



**STATE TEACHERS
RETIREMENT SYSTEM
OF OHIO**

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March 12, 2021

Ms. Bethany Rhodes, Director
Ohio Retirement Study Council
30 E. Broad St.
2nd Floor
Columbus, OH 43215

Dear Bethany:

Pursuant to Substitute Senate Bill 133 and as required by Section 3307.044 of the Ohio Revised Code, enclosed is a report of the actions of the Audit Committee of the State Teachers Retirement Board for calendar year 2020.

Please don't hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'William J. Neville'.

William J. Neville
Executive Director

Enclosure

To: Ohio Retirement Study Council (ORSC)

Subject: STRS Ohio Audit Committee Report — 2020

Date: March 8, 2021

As required by Section 3307.044 of the Ohio Revised Code, the following report outlines the activities of the STRS Ohio Audit Committee and the STRS Ohio Internal Audit Department for the year ending Dec. 31, 2020. This report outlines the following: audit reviews completed during 2020; STRS Ohio Audit Committee meetings and actions; and the 2021 Internal Audit Plan. Audit Committee members during 2020 were Rita Walters (Chair/Retired Member), Claudia Herrington (Vice Chair/ Appointee), Jeffrey Rhodes (Active Member), Wade Steen (Appointee), Robert Stein (Retired Member), and Robert McFee (Active Member/Non-Voting Observer).

Audit Reviews Completed During 2020

The attached 2020 Internal Audit Summary lists the audits performed, the scope of each audit, the recommendations to management; management's response and expected implementation dates. The Internal Audit Summaries were provided to all STRS Ohio Board Members in March, August, and December of 2020.

STRS Ohio Audit Committee Meetings and Actions

The Audit Committee met on Aug. 20, 2020, at 9:00 a.m. and was called to order by the committee chair. Committee members in attendance were Ms. Correthers, Mr. Gruber, Mr. Rhodes, Mr. Steen and Mr. Stein. Other board members attending were Mr. Price, Ms. Walters, Dr. Hunt, Mr. Lard; Mr. Mayerfeld and Mr. McFee. Staff present included Mr. Neville, Ms. Hoover, Ms. Boettcher, Mr. Tackett, Mr. Vance, Mr. Licata and Ms. VanGundy.

Ms. Hoover introduced Kevin Rohrs of CliftonLarsonAllen to present a summary of its plan for the 2019.2020 financial statement audit and tentative schedule for issuing an audit report. CliftonLarsonAllen's overall risk assessment on this engagement is moderate and it has identified investments, contributions, benefit payments and actuarial assumptions as critical audit areas. The final audit report will be presented to the Audit Committee in December.

Mr. Tackett informed the committee that there were no material findings and Internal Audit had full cooperation from STRS Ohio management. Management has accepted all internal audit recommendations and is in various stages of action-planning or implementation. The next update will be presented to the Audit Committee at the December meeting. All audit activity for 2020 will be summarized and the 2021 Internal Audit Plan will be presented at that time for approval.

Mr. Tackett also informed the Audit Committee that his review of the fiscal year 2020 performance-based incentives (PBIs) was complete and he found the PBIs to be in compliance with the STRS Ohio Board Policy. He added that Internal Audit relies upon the ACA Compliance Group to verify performance.

In discussing the fiscal 2020 PBIs, the board requested STRS Ohio's third party firm, ACA Compliance Group, provide education and background at a future board meeting regarding the performance examination and verification that it performs for STRS Ohio.

The meeting adjourned at 10:05 a.m.

A meeting of the Audit Committee was called to order by the committee chair, on Dec. 17, 2020, at 8:37 a.m. Committee members present were Ms. Walters, Ms. Herrington, Mr. Rhodes, Mr. Steen and Mr. Stein. Board members Ms. Correthers, Dr. Hunt, Mr. Lard, Mr. Mayerfeld and Mr. McFee were also

in attendance. Staff present included Mr. Neville, Ms. Hoover, Ms. Wideman, Ms. Boettcher, Mr. Tackett, Mr. Vance, Mr. Licata, Ms. VanGundy and Ms. Hare.

