



FY 2021 Internal Audit Annual Report



Amanda Jenami, CIA, CISA, CIDA, CFSA

December 7, 2021



FY 2021 Internal Audit Annual Report

The Internal Audit Annual Report provides information on the audit plan, assurance, consulting, advisory projects and other Internal Audit activities completed in fiscal year 2021. 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 2021
- III. Consulting and Non-audit Services Completed
- IV. External Quality Assurance Review (Peer Review)
- V. Internal Audit Plan for Fiscal Year 2022
- VI. External Audit Services Procured in Fiscal Year 2021
- VII. Reporting Suspected Fraud and Abuse

Internal Audit Annual Report

Fiscal Year 2021

November 2021



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 1, 2021)

Christopher Moss, Chair
Michael Ball
John Elliott
Nanette Sissney

BOARD MEMBERS

(As of October 1, 2021)

Jarvis V. Hollingsworth, Chair
Nanette Sissney, Vice Chair
Michael Ball
David Corpus
John Elliott
Christopher Moss
James D. Nance
Robert H. Walls

EXECUTIVE DIRECTOR

Brian Guthrie

INTERNAL AUDIT DEPARTMENT

(As of October 1, 2021)

Amanda Jenami, CPA, CISA, CIA, CIDA, CFSA, CFE, CRMA, CGAP, CCSA, Chief Audit Executive
Teresa Menchaca, CIA, CISA, Senior Audit Manager – Operations Audit Services
Julie Toler, CFA, CFP, CIA, CRMA, Senior Audit Manager – Investment Audit Services
Teklehaimanot Derseh, Senior Data Analyst
Matthew Fruth, CISA, CISSP, PMP, PMI-ACP, Senior IT Auditor
Syed Israr, Senior Investment Auditor
Olga Jerman, Senior Data Analyst
Katie Linczer, CPA, CIA, CRMA, Senior Investment Auditor
Andrea Morales, CIA, CFE, Audit Project Manager
Mary Presley, CISA, ACDA, Senior Data Analyst
Falguni Sampat, CQPA, Internal Auditor
Nirmal Vincent, Senior IT Auditor
Nathan Ward, Senior Investment Auditor
Carol Casey, CGAP, CPM, Benefit Consultant
Karen Marino, Internal Audit Executive Assistant



Brian K. Guthrie
Executive Director

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1000 Red River Street
Austin, Texas 78701

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

November 1, 2021

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

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

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The work performed by TRS Internal Audit contributes toward accountability, integrity, and good management practices within TRS operations. Fiscal year 2021 projects contributed to the improvement of risk management, control, and governance processes. Internal Audit (and those engaged by Internal Audit) issued 14 assurance reports, followed up and reported quarterly on the status of outstanding audit recommendations, and performed advisory services in various areas including TEAM (TRS Enterprise Application Modernization) Program initiatives.

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

Sincerely,

Amanda Jenami, CIA, CISA, CIDA, CFSA, CPA, CFE, CRMA, CGAP, CCSA
Chief Audit Executive

**TEACHER RETIREMENT
SYSTEM OF TEXAS
INTERNAL AUDIT ANNUAL
REPORT
FISCAL YEAR 2021**

November 2021



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

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

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

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

- ▶ The **TRS Annual Internal Audit Plan** is approved each fiscal year by the TRS Board of Trustees as recommended by the TRS Audit, Compliance and Ethics Committee. The annual audit plan, as approved by the TRS Board of Trustees, is provided to the TRS website coordinators and posted on 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 is submitted to the Governor's Office, the Legislative Budget Board, the State Auditor's Office and the TRS Board of Trustees by November 1 of each fiscal year. The annual report is presented to the TRS Audit, Compliance and Ethics Committee at its December meeting, and provided to the TRS Website coordinators to post to the TRS website within 30 days of the meeting.
- ▶ **Summaries of the weaknesses, concerns, and actions taken to address concerns** in the audit plan or annual report are provided by Internal Audit in the quarterly TRS Audit, Compliance and Ethics Committee materials. The committee materials provide audit reports completed during each quarter, quarterly status reports of management action on outstanding audit recommendations, and the status of the current fiscal year audit plan. The individual audit reports provide the results, recommendations, and management actions taken to address the audit recommendations. The TRS Audit, Compliance and Ethics Committee materials are posted to the TRS website, after dissemination to TRS Board of Trustees, and prior to the scheduled Board meeting.

