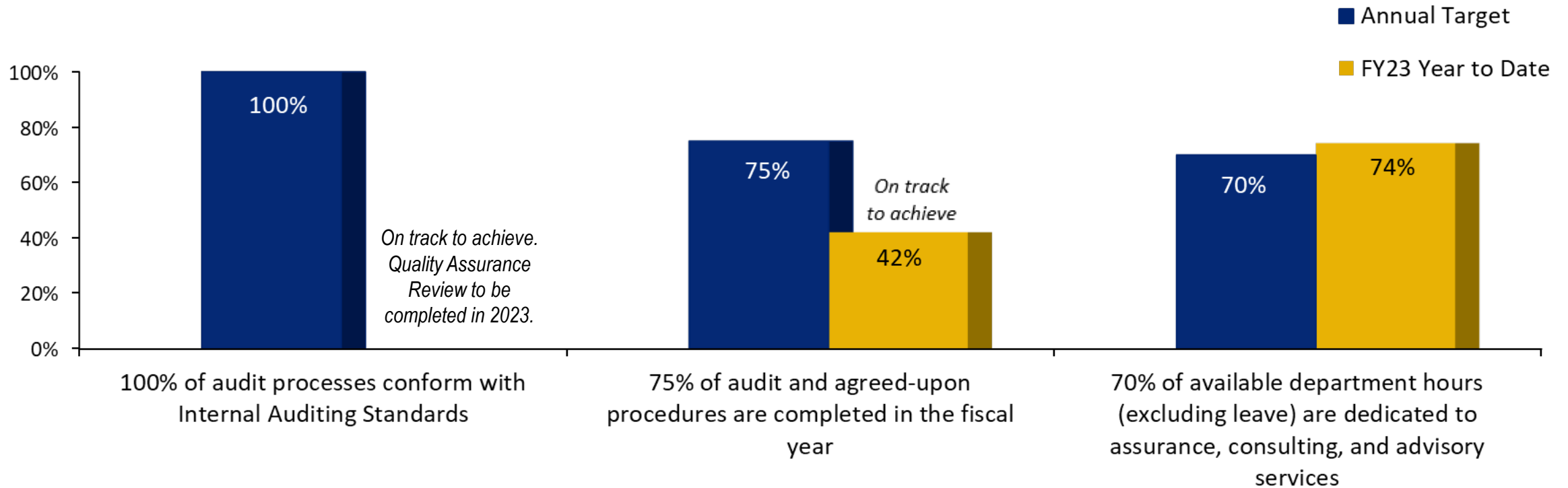
Goal 4: Leverage technology (1 KPI)

FY2023 Key Performance Indicators (KPIs)

Internal Audit either exceeded or was on track to achieve 100% (15 out of 15) of its annual performance targets in the first quarter.

