

May 2024

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 May 3, 2024, 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 May 3, 2024, 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

May 3, 2024 – 8:00 a.m.

1. Call roll of Committee members.
2. Approve minutes of December 2023 Audit, Compliance and Ethics Committee meeting
– Mr. Robert Walls, Chair.
3. Receive an overview of the Audit, Compliance and Ethics Committee's Calendar Year 2024 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 2024 Audit Plan – Amanda Jenami.
6. Discuss the use of Integrated Auditing for improved efficiency and enhanced audit coverage
– Amanda Jenami.
7. Receive Internal Audit reports:
 - A. Review of Mult-Asset Trade Operations – Katie Linczer and Kerry Skehan
 - B. Status of Prior Audit Recommendations – Amanda Jenami
 - C. Review of Pension Fund Processes – Tammie Wells, Netza Gonzalez, Chad Nichols, Chris Cutler and Frank Williams
 - D. Audit of Vulnerability Remediation and Patch Management – Brian Browder, Chris Cutler and Frank Williams
8. 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 7, 2023

The Audit, Compliance and Ethics Committee of the Board of Trustees of the Teacher Retirement System of Texas met on December 7, 2023, 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. Robert H. Walls, Jr., Chair
Ms. Brittny Allred
Mr. Michael Ball
Ms. Nanette Sissney
Mr. Elvis Williams

The following Committee member attended virtually:

Other TRS Board Members Present:

Mr. David Corpus
Mr. John Elliott
Mr. Jarvis V. Hollingsworth
Mr. James D. Nance

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	
Elena Barreiro, TRS	
Syed Israr, TRS	
Jaime Llano, TRS	
Jonathan O'Reilly, TRS	
Yimei Zhao, TRS	
Tammie Wells, TRS	
Katherine Farrell, TRS	
Suzanne Dugan, Cohen Milstein	

Audit, Compliance and Ethics Committee Chair, Mr. Robert H. Walls, Jr., called the meeting to order at 3:43 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 2023 committee meeting – Chair Robert H. Walls, Jr.

On a motion by Mr. Ball, seconded by Mr. Williams, the committee unanimously voted to approve the proposed minutes for the September 2023 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, 2023 – Bill Hunter and Hillary Eckford, SAO.

Mr. Bill Hunter with the State Auditor's Office provided the results of the financial statement opinion audit for the TRS ACFR as materially accurate. He said the opinion on the matter was unmodified, meaning there was no significant or material deficiencies in the work; the financial statements were prepared accurately. He emphasized two items. The first, he said was that the opinion on the financial statements are specific to TRS and not the State of Texas. The second item, he said, was that the value of alternative investment holdings at \$103.4 billion was based on an estimate. He also noted that the State Auditor's Office's Report on Internal Controls did not identify any material or significant deficiencies.

4. Receive Crowe LLP's report of the financial audit of TRS Investment Company (TRICOT) for fiscal year ended August 31, 2023 – Kevin W. Smith and Michelle Buss, Crowe LLP

Mr. Kevin Smith stated that an unmodified opinion was issued. He noted this is the highest level of assurance that can be provided, and that it means that the financial statements were prepared in accordance with generally accepted accounting principles, as well supported by the underlying books and records. He reported on the Emphasis of Matter to alert the reader that the audit was only of TRICOT, and not of TRS. He concluded by stating the audit did not note any material weaknesses or significant deficiencies.

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 integrity questionnaires, the proxy voting policy, and Investment Policy Statement. He confirmed that requirements were being met with one reportable exception which related to a direct owner of shares listed on the Comptroller's divestment list as a result of an oversight in the manager's process. He said the compliance system detected the holding the next day and the manager immediately reversed the trade resulting in no cost or penalty to TRS.

Ms. Traeger reported two Hotline complaints that were previously reported on were investigated, remedial action taken and are now concluded. She reported there were six 541(e)s conflicts. She said all have been addressed. Ms. Traeger concluded with a review of the Investment Compliance team activities of Compliance.

6. Receive Internal Audit reports:

A. Review of Investment Trading Operations – Syed Israr and Jaime Llano.

Mr. Syed Israr provided the audit review of trading operations over the last two years. He said the trading at TRS is carried out by two distinguished groups the trading group led by Jaime Llano and the FIC group led by James Nield. He reported that this was a good audit. The audit found that reasonable controls were in place for the trading operations to conduct business effectively and efficiently. Mr. Israr reviewed recommendations that were for incremental enhancement regarding the two business objectives.

Mr. Jamie Llano provided management's response. He said management agreed with the recommendations and was already implementing within the next twelve months.

B. Review of Insulin Cost-Sharing Benefits – Jonathan O'Reilly and Yimei Zhao.

Mr. Jonathan O'Reilly provided the results of the audit review of insulin cost-sharing benefits following Senate Bill 827. He reviewed the two requirements. The first requirement being the formulary must include at least one insulin from each therapeutic class. The second was the limit on cost sharing, members should pay no more than \$25 for a 30-day supply of insulin. He said they tested all available claims, roughly 67,000 claims totaling \$50 million stretching across 8,000 members who received insulin. He reported that TRS met the formulary requirement for both Care and ActiveCare programs. He said the cost sharing limits requirement was met 95 percent of the time, while 5 percent of the claims involved overpayments by the members. He said this affected about 1,200 members and total member risk was approximately \$270,000. He stated that the audit recommendation was for the Health Division to work with the pharmacy carrier to rectify the overpayments.

Ms. Yimei Zhao provided management's agreement with the recommendations and is working to process the refund right away with its vendor at the time CareMark. She said they are working with the new vendor, ESI, to ensure the co-pay is collected correctly going forward.

C. Internal Audit Quality Assurance Improvement Program (QAIP) Self-Assessment – Tammie Wells.

Ms. Amanda Jenami stated the professional internal auditing standards require the Chief Audit Executive to confirm to the ACE Committee, at least annually, the organizational independence of the Internal Audit function as well as the conformance to professional standards, including IIA's Code of Ethics. She reported the memo submitted to the Committee confirms that in all matters relating to Internal Audit's work, the staff was free from personal, external and organization impairments to independence. She also stated the standards require the Chief Audit Executive to communicate the results of the QAIP to the Committee. She said this year's review was performed by Ms. Tammie Wells.

Ms. Wells stated she selected three audits from the fiscal year 2023 Audit Plan to review to determine if the Internal Audit Division followed professional auditing standards and other

applicable requirements. She reported that TRS Internal Audit generally conforms with the requirements of professional auditing standards and other related requirements, which is the highest rating. She reviewed the opportunities to enhance Internal Audit's practices which included continued training for staff, further strengthening documentation and updating procedures and templates to better clarify management expectations and requirements.

D. Internal Audit Annual Report for Fiscal Year 2023 – Katie Linczer.

Ms. Jenami stated the annual Internal Audit Report was disseminated in November in compliance with the Texas Internal Auditing Act. She said the report shows the value of Internal Audit and its contributions to TRS over the last year and the projects we plan to perform in 2024.

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

Ms. Jenami highlighted that management continues to implement recommendations, as shown by the decrease in pending recommendations by 14.

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 – Robert H. Walls, Jr., Amanda Jenami and Heather Traeger.

Ms. Jenami reviewed the report that stated as of the first quarter performance targets were on track to achieve the annual target. She concluded by reviewing staff accomplishments for the quarter.

With no further business before the Committee, the meeting adjourned at 4:50 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 MAY 2024.

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 / May 3, 2024**



Audit, Compliance and Ethics Committee – CY 2024

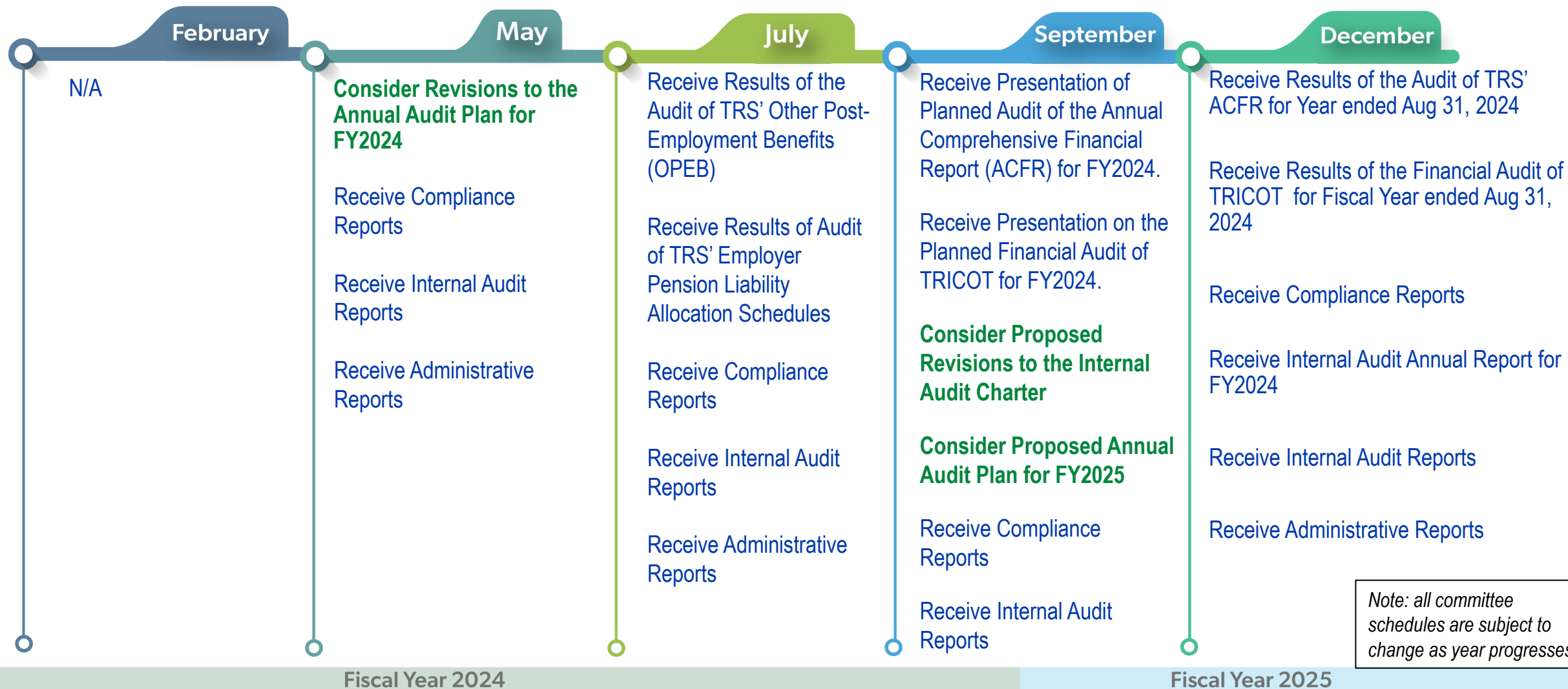
Committee Workplan

Schedule as of April 2024

Informative (Receive)

