March 15, 2013

Ms. Bethany Rhodes, Director Ohio Retirement Study Council 88 E. Broad St., Suite 1175 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 2012.

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

Sincerely,

Michael J. Nehf

Executive Director

Enclosure

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

RETIREMENT BOARD CHAIR MARK HILL

RETIREMENT BOARD VICE CHAIR DALE PRICE

EXECUTIVE DIRECTOR MICHAEL J. NEHF

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

# **AUDIT COMMITTEE ANNUAL REPORT**

**Audit Committee Members:** Mark Hill, Chair Tim Myers, Vice Chair Craig Brooks Taiyia Hayden

Bob Stein Dale Price, Non-voting observer

To:

Ohio Retirement Study Council (ORSC)

Subject:

STRS Ohio Audit Committee Report – 2012

Date:

March 15, 2013

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, 2012. This report outlines the following: audit reviews completed during 2012; STRS Ohio Audit Committee meetings and actions; special reviews completed during 2012; and the 2013 Internal Audit Plan. Audit Committee members during 2012 were Mark Hill (Chair), Tim Myers (Vice Chair), Craig Brooks, Taiyia Hayden, Bob Stein, and Dale Price (non-voting observer).

## **Audit Reviews Completed During 2012**

The attached 2012 Internal Audit Summary lists audits performed, scope for each audit, recommendations to management, management's response and expected implementation dates. The Internal Audit Summaries were mailed to all State Teachers Retirement Board Members in March, May, August and December 2012.

# STRS Ohio Audit Committee Meetings and Actions

May 17, 2012 — The Audit Committee met on May 17, 2012. Committee members Mr. McGreevey, Mr. Brooks, Ms. Hayden, Mr. Hill and Mr. Stein were present. Board members Mr. Childs, Ms. Correthers, Ms. Burch, Mr. Price, and Mr. Myers were also in attendance. Staff present included Mr. Nehf, Mr. Slater, Mr. Tackett, and Mr. Vance.

Mr. Tackett presented copies of the written request and justification for the addition of a staff ITS Auditor. The purpose of the addition is to move the Audit Department into compliance with governing standards related to adequacy of coverage by having a qualified, independent, ITS Auditor on staff. The Audit Committee inquired about current limitations of the Audit Department and the associated risks. Mr. Slater provided background information on the types of external ITS reviews that have been performed (to assess the ITS Department) to address any Audit Committee concerns of potential risks and exposures.

Ms. Hayden moved, and Mr. Brooks seconded, the motion to approve the hiring of the ITS Auditor. Upon roll call the vote was as follows: Ms Hayden ves: Mr Brooks ves: Mr Stein ves: Mr. McGreevy, ves. Motion

discussion and clarification of the auditors' roles in the ERM process and the process for evaluating departmental risk rankings of Internal Audit and the rankings listed in the presentations by other departments. Risks that were inherent to auditors were highlighted.

Finally, Mr. Slater updated the committee on this year's planning meeting with the financial statement auditors, CliftonLarsonAllen.

Aug. 16, 2012 — The Audit Committee met on Aug. 16, 2012. Committee members Mr. McGreevy, Mr. Brooks, Ms. Hayden and Mr. Stein were present. Board members Ms. Correthers, Mr. Hill, Mr. Price, Mr. Myers and Mr. Mayerfield were also in attendance. Staff present included Mr. Nehf, Mr. Slater, Mr. Tackett, Mr. Snyder and Mr. Vance.

Kevin Rohrs of CliftonLarsonAllen, presented a summary of their plan for the 2011-12 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. The final audit report, including management letter, will be presented to the Audit Committee in December. The full audit plan is appended on Pages 5 through 9.

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

Dec. 13, 2012 — The Audit Committee met on Dec. 13, 2012, at 9 a.m. Committee members Mr. Hill, Mr. Myers, Mr. Brooks and Mr. Stein were in attendance. Committee member, Ms. Hayden, was absent. Board members, Mr. Price, Mr. Mayerfield, and Mr. McGreevy and senior staff members were present.

The Committee reviewed and discussed the 2012 Internal Audit Summary as presented. The Internal Audit Department reported there were no material weaknesses in internal controls and that there was full cooperation from STRS Ohio management. Management has accepted all audit recommendations and is in various stages of action-planning or implementation.

The Committee was informed of the hiring of the new ITS Audit Specialist for the Internal Audit Department (as an update to previous Audit Committee staffing discussions) and the Internal Audit Plan for 2013 was presented for review and discussion. There were no suggested changes.

Mr. Stein moved, seconded by Ms. Hayden, 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 statute.

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

The Committee entered into executive session to hear a report from the external auditors, CliftonLarsonAllen, on the results of their audit of the STRS Ohio financial statements for the fiscal year ended June 30, 2012.

Public session resumed and the Audit Committee meeting was adjourned at 10:02 a.m.

# Special Reviews/Projects

The 2013 Internal Audit Plan was approved by the Retirement Board on Dec. 13, 2012. A copy of the 2013 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