Mr. Tackett began with the 2020 Internal Audit Summary. He stated the summary contained no material findings and Internal Audit had full cooperation from management. All recommendations will be implemented by management by June of 2021.

Mr. Licata summarized the scope of the IT HIPAA audits and provided information on the rationale for rescheduling. He then discussed the results of the IT Audits performed in 2020.

Ms. VanGundy discussed the audits of alternative investments, the Defined Contribution Plan and international investments.

Mr. Vance discussed the audits of the associate Educational Assistance Program and STRS Ohio board expenses, then subsequently reviewed the Executive Summary of the 2021 Internal Audit Plan and the Risk Assessment Process that determines which audits to conduct.

Ms. Walters moved, seconded by Ms. Herrington to enter executive session under authority of Division (G)(1) of Section 121.22 of the Ohio Revised Code for the purpose of discussing appointment, employment or compensation of a public employee or official and Division (G)(5) of Section 121.22 of the Ohio Revised Code for the purpose of discussing matters required to be kept confidential by federal law or state statute.

Upon roll call the vote was as follows: Ms. Walters, yes; Ms. Herrington, yes; Mr. Rhodes, yes; Mr. Steen, yes; Mr. Stein, yes. The motion carried.

CliftonLarsonAllen issued an unmodified opinion on the 2020 financial statements.

Public session resumed and the meeting adjourned at 9:55 a.m.

Special Reviews/Projects

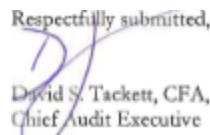
Internal Audit received no requests for supplemental reviews from the Audit Committee or management. See the 2020 Internal Audit Summary, "Other Audit Related Activity" section, for additional departmental activities.

2021 Internal Audit Plan

The 2021 Internal Audit Plan was approved by the STRS Ohio Board on December 17, 2020. A copy of the 2021 Internal Audit Plan is enclosed.

If you have any questions, or need further information, please feel free to call me at 614-227-2821.

Respectfully submitted,


David S. Tackett, CFA, CPA, CIA
Chief Audit Executive



2020 Internal Audit Summary

Closed Audits: Recommendations

Audit Area	Risk Rating	Scope	Recommendations	Management's Response	Implemented	Implementation or Target Implementation	
Alternative Investments Opportunistic/Diversified	Low	Proper Documentation and Approval	Ensure that all phases of the vetting and fiduciary process are sufficiently documented.	Agree	Yes	September 2020	
		Policies and Procedures	Update policies and procedures to reflect structured file folders and centralized file storage locations to mitigate inconsistencies and continuity concerns.	Agree	Yes	September 2020	
		Due Diligence					
		Valuations & Fees					
		Compliance Monitoring of O.D. Funds	Continue to enhance current fee monitoring process to include an independent calculation of carried interest and management fees on at least an annual basis.	Agree	No	December 2020	
Segregation of Duties							
Security/Access Controls			For portfolio tracking and reporting purposes, clearly delineate between committed capital from contributed capital.	Agree	No	December 2020	
Board Expenses	Low	Preapproval of Travel	To comply with the travel policy (reference Policy Title: Board Member Travel and Expenses, A. 5.), future reimbursement requests for expenses incurred while attending out-of-state educational opportunities include the required conference evaluations before reimbursements are made.	Agree	Yes	November 2020	
		Accuracy of Reimbursements					
		Compliance with Rules/Policies					
Defined Contribution	Low	Documented Policies and Procedures	Processes should be documented to include desktop procedures, expected timing, reporting reconciliations, and revision dates to mitigate inconsistencies and continuity concerns.	Agree	No	December 2020	
		NRS Contract Compliance					
		Accuracy of Participant Transactions and Accounts	At least quarterly, reconcile the number of participants in STRS Ohio reconciliations to the amount billed on the NRS invoice to ensure accuracy.	Agree	No	December 2020	
		Segregation of Duties	Consider other documented reviews to ensure compliance of the Defined Contribution functions, including certain contract requirements (i.e., required insurance, etc).	Agree	No	June 2021	
			Work with ITS and refine reporting that creates false positives used to confirm account information between NRS and STARS.	Agree	No	December 2020	
Educational Assistance	Low	Compliance - Policies and Procedures	Representatives from the HRS, Finance, and ITS departments meet to discuss the educational assistance program administrative needs and determine if software solutions can be implemented to streamline and improve educational assistance program management.	Agree	No	January 2021	
		Compliance - Tuition Tracking					
		Process Efficiency					
		Compliance - IRS					
		Segregation of Duties					
Compliance - Spending Limitations							
I.T. Security Access	Low	Password Settings	Evaluate termination process to ensure that, during the removal of terminated/separated associates' access, STRS Ohio ITS revokes all permissions and access to all areas.	Agree	Yes	July 2020	
		User Access Management					
		Physical Access Management					
		Logical Access Review	Perform a risk assessment to identify applications that should be included in the annual re-certification process.	Agree	Yes	December 2020	
		Privileged Access Management	Update the review process to include scheduled performance dates, deadlines, and timely access re-certifications for all users and retain proof of supervisor/manager approval and signoff.	Agree	No	June 2021	
		Remote Access Management	Disable and remove non-expiring and inactive users, administrative, and service accounts from Active Directory.	Agree	Yes (Partial)	Multi-phased Implementation	
	Create a sufficiently documented access change process to manage associate transfers/promotions.	Agree	Yes (Partial)	Multi-phased Implementation			

