

PERFORMANCE AUDIT REPORT

State Employees' Retirement System

August 2017



Commonwealth of Pennsylvania
Department of the Auditor General

Eugene A. DePasquale • Auditor General

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**EUGENE A. DePASQUALE
AUDITOR GENERAL**

August 7, 2017

Mr. David E. Durbin
Executive Director
State Employees' Retirement System
30 North 3rd Street
Suite 150
Harrisburg, PA 17101

Dear Mr. Durbin:

This report contains the results of the Department of the Auditor General's performance audit of the State Employees' Retirement System (SERS). The audit covered the period January 1, 2013, through March 31, 2017, unless otherwise indicated, with updates through the report date.

This audit was conducted under the authority of Sections 402 and 403 of The Fiscal Code, 72 P.S. §§ 402 and 403, and in accordance with applicable generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objectives.

Our performance audit had four objectives, including to: (1) Determine if SERS appropriately follows the Public Employee Pension Forfeiture Act (Act 140 of 1978, as amended) and its associated regulations for public employees convicted of certain crimes relating to public office or public employment; (2) Determine if SERS' governance structure, delineation of decision-making responsibility, investment expertise, and resources are adequate to provide effective oversight of investment operations; (3) Determine if SERS' external investment advisors and consultants are properly procured and investment fees are reasonable and consistent with investment performance measures; and (4) Evaluate the diversity of SERS' investment portfolio to determine if the investment strategy is prudent to minimize risk based on market conditions.

Our auditors found that SERS did not have a formal education program in place to assess and document the investment knowledge and skills of each Board member and designee (hereinafter collectively referred to as trustees) to demonstrate the Board collectively possesses the abilities to oversee prudent investment decisions. Specifically, neither the State Employees' Retirement Code (SERC) nor the SERS Board bylaws require the trustees to each possess a minimum level of investment or financial knowledge. We noted several other state pension systems where similar legislative requirements exist. Additionally, the Board did not have its trustees conduct self-evaluations of their investment education needs to identify needed areas of training. Further, the Board did not track trustee attendance at education and training events.

In regard to the Board's composition, we found that not only are no Board members elected by SERS members, but the Governor has unusually strong control over the selection of Board members, including selection of the Chairman. Additionally, the Board places too much reliance on the individual trustees to self-report potential conflicts of interest. Also, the Board's policy, procedures, and training regarding ethics need strengthened.

During our audit period, the Board appears to have fulfilled its duties related to investment operations in accordance with the SERC and its investment policy, including properly procuring investment consultants and external investment managers in accordance with its written procedures. However, SERS extended one consultant contract for three years without pursuing other competitive offers. SERS also did not document its external investment manager fee negotiations or justification for the reasonableness of the fee structure. Due to this lack of documentation, auditors were unable to determine if SERS' negotiation procedures were sufficient to obtain the lowest fees possible.

SERS and the Board also appear to have adequately monitored the external investment manager performance and reported performance measures to its members. SERS appears to be more open in regards to reporting investment expenses and performance measures than most of its peer state systems. However, SERS should strive to take a leadership role by improving the clarity of its reporting. Additionally, the procedures used to monitor external private investment managers should be formalized in writing.

SERS' procedures to ensure that it meets its diversified investment strategy appear adequate. SERS analyzes its asset allocation at least biennially. Additionally, SERS' efforts to invest in multiple funds within each asset class to develop a diversified portfolio appear to be adequate.

Our auditors also found that the overly restrictive language within the Public Employee Pension Forfeiture Act, requiring that sex crimes be committed by a school employee against a student, needs significant changes and therefore, our report provides related proposed amendments to the act and the SERC. Further, during our audit period, SERS properly determined which convicted members should forfeit their pensions, but the determinations were not reviewed and formally approved by the SERS Office of Chief Counsel and there was no supervisory review of the monitoring or documenting of cases which resulted in inconsistent and

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incomplete case records. Further, we found that SERS' pension forfeiture case procedures need to be strengthened.

In addition to our current audit objectives, we conducted procedures to determine the status of the implementation of our prior audit findings and recommendations as presented in the audit report released in September 2006. Of the 18 previous recommendations, we found that 14 have been implemented and 4 have not.

In closing, I want to thank SERS for its cooperation and assistance during the audit. SERS is in agreement with or will consider most recommendations.¹ We will follow up at the appropriate time to determine to what extent all recommendations have been implemented.