# 2012 Internal Audit Summary

| Audit Area                | Scope   | Recommendations  | Management's<br>Response | Implemented | Implementation Date or Targeted Implementation Date |  |
|---------------------------|---|--|--------------------------|-------------|---|--|
|                           |   | Closed Audits  | 200                      | 10 - F970 V |   |  |
| Accounts Payable*         | Vendor Approval Process  Vendor Payment History  Segregation of Duties                                      | Audit Did Not Result in Recommendations  | N/A                      | N/A         | N/A   |  |
| Attendance Reporting*     | Accuracy of Database  Compliance with Policies  | Periodically validate the accuracy of data being sent the HRS to manage attendance   | Agree                    | Yes         | 4/30/2012   |  |
| Board Expenses 2011*      | Pre-approval of Travel Timeliness/Accuracy of Reimbursements Compliance with Board Policies                 | Audit Did Not Result in Recommendations  | N/A                      | N/A         | N/A   |  |
| Board Expenses 2012       | Pre-approval of Travel Timeliness/Accuracy of Reimbursements Compliance with Board Policies                 | Audit Did Not Result in Recommendations  | N/A                      | N/A         | N/A   |  |
| Business Continuity Plan* | Compliance  Monitoring & Testing  | Audit Did Not Result in Recommendations  | N/A                      | N/A         | N/A   |  |
| Child Care Center*        | Compliance with State Licensing State Inspections   | Develop a formal, written process for granting access to the Child Care Center   | Agree                    | Yes         | 2/2/2012  |  |
|                           | Tuition Payments Enrollment   | To document efforts to meet STRS Ohio Board goals, establish formal goals, policies, or procedures pertaining to: - % of STRS Ohio children vs. external children - Types of revenues and expenses used to determine cost neutrality (and those that are being excluded) | Agree                    | Yes         | 2/2/2012  |  |
| Derivatives 2011*         | Semi-Annual Derivate Exposure Report Currency Forward Settlements Equity Swap Settlements Counterparty Risk | Monitor outcome of Barclay's LIBOR review by regulators and be prepared to determine and document impact on STRS Ohio for potential future action  | Agree                    | N/A         | N/A   |  |
| Disability Benefits*      | Reexamination Schedules  Medical Invoice Payments  Terminated Benefits-Notification                         | Audit Did Not Result In Recommendations  | Agree                    | Yes         | 9/14/2012   |  |
| Financial Reporting*      | Role-Based Security/Segregation General Journal Entries Disaster Recovery Process Audit Trail Integrity     | Audit Did Not Result in Recommendations  | N/A                      | N/A         | N/A   |  |

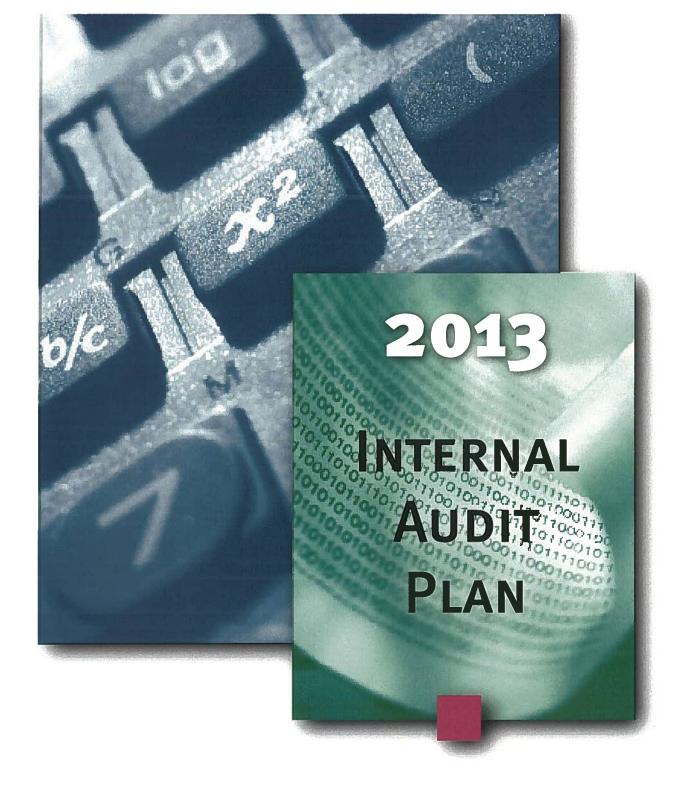
| Audit Area                  | Scope   | Recommendations  | Management's<br>Response           | Implemented                                   | Implementation  Date   |
|-----------------------------|---|--|------------------------------------|---|--|
| Fixed-Income Investments*   | Approved Brokers Accuracy of Pricing Interest Income Monitoring of External Managers Compliance with Investment             | Audit Did Not Result in Recommendations  | N/A                                | N/A   | N/A  |
|                             | Policies  |  |                                    |   |  |
| Internet/Intranet Security* | Policy Appropriateness & Enforcement  Systems Access Revocation   | Develop policies and procedures that<br>address the concerns of Intranet<br>content management and security and<br>make a part of the ERM discussion   | Agree                              | No  | 12/31/2012   |
|                             | Virus Protection/Firewall Monitoring Software Monitoring  | Review Firewall/Virus monitoring pro-<br>cedures to determine if there are areas<br>where procedures documentation can<br>be created, updated or improved  | Agree                              | Yes   | 07/01/2012   |
|                             |   | Perform software reconciliations for<br>systems administrators with<br>established and documented regularity<br>and require the adherence to standard<br>software distribution procedures  | Agree                              | Yes   | 09/01/2012   |
| Liquidity Reserves*         | Compliance with Policies  Accuracy of Interest Income  Quality of Investments   | Review the current guidelines to determine if risk control changes are warranted (total holdings % cap)  | Agree                              | Yes   | 1/1/2012   |
| Member Income Taxes         | Daily Reconciliations Withholding Change Reconciliations Tax Interface Reconciliation & G/L Update Segregation of Duties    | Research the cost/benefit of allowing members to manage their tax withholdings through the STRS Ohio Internet site   | Agree                              | Long-term<br>Implementation<br>(Audit Closed) | Will be prioritized<br>with other online<br>services as part of<br>the 2012-2013<br>budget process and<br>STaRS review |
| Member Withdrawals*         | Compliance with ORC Refund Estimates/Payments Non-Zero Accounts 1099R   | Finance and ITS develop input controls that notify Refunds Specialists when a member is eligible to retire (Helps to ensure compliance with the O.R.C. requirement of Spousal Consent)  Update Member Withdrawal processes to reflect the use of the new STaRS | Agree                              | Yes   | 07/13/2012   |
| Petty Cash                  | Cafeteria Cash/Physical Security  | Perform quarterly (random dates) re- conciliations of cash balances  | Final Report Under<br>Mgmt. Review | N/A   | N/A  |
|                             | Cafeteria Deposits Segregation of Duties Cash Reconciliation Petty Cash Disbursements Cafeteria Operations - Ohio Sales Tax | Document the identity of associates performing cash reconciliations in cash ledger   |                                    |   |  |
| Postage                     | Compliance with Policies/Procedures Disbursements   | Draft Report Under Mgmt. Review  | N/A                                | N/A   | N/A  |
| Post-Retirement Benefits*   | Death Match Process  Annuity Certain Expirations  Overpayment/Collections  Disbursement Compliance                          | Audit Did Not Result In Recommendations  | N/A                                | N/A   | NA   |