Closed Audits: No Recommendations

Audit Area	Risk Rating	Scope	Management's Response
Domestic Equities	Low	Reconciliation of External Manager Positions Use of Approved Brokers Monitoring/Reconciliation of Broker Commissions Monitoring/Reconciliation of External Management Fees Accuracy of Board of Reporting Monitoring of External Manager Performance	N/A
Investment Performance: (PBI Review)	Low	Associate Eligibility Compliance with PBI Policy	N/A
Purchasing Practices	Low	Compliance with General Policy Requirements Receipt of Goods and Services	N/A
Purchase Service By Payroll Deduction	Low	Member Application Processing of Payroll Deduction Receipts	N/A
Records Management (Member)	Low	Contracting Retention Imaging-Quality Control Off-site Storage Facility Inspections Disaster Recovery Coverage	N/A
Unused Sick & Vacation Leave	Low	Compliance Accuracy of Payments Compliance with Rules/Policies	N/A

Active Audits

Audit Area	Risk Rating	Scope	Target Completion
Associate Payroll	N/A	State and Federal Tax Regulations Access to Payroll Database Accuracy of Associates' Net Pay Immigration Guidelines/Compliance Form W-4 Overtime Payments	February 2021
Contribution Reporting	N/A	Foundation Management Employee Contribution Management G/L Posting Segregation of Duties Annual Report Management	December 2020
I.T. Change Control	N/A	Change Authorizations Change Testing Change Approved Change Monitoring Segregation of Duties Emergency Change Management	December 2020

I.T. Security Access: MRI	N/A	Password Settings User Access Logical Access Privileged Access	December 2020
International Investing	N/A	External Management Fees Monitoring of External Managers Foreign Tax Reclamations Sub-Custodian Controls	December 2020
Liquidity Reserves	N/A	Compliance Income Purchases/Sales	January 2021
OEC Reporting	N/A	Compliance with Policies and Procedures	December 2020
Purchase Service Credit	N/A	STARS Access Certifications and Cost Calculations Member Applications Posting of Purchased Service Credit Payments Compliance with the Ohio Revised Code	January 2021
Real Estate	N/A	Compliance with Policies and Procedures Due Diligence Valuation Property Management Fees Property-Level Expenses External Compliance Reviews Site Inspections Tenant Surveys	March 2021

Scheduled Audits

Audit Area	Risk Rating	Scope	Target Start Date
Annual Reporting	N/A	Sufficiency of Policies/Procedures Annual Reporting Process Mgmt. Segregation of Duties	December 2020
STRS-Ohio Self-Funded Associate Health Insurance	N/A	Administrative Services Fees Review of Key Goals and Objectives Accuracy of Payroll Withholdings Accuracy of Financial Reporting Monitoring of Health Insurance Costs Miscellaneous Income Segregation of Duties	December 2020

Rescheduled Audits

Audit Area	Scope	Explanation
Benefit Payment Process	Investment Operations Department Review and Verification ITS Department Review and Verification Finance Department Review and Verification Segregation of Duties	Unprecedented changes in STRS Ohio operations warranted a reprioritization of audits performed. This audit has been moved to the 2021 Audit Plan.