Sincerely,



Eugene A. DePasquale
Auditor General

¹ We also wish to acknowledge the recent Omnibus Amendments to the SERC and the Public School Employees' Retirement Code through Act 5 of 2017, enacted June 12, 2017, effective immediately, providing for, among other provisions, as follows relating to the SERS/Public School Employees' Retirement System (PSERS) Boards: 1) SERS/PSERS Board members must annually obtain eight hours of mandatory training on certain financial topics, such as investment strategies; 2) changes the composition of the SERS/PSERS Boards from 6 members appointed by the Governor to 5 members and from 2 members appointed by the Governor to 1 member, respectively; 3) adds the Secretary of Banking and Securities to SERS/PSERS Boards, and 4) requires that the legal counsel to the SERS/PSERS Boards serve independently from the Governor's Office of General Counsel under the Commonwealth Attorneys Act, 71 P.S. § 732-101 *et seq.*, and the Office of Attorney General will no longer be an advisor to the Boards.

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State Employees' Retirement System

Executive Summary

The Pennsylvania State Employees' Retirement System (SERS) is responsible for providing retirement benefits earned by public officials and public employees in the Commonwealth of Pennsylvania. SERS provides its members with a defined benefit pension plan, in which the employer guarantees a level of retirement benefits, as determined by formula, to employees who are members of the plan and meet eligibility requirements.

SERS' operations are governed by the State Employees' Retirement Code (SERC). The 11-member State Employees' Retirement Board (Board) was established by law as an independent administrative board, which exercises control and management of SERS, including the investment of assets. The Board members play a significant role in the investment of assets, acting as fiduciaries for the SERS members, and are held to the prudent investor standard in overseeing the fund's investments. Also, the system is managed by an Executive Director, retains professional staff, and contracts for professional services.

Our performance audit had four objectives, including to: (1) Determine if SERS appropriately follows the Public Employee Pension Forfeiture (Act of 140 of 1978, as amended) and its associated regulations for public employees convicted of certain crimes relating to public office or public employment; (2) Determine if SERS' governance structure, delineation of decision-making responsibility, investment expertise, and resources are adequate to provide effective oversight of investment operations; (3) Determine if SERS' external investment advisors and consultants are properly procured and investment fees are reasonable and consistent with investment performance measures; and (4) Evaluate the diversity of SERS' investment portfolio to determine if the investment strategy is prudent to minimize risk based on market conditions. Our audit period was January 1, 2013, through March 31, 2017, unless otherwise indicated, with updates through the report date.

As part of our audit procedures, we conducted a survey of all 20 Board members and designees (collectively called trustees) that served on the Board in January 2017. The blank survey can be found in Appendix B and focused on whether the trustees consider SERS' governance structure, investment expertise, and resources for decision-making adequate to provide effective oversight on investment operations. We received 13 completed surveys. Overall, the results were very favorable for SERS; however, there were certain comments that we point out throughout the report that indicates SERS can make improvements.

Our audit contains six issue areas, including 18 findings with 36 recommendations (23 are directed to SERS and 13 are directed to the General Assembly). SERS is in agreement with or will consider most recommendations and is committed to implementing many of the SERS-directed recommendations.

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Issue Area 1 – SERS failed to develop and implement a formal Board education program; legislative and procedural improvements are needed.

A fundamental tenet of public pension governance is to ensure the governing board receives adequate education and training to fulfill its fiduciary duties. Each trustee should have a familiarity with investments; however, they do not need to be experts. Based on our audit procedures, we found there are no statutory prerequisites (minimum level of investment or financial knowledge) for becoming a Board trustee. Further, the Board does not maintain biographies of each trustee. Therefore, while the experience of certain members may be known, the collective investment knowledge of the Board is unknown.

Additionally, there are no requirements for continual educational sessions. SERS organizes some training, but attendance is not required or tracked. Further, the Board does not assess the investment education needs of each trustee. Specifically, the Board does not have trustees conduct self-evaluations of their educational levels or needs.

SERS has a draft Education Policy that is supposed to be presented to the Board for approval later in 2017, which appears to establish a solid foundation to implement an education program, but it lacks procedures to track each trustee's attendance at education sessions to ensure and document that each trustee is in compliance with the minimum number of hours of training included in its policy.

We offer five recommendations for the General Assembly to amend the SERC and four recommendations for SERS to rectify noted deficiencies.

Issue Area 2 – Although SERS' investment strategy decision-making within its asset allocation policy appears standard, SERS should strive to lower investment expenses. SERS should take a leadership role in the public pension sector by continuing to improve its reporting of investment expenses and fund performance.