| Audit Area Purchasing Service Credit | Scope STars Access Certifications and Cost Calculations Member Applications Posting of Purchased Credit Free Military Service Credit Compliance with Ohio Revised Code | Recommendations Audit Did Not Result In Recommendations  | Management's<br>Response<br>N/A | Implemented<br>N/A | Implementation  Date  N/A |
|--------------------------------------|--|--|---------------------------------|--------------------|---------------------------|
| Records Management                   | Compliance Imaging - Quality Control Off-Site Storage Facility Inspections Disaster Recovery   | Periodically request proof of continued insurance throughout the term of service   | Agree                           | Yes                | 9/24/2012                 |
| Service Retirement<br>Benefits*      | Departmental Process Documentation Benefit Calculations  | Enforce proper segregation of duties<br>and restrict Benefit Auditors' access<br>levels to "Read Only" where appro-<br>priate  | Agree                           | Yes                | 3/25/2011                 |
|                                      | Management of Overpayments Segregation of Duties   | Create a retroactive report (back to STaRS activation date) to review new retirement activities and to review changes to existing member records to verify appropriateness | Agree                           | Yes                | 05/31/2011                |
|                                      |  | Create/use standardized documentation to be used to detail changes to member benefits information  | Agree                           | Yes                | 05/31/2011                |
|                                      |  | I.T.S. and Member Benefits Depts.<br>explore the cost/benefit of providing<br>STRS Ohio members with an online<br>service retirement-application service                   | Agree                           | Yes                | 03/31/2012                |

| Audit Area                           | Scope   | Recommendations   | Management's<br>Response | Implemented | Implementation  Date |
|--------------------------------------|---|---|--------------------------|-------------|----------------------|
|                                      |   | Active Audits   | •                        |             |                      |
| Alternative Investments<br>2011      | General Partner Review/Monitoring Valuations                      | Organize all documentation supporting<br>the investment decision process, in a<br>logical/structured manner   | Agree                    | No          | 12/30/2012           |
|                                      | General Partner Fees Opportunistic/Diversified Investment Program | Schedule an external review of<br>Alternative Investments with Cliffwater<br>(due diligence and monitoring) as<br>stated in the Investment Advisor<br>Agreement | Agree                    | Yes         | 1/31/2012            |
|                                      |   | Establish detailed policies/procedures<br>for monitoring general partners that<br>include documentation of the<br>annual reviews                                | Agree                    | No          | 12/30/2012           |
| Alternative Investments<br>2012      | Opportunistic/Diversified:<br>Due Diligence                       | Audit In Progress   | N/A                      | N/A         | N/A                  |
|                                      | Monitoring Valuations   | ž.  |                          |             |                      |
| Annual Statements                    | Accuracy of Member Information                                    | Audit Initiates 12/21/2012  | N/A                      | N/A         | N/A                  |
|                                      | Accuracy and Security of Statements                               |   |                          |             |                      |
|                                      | External Contracts  |   |                          |             |                      |
|                                      | Segregation of Dutles   |   |                          |             |                      |
| Building Maintenance                 | Purchases of Goods and Services                                   | Audit In Progress   | N/A                      | N/A         | N/A                  |
|                                      | Preventive Maintenance  |   |                          |             |                      |
|                                      | Associate Training  |   |                          |             |                      |
|                                      | Quality Assurance   |   |                          |             |                      |
| Contribution Reporting               | Foundation Management   | Audit In Progress   | N/A                      | N/A         | N/A                  |
|                                      | Employee Contribution Management                                  |   |                          |             |                      |
|                                      | G/L Postings  |   |                          |             |                      |
|                                      | Segregation of Duties   |   |                          |             |                      |
|                                      | Annual Report Management  |   |                          |             |                      |
| Defined Contribution Plan            | Processing Plan Selection Forms  NRS Contract Compliance          | Draft Report Under Mgmt. Review   | N/A                      | N/A         | N/A                  |
|                                      | Accuracy of Member Statements                                     |   |                          |             |                      |
|                                      | Segregation of Duties   |   |                          |             |                      |
| Domestic Equities                    | Compliance with Investment Policy                                 | Audit In Progress   | N/A                      | N/A         | N/A                  |
|                                      | Monitoring of External Portfolio<br>Managers                      |   |                          |             |                      |
|                                      | Investment Management Fees  |   |                          |             |                      |
|                                      | Reporting/Accounting  |   |                          |             |                      |
|                                      | Research Costs  |   |                          |             |                      |
|                                      | Approved Brokers  |   |                          |             |                      |
|                                      | Custodian   |   |                          |             |                      |
| Early Retirement Incentive<br>Credit |   | Audit Initiates 12/17/2012  | N/A                      | N/A         | N/A                  |
|                                      | ERI Cost Calculations   |   |                          |             |                      |
|                                      | ERI Internal Accrual Calculations                                 |   |                          |             |                      |
| I                                    | Compliance with Ohio Poviced Code                                 | l   | I                        | ı l         |                      |

