

275 East Broad Street Columbus, OH 43215-3771 614-227-4090 www.strsoh.org

RETIREMENT BOARD CHAIR CAROL CORRETHERS

RETIREMENT BOARD VICE CHAIR ROBERT STEIN

EXECUTIVE DIRECTOR MICHAEL J. NEHF

March 23, 2016

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 2015.

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

Sincerely,

Michael J. Nehf

Executive Director

Enclosure

To: Ohio Retirement Study Council (ORSC)

Subject: STRS Ohio Audit Committee Report - 2015

Date: March 21, 2016

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, 2015. This report outlines the following: audit reviews completed during 2015; STRS Ohio Audit Committee meetings and actions; special reviews completed during 2015; and the 2016 Internal Audit Plan. Audit Committee members during 2015 were Carol Correthers, (Chair/Liaison), Tim Myers (Vice Chair/Liaison), Craig Brooks, Mark Hill, Jim McGreevy, and Robert Stein (non-voting observer).

Audit Reviews Completed During 2015

The attached 2015 Internal Audit Summary lists the audits performed, the scope for each audit, the recommendations to management, management's response and expected implementation dates. The Internal Audit Summaries were provided to all State Teachers Retirement Board Members in March, September and December 2015.

STRS Ohio Audit Committee Meetings and Actions

The Audit Committee met on Aug. 20, 2015, at 8:30 a.m. Committee members present were Mr. Brooks, Mr. Myers and Mr. Hill. Board members Mr. Price and Ms. Correthers were also in attendance. Mr. Sheppard and Mr. Stein joined the meeting in progress. Staff present included Mr. Nehf, Mr. Snyder, Ms. Hoover, Mr. Tackett, Mr. Vance and Mr. Licata.

Mr. Tackett informed the committee that there were no material findings and that there was full cooperation from management. Management has accepted all recommendations and is in various stages of action-planning or implementation. The Committee reviewed and discussed the Quarterly Internal Audit Summary. Mr. Vance informed the committee of potential changes to the Summary that are designed to facilitate the Ohio Retirement Study Council's review of annual Internal Audit Dept. document submissions. The next update will be presented to the Audit Committee at the December meeting. All audit activity for 2015 will be summarized, and the 2016 Internal Audit Plan will be presented at that time.

Kevin Rohrs of CliftonLarsonAllen, presented a summary of their plan for the 2014-2015 financial statement audit and tentative schedule for issuing an audit report and management letter. Their overall risk assessment on this engagement is moderate, and CliftonLarsonAllen has identified investments, contributions, benefit payments and

actuarial assumptions as critical audit areas. STRS Ohio will implement GASB 68 for the year ended June 30, 2015. The final audit report, including management letter, will be presented to the Audit Committee in December.

The meeting adjourned at approximately 9:30 a.m.

Upon roll call, the vote was as follows: Ms. Hayden, yes; Mr. Price, yes; Mr. Brooks, yes; Mr. Hill, yes; Mr. Mayerfeld, yes; Mr. McGreevy, yes; Mr. Myers, yes; Mr. Sheppard, yes.

The Audit Committee met on Dec. 17, 2015, at 9:35 a.m. Committee members present were Ms. Correthers, Mr. Myers, Mr. Brooks Mr. Hill and Mr. McGreevy. Board members Mr. Price and Mr. Stein were also in attendance. Staff present included Mr. Nehf, Mr. Snyder, Ms. Hoover, Mr. Tackett, Mr. Vance and Mr. Licata.

The chair recognized Mr. Tackett to begin the report. Mr. Tackett informed the committee that the recommendations listed on the 2015 Internal Audit Summary have been fully implemented by management and staff.

Mr. Vance explained the annual summary format has been updated to include priority categories and other changes, required by the Ohio Retirement Study Council (ORSC). These changes to the format provide a uniform document sent to ORSC and the Audit Committees of all five Ohio retirement systems.

Mr. Licata reported an audit of the STRS Ohio disaster recovery plan is complete. Systems are tested annually.

Mr. Tackett reviewed the Executive Summary of the 2016 Internal Audit Schedule, risk factors and risk assessment scale.

Mr. Snyder introduced Kevin Rohrs, of CliftonLarsonAllen, and recognized that the auditing firm has completed its current 5-year contract.