Part of SERS' mission is to prudently invest its assets to maintain a financially-sound system in order to provide the promised benefit payments to its members. To achieve this mission, SERS invests in a manner consistent with its long-term goals while maintaining adequate liquidity to meet required benefit payments to its members. One key decision to make is to what extent to use active or passive portfolio management. Based on our audit procedures, SERS' strategic approach to key decision-making, specifically whether it is most prudent to actively or passively manage portfolios, in order to minimize investment expenses within its asset allocation policy appears to be reasonable.

In order to determine whether investment fees charged to SERS were reasonable and consistent with investment performance, we analyzed SERS' investment expense and performance reporting practices. We found that SERS' management of investment expenses within the constraint of its asset allocation policy appears to be standard. Although SERS' reporting of its

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investment expenses surpasses its peer public pension systems and SERS reporting of fund performance is comprehensive, additional disclosure improvement can still be made. SERS can improve its reporting by including all fund-level investment expenses and gross-of-fee performance and net-of-fee performance to more accurately reflect the cost of SERS' investment strategies.

We offer four recommendations to generally improve SERS reporting of investment fees and investment performance.

Issue Area 3 – SERS properly procured and monitored its investment consultants and managers, but inadequately pursued competitive offers, failed to document fee negotiations, and lacked written procedures for monitoring private investments.

SERS' procedures for contracting with investment consultants and external investment managers appear to be adequate and in compliance with Board policies. However, SERS extended one consultant contract for three years without pursuing other competitive offers. SERS also did not document its external investment manager fee negotiations or justification for the reasonableness of the fee structure. Due to this lack of documentation, auditors were unable to determine if SERS' negotiation procedures were sufficient to obtain the lowest fees possible.

Additionally, we found that SERS adequately monitors its external investment managers. However, SERS needs to formally document in detail its procedures for private investment monitoring to ensure consistent and comprehensive monitoring of external private investment managers.

We offer five recommendations to improve consultant procurement, investment fee negotiations, and documentation of monitoring procedures.

Issue Area 4 – Despite fulfilling its statutory duties and responsibilities, the SERS Board's composition, vague ethics policy, and nonexistent attendance policy jeopardize its level of independence and reliability.

SERS' Board is slightly larger than its peer state systems and lacks an attendance policy; however, this does not appear to hinder Board processes. We also found that not only are no Board members elected by SERS members, but the Governor has unusually strong control over the selection of Board members, including selection of the Chairman.

The Board's Ethical Conduct Policy does not adequately expand upon the Public Official and Employee Ethics Act, including establishing procedures to verify the accuracy and completeness of self-reported information from Board members and designees regarding potential conflicts of interest. The Board also does not require annual ethics trainings or its Board members and designees to certify compliance with its ethics policy annually.

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The Board has adopted several policies to guide the governance process. However, these policies are not aggregated, and therefore compiling these separate policies into a single, comprehensive governance manual would be beneficial. The Board appears to have fulfilled its investment-related duties as outlined in the SERC and its investment policy.

We offer six recommendations for the General Assembly to amend SERC to improve Board composition and attendance and four recommendations for SERS to improve policies and create a governance manual.

Issue Area 5 – SERS' procedures to ensure it is meeting its diversified investment strategy appear adequate.

There is no one asset allocation strategy that would address the specific characteristics and needs of all public pension systems. Therefore, it is most important that the decisions made by the system are based on the individualistic profile of the system, and that the decisions are reevaluated on a regular basis to adequately respond to market, demographic, or other changes.

We found that SERS' General Investment Consultant biennially reviews SERS' asset allocation strategy and makes recommendations accordingly. Also, the SERS' Investment Office professionals perform a comparison monthly to ensure the actual value for each asset class remains within the asset allocation strategy target policy range or is otherwise rebalanced. We also found that SERS' strategy to invest in different asset classes and numerous individual funds within each asset class appears to be adequate to minimize market risk.

We offer two recommendations to the Board to enable it to make prudent investment decisions.

Issue Area 6 – SERS generally complied with the Public Employee Pension Forfeiture Act, but significant legislative changes and procedural improvements are needed.

Act 140 of 1978, as amended, or the Public Employee Pension Forfeiture Act (Act 140), provides that members of SERS could be subject to pension forfeiture if the member pleads guilty or is sentenced/convicted of an Act 140 specified criminal offense and the member's public position was used to commit the crime. The pension benefits are to be forfeited upon conviction.

We found the language of Act 140 is overly restrictive regarding the victims of sex crimes. The Act mandates that the victim of certain sex crimes committed by a "school employee" in the "public school" (i.e., Act 140's definition encompasses the State-owned universities, community colleges, and the Pennsylvania State University) within the course of his/her employment is limited to a "student" in order for pension forfeiture to occur. We also point out that the definitions of "public school" and "school employee" should be defined in the SERC and should ensure that the provision covers anyone who performs any services directly benefiting a public

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school and receives pension benefits. This definition should also apply to any independent contractor or a person compensated on a fee basis receiving any form of remuneration qualifying for pension benefits. This would expand the Act to cover retired school employees who continue to directly perform services for a public school (as defined by Act 140) or governmental entity.