| Audit Area                                 | Scope   | Recommendations  | Management's<br>Response           | Implemented | Implementation  Date |
|--|---|--|------------------------------------|-------------|----------------------|
| Enterprise Risk Mgmt.                      | Review of Risk Management<br>Process  Review of Reporting of Key Risks  Review of Management of Key Risks | Audit In Progress  | N/A                                | N/A         | N/A                  |
| Fixed Assets                               | Tracking, Reporting, and Monitoring Depreciation Disposition  | Audit in Progress  | N/A                                | N/A         | N/A                  |
| Personal Investment<br>Disclosure*         | Compliance with Policy Accuracy/Completeness  | Changes to the Personal Investment Disclosure process require con- sultation with the STRS Ohio Legal and Human Resource Services depts. and dissemination to all STRS Ohio associates | Final Report Under<br>Mgmt. Review | N/A         | N/A                  |
|  |   | Management should review the investment disclosure requirements to identify areas that can be improved   | Final Report Under<br>Mgmt. Review | N/A         | N/A                  |
| Proxy Voting                               | Proxy Voting for Passive/Active Investments  Compliance with Proxy Voting Policy                          | Draft Report Under Mgmt. Review  | N/A                                | N/A         | N/A                  |
| Purchasing Service by<br>Payroll Deduction | Member Applications Processing of Receipts Segregation of Duties Payroll Deduction Refund                 | Audit In Progress  | N/A                                | N/A         | N/A                  |
| Reemployed Retirees                        | Compliance with Ohio Revised Code Violations/Collections Lump-Sum Calculation Input Controls              | Audit Initiated  | N/A                                | N/A         | N/A                  |
| STRS Ohio Self Insurance                   | Identification/Mitigation of Key Risks Annual Reporting Allocation of Self Insurance Costs                | Draft Report Under Mgmt. Review  | N/A                                | N/A         | N/A                  |

<sup>\*</sup>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



### **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 professional standards.
- 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.

# **EXECUTIVE SUMMARY**

| 2013 Internal Audit Schedule  | 1  |
|-------------------------------|----|
| DETAILED SUMMARY              |    |
| Risk Factors                  | 3  |
| Risk Assessment Scale         | 4  |
| Assignment of Risk Rating     | 5  |
| Risk Factors Weighted         | 8  |
| 2013 Internal Audit Work Plan | 11 |

# 2013 INTERNAL AUDIT SCHEDULE

| Audit Area                | Description of Audit Area   | Jan. Feb. | Mar. | Apr. M | May Jun. | Jul. | Aug. Se | Sep. Oct. | _ |
|---------------------------|---|-----------|------|--------|----------|------|---------|-----------|---|
| Network Security          | Software Downloads Remote Access Management Systems Access Documentation Third-Party Confidentiality Agreements                       |           |      |        |          |      |         |           |   |
| Member Data Management    | Third-Party Access to Member Data<br>Transmission of Member Data/Security<br>Third-Party Operations/Control<br>Contractual Agreements |           |      | ,      |          |      |         |           |   |
| Annual Reporting          | Annual Reporting Procedures<br>Access to Annual Reporting Screens   |           |      |        |          |      |         |           | 1 |
| Real Estate               | Property Management Fees<br>Site Inspections<br>External Compliance Reviews<br>Tenant Surveys<br>Compliance with Investment Policy    |           |      |        |          |      |         |           |   |
| Purchasing Practices      | Compliance with Policies  Due Diligence/Efficient use of Resources Receipt/Tracking of Goods and Services Segregation of Duties       |           |      |        |          |      |         |           |   |
| International Investing   | External Manager Fees<br>Monitoring of External Managers<br>Foreign Tax Reclamations<br>Sub-Custodian Controls                        |           |      |        |          |      |         |           | 1 |
| Securities Lending        | Compliance<br>Accuracy of Income<br>Approved Borrowers<br>Quality of Collateral<br>Counterparty Risk                                  |           |      |        |          |      |         |           |   |
| Insurance/Risk Management | Compliance<br>Carrier Ratings<br>Accuracy of Premium Payments<br>Adequacy of Existing Insurance Policies<br>Segregation of Duties     |           |      |        | Lis      |      |         |           |   |
| Flexible Spending Program | Withholdings<br>Disbursements   |           |      |        |          |      |         |           |   |
| Board Expenses            | Preapproval of Travel<br>Accuracy of Reimbursements<br>Compliance With Rules/Policies   |           |      |        |          |      |         |           |   |

# 2013 INTERNAL AUDIT SCHEDULE

| Audit Area                  | Description of Audit Area   | Jan. | Feb. | Mar. / | Apr. May Jun. | May |   | Jul. | Aug. Sep. | Sep. | Oct. | Z                         |
|-----------------------------|---|------|------|--------|---------------|-----|---|------|-----------|------|------|---------------------------|
| Investment Performance      | Review of PBI Memos<br>Accuracy of PBI Awards<br>Investment Policy Compliance   | 8    |      |        |               |     |   |      |           |      |      |                           |
| Derivatives                 | Derivative Exposure Report Currency Forward Settlements SWAP Settlements Equity SWAP Collateral Segregation of Duties   |      |      |        |               |     |   |      |           |      |      |                           |
| Service Retirement Benefits | Departmental Process Documentation<br>Benefit Calculations<br>Management of Overpayments<br>Segregation of Duties   |      |      |        |               |     |   |      |           |      |      |                           |
| Associate Payroll           | State and Federal Tax Regulations<br>Access to Payroll Database<br>Accuracy of Associates' Gross/Net Pay<br>Final Payments to Terminated Employees<br>Immigration Guidelines/Compliance |      |      |        |               |     |   |      |           |      |      |                           |
| Call Center                 | Associate Training<br>Scheduling of Call Center Associates<br>Monitoring of Associates  |      |      |        |               |     |   |      |           |      |      |                           |
| Educational Assistance      | Compliance  |      |      |        |               |     |   |      |           |      |      | 22,514                    |
| Fixed Income                | Compliance Approved Brokers/Commissions Accuracy of Pricing Due Diligence Monitoring of External Managers   |      |      |        |               |     | 1 |      |           |      |      | Alternation of the second |
| Unused Sick/Vacation Leave  | Compliance<br>Accuracy of Payments<br>Disposition   |      |      |        |               |     |   |      |           |      |      |                           |
|                             |   |      |      |        |               |     |   |      |           |      |      |                           |