Mr. Hill moved, seconded by Mr. Myers, to enter executive session under authority of Division (G) (5) of Section 121.22 of the Revised Code for the purpose of discussing matters required to be kept confidential by federal law or state statutes.

Upon roll call, the vote was as follows: Mr. Hill, yes; Mr. Myers, yes; Mr. Brooks, yes; Mr. McGreevy, yes; Ms. Correthers, yes. Motion carried.

Public session resumed and the Audit Committee meeting was adjourned at 10:35 a.m.

Special Reviews/Projects

There were no special reviews, projects or engagements.

2016 Internal Audit Plan

The 2016 Internal Audit Plan was approved by the STRS Ohio Board on December 17, 2015. A copy of the 2016 Plan is enclosed.

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

Respectfully submitted,

Dayld'S. Tackett, CFA, CPA, CIA

Chief Audit Executive



2015 Internal Audit Summary

Closed Audits: Recommendations

the state of the s	-				S-10-10-10-10-10-10-10-10-10-10-10-10-10-	Implementation or Target
Audit Area	Risk Rating		Recommendations	Management's Response	Implemented	Implementation 2/27/2015
AIX/Windows Security*	Medium	Verify FTP Login is Restricted Disabled Default Accounts	Window Admin. Passwords: Change every 90 to 180 days to reduce the risk of unauthorized systems access	Alternate recommendation accepted ◊	Yes	2/2//2015
		Registry Access Permissions	Privileged Access: Block login and remote- login to root account (set to values to	Alternate recommendation accepted ¥	Yes	2/27/2015
		Domain/AD Model Account Lockout Settings	"False") to increase security AIX Password Settings: Align password	Alternate recommendation accepted ±	Yes	3/1/2015
		Update Access	configuration with industry best practices to reduce the risk of unauthorized access	recommendation accepted ±	165	3/1/2013
7		Comments:				
		as part of the System Change Management	NATION CONTROL			
		STaRS DB because the current Control-M sy	"rlogin" will be kept disabled but value will be set to "True" to stem must run on "root". A product change has been request I-M, and TSM) passwords will be changed at least every 24 mon	ted.		
		E Non user-based systems (Oracle, Control	rm, and 13m) passwords will be changed at least every 24 mor	nuis to prevent potential business interruptions. Scr	Tickets will be opened	011/Be101e 2/27/2013.
Alternative Investments*	Medium	Opportunistic/Diversified: Due Diligence	Revise policies and procedures to include specific details on the execution of the	Agree	Yes	6/30/15
		Monitoring	monitoring process			
		Valuations				
Alternative Investments*	Medium	Private Equity: Due Diligence	Develop a formal process to ensure monitoring activities are properly performed and documented by individual analysts.	Agree	Yes	9/30/15
		Monitoring	and documented by individual analysts.			
		Valuations				
Database Security (Oracle)*	Low	Security and Password Configurations	Password parameters for key systems and applications be set to expire every 90-180	Agree	Yes	5/28/2015
		Access to Database Listeners	days.			
		Default Accounts and Passwords	Reduce the risk of attacks by changing NTS port from 1521.	Alternate Recommendation	No	6/30/2016
		Host-Based Authentication Methods	Nis port nom 1321.	Accepted		
		General Password Settings				
		Comment:				
		Internal Audit has accepted an alternate upgrade, V10), ITS will work with Vitech	recommendation to, in the near term, increase protection to change the port.	on through the use of application firewalls. As pa	art of the larger, future	e project (Vitech
nternational Investing*	Low	External Manager Fees	Review the foreign tax reclaim process to reduce the risk of inaccurate or insufficient	Agree	Yes	12/12/2014
		Monitoring of External Managers	calculations and collection of receivable			
		Foreign Tax Reclamations	funds	Odf	XC)	
		Sub-Custodian Controls	Work with custodial bank to develop and deliver appropriate month-end reports	Agree	Yes	12/12/2014
Member Data Management*	Medium	Third-Party Access to Member Data	Require routine sign-off of data owners	Agree	Yes	2/28/15
Sheed		Transmission of Member Data/Security	to verify accuracy of tracking information related to the sharing and security of			
		Third-Party Operations/Control	member data.			
e:		Contractual Agreements				
					6	5
Member Income Taxes	Low	Withholding Change Reconciliations	Review segregation of duties for shared	Agree	Yes	3/31/15
		Tax Interface Reconciliations	access to STaRS processing screens			
		Segregation of Duties				
Survivor Benefits	Low	Benefit Calculations	Until the new law is implemented, perform	Agree	Yes	9/30/15
		Student Benefits	periodic, random sampling of student enrollment to verify compliance	4294		
		Segregation of Duties				
	The state of	loop of paties	On the second se			