Child Care Center	Compliance with State Licensing Rules Compliance with State Inspections Enrollment Tuition Payments Review of Cost Neutrality Segregation of Duties	Unprecedented changes in STRS Ohio operations warranted a reprioritization of audits performed. This audit has been moved to the 2021 Audit Plan.
I.T. Security: HIPAA (Part 1)	Risk Management Governance Encryption	Unprecedented changes in STRS Ohio operations warranted a reprioritization of audits performed. This audit has been moved to the 2022 Audit Plan.
I.T. Security: HIPAA (Part 2)	Access Management Authentication	Unprecedented changes in STRS Ohio operations warranted a reprioritization of audits performed. This audit has been moved to the 2022 Audit Plan.

Other Audit Related Activity

Area	Risk Rating	Subject/Project	Description
I.T.S.	N/A	STARS Upgrades/Maintenance	Consult with I.T.S. and the user community on the security functionality and needs of the system.
I.T.S.	N/A	Privileged Access Management (PAM)	Consult with I.T.S. on the evaluation/implementation of a PAM software
Multi-departmental	N/A	STRS Ohio Disaster Recovery	Participate in disaster recovery testing review. Strategize on business and human resource needs.
I.T.S.	N/A	IT Framework	Consult with I.T.S. on the evaluation of an IT Framework.
Multi-departmental	N/A	Organizational Risk Assessment	Participate in multi-departmental risk identification/mitigation efforts.

Risk Rating Level: (Refers to rating assigned to findings/recommendations)

High: Requires Immediate attention and remediation.

Medium (Med.): Requires near-term attention.

Low: Improvements possible but does not require attention in immediate or near-term.

Composition of Current Audit Committee:

Rita Walters, Retired Member/Chair

Claudia Herrington, Appointee/Vice Chair

Jeffrey Rhodes, Active Member

Wade Steen, Appointee

Robert Stein, Retired Member

Robert McFee, Active Member/Non-Voting Observer



2021 Internal Audit Plan

INTERNAL AUDIT DEPARTMENT

Mission Statement

To work in partnership with associates to conduct value-added independent appraisals of policies and procedures to contribute to the continuous improvement of STRS Ohio.

Vision Statement

To be recognized as an innovative department that, through independent appraisals and partnered solutions, strives for quality enhancements and the elimination of non-value-added processes.

To create an environment that encourages teamwork, innovation, open communication, empowerment and personal and professional growth.

Guiding Principles

To achieve our mission and vision, we will:

- Prepare a comprehensive, practical, planned program of audit coverage consistent with STRS Ohio's mission, vision and guiding principles.
- Perform audits in compliance with the International Standards for the Professional Practice of Internal Auditing.
- Verify the adequacy and effectiveness of STRS Ohio's systems of administrative, operating and financial controls.
- Understand the associates' business from their perspective.
- Produce objective, clear, concise, constructive and timely reports.
- Maintain contemporary professional proficiency through continuing education and training.
- Seek to continuously improve our team, tools and processes.
- Develop professional expertise for potential career opportunities within STRS Ohio.

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2021 INTERNAL AUDIT SCHEDULE

Audit Area	Description of Audit Area	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Other Staff Expenses	Compliance with Policies												
	Accuracy of Board Reporting												
IT Operations	Data Back-up and Recovery												
	Job Scheduling Administration												
	IT Operations Management												
Benefit Payment Process	Investment Operations Department Review and Verification												
	ITS Department Review and Verification												
	Finance Department Review and Verification												
	Segregation of Duties												
Member Income Taxes	Withholding Change Reconciliations												
	Tax Interface Reconciliations												
	Segregation of Duties												
Reemployed Retirees	Compliance with Ohio Revised Code												
	Input Controls												
Personal Investment Disclosure	Compliance with Policies and Procedures												
	Accuracy and Completeness												
	Monitoring												
Securities Lending	Policies and Procedures												
	Compliance												
	Reinvestment of Cash Collateral												
	Accuracy of Income												
	Approved Borrowers												
	Reconciliations of Monthly Earnings Report												
Annual Statements	Accuracy of Member Information												
	Accuracy and Security of Statements												
	External Contracts												
	Segregation of Duties												
Child Care Center	Compliance with State Licensing Rules												
	Compliance with State Inspections												
	Enrollment												
	Tuition Payments												
	Review of Cost Neutrality												
	Segregation of Duties												
Business Continuity Plan	Compliance with Policies and Procedures												
	Plan Testing, Monitoring, Administration												
Member Withdrawals	Compliance with Ohio Revised Code												
	Refund Estimates												
	Refund Payments												
	Non-Zero Accounts												
	Segregation of Duties												