| 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         |

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     |

|                                   |         |        | Ris | k Facto | rs* |    |       |
|-----------------------------------|---------|--------|-----|---------|-----|----|-------|
| Audit Area                        | Α       | В      | С   | D       | E   | F  | Total |
| ADI                               | MINISTI | RATION |     |         |     |    |       |
| Associate Payroll                 | 2       | 2      | 2   | 2       | 2   | 3  | 13    |
| Associate Travel Expenses         | 2       | 2      | 3   | 2       | 2   | 2  | 13    |
| Attendance Reporting              | 3       | 2      | 3   | 2       | 2   | 3  | 15    |
| Benefit Payment Process           | 3       | 4      | 3   | 3       | 3   | 3  | 19    |
| Board Expenses                    | 2       | 2      | 2   | 2       | 2   | 2  | 12    |
| Building Maintenance              | 2       | 2      | 2   | 2       | 2   | 2  | 12    |
| Business Contingency Plan         | 3       | 3      | 3   | 3       | 4   | 3  | 19    |
| Child Care Center                 | 2       | 2      | 2   | 2       | 2   | 2  | 12    |
| Educational Assistance Program    | 2       | 2      | 2   | 2       | 2   | 2  | 12    |
| Fixed Assets — Computer Equipment | 3       | 3      | 3   | 3       | 3   | 3  | 18    |
| Flexible Spending Programs        | 2       | 2      | 3   | 2       | 2   | 2  | 13    |
| Insurance/Risk Management         | 2       | 3      | 2   | 2       | 2   | 2  | 13    |
| Internet/Intranet                 | 2       | 3      | 3   | 2       | 3   | 3  | 16    |
| Network Security                  | 3       | 3      | 3   | 2       | 2   | 2  | 15    |
| Ohio Ethics Commission Reporting  | 1       | 2      | 1   | 2       | 2   | _1 | 9     |
| Other Staff Expenses              | 2       | 2      | 3   | 2       | 1   | 1  | 11    |
| Personal Investment Disclosure    | 3       | 2      | 2   | 2       | 2   | 2  | 13    |
| Postage                           | 3       | 2      | 2   | 2       | 2   | 3  | 14    |
| Purchasing Practices              | 3       | 2      | 3   | 2       | 2   | 3  | 15    |
| STRS Ohio Self Insurance Plan     | 3       | 3      | 5   | 2       | 3   | 3  | 19    |
| Unused Sick and Vacation Leave    | 2       | 2      | 2   | 2       | 2   | 1  | 11    |

|                                   |       |     | Ris | k Facto | rs* |   |       |
|-----------------------------------|-------|-----|-----|---------|-----|---|-------|
| Audit Area                        | A     | В   | С   | D       | E   | F | Total |
|                                   | FINAN | ICE |     |         |     |   |       |
| Accounts Payable                  | 2     | 2   | 2   | 2       | 2   | 2 | 12    |
| Annual Reporting                  | 2     | 3   | 2   | 2       | 2   | 2 | 13    |
| Contribution Reporting            | 2     | 3   | 2   | 2       | 2   | 3 | 14    |
| Early Retirement Incentive Credit | 2     | 2   | 2   | 2       | 3   | 2 | 13    |
| Financial Reporting (STRS Ohio)   | 3     | 3   | 2   | 2       | 4   | 4 | 18    |
| Fixed Assets                      | 3     | 2   | 3   | 2       | 2   | 2 | 14    |
| Member Income Taxes               | 4     | 4   | 2   | 2       | 3   | 4 | 19    |
| Member Withdrawals                | 2     | 3   | 2   | 2       | 2   | 2 | 13    |
| Petty Cash/Café Operations        | 2     | 2   | 2   | 3       | 1   | 1 | 11    |
| Purchasing Service Credit         |       |     |     |         |     |   |       |
| by Payroll Deduction              | 2     | 4   | 2   | 2       | 3   | 2 | 15    |

| INVESTMENTS             |   |   |   |   |   |   |    |  |  |  |  |
|-------------------------|---|---|---|---|---|---|----|--|--|--|--|
| Alternative Investments | 4 | 4 | 3 | 2 | 4 | 4 | 21 |  |  |  |  |
| Derivatives             | 3 | 4 | 2 | 2 | 4 | 3 | 18 |  |  |  |  |
| Domestic Equities       | 3 | 4 | 2 | 2 | 4 | 5 | 20 |  |  |  |  |
| Fixed Income            | 2 | 4 | 2 | 2 | 3 | 3 | 16 |  |  |  |  |
| International Investing | 4 | 4 | 2 | 3 | 4 | 5 | 22 |  |  |  |  |
| Investment Performance  | 2 | 2 | 2 | 2 | 3 | 2 | 13 |  |  |  |  |
| Liquidity Reserves      | 2 | 3 | 2 | 2 | 2 | 2 | 13 |  |  |  |  |
| Proxy Voting            | 2 | 2 | 2 | 2 | 2 | 1 | 11 |  |  |  |  |
| Real Estate             | 3 | 4 | 3 | 2 | 3 | 3 | 18 |  |  |  |  |
| Securities Lending      | 2 | 4 | 2 | 2 | 3 | 4 | 17 |  |  |  |  |