Pre-Action (Review)

Action (Consider)
*Approved by committee only





Internal Audit

Presentation Date: May 3, 2024

Presented By: **Heather Traeger & Chris Bowlin**



Quarterly Investment Compliance Testing
Investment Policy Statement (IPS) and Securities Lending Policy (SLP)
Quarter ending December 31, 2023

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"> The disclosure of a violation related to an IIQ not being updated prior to authorization and closing For Private and Public Markets investments tested, no manager or partner organization exceeded the authorized limits and verified term sheet calculations with manager exposure file 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



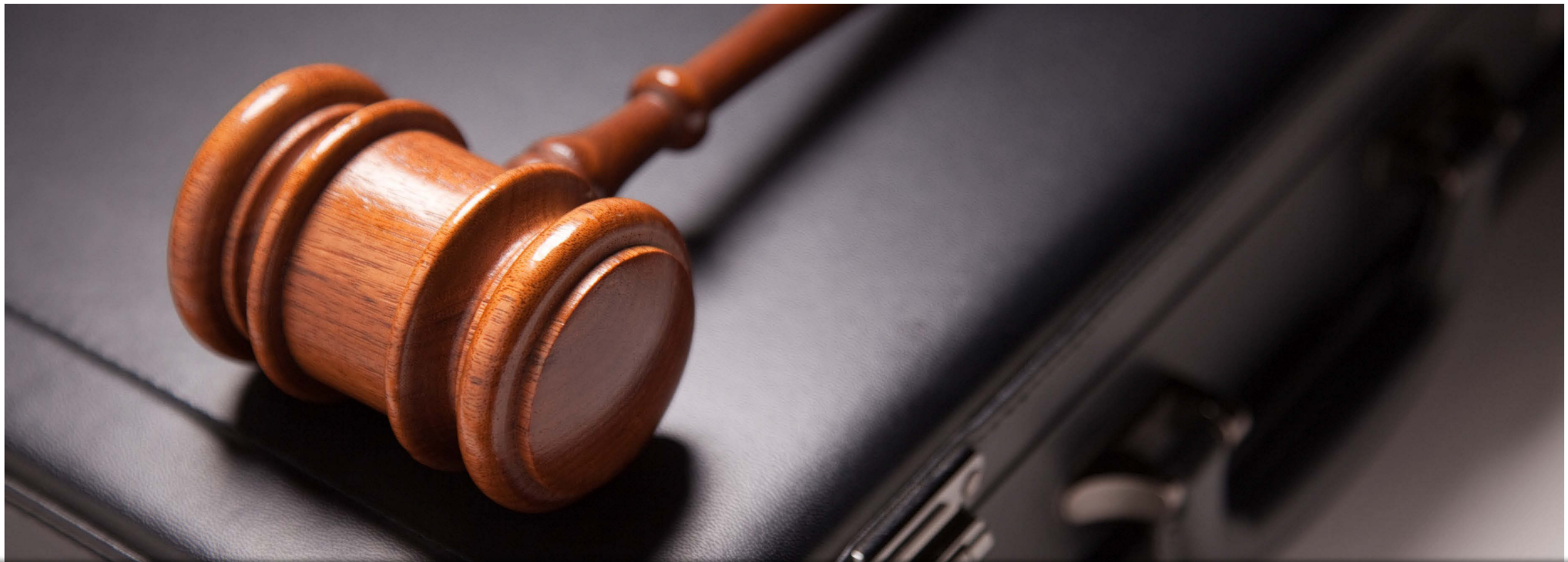
Significant to Business Objectives



Other Reportable Exception



Positive Test Result/ No Exception



TRS Compliance & Ethics Overview: Investment Perspective (Part 2)

May 3, 2024

Presented By:

Chris Bowlin, Carlos Montoya, Adam Costa



Investment Compliance Overview – Recap



- Compliance Systems
- Data Management Matters
- New regulatory, statutory or policy requirements
- Investment Policy Rules and Breach Alerts
 - Internal Portfolio (Pre-trade) Monitoring
 - Investment Holdings (Post-trade) Monitoring
 - Holdings Reports and Regulatory Filings
- External Manager & Counterparty Inquiries
- Operational Due Diligence (ODD)
- Investment Integrity Policy & Questionnaire
- Investment Compliance Testing



Investment Compliance Risk Mitigation Framework

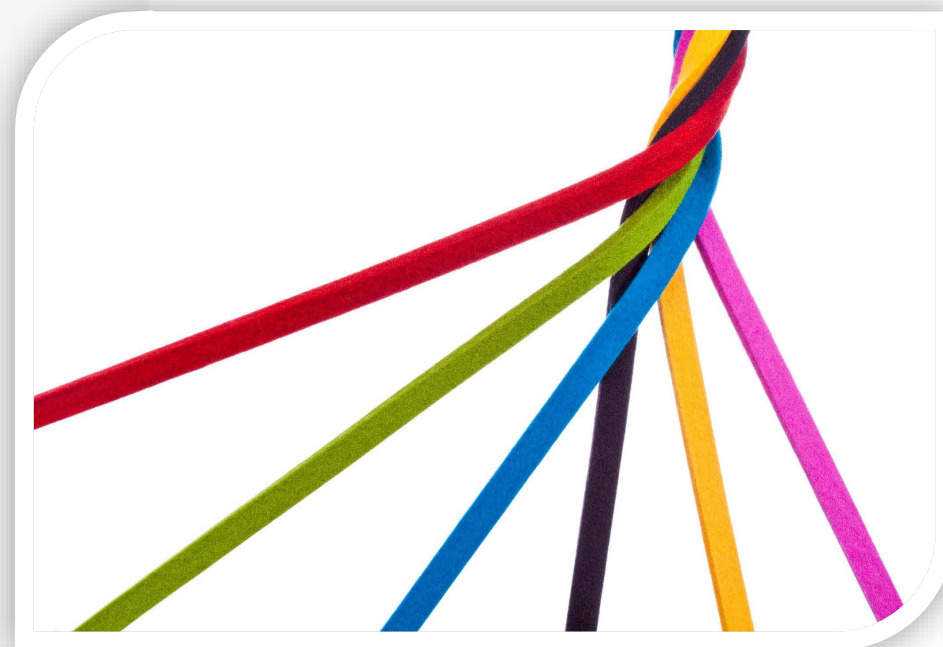




Why MNPI matters to TRS?



- Material Non-Public Information (MNPI)
 - Information that is not generally available to the public that a reasonable investor may consider important to make an investment decision.
- Examples
 - Internal trading
 - Due diligence for investments
 - Contracting or procurement
- Role of Compliance
 - Establish and monitor standards and procedures
 - Procedures must be reasonably designed to ensure adherence to applicable laws
- Risk mitigation / consequences





Recent Enforcement Headlines



SEC Charges Former Indiana Congressman with Insider Trading

SEC Charges Former Pfizer Statistician with Insider Trading Ahead of COVID-19 Announcement

SEC Charges Investment Adviser for Policies and Procedures Failures

SEC Charges Former FBI Trainee and His Friend with Insider Trading

SEC Charges Former Private Equity Firm Consultant and Close Friend with Insider Trading

SEC Charges Husband of Energy Company Manager with Insider Trading



Former Coinbase Insider Pleads Guilty In First-Ever Cryptocurrency Insider Trading Case