Audit Area	Risk Rating	Scope	Management's Response
Child Care	N/A	Compliance with State Licensing	
		State Inspections	
		Tuition Payments	
		Enrollment	
Disability Benefits*	N/A	Reexamination Schedules	
		Medical Invoice Payments	
		Statement of Employment/Earnings	
		Terminated Benefits - Notification	
		Benefit Calculations	
Financial Reporting	N/A	Role-Based Security/Segregation	
		Adjusting Journal Entries	
		Disaster Recovery	
		Audit Trail Integrity	
-ixed Assets	N/A	Tracking, Reporting and Monitoring	
		Depreciation	
		Disposition	
Health Care*	N/A	Records Retention/Management	
		Issues Monitoring and Resolution	
		Disbursement Reconciliations	
		Segregation of Duties	
iquidity Reserves	N/A		
inquialty reserves		Compliance	
		Income	
Total Wilder	11/4	Purchases/Sales	
Member Withdrawals		Compliance	
		Refund Estimates/Payments	
		Non-Zero Accounts	
ersonal Investment Dis-		Segregation of Duties Compliance with Policies	
closure		2 	
		Accuracy/Completeness Monitoring	
ost-Retirement Benefits		Monitoring Death Match	
ost-verment denents		Annuity Certain Expirations	
		Overpayments/Collections	
Service Retirement Benefits		Disbursement Compliance Departmental Process Documentation	
SSI VICE RECIPCING DESIGNES		Benefit Calculations	
		Management of Overpayments	
		Segregation of Duties	
-			

Active Audits

			7 to cit o 7 to dico	
Audit Area	Risk Rating		Scope	Target Completion
ccounts Payable	N/A	Vendor Approval Process		May-16
		Vendor Payment History		
		Compliance with Policy		
		Segregation of Duties		

Alternative Investments*	N/A	Private Equity: Due Diligence	April-16
		Monitoring	
		Valuations	
Attendance Reporting	N/A	Accuracy	March-16
Accendance Reporting	17/0	Compliance with Policy	
Building Maintenance	N/A	Purchases of Goods and Services	April-16
Juliang Hamteriance	1071	Preventive Maintenance	2 100 100 Hotel
		Associate Training	
		Quality Assurance	March-16
Business Continuity Plan (BCP)		Compliance	Marchero
en e vezale presibiler	in Property	Monitoring & Testing	
3oard Expenses	N/A	Preapproval of Travel	May-16
		Accuracy of Reimbursements	
		General Compliance with Rules/Policy	Managara Wa
Jomestic Equities*	N/A	Compliance with Investment Policy	May-16
		Monitoring of External Portfolio Managers	
		Investment Management Fees	
		Reporting/Accounting	
		Research Costs	
		Approved Brokers	
		Custodian	
ixed Assets - Computer	N/A	Purchasing	June-16
Equipment		Accuracy of Inventory Records	
		Disposition	
ixed Income Investments	N/A	Due Diligence	
		Approved Brokers/Commissions	
		Accuracy of Pricing	
		Interest Income	
		Monitoring of External Managers	
		Compliance with Investment Policies	April-16
			Арлі-то
T Security: B.Y.O.D. (Bring Your Own Device)	N/A	Compliance	January 16
	DIVE ST		January-16
DEC Reporting	N/A	Compliance	January-16
ostage	N/A	Compliance with Policies and Procedures	
		Disbursements	December-15
Real Estate	N/A	Property Management Fees	
		Site Inspections	1
		External Compliance Reviews	
		Tenant Surveys	
		Compliance with Investment Policy	June-16
	Charles &	Scheduled Audits	
Benefit Payment Process	N/A	Accuracy of Monthly Forecast	
		Reconciliations	
II .		G/L Postings	
		Segregation of Duties	March-16
		Postponed Audits	
T Security: HIPAA		Awareness & Education	
		Project Planning	N/A