|                                    | Risk Factors* |        |    |   |   |   |       |  |
|------------------------------------|---------------|--------|----|---|---|---|-------|--|
| Audit Area                         | Α             | В      | С  | D | E | F | Total |  |
| M                                  | EMBER B       | ENEFIT | rs |   |   |   |       |  |
| Annual Statements                  | 3             | 4      | 2  | 2 | 2 | 2 | 15    |  |
| Benefit Services (Post Retirement) | 3             | 4      | 2  | 2 | 2 | 2 | 15    |  |
| Call Center                        | 2             | 2      | 2  | 2 | 2 | 2 | 12    |  |
| Defined Contribution Plan          | 2             | 2      | 2  | 2 | 2 | 2 | 12    |  |
| Disability Benefits                | 2             | 3      | 2  | 2 | 2 | 2 | 13    |  |
| Health Care                        | 3             | 3      | 2  | 2 | 3 | 4 | 17    |  |
| Member Data Management             | 3             | 4      | 4  | 2 | 2 | 2 | 17    |  |
| Member Records Management          | 2             | 2      | 2  | 2 | 2 | 2 | 12    |  |
| 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                  | 2             | 3      | 2  | 3 | 2 | 2 | 14    |  |

| Risk Factors* |  |  |  |  |  |   |
|---------------|--|--|--|--|--|---|
| A             | В  | С  | D  | Ε  | F  | Total   |
| MINIST        | RATIO  | N  |  |  |  |   |
| 18            | 16   | 14   | 12   | 10   | 12   | 82  |
| 18            | 16   | 21   | 12   | 10   | 8  | 85  |
| 27            | 16   | 21   | 12   | 10   | 12   | 98  |
| 27            | 32   | 21   | 18   | 15   | 12   | 125   |
| 18            | 16   | 14   | 12   | 10   | 8  | 78  |
| 18            | 16   | 14   | 12   | 10   | 8  | 78  |
| 27            | 24   | 21   | 18   | 20   | 12   | 122   |
| 18            | 16   | 14   | 12   | 10   | 8  | 78  |
| 18            | 16   | 14   | 12   | 10   | 8  | 78  |
| 27            | 24   | 21   | 18   | 15   | 12   | 117   |
| 18            | 16   | 21   | 12   | 10   | 8  | 85  |
| 18            | 24   | 14   | 12   | 10   | 8  | 86  |
| 18            | 24   | 21   | 12   | 15   | 12   | 102   |
| 27            | 24   | 21   | 12   | 10   | 8  | 102   |
| 9             | 16   | 7  | 12   | 10   | 4  | 58  |
| 18            | 16   | 21   | 12   | 5  | 4  | 76  |
| 27            | 16   | 14   | 12   | 10   | 8  | 87  |
| 27            | 16   | 14   | 12   | 10   | 12   | 91  |
| 27            | 16   | 21   | 12   | 10   | 12   | 98  |
| 27            | 24   | 35   | 12   | 15   | 12   | 125   |
| 18            | 16   | 14   | 12   | 10   | 4  | 74  |
|               | 18<br>18<br>27<br>27<br>18<br>18<br>27<br>18<br>18<br>27<br>18<br>18<br>27<br>18<br>18<br>27<br>27<br>27<br>27 | 18 16<br>18 16<br>27 16<br>27 32<br>18 16<br>18 16<br>18 16<br>27 24<br>18 16<br>27 24<br>18 16<br>27 24<br>18 16<br>18 24<br>18 24<br>27 24<br>9 16<br>18 16<br>27 16<br>27 16<br>27 16<br>27 16<br>27 16 | A         B         C           MINISTRATION         18         16         14           18         16         21         27         16         21           27         32         21         18         16         14           18         16         14         16         14           27         24         21         18         16         14           27         24         21         18         16         21         18         24         21           18         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24         21         27         24< | A         B         C         D           MINISTRATION           18         16         14         12           18         16         21         12           27         16         21         12           27         32         21         18           18         16         14         12           27         24         21         18           18         16         14         12           27         24         21         18           18         16         14         12           27         24         21         18           18         16         21         12           18         24         14         12           27         24         21         12           9         16         7         12           18         16         21         12           27         24         21         12           27         16         14         12           27         16         14         12           27         16         21         12 | A         B         C         D         E           MINISTRATION           18         16         14         12         10           18         16         21         12         10           27         16         21         12         10           27         32         21         18         15           18         16         14         12         10           18         16         14         12         10           27         24         21         18         20           18         16         14         12         10           18         16         14         12         10           18         16         21         12         10           18         24         14         12         10           18         24         21         12         10           18         24         21         12         10           18         24         21         12         10           18         24         21         12         5           27         24         21         12 </td <td>A         B         C         D         E         F           MINISTRATION           18         16         14         12         10         12           18         16         21         12         10         8           27         16         21         12         10         12           27         32         21         18         15         12           18         16         14         12         10         8           18         16         14         12         10         8           27         24         21         18         20         12           18         16         14         12         10         8           27         24         21         18         15         12           18         16         14         12         10         8           27         24         21         18         15         12           18         16         21         12         10         8           18         24         14         12         10         8           18         24</td> | A         B         C         D         E         F           MINISTRATION           18         16         14         12         10         12           18         16         21         12         10         8           27         16         21         12         10         12           27         32         21         18         15         12           18         16         14         12         10         8           18         16         14         12         10         8           27         24         21         18         20         12           18         16         14         12         10         8           27         24         21         18         15         12           18         16         14         12         10         8           27         24         21         18         15         12           18         16         21         12         10         8           18         24         14         12         10         8           18         24 |