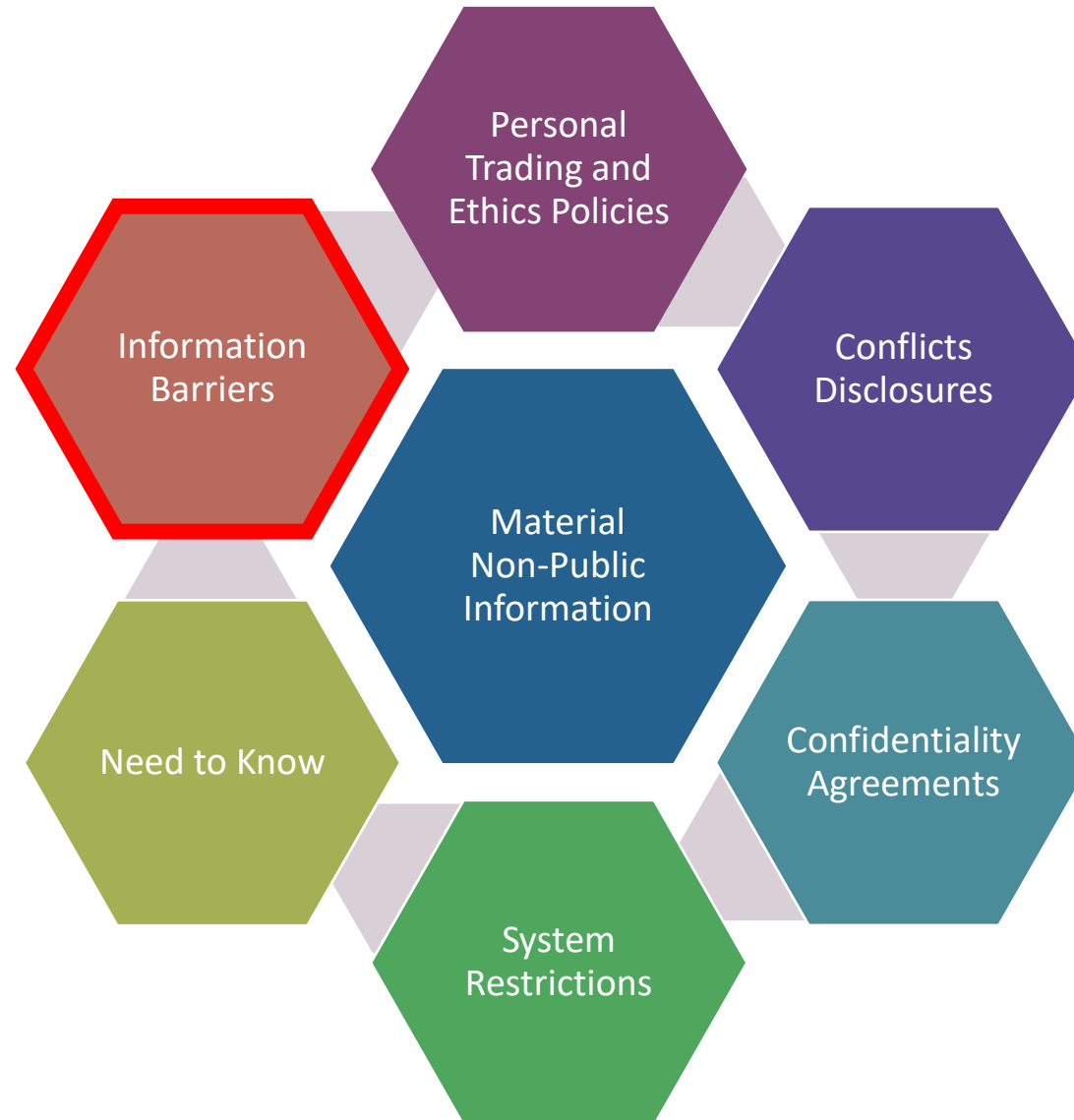


United States
Attorney's Office
Southern District of New York

Calif. Verdict Showcases SEC's New 'Shadow Trading' Theory



Investment Compliance Risk Mitigation Framework





Information Barriers

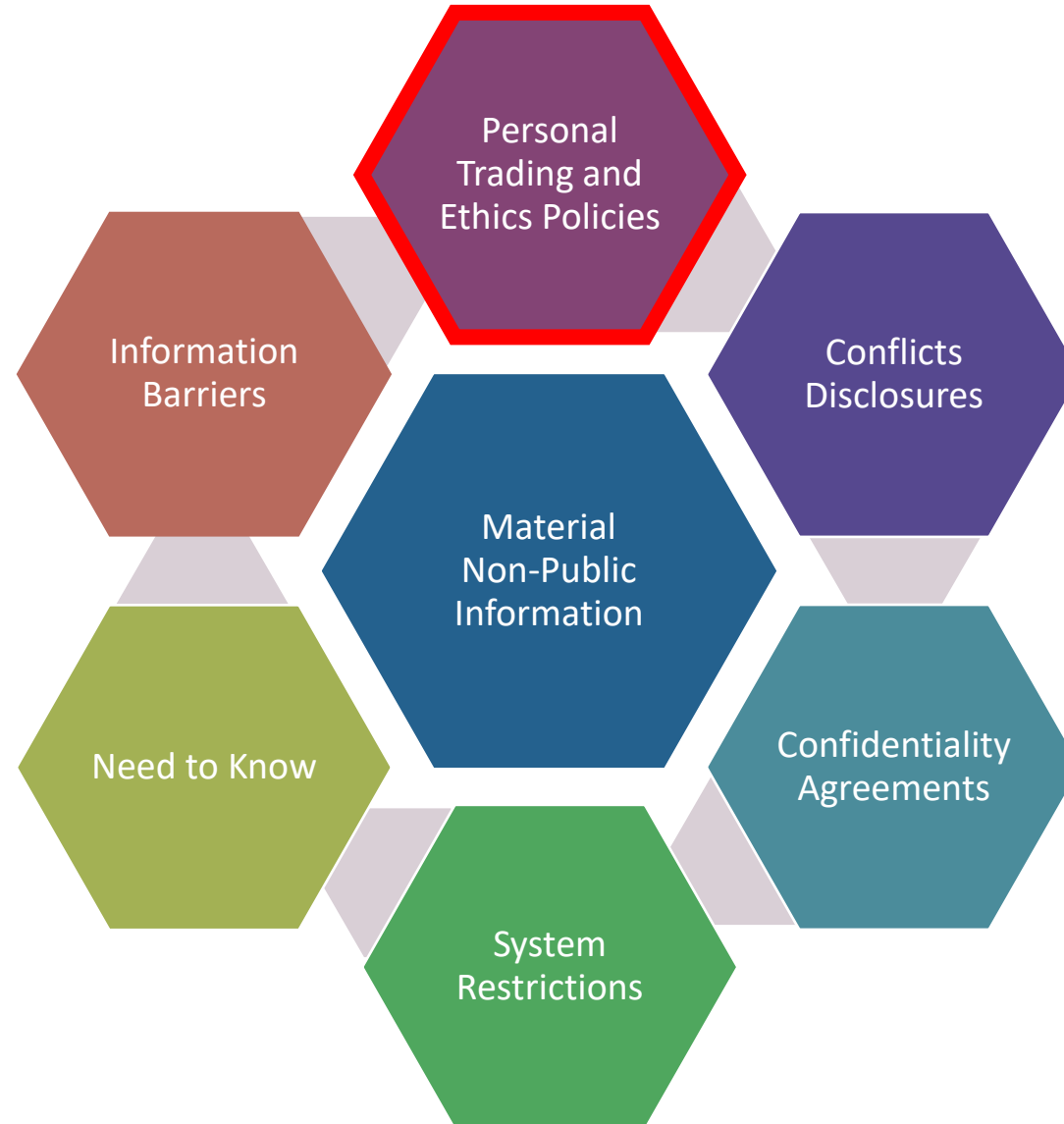


- TRS employees must disclose possession of potential MNPI to Compliance
- All MNPI is secured by establishing an Information Barrier
- Barriers communicate scope of access
 - Informs trading restrictions
 - Designates secure location
 - Identifies access rights (i.e., need to know)
 - Documents evidence of process
- Barriers are updated for any changes, including termination





Investment Compliance Risk Mitigation Framework





Personal Trading

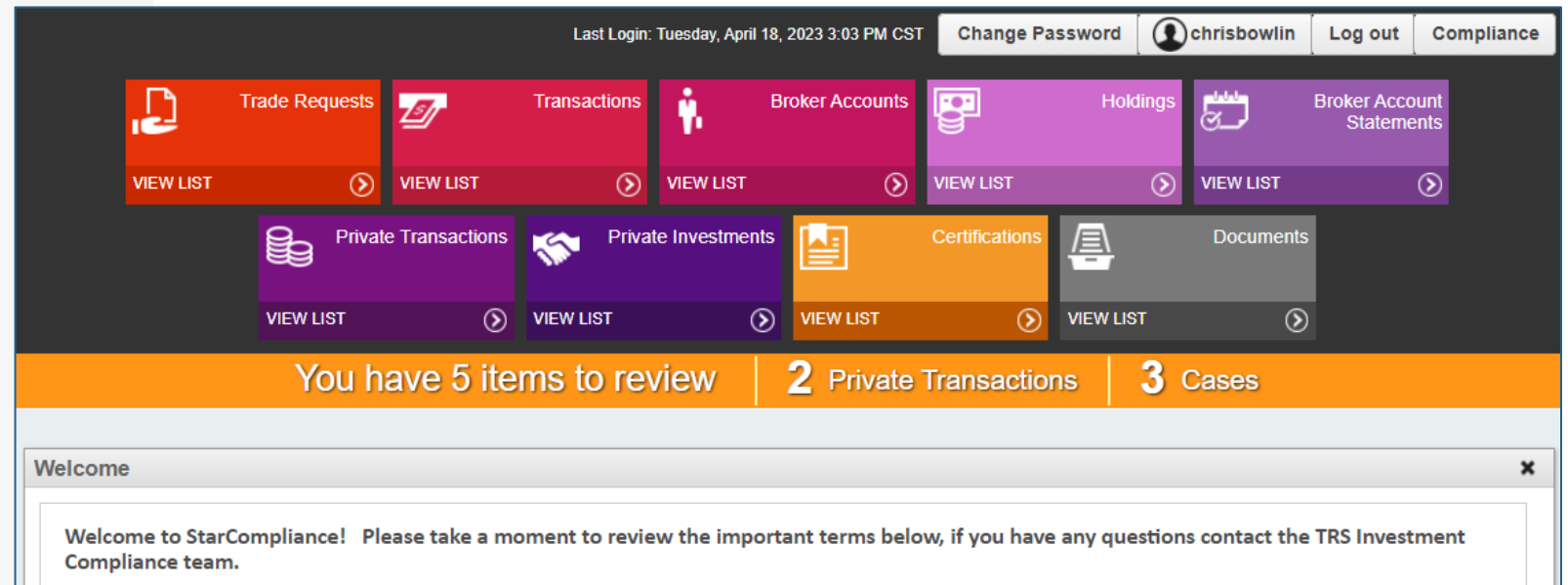


- Scope of Policy

- TRS Employees
- Covered Persons
- Covered Accounts
- Covered Trades
 - Public Securities
 - Private Investments
- Approved Brokers

- Trading Restrictions

- Information Barriers
- TRS Restricted Contractors
- Open Trading Orders





Personal Trading (continued)