II. Internal Audit Plan for Fiscal Year 2021

**Fiscal Year 2021 Audit Plan Status
As of October 2021**

Title	Type	Status	Report Date
Executive			
Review of Procurement	Audit	Complete	April 2021
Review of the HUB Program	Audit	Complete	April 2021
Follow-up of Talent Management Audit	Audit	Complete	September 2021
Meetings Participation	Advisory	Complete	n/a
Special Requests and Emerging Issues	Advisory or Consulting	Complete	n/a
Finance and Staff Services			
Annual Comprehensive Financial Report (ACFR) testing of annuity payments	Audit	Complete	November 2020
TEAM Program			
TEAM Testing and Reconciliation	Advisory	Complete	n/a
TEAM Independent Program Assessment (IPA) Vendor Support	Advisory	Complete	n/a
TEAM Committees, Projects, and Controls Assessment Participation	Advisory	Complete	n/a
Pension Benefits and Employer Audits			
Annual Benefits Testing	Agreed-Upon Procedures	Complete	July 2021
Employer Testing	Agreed-Upon Procedures	Complete	July 2021
Employer Data Analysis and Testing	Consultancy	Complete	n/a
TRS Reporting Entity Website Audit Information Update and Communication Activities	Advisory	Complete	n/a
Health Care			
Healthcare Vendor Change Readiness Review	Advisory	Complete	n/a
Review of Contract Oversight	Audit	Complete	September 2021
Claims Data Analysis	Audit	Complete	n/a
Pharmacy Rebate Audit Support (Reserve project)	Advisory	Complete	n/a
Health Care Vendor Update Meetings Attendance	Advisory	Complete	n/a

Teacher Retirement System of Texas
 Internal Audit Annual Report for Fiscal Year 2021

Title	Type	Status	Report Date
Investment Management			
Review of the Use of Leverage in Asset Allocation	Audit	Complete	December 2020
Review of Real Estate Portfolio Operations	Audit	Complete	April 2021
Review of Securities Lending	Audit	Complete	July 2021
Review of Personal Trading	Audit	Complete	September 2021
Investment Committees Attendance	Advisory	Complete	n/a
Information Technology			
Review of Information Security Controls	Audit	Complete	April 2021
Review of Cyber Security	Audit	Complete	July 2021
Maturity Assessment of the Third-Party Risk Management Program	Consultancy	Complete	August 2021
IT Risk Assessment	Advisory	Complete	n/a
Internal Audit Activities			
Annual Internal Audit Report – FY2020	Administrative	Complete	October 2020
Data Analysis Process Buildout	Administrative	Ongoing	n/a
Quarterly Audit Recommendations Follow-up	Administrative	Complete	September 2020; December 2020; April 2021; and July 2021.

Revisions to Fiscal Year 2021 Audit Plan

There were only two changes to the FY 2021 Audit Plan, with the main one being a reclassification of the Third-Party Risk Management (TPRM) audit to a consulting project whose objective was to perform a maturity assessment of TRS’ TPRM Program. The other change, which was minor, was a cancellation of a planned internal audit activity to develop an assurance map. The Revised Audit Plan was approved by the Board at its July 2021 meeting.

Project	Change	Reason
Technology		
Review of Third-Party Vendor Risks	Reclassify to Consulting Project	In partnership with management, the IT Audit Team performed a Third-Party Risk Management Maturity Assessment to: <ul style="list-style-type: none"> • assess the maturity of TRS’ Third Party Risk Management program, • identify gaps between current- and desired state, • identify improvement opportunities by benchmarking current against leading and peer practices, and, • provide management with recommendations.
Internal Audit Activities		
Assurance Map	Cancel	Develop and maintain an assurance map. An assurance map is a matrix comprising a visual representation of the organization’s risks and the related coverage provided by all internal and external providers of assurance services.