|                                   | Risk Factors* |     |    |    |    |    |       |
|-----------------------------------|---------------|-----|----|----|----|----|-------|
| Audit Area                        | A             | В   | С  | Đ  | Е  | F  | Total |
|                                   | FINAN         | NCE |    |    |    |    |       |
| Accounts Payable                  | 18            | 16  | 14 | 12 | 10 | 8  | 78    |
| Annual Reporting                  | 18            | 24  | 14 | 12 | 10 | 8  | 86    |
| Contribution Reporting            | 18            | 24  | 14 | 12 | 10 | 12 | 90    |
| Early Retirement Incentive Credit | 18            | 16  | 14 | 12 | 15 | 8  | 83    |
| Financial Reporting (STRS Ohio)   | 27            | 24  | 14 | 12 | 20 | 16 | 113   |
| Fixed Assets                      | 27            | 16  | 21 | 12 | 10 | 8  | 94    |
| Member Income Taxes               | 36            | 32  | 14 | 12 | 15 | 16 | 125   |
| Member Withdrawals                | 18            | 24  | 14 | 12 | 10 | 8  | 86    |
| Petty Cash/Café Operations        | 18            | 16  | 14 | 18 | 5  | 4  | 75    |
| Purchasing Service Credit         |               |     |    |    |    |    |       |
| by Payroll Deduction              | 18            | 32  | 14 | 12 | 15 | 8  | 99    |

| INVESTMENTS             |    |    |    |    |    |    |     |  |  |  |  |
|-------------------------|----|----|----|----|----|----|-----|--|--|--|--|
| Alternative Investments | 36 | 32 | 21 | 12 | 20 | 16 | 137 |  |  |  |  |
| Derivatives             | 27 | 32 | 14 | 12 | 20 | 12 | 117 |  |  |  |  |
| Domestic Equities       | 27 | 32 | 14 | 12 | 20 | 20 | 125 |  |  |  |  |
| Fixed Income            | 18 | 32 | 14 | 12 | 15 | 12 | 103 |  |  |  |  |
| International Investing | 36 | 32 | 14 | 18 | 20 | 20 | 140 |  |  |  |  |
| Investment Performance  | 18 | 16 | 14 | 12 | 15 | 8  | 83  |  |  |  |  |
| Liquidity Reserves      | 18 | 24 | 14 | 12 | 10 | 8  | 86  |  |  |  |  |
| Proxy Voting            | 18 | 16 | 14 | 12 | 10 | 4  | 74  |  |  |  |  |
| Real Estate             | 27 | 32 | 21 | 12 | 15 | 12 | 119 |  |  |  |  |
| Securities Lending      | 18 | 32 | 14 | 12 | 15 | 16 | 107 |  |  |  |  |

|                                    | Risk Factors* |    |    |    |    |    |       |  |  |  |  |
|------------------------------------|---------------|----|----|----|----|----|-------|--|--|--|--|
| Audit Area                         | Α             | В  | C  | D  | E  | F  | Total |  |  |  |  |
| MEMBER BENEFITS                    |               |    |    |    |    |    |       |  |  |  |  |
| Annual Statements                  | 27            | 32 | 14 | 12 | 10 | 8  | 103   |  |  |  |  |
| Benefit Services (Post Retirement) | 27            | 32 | 14 | 12 | 10 | 8  | 103   |  |  |  |  |
| Call Center                        | 18            | 16 | 14 | 12 | 10 | 8  | 78    |  |  |  |  |
| Defined Contribution Plan          | 18            | 16 | 14 | 12 | 10 | 8  | 78    |  |  |  |  |
| Disability Benefits                | 18            | 24 | 14 | 12 | 10 | 8  | 86    |  |  |  |  |
| Health Care                        | 27            | 24 | 14 | 12 | 15 | 16 | 108   |  |  |  |  |
| Member Data Management             | 27            | 32 | 28 | 12 | 10 | 8  | 117   |  |  |  |  |
| Member Records Management          | 18            | 16 | 14 | 12 | 10 | 8  | 78    |  |  |  |  |
| 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                  | 18            | 24 | 14 | 18 | 10 | 8  | 92    |  |  |  |  |

|                                  |          |          | Risk  | Last  | Estimated<br>Audit | Estimated<br>Audit |            |
|----------------------------------|----------|----------|-------|-------|--------------------|--------------------|------------|
| Audit Area                       | Priority | Dept.    | Score | Audit | Date               | Hours              | Risk Codes |
| International Investing          | HIGH     | <u> </u> | 140   | 2011  | Jun-13             | 160                | F, I, C, O |
| Alternative Investments          | HIGH     | 1        | 137   | 2012  |                    |                    | F, I, C, O |
| Domestic Equities                | HIGH     | <u> </u> | 125   | 2012  |                    |                    | F, I, C, O |
| Real Estate                      | HIGH     | I        | 119   | 2010  | Mar-13             | 320                | F, I, C, O |
| Derivatives                      | HIGH     | I        | 117   | 2011  | Sep-13             | 160                | F, I, C, O |
| Fixed Income                     | HIGH     | ı        | 103   | 2011  | Nov-13             | 120                | F, I, C, O |
| Liquidity Reserves               | HIGH     | I        | 86    | 2011  |                    |                    | F, I, C, O |
| Business Contingency<br>Plan     | MED.     | Α        | 122   | 2011  |                    |                    | F, I, C, O |
| Member Data<br>Management        | MED.     | МВ       | 117   | 2009  | Jan-13             | 160                | PS, C      |
| Financial Reporting (STRS Ohio)  | MED.     | F        | 113   | 2011  |                    | ·                  | I, C, O    |
| Service Retirement<br>Benefits   | MED.     | MB       | 113   | 2010  | Sep-13             | 320                | I, C, O    |
| Health Care                      | MED.     | MB       | 108   | 2011  |                    |                    | I, C, O    |
| Annual Statements                | MED.     | MB       | 103   | 2012  |                    |                    | I, C, O    |
| Contribution Reporting           | MED.     | F        | 90    | 2012  |                    |                    | I, C, O    |
| Insurance/Risk<br>Management     | MED.     | Α        | 86    | 2010  | Jul-13             | 120                | F, I, C, O |
| Annual Reporting                 | MED.     | F        | 86    | 2010  | Feb-13             | 160                | I, C, O    |
| Accounts Payable                 | MED.     | F        | 78    | 2011  |                    |                    | I, C, O    |
| Defined Contribution<br>Plan     | MED.     | МВ       | 78    | 2012  |                    |                    | I, C, O    |
| STRS Ohio Self<br>Insurance Plan | LOW      | Α        | 125   | 2012  |                    |                    | I, C, O    |
| Benefit Payment<br>Process       | LOW      | Α        | 125   | 2011  |                    |                    | I, C, O    |
| Member Income Taxes              | LOW      | F        | 125   | 2011  |                    |                    | I, C, O    |
| Fixed Assets-Computer Equipment  | LOW      | Α        | 117   | 2012  |                    |                    | I, C, O    |
| Reemployed Retirees              | LOW      | MB       | 116   | 2012  |                    |                    | I, C, O    |
| Securities Lending               | LOW      | 1        | 107   | 2010  | Jul-13             | 160                | I, C, O    |