Additionally, the Act should be expanded to address protective service employees, or any person engaged in work relating to protective services — for children or for adults who are mentally/physically challenged or incarcerated and therefore unable to give willing consent — with any governmental entity or public school (as defined by Act 140) under the Child Protective Services Act, the Older Adults Protective Services Act, the Human Services Code, or the Prisons and Parole Code. Therefore, we believe that the Act and retirement code should be amended to include a narrowly tailored definition of “public protective services employee” engaged in work with minors or adults who, due to various reasons, are not able to give informed consent. Public employees and officials must be held to high standards of behavior and are expected to conduct themselves with ethical and moral integrity at all times.

We found SERS' case discovery procedures appear to be complete and accurate. SERS also appears to have made accurate pension forfeiture determinations in compliance with Act 140 and sought recoupment of annuity payments made after the date of conviction. However, we found that the pension forfeiture legal determinations related to state charges and non-judicial employees were made by an Administrative Officer and were not reviewed and formally approved by the Office of Chief Counsel prior to informing the member of the pension forfeiture. There was also no supervisory review of the monitoring or documenting of cases which resulted in inconsistent and incomplete case records.

Additionally, SERS' written procedures for pension forfeiture need to be strengthened — specifically, procedures related to supervisory review of case determinations and the monitoring and documentation of case records.

We offer two recommendations to the General Assembly to strengthen the provisions of Act 140 and four recommendations to SERS to improve its supervisory review and tracking procedures and correct deficiencies noted.

Status of Prior Audit Findings

We also conducted procedures to determine the status of the prior audit findings presented in the audit report released in September 2006. Our prior audit of SERS covered the period January 1, 2001, through December 31, 2004, and contained six chapters with a total of 15 findings. Five of the 15 prior year findings did not offer recommendations. For the remaining 10 prior year findings, which contained 18 recommendations, we conducted limited procedures to determine the status of these findings.

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We found that SERS implemented 14 of the 18 recommendations. Three of the recommendations that were not implemented were addressed as part of the current audit. In regard to the remaining recommendation that was not implemented, we found that the SERS' Internal Audit Division continues to operate without an audit charter.

We offer one additional recommendation to SERS to develop an Internal Audit Division Charter and have it approved by the Board.

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Introduction and Background

This report presents the results of our performance audit of the State Employees' Retirement System's² (SERS) administration of the investment program³ and the Public Employee Pension Forfeiture Act.⁴

Underfunded government pension liabilities have grown enormously and have caused a public pension crisis throughout the nation. For example, two of the lowest funded systems, the State Employees' Retirement System of Illinois and the New Jersey Public Employees' Retirement System, both were only 31% funded as of June 30, 2016.⁵

Part of the reason public pensions have reached this point is that employers and governments have been severely underfunding their pension programs for years. This, in combination with unpredictable investment returns, has raised serious concerns over the sustainability of state retirement systems and their ability to fulfill future retirement payouts.

Another disturbing issue is the number of reported financial and other crimes perpetrated by public officials and employees who take advantage of their professional positions. This includes instances of inappropriate sexual conduct perpetrated against minors or adults in their care who, due to various reasons, are not able to give informed consent. As members of SERS, public officials and employees convicted of certain crimes that involved use of the member's public position must forfeit their pension benefits. The underfunded pension liability leaves no room for error in readily identifying and promptly processing these pension forfeitures.

Both of these topics directly affect the lives of thousands of Pennsylvania citizens. We conducted this audit to ensure that SERS is operating as efficiently, effectively, and transparently as possible in order to protect the long-term interests of the system's beneficiaries, the public-sector employers, and the taxpayers who support them. Further, we are hopeful that our audit will help clarify and enhance the Public Employee Pension Forfeiture Act to broaden the category of, among others, the victims of sex crimes for whom the perpetrator would face pension forfeiture, and to expand the definition of employees and retirees subject to pension forfeiture to include all of those who directly perform services for a governmental entity and a public school.

² 71 Pa.C.S. § 5101 *et seq.*

³ *See in particular* 71 Pa.C.S. §§ 5931-5941.