2021 INTERNAL AUDIT SCHEDULE

Audit Area	Description of Audit Area	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Alternative Investments PE	Due Diligence												
	Monitoring of Private Equity Investments												
	Monitoring of Private Equity Fees												
	Valuations												
Fixed Income	Compliance with Investment Policies												
	Approved Brokers/Commissions												
	Accuracy of Pricing												
	Due Diligence												
	Monitoring of External Managers												
	Interest Income												
Risk Management/Insurance	Compliance with the STRS Ohio Insurance and Risk Management Manual												
	Adequacy of Existing Insurance Policies												
	Adequacy of Carrier Ratings												
	Accuracy of Premium Payments												
	Segregation of Duties												
Survivor Benefits	Benefit Calculations												
	Death Refunds												
	Segregation of Duties												
Investment Performance/PBI Review	Associate Eligibility												
	Compliance with PBI Policy												
Cloud/CASB	Identity Management												
	Configuration												
	Security												
	Program Management												
Board Expenses	Preapproval of Travel												
	Accuracy of Reimbursement												
	Compliance with Rules/Policies												
Member Services Center	Associate Training												
	Scheduling of Call Center Associates												
	Associate Monitoring												
	Key Performance Indicators												

RISK FACTORS

RISK FACTOR	RISK FACTOR DESCRIPTION	WEIGHTING
A	Adequacy and Effectiveness of the System of Internal Controls	9
B	Major Changes in Technology, Operations, the Organization or the Economy	8
C	Dates and Results of Previous Audits	7
D	Recent or Relevant Changes in Key Personnel	6
E	Complexity or Volatility of Activities	5
F	Asset Size or Transaction Volume	4

RISK ASSESSMENT SCALE

The risk assessment scale is a 9-point system with graduations of risk as follows:

RISK FACTOR DESCRIPTION	SCORE
Extremely Risky	9
Very Risky	7
Risky	5*
Slightly Risky	3
Not Risky	1

* If no previous audit was performed, the auditable area was assessed a 5 — Risky.

ASSIGNMENT OF RISK RATING

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
ADMINISTRATION							
Associate Payroll	2	2	2	3	2	2	13
Associate Travel Expenses	2	1	1	1	1	2	8
Attendance Reporting	4	2	2	2	2	2	14
Benefit Payment Process	3	4	3	3	3	3	19
Board Expenses	1	1	1	1	1	1	6
Building Maintenance	3	2	3	2	2	2	14
Business Continuity Plan	3	3	3	1	5	5	20
Child Care Center	2	2	2	2	2	1	11
Educational Assistance Program	2	2	2	2	2	2	12
Fixed Assets — Computer Equipment	3	4	2	3	3	4	19
Flexible Spending Plans	2	2	2	2	3	2	13
Insurance/Risk Management	2	2	1	1	2	2	10
OEC Reporting	1	2	1	2	2	1	9
Other Staff Expenses	2	2	1	1	1	1	8
Personal Investment Disclosure	1	1	3	3	5	3	16
Postage	2	2	2	1	2	3	12
Purchasing Practices	3	2	3	2	2	3	15
STRS Ohio Self Insurance Plan	3	2	3	2	3	3	16
Unused Sick and Vacation Leave	2	1	2	2	2	1	10

* See Page 3 for description of risk factors.