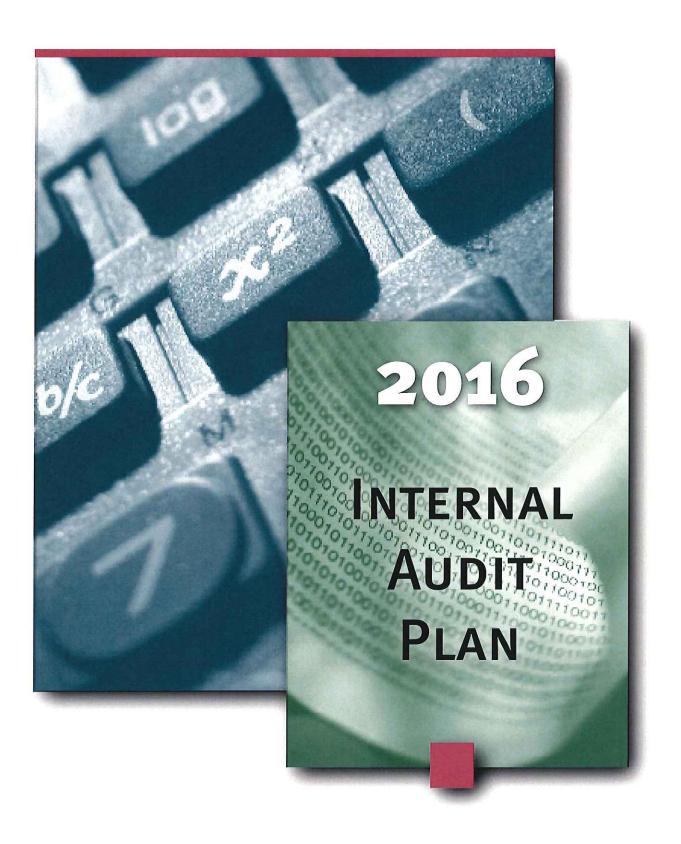
Comment:	
Reprioritized higher risk reviews resulting in the postponement of this audit.	
Reprioritized higher risk reviews resulting in the postponement of this audit.	

Other Audit Related Activity

		Other Addit Rela	red receives
Area	Risk Rating	Subject/Project	Description
.T.S.	N/A	STaRS Upgrade	Consult with ITS and the user community on the security functionality
as (2000) 50%			and needs of the system.
Multi-departmental	I N/A	DLP (Data Loss Prevention)	Participate on the DLP Committee to implement, monitor and evaluate
			the data loss prevention as it should function at STRS Ohio.
Multi-departmental	I N/A	STRS Ohio Disaster Recovery	Participate in disaster recovery testing review. Strategize on business
alt doportion	38.0	4	and human resource needs.

Audits were listed as "Under Mgmt. Review", "In Progress", "Audit Initiated", or had not implemented recommendation(s) at the time of the last Annual Audit Summary presentation.

Composition of Current Audit Committee:
Carol Correthers, Chair/Liaison - Active Member
Tim Myers, Vice Chair/Asst. Liaison - Active Member
James McGreevy, Retired Member
Craig Brooks, Appointee
Mark Hill, Appointee
Robert Stein, Non-Voting Observer



STATE TEACHERS RETIREMENT SYSTEM OF OHIO

275 East Broad Street Columbus, OH 43215-3771 614-227-4090 www.strsoh.org

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.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

2016 Internal Audit Schedule	1
DETAILED SUMMARY	
Risk Factors	3
Risk Assessment Scale	4
Assignment of Risk Rating	5
Risk Factors Weighted	8
2016 Internal Audit Work Plan	11