Audit results are included in formal audit reports that are presented by Internal Audit staff at the quarterly TRS Audit, Compliance, and Ethics (ACE) Committee meetings and included in the ACE Committee materials.

III. Consulting Services and Non-audit Services Completed

III. Consulting Services and Non-audit Service Completed

During fiscal year 2021, Internal Audit conducted the following consulting (non-audit services) projects resulting in formal recommendations to management.

1. Third Part Risk Management Program (TPRM) Maturity Assessment (21-503)

Objective: Provide TRS management with assessments and advice for improving processes that will advance the goals and objectives of the TPRM program.

The evaluation included self-assessments from key stakeholders, including Information Security Office, Procurement and Contracts, Legal and Compliance, and Enterprise Risk Management. In addition, the project team performed a high-level benchmark comparison against some of TRS' peers and identified recommendations to enhance the TPRM program.

2. Employer Data Analysis and Testing (21-103)

Objective: Gather and use full payroll data to risk assess noncompliance with TRS Laws and Rules and identify errors in system edit checks and missing data. Specifically,

- Identify missing regular payroll records for members who worked in TRS eligible positions and not terminated with single employment in accordance with TRUST system rules
- Identify Employment After Retirement (EAR) records for anomalies, including missing or incorrect data, errors in system edits and business rules, and noncompliance with TRS Laws and Rules
- Identify and test TRS membership eligibility, termination process, and ORP eligibility and data accuracy

Internal Audit also performed various advisory services, as listed in section II.

IV. External Quality Assurance Review (Peer Review)

Report on the External Quality Assurance Review of the
Teacher Retirement System of Texas

Internal Audit Department

June 2019



Performed by

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

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

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

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

Teacher Retirement System of Texas Internal Audit Department
External Quality Assurance Review - June 2019

Overall Opinion

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

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

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

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

Acknowledgements

We appreciate the courtesy and cooperation extended to us by the Chief Audit Executive, Internal Audit staff, the Board Chair, the Chair of the Audit, Compliance and Ethics Committee, the Executive Director, and the executive managers who participated in the interview process.

We would also like to thank each person who completed surveys for the quality assurance review. The feedback from the surveys and the interviews provided valuable information regarding the operations of the Internal Audit Department and its relationship with management.



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



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



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

V. Internal Audit Plan for Fiscal Year 2022

Risk Assessment

Risk assessment is a systematic process for assessing and integrating professional judgments about probable adverse conditions and events. The projects included in the FY2022 plan were primarily identified through a risk assessment process in collaboration with trustees, members of the TRS executive team, and staff. The process included a review of the latest Enterprise Risk Management (ERM) reports for the Risk Oversight Committee’s perception of key areas of risk. TRS’ auditable activities include organizational units, programs and agency-wide processes, each of which was risk-ranked using specific elements including relative size of the unit, potential impact on operations, regulatory compliance, public interest, work complexity, audit history, and other factors deemed relevant by Internal Audit and Executive Management.

The Review of Healthcare Claims Data Warehouse and the Review of Private Equity Portfolio Operations serve as reserve projects. They will be performed if the hours put aside for contingencies (i.e. fraud, waste and abuse investigations and special projects) are not fully expended.

The specific scope of each audit in the plan will be determined once the audit team has completed its audit planning process.