ASSIGNMENT OF RISK RATING

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
FINANCE							
Accounts Payable	2	1	2	1	2	2	10
Annual Reporting	2	3	2	2	2	2	13
Contribution Reporting	1	3	1	1	3	5	14
Financial Reporting (STRS Ohio)	2	2	2	2	3	4	15
Fixed Assets	3	2	3	3	2	2	15
Member Income Taxes	1	1	2	2	4	5	15
Member Withdrawals	2	1	2	2	2	2	11
Petty Cash/Café Operations	2	2	2	3	1	1	11
Purchasing Service Credit by Payroll Deduction	2	2	2	2	2	3	13

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
INFORMATION TECHNOLOGY SERVICES							
AIX/ Windows Security	5	3	5	1	2	3	19
Compliance: B.Y.O.D.	5	3	5	1	3	3	20
Database Security	3	3	3	1	4	5	19
I.T. Operations	3	3	3	1	3	3	16
I.T. Security: Change Control	4	3	3	3	3	3	19
I.T. Security: Logical/Physical Access	3	3	3	1	5	5	20
I.T. Security: HIPAA	5	3	5	1	5	5	24
I.T. Security: PeopleSoft Security	3	3	3	3	5	5	22
I.T. Security: Cyber Vulnerabilities	4	4	5	1	5	5	24
I.T. Security: MRI	3	3	3	1	3	3	16
I.T. Vendor Contract Management	3	3	3	1	5	5	20
I.T. Cloud/CASB	5	5	5	1	5	3	24

* See Page 3 for description of risk factors.

ASSIGNMENT OF RISK RATING

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
INVESTMENTS							
Alternative Investments	3	3	2	3	4	4	19
Derivatives	3	4	2	3	4	3	19
Domestic Equities	3	4	2	2	4	5	20
Fixed Income	2	4	2	3	3	5	19
International Investing	5	5	2	1	4	4	21
Investment Performance (PBI Review)	2	2	2	2	2	2	12
Liquidity Reserves	1	2	1	3	2	3	12
Proxy Voting	2	1	1	1	2	2	9
Real Estate	3	4	3	3	3	3	19
Securities Lending	2	3	2	2	4	4	17

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
MEMBER BENEFITS							
Annual Statements	2	2	2	2	2	2	12
Benefit Processing	3	3	2	2	2	2	14
Defined Contribution Plan	2	2	2	2	2	3	13
Disability Benefits	3	2	2	4	2	3	16
Health Care	3	2	2	2	3	4	16
Member Data Management	3	3	3	1	3	3	16
Member Records Management	2	3	2	2	2	2	13
Member Services Center	2	2	2	1	2	2	11
Purchasing Service Credit	2	3	2	2	2	2	13
Reemployed Retirees	2	3	2	2	2	2	13
Service Retirement Benefits	2	3	2	3	3	3	16
Survivor Benefits	3	2	2	3	2	3	15

* See Page 3 for description of risk factors.

RISK FACTORS WEIGHTED

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
ADMINISTRATION							
Associate Payroll	18	16	14	18	10	8	84
Associate Travel Expenses	18	8	7	6	5	8	52
Attendance Reporting	36	16	14	12	10	8	96
Benefit Payment Process	27	32	21	18	15	12	125
Board Expenses	9	8	7	6	5	4	39
Building Maintenance	27	16	21	12	10	8	94
Business Continuity Plan	27	24	21	6	25	20	123
Child Care Center	18	16	14	12	10	4	74
Educational Assistance Program	18	16	14	12	10	8	78
Fixed Assets — Computer Equipment	27	32	14	18	15	16	122
Flexible Spending Plans	18	16	14	12	15	8	83
Insurance/Risk Management	18	16	7	6	10	8	65
OEC Reporting	9	16	7	12	10	4	58
Other Staff Expenses	18	16	7	6	5	4	56
Personal Investment Disclosure	9	8	21	18	25	12	93
Postage	18	16	14	6	10	12	76
Purchasing Practices	27	16	21	12	10	12	98
STRS Ohio Self Insurance Plan	27	16	21	12	15	12	103
Unused Sick and Vacation Leave	18	8	14	12	10	4	66

* See Page 4 for description of risk factors.