⁴ 43 P.S. § 1311 *et seq.*

⁵ State Employees' Retirement System of Illinois and the New Jersey Public Employees' Retirement System Comprehensive Annual Financial Reports for the fiscal year ended June 30, 2016 (<https://srs.illinois.gov/PDFILES/oldAnnuals/SERS16.pdf>, page 14 and <http://www.state.nj.us/treasury/pensions/pdf/financial/2016divisioncombined.pdf>, page 32, respectively; accessed May 25, 2017).

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We conducted our work under the authority of Sections 402 and 403 of The Fiscal Code⁶ and in accordance with applicable *Government Auditing Standards* as issued by the Comptroller General of the United States.⁷

As discussed further in Appendix A, *Objectives, Scope, and Methodology*, our audit serves as an independent assessment of SERS and the administration of its investment program and the Public Employee Pension Forfeiture Act. Our audit objectives were as follows:

- Determine if SERS appropriately follows the Public Employee Pension Forfeiture Act (Act 140 of 1978, as amended) and its associated regulations for public employees convicted of certain crimes relating to public office or public employment.
- Determine if SERS' governance structure, delineation of decision-making responsibility, investment expertise, and resources are adequate to provide effective oversight of investment operations.
- Determine if SERS' external investment advisors and consultants are properly procured and investment fees are reasonable and consistent with investment performance measures.
- Evaluate the diversity of SERS' investment portfolio to determine if the investment strategy is prudent to minimize risk based on market conditions.

Background of SERS

SERS, one of the nation's oldest and largest statewide retirement plans for public employees, was established in 1923 to provide retirement benefits earned by officials and employees of the Commonwealth of Pennsylvania.⁸ SERS provides its members with a defined benefit pension plan, in which the employer guarantees a level of retirement benefits, as determined by formula, to employees who are members of the plan and meet eligibility requirements.

SERS' operations are governed by the State Employees' Retirement Code.⁹ The 11-member State Employees' Retirement Board (Board) was established by law as an independent administrative board,¹⁰ and it exercises control and management of SERS, including the investment of its assets.¹¹ The system is also managed by an executive director, internal

⁶ 72 P.S. §§ 402-403.

⁷ *Government Auditing Standards*, December 2011 revision, issued by the Comptroller General of the United States, United States Government Accountability Office, Washington D.C.

⁸ SERS 2017 Supplemental Budget Book, <http://sers.pa.gov/pdf/2017-Supplemental-Budget-Book.pdf>, page 3.

⁹ 71 Pa.C.S. § 5101 *et seq.*

¹⁰ 71 Pa.C.S. § 5901(a).

¹¹ 71 Pa.C.S. § 5931(a).

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investment professionals, and the investment consultants and external investment managers the Board retains to provide professional investment services.

SERS' mission is to provide retirement benefits and services to its members through sound administration and prudent investments.¹²

SERS serves 104 public-sector employers throughout the Commonwealth.¹³ As of December 31, 2016, there were approximately 239,000 SERS members, as outlined in the table below.

Type of Member	Number of Members
Active Members	105,000
Vested Members ¹⁴	7,000
Retired Members	127,000
Total	239,000

Source: SERS' Snapshot Fact Sheet (<http://sers.pa.gov/pdf/SERS-SnapShot.pdf>, accessed May 4, 2017).

In order to fund members' retirement benefits and its administrative costs, SERS receives member and employer contributions and earns investment income. Member contributions are 6.25% of payroll for most employees.¹⁵ All pension contributions and pension income of the system is deposited into the State Employees' Retirement Fund.¹⁶

History of the Unfunded Pension Liability

In the late 1990's and early 2000's, the market was thriving, so the Commonwealth enacted legislation to increase employee retirement benefits for new employees and retroactively for active employees.¹⁷ A significant downturn of the economy began in March 2000 and lasted until October 2002, which led to investment losses within the retirement fund. Typically, the employer contribution rate would have been increased to offset these losses. However, Act 40 of 2003 was passed to delay the impending rise of employer contributions by changing the funding

¹² SERS Comprehensive Annual Financial Report Fiscal Year Ended December 31, 2015, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=CAFR/2015_SERS_CAFR.pdf, page vii.

¹³ <http://sers.pa.gov/about.aspx> (accessed May 4, 2017).

¹⁴ Vested members are no longer paying into the system and are due benefits, but are not yet retired and receiving benefits.

¹⁵ SERS' Snapshot Fact Sheet <http://sers.pa.gov/pdf/SERS-SnapShot.pdf>.

¹⁶ 71 Pa.C.S. § 5932.