Internal Audit Plan for Fiscal Year 2022

Department/Program, Project Title	Type	Timing	Budgeted Hours
Executive and Finance			
ACFR Testing of Annuity Payments	Audit	Q1	300
IT Contract Oversight	Audit	Q1-Q2	1,400
Review of Records Management	Audit	Q2	800
Review of DEI Program	Audit	Q4	800
Follow-up of Procurement Audit (21-401)	Audit	Q4	400
Special Requests and Emerging Issues	Advisory or Consulting	Q1 – Q4	500
Meetings Participation	Advisory	Q1 – Q4	400
TEAM Program			
TEAM Testing and Reconciliation/ Committee Meeting Attendance	Advisory	Q1 – Q4	800
TEAM Independent Program Assessment (IPA) Vendor Support	Advisory	Q1 – Q4	500
Pension Benefits			
Reporting Employer Processes	Audit	Q2	1,000
Annual Benefits Data Analysis	Audit	Q4	500
Employer Data Analysis	Audit	Q1 – Q4	500
Employer Data Analysis and Testing	Consulting	Q1 – Q4	300
Health Care			
Claims Data Analysis	Audit	Q1 – Q4	2,400
HILOB Data Analysis	Audit	Q1 – Q4	500
Review of Eligibility	Audit	Q2 – Q3	800

Teacher Retirement System of Texas
 Internal Audit Annual Report for Fiscal Year 2021

Department/Program, Project Title	Type	Timing	Budgeted Hours
Health Care Vendor Update Meetings Attendance	Advisory	Q1 – Q4	100
Information Technology			
Information Security Training and Awareness Program	Audit	Q1	600
IT System Hardening and Software Patching	Audit	Q2	800
Post Implementation Review of PAVES	Audit	Q3-Q4	800
Review of Cyber Controls	Audit	Q4	200
Review of the Healthcare Claims Data Warehouse	Audit	Reserve	n/a
IT Risk Assessment	Advisory	Q1 – Q4	200
Disaster Recovery; Security Risk Assessment Review	Advisory	Q1 – Q4	100
Investment Management			
Review of Special Opportunities Portfolio Operations	Audit	Q1	1,400
Strategic Asset Allocation Procedures and Governance	Audit	Q1 – Q2	1,400
Review of Investment Performance Measurement	Audit	Q3	1,400
Internal Fundamental Public Equity Portfolio Operations	Audit	Q3 - Q4	1,400
Review of Private Equity Portfolio Operations	Audit	Reserve	n/a
Investment Committee Attendance, etc.	Advisory	Q1 – Q4	700
Internal Audit Department			
Quarterly Audit Recommendations Follow-Up	Administrative	Q1 – Q4	300
Data Analysis Process Buildout	Administrative	Q1 – Q4	400
Staff Training Initiative	Administrative	Q1 – Q4	1,200
Audit, Compliance & Ethics Committee Meetings Preparation	Administrative	Q1 – Q4	400
Internal Audit Annual Report	Administrative	Q4	100
Fiscal Year 2023 Audit Plan	Administrative	Q4	500

High Risk Areas Not Included in the FY2022 Audit Plan

The following areas were rated as high, elevated, or caution within TRS’ ERM Stoplight Report that were not included in the FY2022 Audit Plan.

Area	Reason for Exclusion
Long-Term Facilities	Management is developing a plan to address TRS’ long-term space needs. The area will not be ready for audit for at least 3 years.

VI. External Audit Services Procured in Fiscal Year 2021

External Audit Services Procured in Fiscal Year 2020

External Audit Services Procured by TRS	Provided by	Report Date
Annual Comprehensive Financial Report (ACFR) – Fiscal Year 2020	State Auditor's Office	11/20/2020
TRS Investment Company (TRICOT) Financial Audit – Fiscal Year 2020	Crowe LLP	11/12/2020

VII. Reporting Suspected Fraud and Abuse

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:

- The 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 to 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 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.