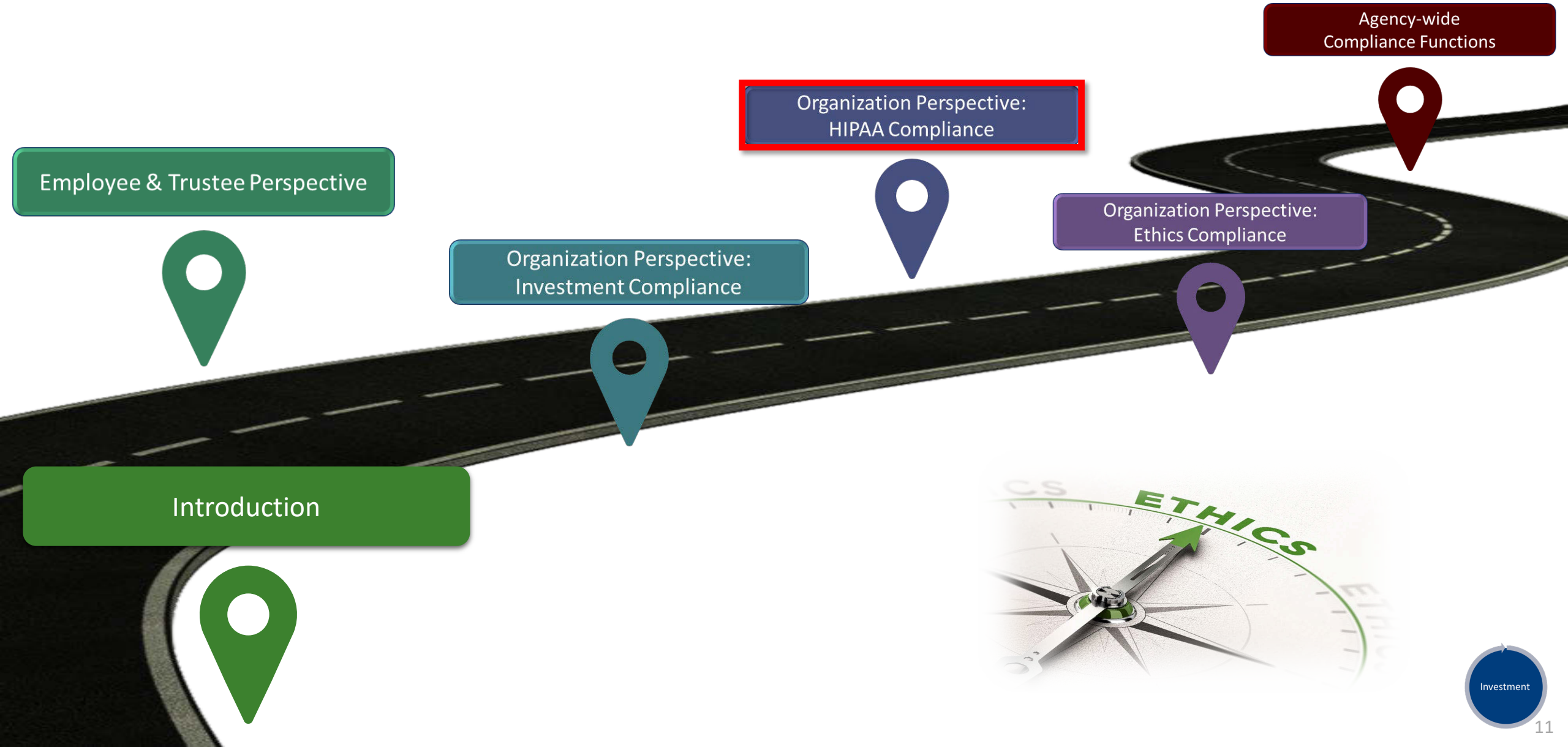


- Quarterly Certifications
 - Accounts Disclosed
 - Personal Holdings
- Employee Ethics Policy
 - Requirements for disclosure of potential conflicts of interest
 - Recusal
 - Divestment
- Ongoing Activity
 - Employee Onboarding
 - Annual Training
 - Policy Review





TRS Compliance & Ethics – Information Session Roadmap



Introduction

Employee & Trustee Perspective

Organization Perspective:
Investment Compliance

Organization Perspective:
HIPAA Compliance

Organization Perspective:
Ethics Compliance

Agency-wide
Compliance Functions





Internal Audit

May 3, 2024

Presented By:
Amanda Jenami, Chief Audit Executive





Proposed Revision to the Audit Plan for Fiscal Year 2024

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



Overview



Consider recommending to the board of trustees our proposed revision to the Fiscal Year 2024 Audit Plan.

Background

Per the approved Fiscal Year 2024 Audit Plan, amendments to the approved Audit Plan deemed to be significant will be submitted to the board of trustees for approval. Staff requests that the Audit, Compliance and Ethics Committee approve the proposed amendments to the Fiscal Year 2024 Audit Plan and recommend that the board of trustees adopt the proposed revision.


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 revision to the Fiscal Year 2024 Audit Plan.

Proposed Revision to the Audit Plan for FY 2024

Project	Risk Level	Change	Reason
Investment Management			
Innovation Portfolio Program		Defer to FY2025	Internal Audit no longer has the resources to perform this audit.

Risk Category Level – Threat to Achieving TRS Goal & Objectives



High



Elevated



Caution



Guarded



Low



Questions



Internal Audit

May 3, 2024

Presented By:

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

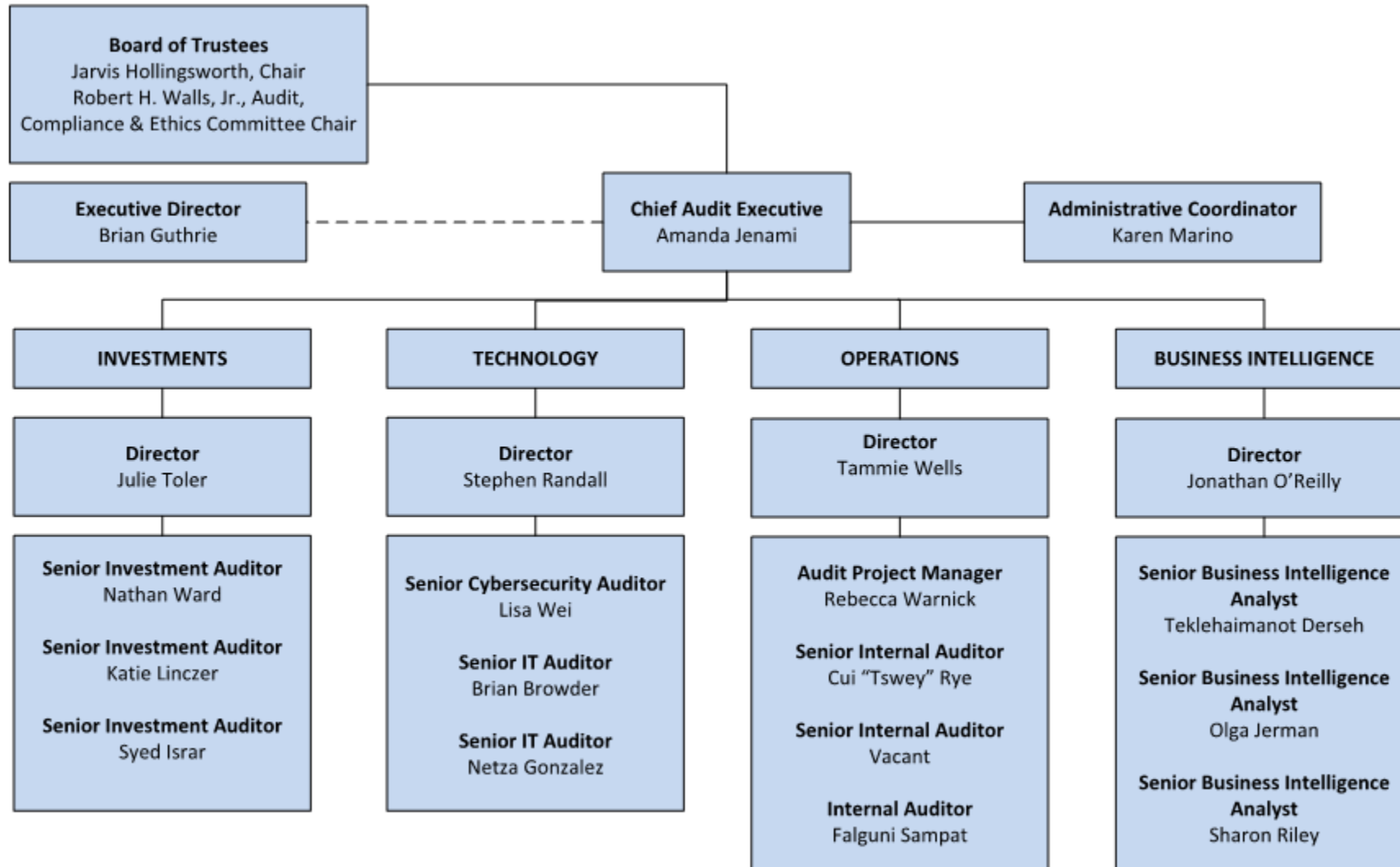




Integrated Auditing – A More Holistic Approach



Internal Audit Team



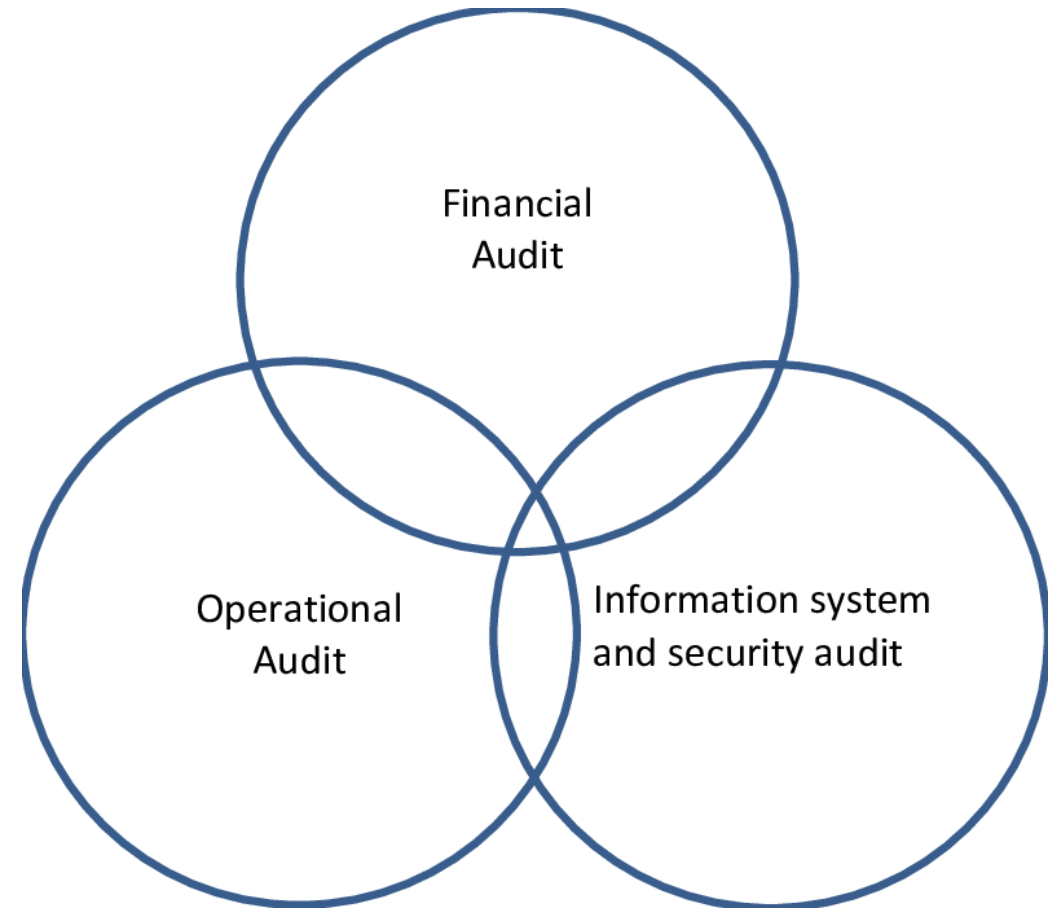
Current approach: IT application audits are “siloeed” from the processes they support.