RISK FACTORS WEIGHTED

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
FINANCE							
Accounts Payable	18	8	14	6	10	8	64
Annual Reporting	18	24	14	12	10	8	86
Contribution Reporting	9	24	7	6	15	20	81
Financial Reporting (STRS Ohio)	18	16	14	12	15	16	91
Fixed Assets	27	16	21	18	10	8	100
Member Income Taxes	9	8	14	12	20	20	83
Member Withdrawals	18	8	14	12	10	8	70
Petty Cash/Café Operations	18	16	14	18	5	4	75
Purchasing Service Credit by Payroll Deduction	18	16	14	12	10	12	82

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
INFORMATION TECHNOLOGY SERVICES							
AIX/ Windows Security	45	24	35	6	10	12	132
Compliance: B.Y.O.D.	45	24	35	6	15	12	137
Database Security	27	24	21	6	20	20	118
I.T. Operations	27	24	21	6	15	12	105
I.T. Security: Change Control	36	24	21	18	15	12	126
I.T. Security: Logical/Physical Access	27	24	21	6	25	20	123
I.T. Security: HIPAA	45	24	35	6	25	20	155
I.T. Security: PeopleSoft Security	27	24	21	18	25	20	135
I.T. Security: Cyber Vulnerabilities	36	32	35	6	25	20	154
I.T. Security: MRI	27	24	21	6	15	12	105
I.T. Vendor Contract Management	27	24	21	6	25	20	123
I.T. Cloud/CASB	45	40	35	6	25	12	163

* See Page 4 for description of risk factors.

RISK FACTORS WEIGHTED

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
INVESTMENTS							
Alternative Investments	27	24	14	18	20	16	119
Derivatives	27	32	14	18	20	12	123
Domestic Equities	27	32	14	12	20	20	125
Fixed Income	18	32	14	18	15	20	117
International Investing	45	40	14	6	20	16	141
Investment Performance (PBI Review)	18	16	14	12	10	8	78
Liquidity Reserves	9	16	7	18	10	12	72
Proxy Voting	18	8	7	6	10	8	57
Real Estate	27	32	21	18	15	12	125
Securities Lending	18	24	14	12	20	16	104

Audit Area	Risk Factors*						Total
	A	B	C	D	E	F	
MEMBER BENEFITS							
Annual Statements	18	16	14	12	10	8	78
Benefit Processing	27	24	14	12	10	8	95
Defined Contribution Plan	18	16	14	12	10	12	82
Disability Benefits	27	16	14	24	10	12	103
Health Care	27	16	14	12	15	16	100
Member Data Management	27	24	21	6	15	12	105
Member Records Management	18	24	14	12	10	8	86
Member Services Center	18	16	14	6	10	8	72
Purchasing Service Credit	18	24	14	12	10	8	86
Reemployed Retirees	18	24	14	12	10	8	86
Service Retirement Benefits	18	24	14	18	15	12	101
Survivor Benefits	27	16	14	18	10	12	97

* See Page 4 for description of risk factors.

2021 INTERNAL AUDIT WORK PLAN

Audit Area	Priority	Dept.	Risk Score	Last Audit	Estimated Audit Date	Risk Codes
I.T. Cloud/CASB	HIGH	ITS	163	N/A	2021	F, I, C, O, PS
I.T. Security: Cyber Vulnerabilities	HIGH	ITS	154	2019		F, I, C, O, PS
International Investing	HIGH	I	141	2020		F, I, C, O
I.T. Security: PeopleSoft Security	HIGH	ITS	135	2017		F, I, C, O, PS
Domestic Equities	HIGH	I	125	2019		F, I, C, O
Real Estate	HIGH	I	125	2020		F, I, C, O
Derivatives	HIGH	I	123	2018		F, I, C, O
Alternative Investments	HIGH	I	119	2019	2021	F, I, C, O
Fixed Income	HIGH	I	117	2018	2021	F, I, C, O
I.T. Security: MRI	HIGH	ITS	105	2020		F, I, C, O, PS
Liquidity Reserves	HIGH	I	72	2020		F, I, C, O
Board Expenses	HIGH	A	39	2020		I, C, O, PS
I.T. Security: HIPAA	MED.	ITS	155	2015		F, I, C, O, PS
Compliance: B.Y.O.D.	MED.	ITS	137	2017		F, I, C, O, PS
AIX/ Windows Security	MED.	ITS	132	2017		F, I, C, O, PS
I.T. Security: Change Control	MED.	ITS	126	2020		F, I, C, O, PS
I.T. Vendor Contract Management	MED.	ITS	123	2020		F, I, C, O, PS
I.T. Security: Logical/ Physical Access	MED.	ITS	123	2020		F, I, C, O, PS
Business Continuity Plan	MED.	A	123	2018	2021	F, I, C, O
Database Security	MED.	ITS	118	2020		F, I, C, O, PS
I.T. Operations	MED.	ITS	105	2017	2021	F, I, C, O, PS
Member Data Management	MED.	MB	105	2017		C, PS
Service Retirement Benefits	MED.	MB	101	2017		I, C, O