Audit Area Description of International Investing International Investing External Mana Monitoring of Investing of Investing of Investing Investing Investigation Investing Investigation Investigat	Commence of the second					
	Audit Area	Jan. Feb. Mar. Apr. May Jun.	Jul.	Aug. Sep.	Oct. Nov.	Dec.
	External Manager Fees Monitoring of External Managers Foreign Tax Reclamations Sub-Custodian Controls					
NRS Contract Accuracy of M Segregation of	Processing of Retirement Plan Selection Forms NRS Contract Compliance Accuracy of Member Statements Segregation of Duties					
Contribution Reporting Foundation M Employee Co Segregation of Annual Reportings	Foundation Management Employee Contribution Management Segregation of Duties Annual Report Management G/L Postings					
Member Services Center Associa Schedu Associa Key Per	Associate Training Scheduling for Call Coverage Associate Monitoring Key Performance Indicators					
Purchasing Service Credit STARS Certifics Membe Complise Posting Free Miles	STaRS Access Certifications and Cost Calculations Member Applications Compliance with the Ohio Revised Code Posting of Purchased Service Credit Payments Free Military Service Credits	nts				
STRS Ohio Self-Insurance Plan Stop-Loss Cov Administrative Shared Saving Segregation o Monitoring of I	Stop-Loss Coverage Administrative Services Fees Shared Savings Segregation of Duties Monitoring of Health Insurance Costs					
Purchasing Practices Complia Receipt	Compliance with Policies Receipt of Goods and Services					
I.T. Security: Change Control Authoriz Change Change	Authorized Changes Change Validation Change Approval Process Change Monitoring Process Segregation of Duties					
Reemployed Retirees Complis Violatio	Compliance with Ohio Revised Code Violations/Collections Calculation Input Controls (STaRS)					

2016 INTERNAL AUDIT SCHEDULE

Audit Area	Description of Audit Area	Jan. Feb.	. Mar.	Apr.	May	Jun.	Jul.	Aug. Se	Sep. 0	Oct. N	Nov. D	Dec.
Purchasing SC by Payroll Deduction	Member Applications Processing of Payroll Deduction Segregation of Duties Payroll Deduction Refunds											
Flexible Spending Programs	Compliance with Withholdings Rules Compliance with Disbursements Rules											
Associate Payroll	State and Federal Tax Regulations Access to Payroll Database Accuracy of Associate Net Pay Immigration Guidelines/Compliance											
I.T. Security: Logical/Physical Access	Password Management User Access Authorized/Established Physical Access Management Privileged Access Management Logical Access Monitoring											
Educational Assistance Program	Compliance with Policies/Procedures											
Alternative Investments: Opportunistic Diversified	Proper Notification and Approval Due Diligence Valuations Monitoring of Opportunistic Diversified Funds Segregation of Duties	spu			AT BOT STATE CONTRACTOR							
Member Records Management	Compliance with Policies/Procedures Imaging - Quality Control Off-Site Storage Facility Inspections Disaster Recovery Consideration											
Board Expenses	Preapproval of Travel Accuracy of Reimbursements Compliance with Rules/Policies											
Unused Sick and Vacation Leave	Compliance with Rules/Policies Accuracy of Payments Disposition											
Performance/PBI Review	Associate Eligibility Compliance with PBI Policy											
Domestic Equities	Compliance with Investment Policy/Objectives Research Costs Monitoring of External Portfolio Managers Reporting/Accounting External Management Fees Approved BrokersAudit Area	tives										

RISK FACTORS

Risk Factor	Risk Factor Description	Weighting
A	Adequacy and Effectiveness of the System of Internal Controls	9
В	Major Changes in Technology, Operations, the Organization or the Economy	8
С	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

			Risl	k Facto	rs*		
Audit Area	Α	В	С	D	E	F	Total
ADI	MINIST	ATION					
Associate Payroll	2	2	2	2	2	3	13
Associate Travel Expenses	2	1	1	2	2	2	10
Attendance Reporting	2	2	2	2	2	3	13
Benefit Payment Process	3	4	3	3	3	3	19
Board Expenses	1	1	1	2	1	1	7
Building Maintenance	2	2	2	2	2	4	14
Business Continuity Plan	3	3	3	3	4	3	19
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	3	2	2	2	13
Insurance/Risk Management	2	2	1	2	2	2	11
OEC Reporting	1	2	1	2	2	1	9
Other Staff Expenses	2	2	2	1	1	1	9
Personal Investment Disclosure	3	2	4	2	3	2	16
Postage	3	2	2	1	2	3	13
Purchasing Practices	3	2	3	2	2	3	15
STRS Ohio Self Insurance Plan	3	3	3	2	3	3	17
Unused Sick and Vacation Leave	2	1	2	2	2	1	10