Integrated Auditing - Definition



- Considers the relationship between IT, financial and operational controls.
- IT issues may negate the effectiveness of the financial and operational controls and vice versa.
- Evaluates the *interplay* between financial, operational and technology processes on the achievement of strategic objectives.





Prior Practice vs Integrated Approach - Some Examples

Operational Audits

Review of Procurement Processes

- PAVES

Contract Oversight

- PAVES

Integrated Audits

Pension Refunds Processes

- Member eligibility
- Employment verification
- Segregation of duties
- Address change notification
- Documentation requests and updates
- Refunds calculation
- Refund voucher approval



Benefits of Integrated Auditing



Increased audit coverage



More timely recommendations



More comprehensive view of organizational risk



Helps business develop a more holistic understanding of risk



General vs Application Controls



General Controls

Controls that apply to all systems components, processes, and data present in an organization or systems environment

Examples:

- Information Security Program
- Systems Inventory & Data Classification
- Malware Protection & Ransomware
- Cybersecurity Incident Response
- Disaster Recovery
- Change Management
- System Backups

Application Controls

Policies, procedures and activities designed to provide reasonable assurance that objectives relevant to a given automated solution (application) are achieved

Examples:

- Input Controls
- Processing Controls
- Output Controls
- Application Specific Access Control Mechanisms
- Separation of Business Functions (e.g., transaction initiation versus authorization)

Cybersecurity Kingdom



Cybersecurity Kingdom, Continued





Critical Success Factors



Organizational Support

- Board Support
- Senior Management Support
- Client Support
- Increased Communication and Collaboration
- Access to Information Systems

Internal Audit Staff

- Different Backgrounds
- Areas of Expertise
- Business Knowledge
- Process & Methodology
- Teaming



Time for....

Questions?



Internal Audit Review of Multi-Asset Trade Operations (MATO)

May 3, 2024

Presented By:
Katie Linczer and Kerry Skehan





Review of Multi-Asset Trade Operations (MATO)



Audit Scope

- ✓ September 2022 – December 2023
- ✓ Activities and reporting related to multi-asset trade operations

Calendar Year 2023 MATO Activity Breakout

MATO Functional Teams	MATO FTEs	Assets Moved (billions)	Transactions Processed (thousands)
Cash Operations	2	\$45	6
Derivative Operations	4	\$209	16
Security Operations	4	\$711	126



Review of Multi-Asset Trade Operations (MATO)



AUDIT CONCLUSION

The Teacher Retirement System (TRS) Multi-Asset Trading Operations (MATO) group has sufficient processes in place to provide reasonable assurance that the processing and settlement of investment trades and the management of cash margin and collateral are conducted effectively, efficiently and in compliance with relevant policies, guidelines and procedures.

Key controls include:

- Investment Policy Statement
- Position Monitoring
- Collateral Monitoring
- Cash projections and reconciliations



Executive Summary



Multi-Asset Trade Operations Business Objectives:

1. Optimize trade settlement processes to ensure timely execution of investment decisions
2. Ensure safety and proper transfer of cash and securities
3. Mitigate risk and automate processes when possible

<u>Positive Results</u>	<u>Issues</u>	<u>Management Response</u>
<ul style="list-style-type: none">• Failed trades & overdraft fee monitoring adheres to IPS requirements• Collateral monitoring & oversight• Cash management system permissions:<ul style="list-style-type: none">• alignment with GAR• appropriate segregation of duties• periodic review process• Automated cash projection and reconciliation processes• Consistent cross-training / daily / month-end checklists	<ul style="list-style-type: none">• N/A	<ul style="list-style-type: none">• N/A



Project Team



Investment Audit Services Team



Katie Linczer, CPA, CIA, CRMA
Senior Investment Auditor



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



Nathan Ward, CFA
Senior Investment Auditor



Syed Israr
Senior Investment Auditor



APPENDIX

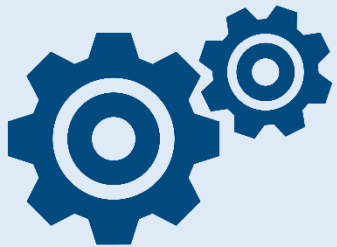


BACKGROUND



AUDIT OBJECTIVE

Determine whether activities related to processing and settlement of investment trades and management of cash, margin and collateral include sufficient controls to ensure activities are managed and conducted 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 2022 – December 2023
- ✓ Activities and reporting related to multi-asset trade operations



Internal Audit

Summary of Audit Recommendations as
of April 25, 2024

May 3, 2024

Presented By:

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





Highlights



73

Recommendations
(Total)

21

Audit Reports

40

Recommendations
rated significant

Implementation Status

27³⁻

Pending

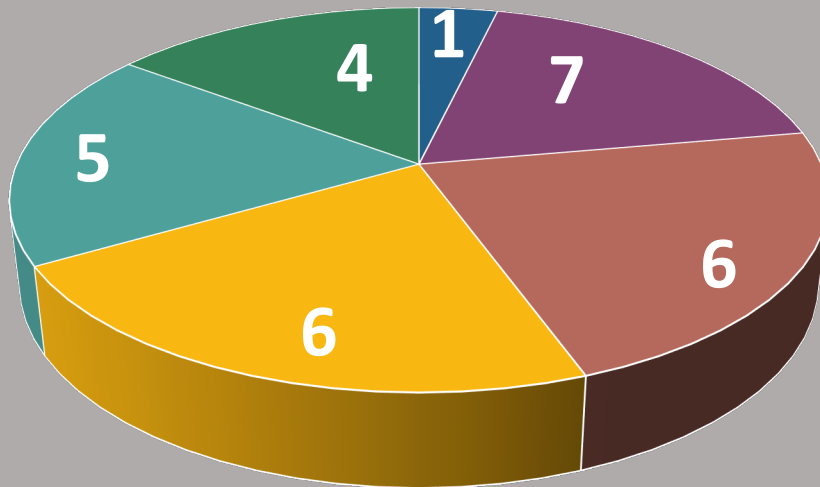
28¹⁵⁺

Satisfactorily
Implemented

18⁵⁻

Implemented,
pending IA
validation

Ownership of Pending Recommendations



■ Benefit Services ■ Business Admin ■ HD ■ IMD ■ IT ■ ISO

Age of Recommendations

9

1-12
months

17

13-24
months

1

25-36
months

0

37-48
months

**TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024**

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

Significant to Business Objectives

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

Other Reportable

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

TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024

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	In Progress	Significant	9/2021	2/2023	7/2024
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
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

TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
3.2 Document the risk assessment process	Implemented	Significant	9/2021	2/2023	2/2023
21-402 Review of the HUB Program					
1.4 Implement documentation, tracking, and effective reviews of outreach activities	Implemented	Significant	5/2021	9/2021	4/2024
2.1 Monitor HUB Subcontracting Plans and Monthly Progress Assessment Reports	Implemented	Other Reportable	5/2021	7/2021	4/2024
2.2 Implement quality control process to improve the accuracy of reporting	Implemented	Other Reportable	5/2021	5/2021	9/2023
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					
2.2.2 Reliance on Excel Workbooks / Scalability	In Progress	Other Reportable	8/2022	8/2023	6/2024
22-304 Review of Internal Fundamental Public Equity Portfolio Operations					
2.1.1 Consultation between Legal & Compliance and IFM	Implemented	Other Reportable	1/2023	9/2023	9/2023
2.2.1 Compliance of monitoring alert resolution with IPMA Compliance Testing Procedure	Implemented	Other Reportable	1/2023	6/2023	6/2023
2.3.1 Establish research documentation criteria	Implemented	Other Reportable	1/2023	6/2023	6/2023

TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024

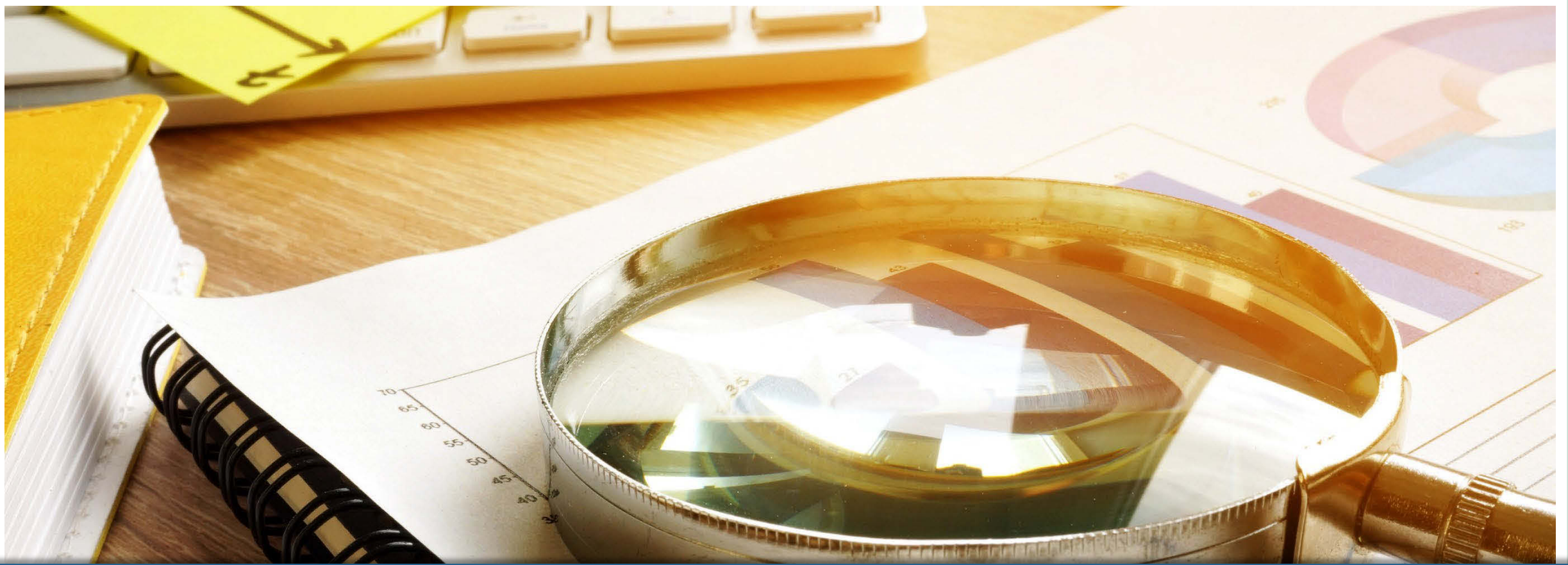
Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
22-401 Review of Records Management					
1.1 Assist business units in weighing benefits against risks of longer retention timeframes	In Progress	Other Reportable	6/2022	2/2023	7/2024
1.2 Require written justification and executive management approval for longer retention timeframes	In Progress	Other Reportable	6/2022	2/2023	7/2024
2.1 Expand RIM monitoring efforts	In Progress	Other Reportable	6/2022	8/2022	1/2025
2.2 Formally document RIM's internal processes and procedures	Implemented	Other Reportable	6/2022	3/2023	8/2022
3.1 Continue efforts to implement record management automated features	In Progress	Other Reportable	6/2022	3/2023	9/2024
3.2 Include shared and personal drives to Microsoft project	In Progress	Other Reportable	6/2022	5/2025	
22-402 Follow-Up of Procurement Audit					
1.1 P&C should enhance its quality assurance reviews and use error information for targeted coaching	Implemented	Other Reportable	11/2022	11/2022	11/2022
1.2.3 P&C management should implement enhancements to limit the number of instances users have to manually enter data in key fields	Implemented	Other Reportable	11/2022	9/2024	11/2023
2.1 TRS management should assist P&C in bringing a cultural shift to comply with P&C's lead times	Implemented	Other Reportable	11/2022	9/2023	11/2023
22-502 IT Contract Oversight					
1.2 Align contract monitoring efforts with key contract requirements	Implemented	Significant	1/2023	2/2023	4/2024
1.3 Strengthen invoice review processes	Implemented	Significant	1/2023	2/2023	4/2024

TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
23-102 Review of Reporting Employer Processes					
1.1 Practical enhancements to the TRUST system	Implemented	Significant	7/2023	12/2023	12/2023
1.2. Report submission after due dates	Implemented	Significant	7/2023	12/2023	12/2023
1.3.a. Develop and implement KPIs	In Progress	Other Reportable	7/2023	6/2024	
1.4 The TRUST system open tickets	Implemented	Significant	7/2023	1/2024	11/2023
2.1.a. Develop Targeted Training Sessions	Implemented	Other Reportable	7/2023	8/2023	3/2024
2.1.c. Organization of training material	Implemented	Other Reportable	7/2023	1/2024	1/2024
23-303 Review of Investment Trading Operations					
1.1 Periodic review of selected performance benchmark	In Progress	Other Reportable	12/2023	9/2024	
1.2 Broker Addition/Removal Procedures	In Progress	Other Reportable	12/2023	6/2024	
1.3a Business Continuity - Training	Implemented	Other Reportable	12/2023	3/2024	3/2024
1.3b Business Continuity - Alternative Site Access	Implemented	Other Reportable	12/2023	3/2024	3/2024
2.2 Error Documentation	In Progress	Other Reportable	12/2023	6/2024	
2.3 Segregation of Duties	Implemented	Other Reportable	12/2023	6/2024	3/2024
2.6 FICC records retention	In Progress	Other Reportable	12/2023	9/2024	

TRS Internal Audit
Summary of Audit Recommendations Status
As of April 25, 2024

Recommendation	Status	Issue Type	Issue Date	Estimated Date	Revised / Actual Date
24-201 Review of Insulin Cost-Sharing Benefits					
2.1.a. Ensuring the carrier reimburses members for their overpayments and implementing a process to verify that members received reimbursements.	In Progress	Other Reportable	12/2023	2/2024	7/2024
2.1.b. Verification that the carrier addresses coding errors	Implemented	Other Reportable	12/2023	2/2024	2/2024
2.1.c. Ensuring that the new pharmacy carrier properly implements SB 827 cost-sharing requirements.	Implemented	Other Reportable	12/2023	2/2024	2/2024



Internal Audit Administrative Reports

May 3, 2024

Presented By:
Amanda Jenami, CPA, CIA, CISA, CIDA, CFSA, CRMA, CFE





Internal Audit Performance Measures, 2nd Quarter 2024



Executive Summary



FY2024 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 (6 KPIs)
- Goal 4:** Leverage technology (1 KPI)

FY2024 Key Performance Indicators (KPIs)

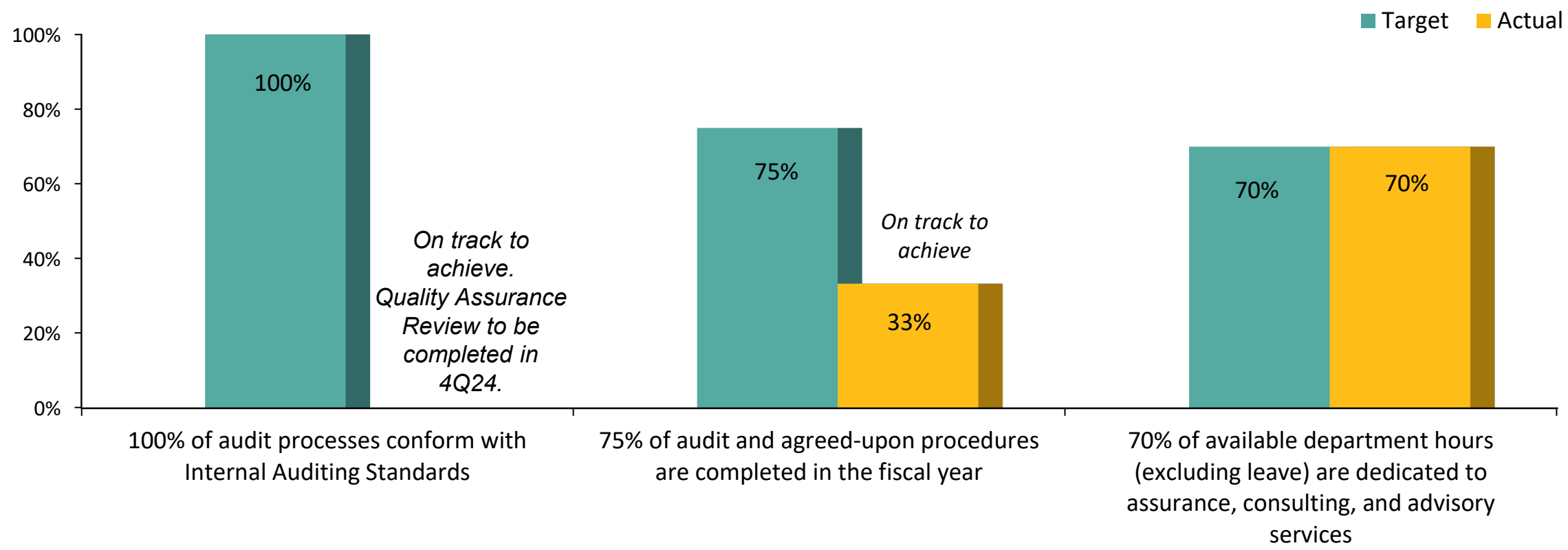
Internal Audit either exceeded or was on track to achieve 100% (14 out of 14) of its annual performance targets in the second quarter.