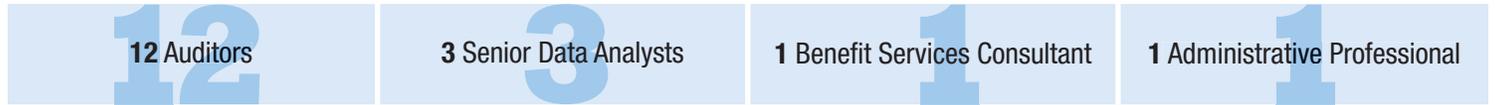
Questions

2021 YEAR IN REVIEW



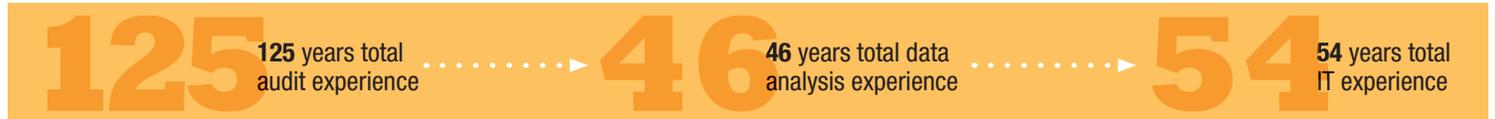
INDEPENDENT • OBJECTIVE • ASSURANCE • CONSULTING

WHO WE ARE:



WHAT WE BRING:

HIGHLY CREDENTIALLED PROFESSIONALS:



DIVERSE BACKGROUNDS:

AUDIT EXPERIENCE	DIVERSE PROBLEM SOLVING SKILLS	WORK EXPERIENCE
<p>WITH BIG FOUR AUDIT FIRMS & TEXAS STATE GOVERNMENT</p>	<p>INCLUDING: • AUDIT • ACCOUNTING • TREASURY • INVESTMENT MANAGEMENT • TRADING • DATA ANALYSIS • CYBER SECURITY • INFORMATION TECHNOLOGY</p>	<p>AUSTRALIA THE UK CHINA INDIA PAKISTAN RUSSIA USA</p>

WHAT WE DID IN 2021:

14 14 TRS AUDITS	5 5 EMPLOYER AUDITS	13 13 ADVISORY PROJECTS
9 Created 9 robots for RE data analysis	12 Created 12 algorithms for healthcare claims data analysis	
673 HOURS of CONTINUING PROFESSIONAL EDUCATION (CPE) COMPLETED		

Q1

- **Katie Linczer** joined the IIA's Test Development Team in October 2020
- **Mary Presley** and **Falguni Sampat** attended the P2F2 Conference in October 2020
- **Amanda Jenami** attended ITCI's Emerging Issues in Investments and Derivatives Conference
- **Falguni Sampat** continued to serve on the TRS Go Green Committee
- **Nathan Ward** continued to serve on the TRS Diversity, Equality and Inclusion (DEI) Council
- Welcomed **Syed Israr** as Senior Investment Auditor in September 2020

Q2

- **Falguni Sampat** was promoted in December 2020
- **Amanda Jenami** was awarded IIA's CFSA certification in December 2020
- **Amanda Jenami** was awarded the CIDA certification in January 2021
- **Katie Linczer, Syed Israr, Nathan Ward & Julie Toler** attended the 2021 TRS Emerging Manager Conference in January 2021
- **Teklehaimanot Derseh** attended Advanced Data Analytics Techniques training in February 2021
- **Carol Casey** served as IIA's Austin Chapter Membership Committee Chair

Q3

- **Katie Linczer** was awarded CRMA in March 2021
- **Julie Toler** was awarded CIA certification in May 2021
- **Julie Toler** was awarded CRMA in May 2021
- **Julie Toler** served as Board Chair of CFA Societies Texas and a Director of CFA-DFW Society
- **Teresa Menchaca** attended the ISACA Annual North America Conference in May 2021
- **Nathan Ward** was awarded the Bushel of Fun award in April 2021

Q4

- Welcomed **Matthew Fruth** as Senior IT Auditor in June 2021
- Welcomed **Olga Jerman** as Senior Data Analyst in June 2021
- **Andrea Morales** served on APPFA's Bylaws Committee
- **Andrea Morales, Teklehaimanot Derseh** and **Amanda Jenami** attended the Annual ACFE Global Conference in June 2021
- **Andrea Morales, Mary Presley & Katie Linczer** received a Peck of Thanks in August 2021
- **Carol Casey** served on the P2F2 Membership Committee