¹⁷ Act 9 of 2001 increased retirement benefits for employees who became SERS members on/after July 1, 2001 by increasing the accrual rate to 2.5% for rank-and-file employees and 3.0% for legislators and increased employee contributions to 6.25% for rank-and-file employees and 7.5% for legislators. It also reduced the vesting period for all current members from 10 to 5 years and allowed then-current members to "buy up" to the higher benefits by agreeing to pay the higher employee contribution rate on a going-forward basis. Act 38 of 2002 provided a two-step cost of living adjustment and implemented a 1% minimum employer contribution rate.

http://sers.pa.gov/about_legislation.aspx.

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period for most of SERS' actuarial liabilities, effectively spreading out the payment of SERS' costs and liabilities (see table below). In other words, SERS extended its pension liability from a 10-year term to a 30-year term.

Valuation Year Ended December 31	Total Employer Contribution Rate %*
2006	4.00
2007	4.00
2008	4.00
2009	5.00
2010	8.00
2011	11.50
2012	16.00
2013	20.50
2014	25.00
2015	29.50
2016	31.80**

*For the fiscal year beginning July 1 following the valuation year.

**Estimate as of February 2017.

Source: SERS' Comprehensive Annual Financial Report for fiscal year ended December 31, 2015, page 84 and SERS 2017 Supplemental Budget Book, page 2.

When the economy crashed in 2008¹⁸ followed by a severe recession in 2009,¹⁹ it caused a decline in SERS' assets and consequently a rise in SERS' unfunded liabilities, from \$3.8 billion as of December 31, 2008 to \$9.7 billion as of December 31, 2010. In response, Act 120 of 2010 was enacted, which reduced retirement benefits for individuals who became new members of SERS, extended the vesting period from 5 to 10 years, and established a long-term plan to pay off the existing pension liabilities.²⁰

The unfunded status of pension plans is measured by comparing the actuarial value of assets with the actuarially-determined liabilities. SERS reached a high of almost 132% funded in 2000 (overfunded by 32%), but the legislation changes to increase benefits and allow underfunding of employer contributions, coupled with the economic downturns, reduced the fund to an underfunded position. As of December 31, 2016, the SERS fund was projected to be \$19.5 billion underfunded with a funded ratio of 58.7% percent.²¹ The increase of the unfunded pension liabilities is shown in the graph below.

¹⁸ <https://www.thebalance.com/2008-financial-crisis-3305679> (accessed May 1, 2017).

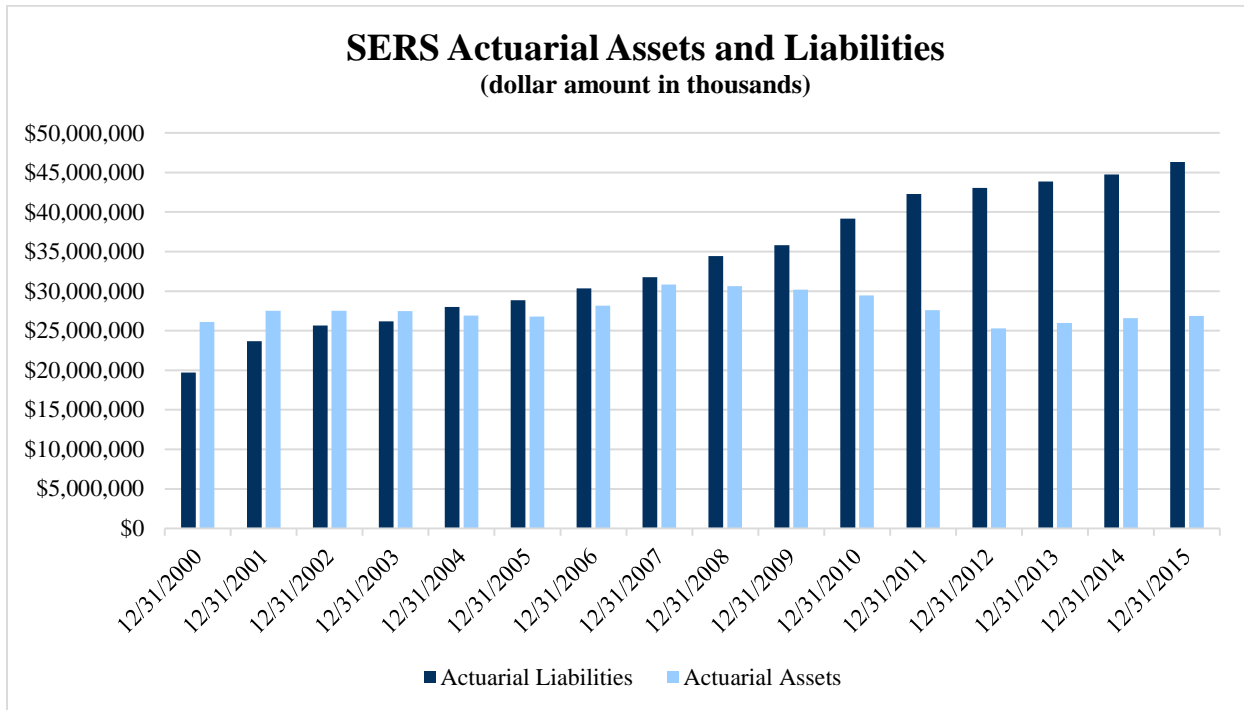
¹⁹ http://money.cnn.com/2009/03/25/news/economy/depression_comparisons/ (accessed May 1, 2017).