KPI Results



Goal 1: Provide Assurance to the board of trustees and senior management

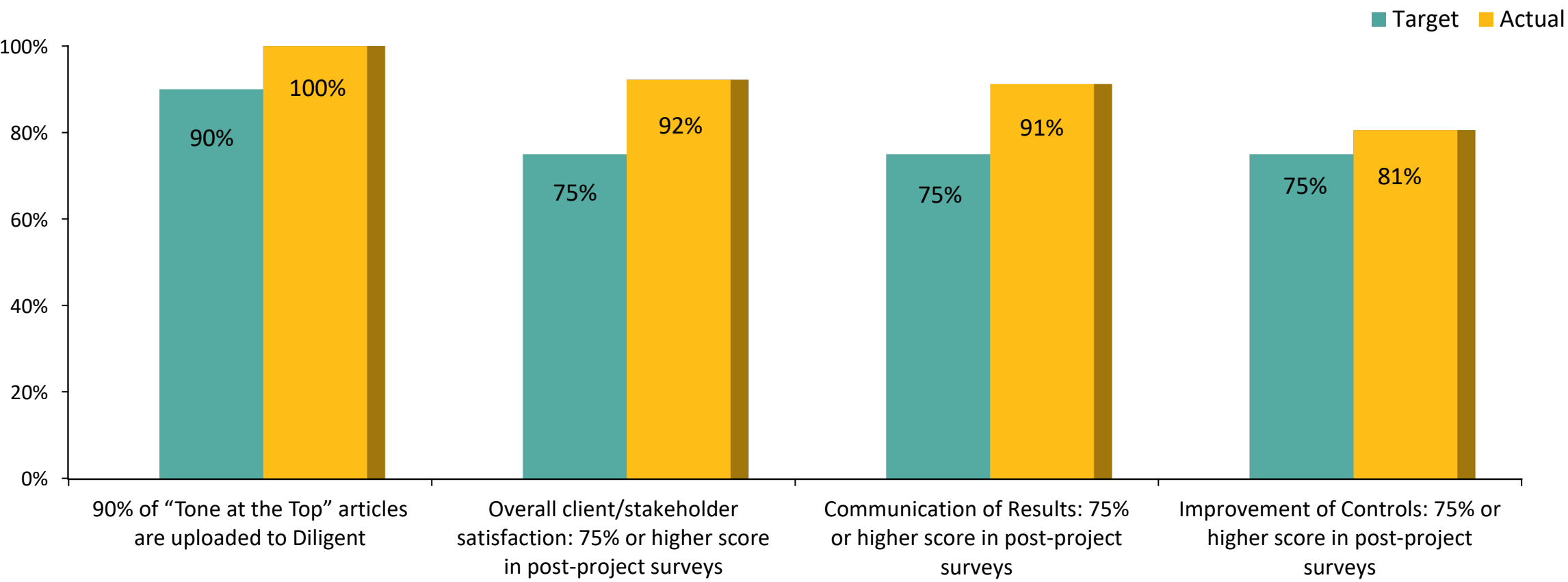




KPI Results



Goal 2: Serve as trusted advisor to the board of trustees and management

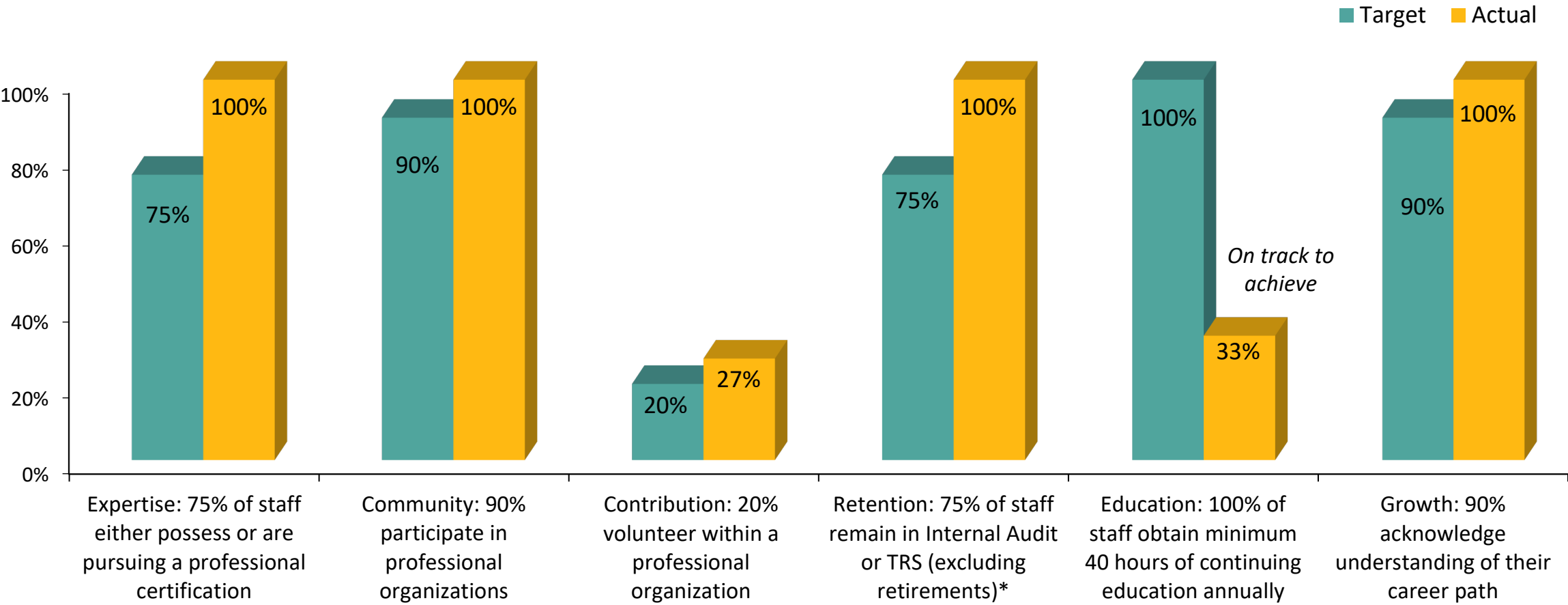




KPI Results

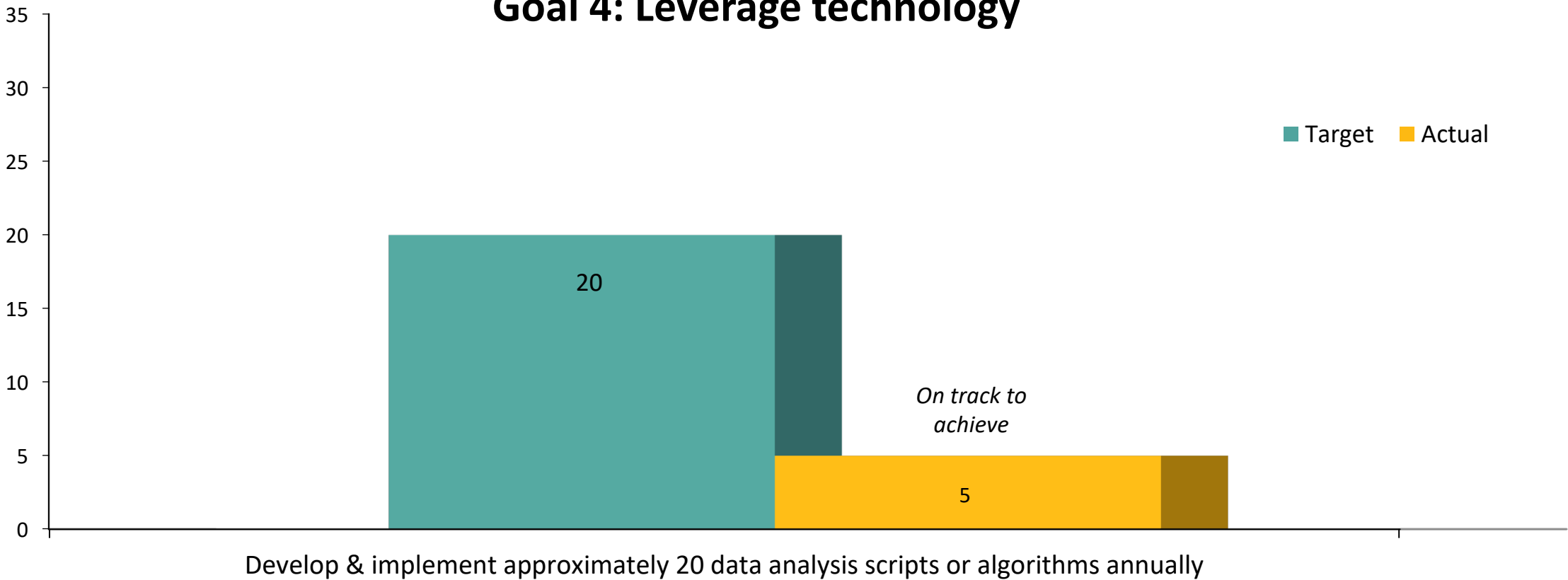


Goal 3: Attract, develop & retain diverse and outstanding talent





Goal 4: Leverage technology





Advisory Services, 2nd Quarter 2024



Internal Audit Advisory Services



EXECUTIVE

- Facilitated external audits of the Annual Comprehensive Financial Report (ACFR), TRICOT Annual Financial Report, and FY23 Other Post-Employee Benefits (OPEB)
- Served on the Risk Oversight Committee
- Served on the Enterprise Data Governance Council
- Participated in Enterprise Projects Oversight Committee (EPOC)
- Served on Artificial Intelligence Review Team

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
- Served on Enterprise Risk Management (ERM) Cybersecurity Team
- Performed review of the TRS Cybersecurity Incident Response Plan

INVESTMENT MANAGEMENT DIVISION (IMD)

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

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 DIVISION (HD)

- Performed health plan program integrity tests via data analytics



Staff Accomplishments & Highlights

Staff Accomplishments

**Certified Internal Auditor
(CIA) certification:**



Falguni Sampat, CIA
Senior Operations Auditor

**Chartered Financial Analyst
(CFA) designation:**



Nathan Ward, CFA
Senior Investment Auditor



Staff Promotion



Falguni Sampat, CIA

- Senior Auditor
- Operations Audit Services



Peer Leadership



April 22-24
Chicago, IL

39 public pensions represented

TRS Internal Audit presenters:

Jonathan O'Reilly
Netza Gonzalez
Amanda Jenami



Questions



Internal Audit

Audit of Pension Refund Processes

May 3, 2024

Presented By:
Tammie Wells and Chad Nichols





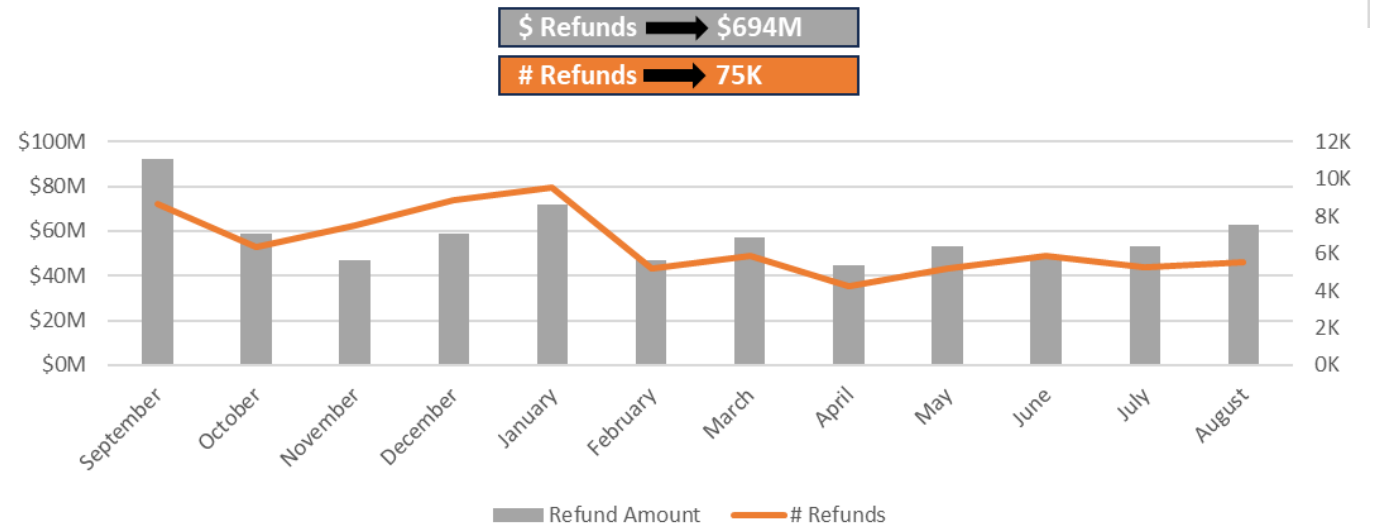
Audit of Pension Refund Processes: Background (I)