### Risk Codes:

- F: Financial = Risk related to financial impact
- : 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

|  |          | _     | Risk  | Last  | Estimated<br>Audit | Audit |             |
|--|----------|-------|-------|-------|--------------------|-------|-------------|
| Audit Area   | Priority | Dept. | Score | Audit | Date               | Hours | Risk Codes  |
| Benefit Services<br>(Post Retirement)                | LOW      | MB    | 103   | 2011  |                    |       | I, C, O     |
| Internet/Intranet                                    | LOW      | Α     | 102   | 2011  |                    |       | I, C, O     |
| Network Security                                     | LOW      | Α     | 102   | 2010  | Jan-13             | 160   | I, C, O     |
| Purchasing Service<br>Credit by Payroll<br>Deduction | LOW      | F     | 99    | 2012  |                    |       | I, C, O     |
| Purchasing Practices                                 | LOW      | A     | 98    | 2010  | Apr-13             | 160   | I, C, O, PS |
| Attendance Reporting                                 | LOW      | A     | 98    | 2010  |                    |       | I, C, O     |
| Fixed Assets   | LOW      | F     | 94    | 2012  |                    |       | I, C, O     |
| Survivor Benefits                                    | LOW      | MB    | 92    | 2011  |                    |       | I, C, O     |
| Postage  | LOW      | Α     | 91    | 2012  |                    |       | I, C, O     |
| Purchasing Service<br>Credit                         | LOW      | MB    | 91    | 2012  |                    |       | I, C, O     |
| Personal Investment<br>Disclosure                    | LOW      | Α     | 87    | 2011  | _                  |       | I, C        |
| Member Withdrawals                                   | LOW      | F     | 86    | 2011  |                    |       | I, C, O     |
| Disability Benefits                                  | LOW      | MB    | 86    | 2011  | ·                  |       | I, C, O     |
| Flexible Spending<br>Programs                        | LOW      | Α     | 85    | 2009  | Aug-13             | 120   | I, C, O     |
| Associate Travel Expenses                            | LOW      | Α     | 85    | 2011  |                    |       | I, C, O, PS |
| Early Retirement Incentive Credit                    | LOW      | F     | 83    | 2012  |                    |       | I, C, O     |
| Investment<br>Performance                            | LOW      | ı     | 83    | 2012  | Aug-13             | 160   | I, C, O     |
| Associate Payroll                                    | LOW      | Α     | 82    | 2010  |                    |       | I, C, O     |
| Board Expenses                                       | LOW      | Α     | 78    | 2012  | Jun-13             | 80    | I, C, O, PS |
| Building Maintenance                                 | LOW      | Α     | 78    | 2012  |                    |       | I, C, O     |
| Educational Assistance<br>Program                    | LOW      | Α     | 78    | 2009  | Nov-13             | 80    | I, C, O     |
| Child Care Center                                    | LOW      | Α     | 78    | 2011  |                    |       | I, C, O     |
| Member Records<br>Management                         | LOW      | МВ    | 78    | 2012  |                    |       | C, O        |

### **Risk Codes:**

- F: Financial = Risk related to financial impact
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- O: Operational = Risk related to operational efficiencies/inefficiencies
- PS: Public Sensitivity = No material financial impact but high public sensitivity

| Audit Area                     | Priority | Dept. | Risk<br>Score | Last<br>Audit | Estimated<br>Audit<br>Date | Estimated<br>Audit<br>Hours | Risk Codes  |
|--------------------------------|----------|-------|---------------|---------------|----------------------------|-----------------------------|-------------|
| Call Center                    | LOW      | MB    | 78            | 2008          | Oct-13                     | 160                         | C, O        |
| Other Staff Expenses           | LOW      | Α     | 76            | 2009          |                            |                             | I, C, O, PS |
| Petty Cash/Café<br>Operations  | LOW      | F     | 75            | 2012          |                            |                             | I, C, O, PS |
| Unused Sick and Vacation Leave | LOW      | Α     | 74            | 2009          | Dec-13                     | 120                         | I, C, O     |
| Proxy Voting                   | LOW      | ı     | 74            | 2012          |                            |                             | I, C        |
| OEC Reporting                  | LOW      | Α     | 58            | 2008          |                            |                             | I, C, O, PS |

Total Hours 2720

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- F: Financial = Risk related to financial impact
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