²⁰ http://sers.pa.gov/about_legislation.aspx (accessed May 4, 2017).

²¹ SERS 2017 Supplemental Budget Book, http://sers.pa.gov/pdf/Supplemental_Budget_Book/budgetbinder2017.pdf, page 18.

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Actuarial assets less actuarial liabilities equals unfunded liabilities.

Source: SERS' 2015 Actuarial Valuation Report, page 24. The SERS' 2016 Actuarial Valuation Report figures were not finalized at the time of writing the audit report.

As seen in the graph above, SERS' total assets exceeded total liabilities until the calendar year ended December 31, 2004, when the liabilities began to surpass the assets. Since that time, the total assets have remained fairly constant, but the total liabilities have continued to increase with the unfunded portion growing each year.

Employers are required to pay an annual contribution, a percentage of payroll, as established by the SERS Board. When the public employers fail to pay their full actuarially required contribution amount, or when investment returns fall below the assumptions used in actuarial calculations, it contributes to the system's unfunded liability.

Background of the SERS' Board and the Prudent Investment Standard

The State Employees' Retirement Code (SERC) states that the independent administrative board (Board) will consist of 11 members as follows:

- State Treasurer, ex officio
- Six persons appointed by the Governor, at least one of whom is an annuitant of SERS
- Two Senators (one member from the majority and one member from the minority)

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- Two members of the House of Representatives (one member from the majority and one member from the minority)²²

At least five Board members must be active members of SERS and at least two must have 10 or more years of credited state service. The members from the Senate are appointed by the President pro tempore of the Senate and the members from the House of Representatives are appointed by the Speaker of the House of Representatives.²³ The chairman of the board is designated by the Governor from among the members of the board.²⁴

The Board has a significant role in ensuring the health of the investment program, through its responsibilities of setting the employer contribution rates as required by the SERC and controlling the investment of the fund assets in order to maximize returns.

As fiduciaries, the members of the Board must act solely in the interests of SERS' members and for their exclusive benefit. These duties of loyalty and good faith prohibit Board members from acting for their own profit or to serve the interests of their constituents or appointing authorities.²⁵ Further, SERS' Board members should have a comprehensive understanding of the full scope of their fiduciary duties and responsibilities given that they are entrusted with the management of a large public pension fund.

According to SERS' management, in regard to overseeing the fund's investments, the Board members are held to the "prudent investor standard." In general, this standard requires fiduciaries to invest as a prudent investor would, by considering the needs of the system's members, providing regular income, and preserving the fund assets.²⁶

This standard requires that Board members have a familiarity with investing.²⁷ They do not have to be experts, but their oversight duties require them to understand a broad range of investment vehicles and the risks and costs associated with them. Absent such an understanding, Board members may commit the fund to investments and practices that leave it unable to pay out the retirement benefits SERS' members depend on.

Background of the Investment Program

SERS seeks to provide benefits to its members through a carefully planned and well-executed investment program. Its Statement of Investment Policy²⁸ establishes criteria for the management

²² 71 Pa.C.S. § 5901(a)-(b).

²³ 71 Pa.C.S. § 5901(b).

²⁴ 71 Pa.C.S. § 5901(a).

²⁵ 71 Pa.C.S. § 5931(a).

²⁶ Adapted from investopedia.org (accessed May 2, 2017).

²⁷ 71 Pa.C.S. § 5931(a).

²⁸ <http://sers.pa.gov/pdf/Investments/SERS-SIPincludingEmergingInvestmentManagerGuidelinesClean.pdf?path=pdf&file=Investments/InvestmentPolicy.pdf>.

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of the fund assets and delegation of investment responsibilities to the Investment Office, general investment consultant, other specialty consultants, and external investment managers.