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

ASSIGNMENT OF RISK RATING

	Risk Factors*								
Audit Area	Α	В	C	D	E	F	Total		
	FINAN	ICE							
Accounts Payable	2	1	2	1	2	2	10		
Annual Reporting	2	3	2	2	2	2	13		
Contribution Reporting	2	3	2	2	2	3	14		
Financial Reporting (STRS Ohio)	3	3	2	2	4	4	18		
Fixed Assets	3	2	3	4	2	2	16		
Member Income Taxes	4	4	2	2	3	4	19		
Member Withdrawals	2	2	2	2	2	2	12		
Petty Cash/Café Operations	2	2	2	3	1	1	11		
Purchasing Service Credit									
by Payroll Deduction	2	4	2	2	3	2	15		

INFORMATION TECHNOLOGY SERVICES											
AIX/ Windows Security	5	3	5	1	5	5	24				
Compliance: B.Y.O.D.	5	3	5	1	5	5	24				
Database Security	5	3	5	1	5	5	24				
I.T. Operations	5	3	5	1	5	5	24				
I.T. Security: Change Control	5	3	3	3	5	5	24				
I.T. Security: Logical/Physical Access	5	3	3	1	5	5	22				
I.T. Security: HIPAA	5	3	5	1	5	5	24				

	INVESTI	MENTS					
Alternative Investments	4	4	3	2	4	4	21
Derivatives	3	4	2	3	4	3	19
Domestic Equities	3	4	2	2	4	5	20
Fixed Income	2	4	2	3	3	3	17
International Investing	4	5	2	3	4	4	22
Investment Performance	2	2	2	2	3	2	13
Liquidity Reserves	1	2	1	-1	2	4	11
Proxy Voting	2	1	1	1	2	2	9
Real Estate	3	4	3	3	3	3	19
Securities Lending	2	4	2	2	3	4	17

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

^{*}See Page 3 for description of risk factors.

ASSIGNMENT OF RISK RATING

	Risk Factors*									
Audit Area	Α	В	С	D	E	F	Total			
ME	MBER B	ENEFIT	rs							
Annual Statements	3	4	2	2	2	2	15			
Benefit Services (Post Retirement)	3	4	2	2	2	2	15			
Defined Contribution Plan	2	2	2	2	2	2	12			
Disability Benefits	3	2	2	4	2	3	16			
Health Care	3	2	2	2	3	4	16			
Member Data Management	3	4	4	2	2	2	17			
Member Records Management	2	2	2	2	2	2	12			
Member Services Center	2	2	2	1	2	2	11			
Purchasing Service Credit	2	3	2	2	3	2	14			
Reemployed Retirees	3	4	3	3	2	2	17			
Service Retirement Benefits	2	4	2	3	3	4	18			
Survivor Benefits	3	2	2	3	2	3	15			

RISK FACTORS WEIGHTED

	Risk Factors*							
Audit Area	Α	В	С	D	E	F	Total	
AD	MINIST	RATIO	N					
Associate Payroll	18	16	14	12	10	12	82	
Associate Travel Expenses	18	8	7	12	10	8	63	
Attendance Reporting	18	16	14	12	10	12	82	
Benefit Payment Process	27	32	21	18	15	12	125	
Board Expenses	9	8	7	12	5	4	45	
Building Maintenance	18	16	14	12	10	16	86	
Business Continuity Plan	27	24	21	18	20	12	122	
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	21	12	10	8	85	
Insurance/Risk Management	18	16	7	12	10	8	71	
OEC Reporting	9	16	7	12	10	4	58	
Other Staff Expenses	18	16	14	6	5	4	63	
Personal Investment Disclosure	27	16	28	12	15	8	106	
Postage	27	16	14	6	10	12	85	
Purchasing Practices	27	16	21	12	10	12	98	
STRS Ohio Self Insurance Plan	27	24	21	12	15	12	111	
Unused Sick and Vacation Leave	18	8	14	12	10	4	66	