Risk Codes:

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- I: Integrity = Risk related to accuracy of data or asset managed/presented
- C: Compliance = Risk related to non-compliance with laws/regulations/internal policies
- O: Operational = Risk related to operational efficiencies/inefficiencies
- PS: Public Sensitivity = No material financial impact but high public sensitivity

2021 INTERNAL AUDIT WORK PLAN

Audit Area	Priority	Dept.	Risk Score	Last Audit	Estimated Audit Date	Risk Codes
Health Care	MED.	MB	100	2018		I, C, O
Financial Reporting (STRS Ohio)	MED.	F	91	2018		I, C, O
Annual Reporting	MED.	F	86	2020		I, C, O
Defined Contribution Plan	MED.	MB	82	2020		I, C, O
Contribution Reporting	MED.	F	81	2020		I, C, O
Annual Statements	MED.	MB	78	2017	2021	I, C, O
Risk Management/ Insurance	MED.	A	65	2017	2021	F, I, C, O
Accounts Payable	MED.	F	64	2018		I, C, O
Benefit Payment Process	LOW	A	125	2015	2021	I, C, O
Fixed Assets — Computer Equipment	LOW	A	122	2018		I, C, O
Securities Lending	LOW	I	104	2017	2021	I, C, O
STRS Ohio Self Insurance Plan	LOW	A	103	2020		I, C, O
Disability Benefits	LOW	MB	103	2018		I, C, O
Fixed Assets	LOW	F	100	2018		I, C, O
Purchasing Practices	LOW	A	98	2019		I, C, O, PS
Survivor Benefits	LOW	MB	97	2017	2021	I, C, O
Attendance Reporting	LOW	A	96	2018		I, C, O
Benefits Processing	LOW	MB	95	2018		I, C, O
Building Maintenance	LOW	A	94	2018		I, C, O
Personal Investment Disclosure	LOW	A	93	2017	2021	I, C
Reemployed Retirees	LOW	MB	86	2016	2021	I, C, O
Member Records Management	LOW	MB	86	2020		C, O

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2021 INTERNAL AUDIT WORK PLAN

Audit Area	Priority	Dept.	Risk Score	Last Audit	Estimated Audit Date	Risk Codes
Purchasing Service Credit	LOW	MB	86	2020		I, C, O
Associate Payroll	LOW	A	84	2020		I, C, O
Member Income Taxes	LOW	F	83	2017	2021	I, C, O
Flexible Spending Programs	LOW	A	83	2019		I, C, O
Purchasing Service Credit by Payroll Deduction	LOW	F	82	2019		I, C, O
Investment Performance (PBI Review)	LOW	I	78	2020	2021	I, C, O
Educational Assistance Program	LOW	A	78	2019		I, C, O
Postage	LOW	A	76	2018		I, C, O
Petty Cash/Café Operations	LOW	F	75	2017		I, C, O, PS
Child Care Center	LOW	A	74	2015	2021	I, C, O
Member Services Center	LOW	MB	72	2017	2021	C, O
Member Withdrawals	LOW	F	70	2017	2021	I, C, O
Unused Sick and Vacation Leave	LOW	A	66	2019		I, C, O
OEC Reporting	LOW	A	58	2020		I, C, O, PS
Proxy Voting	LOW	I	57	2019		I, C, PS
Other Staff Expenses	LOW	A	56	2017	2021	I, C, O, PS
Associate Travel Expenses	LOW	A	52	2017		I, C, O, PS

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