Audit Scope

- ✓ Refund applications and refunds completed
- ✓ Relevant automated controls
- ✓ September 2022 – August 2023

FY 2023 Refunds Processed by Month

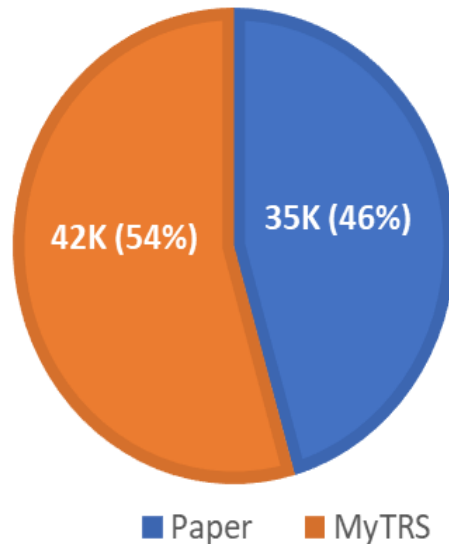




Audit of Pension Refund Processes: Background (II)

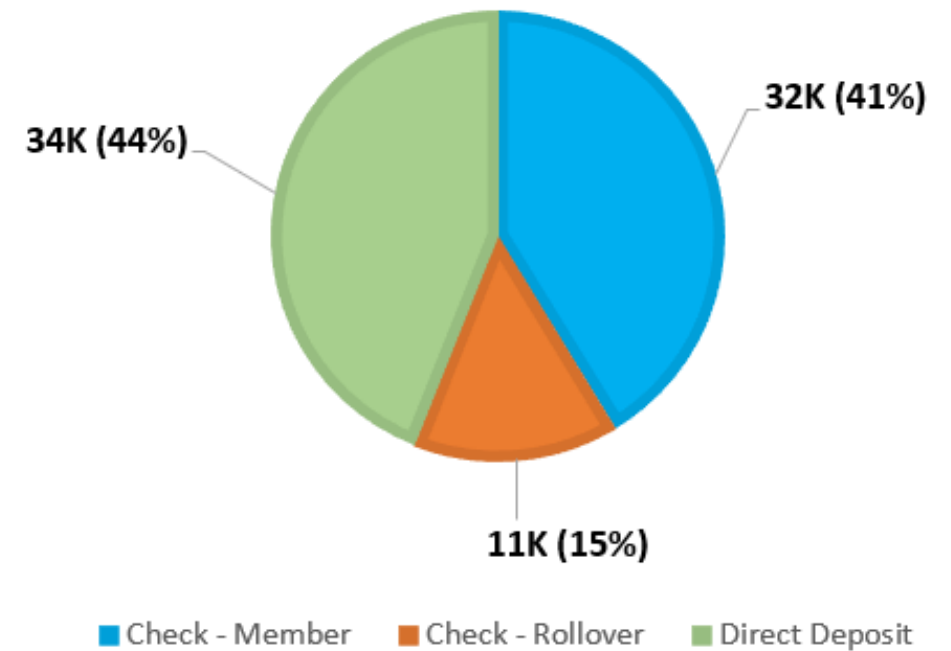


Refund Applications submitted via *MyTRS* vs. Paper



FY 2023

Disbursements: Check vs. Direct Deposit



FY 2023



Audit of Pension Refund Processes



AUDIT CONCLUSION

The Teacher Retirement System (TRS) has established sufficient processes to provide reasonable assurance that pension refunds are disbursed timely and accurately in accordance with applicable requirements. The new online portal, *MyTRS*, has improved operational efficiency.

Key controls include:

- Notarization Requirement for Paper Refund Applications
- Confirmation of Member Eligibility for Refund
- Member Account Update Notifications
- Voucher Approval Process (Segregation of Duties)
- Refund Calculations



Audit Results



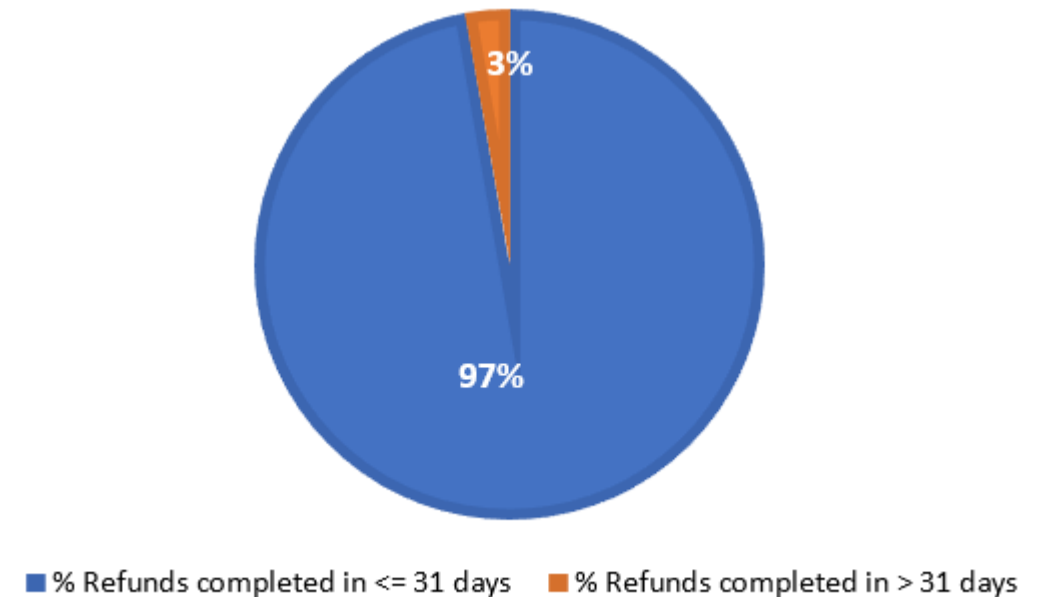
Pension Refund Business Objectives:

1. Disburse accurate account refunds to eligible pension members in compliance with requirements.
2. Disburse member account refunds timely once all required documentation is received.

Positive Results

1. Compliance with requirements
2. Eligibility determinations
3. Segregation of duties
4. Timeliness of processing
5. Several fraud-related tests found no issues
 - (i) Duplicate refund payments to the same member
 - (ii) Multiple refunds to the same bank account
 - (iii) Multiple refunds to the same address
 - (iv) Refund direct deposits to TRS employees
 - (v) Refunds checks sent to TRS employee address

FY 2023 Refund Processing Time





Audit Results : Accuracy of Refunds



<u>Issue</u>	<u>Recommendation</u>	<u>Management Response</u>
<p>Approximately 4% (3,000 out of 75,000) of refunds completed in fiscal year 2023 had discrepancies.</p> <p>The discrepancies ranged from \$0.01 to \$2,309 and averaged \$29.</p> <p>Potential Causes:</p> <ul style="list-style-type: none">• The interest earned in the final year was not included in the gross refund amount and/or;• Errors in the account closure process <p>Impact:</p> <p>Approximately 1,700 of those 3,000 refunds would have impacted members.</p>	<p>Benefit Services should continue to research the issue to identify the root cause and take corrective action, including paying any monies owed to the members.</p>	<p>Management agrees:</p> <ul style="list-style-type: none">• A ticket has been logged with IT to research and determine why the refund calculation is creating a discrepancy with some refunds.• Once the issue is corrected in TRUST, management will review prior refunds that were impacted by the error and determine the appropriate next steps based on the underpayment amount. <p>Target Implementation Date:</p> <p>Benefit Services and IT will develop an implementation plan by 5/2024.</p>



Project Team



Operations Audit Team

Rebecca Warnick, CPA, CIA
Audit Project Lead

Cui Rye, CPA, CIA
Senior Auditor

Falguni Sampat, CIA
Senior Auditor

Tammie Wells, CIA, CFE
Operations Audit Director

IT Audit Team

Netza Gonzalez, CISA, CFE
Senior IT Auditor

Brian Browder, CISSP, CCSK
Senior IT Auditor

Stephen Randall, CISA, CIA
IT Audit Director

Business Intelligence Team

Teklehaimanot Derseh
Senior Business Intelligence Analyst

Sharon Riley
Senior Business Intelligence Analyst

Jonathan O'Reilly
Business Intelligence Director



APPENDIX A: Audit Objective, Scope and Methodology



APPENDIX A: Audit Objective, Scope and Methodology

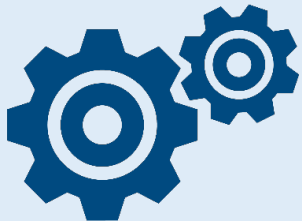


AUDIT OBJECTIVE

Determine whether internal controls are in place and are working effectively to:

Disburse accurate account refunds to eligible pension members in compliance with requirements

Disburse member account refunds timely once all required documentation is received



METHODOLOGY

- ✓ Identified key risks and controls
- ✓ Reviewed policies and procedures
- ✓ Interviewed management and staff
- ✓ Reviewed records, information systems, databases
- ✓ Performed data analysis and conducted additional tests, as necessary



AUDIT SCOPE

- ✓ September 2022 – August 2023
- ✓ Refund requests received and refunds completed
- ✓ Relevant automated controls



Questions