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

RISK FACTORS WEIGHTED

HISK Factors*								
A	В	С	D	E	F	Total		
FINAL	NCE							
18	8	14	6	10	8	64		
18	24	14	12	10	8	86		
18	24	14	12	10	12	90		
27	24	14	12	20	16	113		
27	16	21	24	10	8	106		
36	32	14	12	15	16	125		
18	16	14	12	10	8	78		
18	16	14	18	5	4	75		
18	32	14	12	15	8	99		
	18 18 18 27 27 36 18	FINANCE 18 8 18 24 18 24 27 24 27 16 36 32 18 16 18 16	A B C FINANCE 18 8 14 18 24 14 18 24 14 27 24 14 27 16 21 36 32 14 18 16 14 18 16 14	A B C D FINANCE 18 8 14 6 18 24 14 12 18 24 14 12 27 24 14 12 27 16 21 24 36 32 14 12 18 16 14 12 18 16 14 18	FINANCE 18 8 14 6 10 18 24 14 12 10 18 24 14 12 10 27 24 14 12 20 27 16 21 24 10 36 32 14 12 15 18 16 14 12 10 18 16 14 18 5	A B C D E F FINANCE 18 8 14 6 10 8 18 24 14 12 10 8 18 24 14 12 10 12 27 24 14 12 20 16 27 16 21 24 10 8 36 32 14 12 15 16 18 16 14 12 10 8 18 16 14 18 5 4		

INFORMATION TECHNOLOGY SERVICES											
AIX/ Windows Security	45	24	35	6	25	20	155				
Compliance: B.Y.O.D.	45	24	35	6	25	20	155				
Database Security	45	24	35	6	25	20	155				
I.T. Operations	45	24	35	6	25	20	155				
I.T. Security: Change Control	45	24	21	18	25	20	153				
I.T. Security: Logical/Physical Access	45	24	21	6	25	20	141				
I.T. Security: HIPAA	45	24	35	6	25	20	155				

INVESTMENTS											
Alternative Investments	36	32	21	12	20	16	137				
Derivatives	27	32	14	18	20	12	123				
Domestic Equities	27	32	14	12	20	20	125				
Fixed Income	18	32	14	18	15	12	109				
International Investing	36	40	14	18	20	16	144				
Investment Performance	18	16	14	12	15	8	83				
Liquidity Reserves	9	16	7	6	10	16	64				
Proxy Voting	18	8	7	6	10	8	57				
Real Estate	27	32	21	18	15	12	125				
Securities Lending	18	32	14	12	15	16	107				

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

^{*}See Page 4 for description of risk assessment scale.

RISK FACTORS WEIGHTED

	Risk Factors*								
Audit Area	A	В	C	D	E	F	Total		
ME	EMBER B	ENEFI	TS						
Annual Statements	27	32	14	12	10	8	103		
Benefit Services (Post Retirement)	27	32	14	12	10	8	103		
Defined Contribution Plan	18	16	14	12	10	8	78		
Disability Benefits	27	16	14	24	10	12	103		
Health Care	27	16	14	12	15	16	100		
Member Data Management	27	32	28	12	10	8	117		
Member Records Management	18	16	14	12	10	8	78		
Member Services Center	18	16	14	6	10	8	72		
Purchasing Service Credit	18	24	14	12	15	8	91		
Reemployed Retirees	. 27	32	21	18	10	8	116		
Service Retirement Benefits	18	32	14	18	15	16	113		
Survivor Benefits	27	16	14	18	10	12	97		