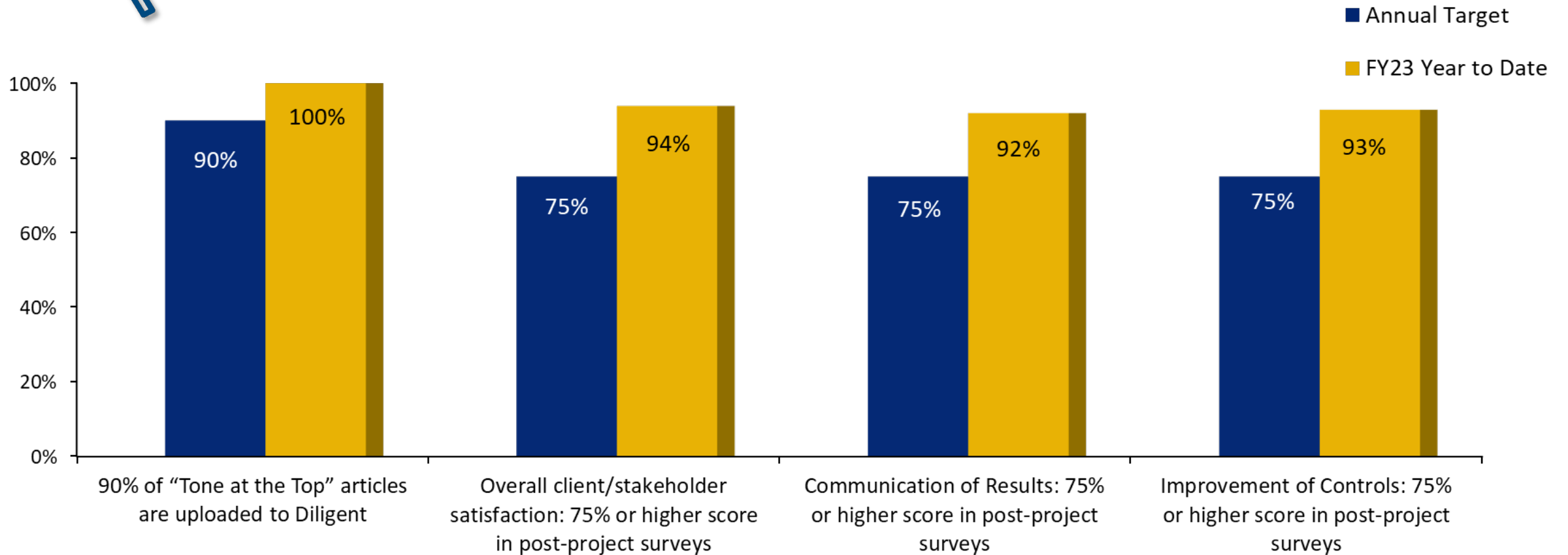


Goal 1: Provide Assurance to the Board of Trustees & Senior Management



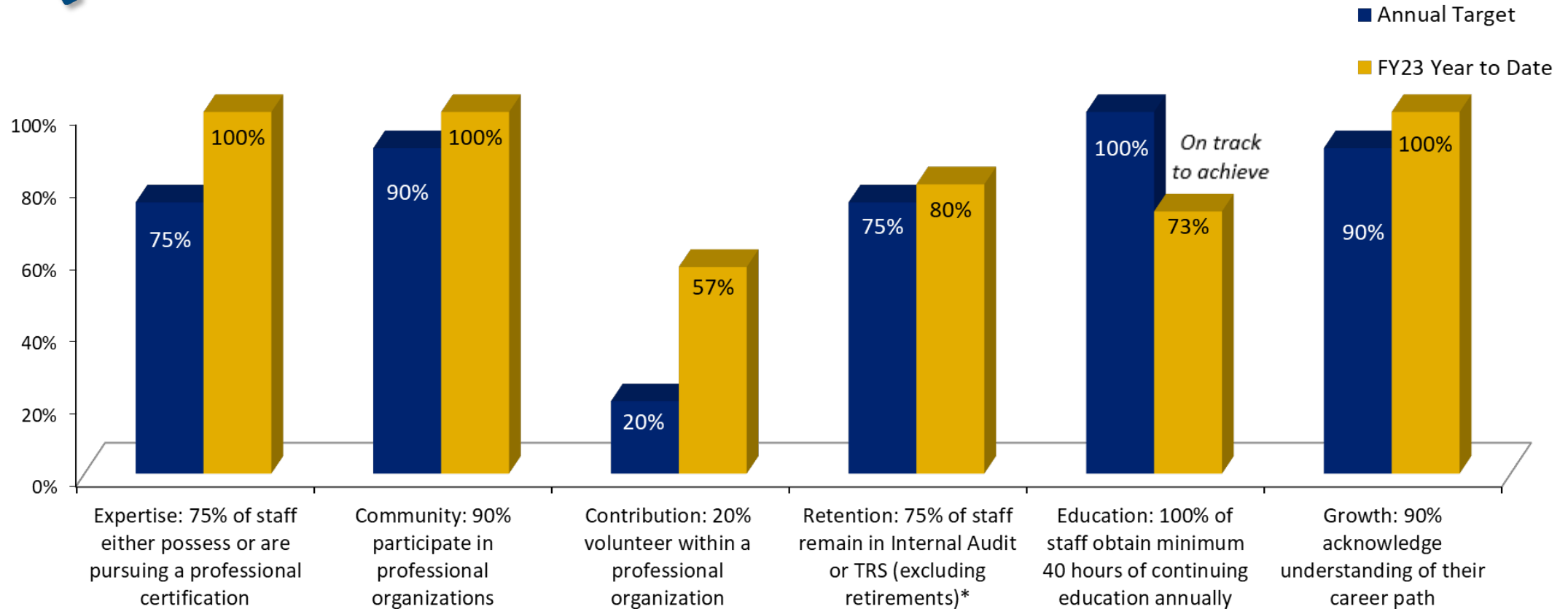


Goal 2: Serve as trusted advisor to the Board of Trustees & Management



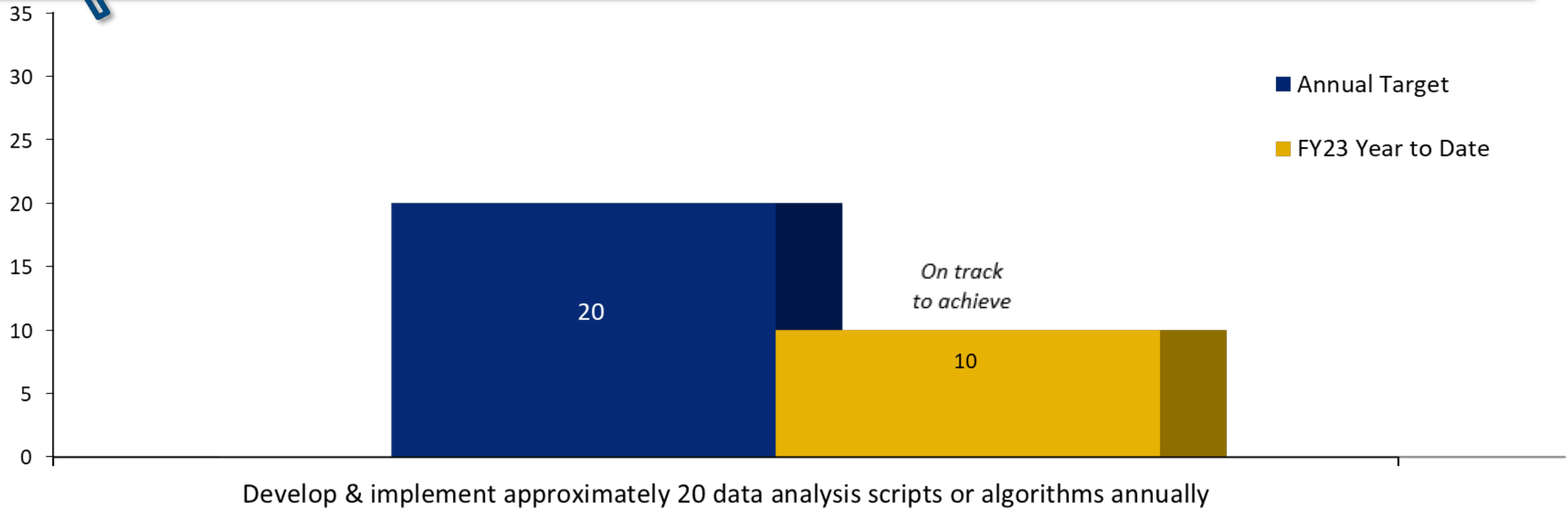


Goal 3: Attract, develop & retain diverse & outstanding talent





Goal 4: Leverage Technology





Advisory Services FY2023

Internal Audit Advisory Services

EXECUTIVE

- Facilitated external audits of the Annual Comprehensive Financial Report and TRICOT Annual Financial Report
- Served on the Risk Oversight Committee
- Served on the ERM Maturity Project Team
- Served on the Enterprise Data Governance Council
- Participated in Enterprise Projects Oversight Committee (EPOC)

INVESTMENT MANAGEMENT DIVISION (IMD)

- Attended Internal Investment Committee (IIC) meetings
- Attended monthly Securities Lending monitoring calls
- Held quarterly collaboration meetings with Investment Compliance and Investment Risk
- Held quarterly collaboration meetings with IMD management

INFORMATION TECHNOLOGY

- Attended Information Security Advisory Team (ISAT) meetings
- Attended Change Management Team (CMT) meetings
- Coordinated IPA (TEAM) activities
- Held collaboration meetings with Chief Information Officer (CIO) and Chief Information Security Officer

BENEFIT SERVICES

- Attended Quarterly Employer Advisory Group meetings
- Performed RE data integrity tests via data analytics

FINANCIAL SERVICES

- Performed independent testing and reconciliation of wire activity

HEALTH INSURANCE BENEFITS (HIB)

- Performed independent TEAM testing and reconciliation



Staff Highlights

New Team Member

Jonathan O'Reilly **Director of Business Intelligence**

Jonathan brings over 11 years of state government and private sector experience. Prior to joining TRS, he worked for Care.com, BCBS of Texas and the HHSC Inspector General leading data analytics initiatives for internal and external stakeholders.

Jonathan is an Advanced SAS Certified Programmer and holds a Master of Arts in Social Science from the University of Chicago and a Bachelor of Science from Texas A&M University.





Questions?