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

2016 INTERNAL AUDIT WORK PLAN

Audit Area	Priority	Dept.	Risk Score	Last Audit	Estimated Audit Date	Risk Codes
International Investing	HIGH		144	2013	Jan-16	F, I, C, O
Alternative Investments	HIGH	ı	137	2015	Jun-16	F, I, C, O
Domestic Equities	HIGH	Ĩ	125	2014	Nov-16	F, I, C, O
Real Estate	HIGH	l	125	2015		F, I, C, O
Derivatives	HIGH	I	123	2015		F, I, C, O
Fixed Income	HIGH	I	109	2015		F, I, C, O
Liquidity Reserves	HIGH		64	2014		F, I, C, O
AIX/ Windows Security	MED.	ITS	155	2014		F, I, C, O, PS
Compliance: B.Y.O.D.	MED.	ITS	155	2015		F, I, C, O, PS
Database Security	MED.	ITS	155	2014		F, I, C, O, PS
I.T. Security: HIPAA	MED.	ITS	155	2015		F, I, C, O, PS
I.T. Operations	MED.	ITS	155	2013		F, I, C, O, PS
I.T. Security: Change Control	MED.	ITS	153	2013	Mar-16	F, I, C, O, PS
I.T. Security: Logical/Physical Access	MED.	ITS	141	2013	May-16	F, I, C, O, PS
Business Continuity Plan	MED.	Α	122	2014		F, I, C, O
Member Data Management	MED.	МВ	117	2013		PS, C
Financial Reporting (STRS Ohio)	MED.	F	113	2014		I, C, O
Service Retirement Benefits	MED.	МВ	113	2013		I, C, O
Annual Statements	MED.	MB	103	2013		I, C, O
Health Care	MED.	MB	100	2014		I, C, O
Contribution Reporting	MED.	F	90	2012	Feb-16	I, C, O
Annual Reporting	MED.	F	86	2013		I, C, O
Defined Contribution Plan	MED.	MB	78	2012	Feb-16	I, C, O
Risk Management/ Insurance	MED.	А	71	2013		F, I, C, O
Accounts Payable	MED.	F	64	2015		I, C, O

Risk Codes:

- F: Financial = Risk related to financial impact
- 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

State Teachers Retirement System of Ohio 2016 Internal Audit Plan December 2015

2016 INTERNAL AUDIT WORK PLAN

Audit Area	Priority	Dept.	Risk Score	Last Audit	Estimated Audit Date	Risk Codes
Benefit Payment Process	LOW	Α	125	2015		I, C, O
Member Income Taxes	LOW	F	125	2014		I, C, O
Fixed Assets — Computer Equipment	LOW	Α	122	2015		I, C, O
Reemployed Retirees	LOW	MB	116	2012	Apr-16	I, C, O
STRS Ohio Self Insurance Plan	LOW	А	111	2012	Mar-16	I, C, O
Securities Lending	LOW	1	107	2013		I, C, O
Fixed Assets	LOW	F	106	2015		I, C, O
Personal Investment Disclosure	LOW	А	106	2014		I, C
Disability Benefits	LOW	MB	103	2014		I, C, O
Benefit Services (Post Retirement)	LOW	MB	103	2014		I, C, O
Purchasing Service Credit by Payroll Deduction	LOW	F	99	2012	Apr-16	I, C, O
Purchasing Practices	LOW	Α	98	2013	Mar-16	I, C, O, PS
Survivor Benefits	LOW	MB	97	2014		I, C, O
Purchasing Service Credit	LOW	МВ	91	2012	Mar-16	I, C, O
Building Maintenance	LOW	Α	86	2015		I, C, O
Postage	LOW	Α	85	2015		I, C, O
Flexible Spending Programs	LOW	Α	85	2013	May-16	I, C, O
Investment Performance	LOW	I	83	2015	Oct-16	I, C, O
Associate Payroll	LOW	Α	82	2013	May-16	I, C, O
Attendance Reporting	LOW	Α	82	2015		I, C, O
Member Withdrawals	LOW	F	78	2014		I, C, O
Educational Assistance Program	LOW	Α	78	2013	Jun-16	I, C, O
Member Records Management	LOW	MB	78	2012	Jun-16	C, O

Risk Codes:

- F: Financial = Risk related to financial impact
- 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

2016 INTERNAL AUDIT WORK PLAN

			Risk	Last	Estimated Audit	100000 10 10000 10
Audit Area	Priority	Dept.	Score	Audit	Date	Risk Codes
Petty Cash/Café Operations	LOW	F	75	2014		I, C, O, PS
Child Care Center	LOW	Α	74	2015		I, C, O
Member Services Center	LOW	MB	72	2013	Feb-16	C, O
Unused Sick and Vacation Leave	LOW	Α	66	2013	Sep-16	I, C, O
Other Staff Expenses	LOW	Α	63	2014	,	I, C, O, PS
Associate Travel Expenses	LOW	Α	63	2014		I, C, O, PS
OEC Reporting	LOW	Α	58	2015		I, C, O, PS
Proxy Voting	LOW	I	57	2015		I, C, PS
Board Expenses	LOW	Α	45	2015	Aug-16	I, C, O, PS

Risk Codes:

- F: Financial = Risk related to financial impact
- 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