The Board adopts several demographic and economic assumptions as developed by its actuary and general investment consultant. These assumptions include forecasting salary growth, member population growth, inflation rates, and the investment rate of return. The investment rate of return is the return SERS expects its investments will produce to help fund the retirements of its members. In April 2017, SERS lowered its investment rate of return from 7.5% to 7.25%, stating the reduction in the long-term rate is “right for this fund at this time and reflects a reasonable long-term target to be achieved over the next 20-30 year period.”²⁹

In a February 2017 Issue Brief, the National Association of Retirement System Administrators (NASRA) reported the average return assumption of the 127 public pension plans measured was 7.52%. In December 2016, the California Public Employees' Retirement System, the largest state pension system, decided to lower its rate from 7.5% to 7.0% from fiscal year 2017-2018 to fiscal year 2019-2020. The table below outlines the assumed rates for additional state pension systems.

State Public Pension System	Investment Return Assumption Rate
Florida Retirement System	7.6%
New York State Teachers	7.5%
North Carolina Teachers and State Employees	7.25%
Ohio Public Employees Retirement System	7.5%
Texas Teachers	8.0%

Source: National Association of State Retirement Administrators February 2017 Issue Brief, <http://www.nasra.org/files/Issue%20Briefs/NASRAInvReturnAssumptBrief.pdf>, accessed March 10, 2017.

A fundamental part of an investment program is making key decisions, such as whether assets should be managed by internal staff or by external investment management companies. During our audit period, SERS utilized external investment managers to manage all of the pension fund investments.

Another key investment decision is to what extent to use passive or active investment management strategies. Passive management, or indexing, is an investment management approach based on investing in the same securities, and in the same proportions, as an index, such as the S&P 500. It is called passive because portfolio managers do not make decisions about which securities to buy and sell; the managers merely follow the same methodology of constructing a portfolio as the index uses. The managers' goal is to replicate the performance of an index as closely as possible.³⁰

²⁹ http://sers.pa.gov/pdf/Press_Releases/2017-04-26-BoardMtgRelease.pdf (accessed May 16, 2017).

³⁰ www.investopedia.com (accessed March 10, 2017).

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On the other hand, active management attempts to outperform the market. This is achieved through analyzing potential investments, market trends, the economy, and other factors. Active managers are constantly searching for information and gathering insights to help them make their investment decisions. Recently, SERS has been increasing its use of passive management. For instance, in the second half of calendar year 2016, SERS reallocated \$1.1 billion from active public equity investment portfolios to index strategies. Also, in April 2017, the Board announced it reallocated an additional \$2.1 billion of the public markets portfolio into low-cost index funds.

The costs of these different strategies must be analyzed as part of the decision-making process. In general, external investment managers and active managing result in higher investment fees. For the fiscal years ended December 31, 2015 and 2016, SERS' investment management fees totaled \$159 million³¹ and \$162 million,³² respectively. In order to minimize investment management fees, emphasis must be placed on selecting quality investment managers and consistently monitoring the performance of investments. Also, using internal staff to manage funds instead of paying external investment managers can potentially save millions of dollars in fees.

Background of Structuring a Portfolio to Minimize Risk

Most people view risk as the chance of loss. Investment professionals, however, measure risk through the use of volatility, which is the fluctuation of the investment return. The volatility of investments decline as the time horizon extends, although it will never eliminate all the risk of an asset class. Two methods to address volatility include portfolio diversification and an asset allocation strategy. Diversification is holding multiple securities within an asset class, and asset allocation is constructing a portfolio with multiple asset classes.³³

Trustees should periodically review the asset allocation policy and, if necessary, adjust the portfolio mix. The trustees are ultimately responsible for establishing and reviewing the asset allocation policy, but often delegate these duties to investment staff or an investment consultant. One method of reviewing the asset allocation strategy is to perform an Asset-Liability Study. This method focuses on structuring the portfolio so the assets and liabilities are matched to the best extent possible. The study is extremely complex and evaluates the probable growth and structure of the liabilities in order to develop asset allocation recommendations that best meet the liabilities over time. Data from the actuarial report is used to construct a projection of future liabilities. The firm performing the study will develop various portfolio asset allocations and, using specialized actuarial software, model the assets against the liabilities. The firm then typically evaluates thousands of potential future inflation scenarios and a wide range of market conditions. The results of this analysis are used to determine the mix of asset classes most likely

³¹ SERS 2016 Supplemental Budget Book, <http://sers.pa.gov/pdf/2016-Supplemental-Budget-Book.pdf>, page 30.

³² SERS 2017 Supplemental Budget Book, http://sers.pa.gov/pdf/Supplemental_Budget_Book/budgetbinder2017.pdf, page 29.

³³ *Beginner's Guide to Asset Allocation, Diversification, and Rebalancing*, <https://www.sec.gov/> (accessed March 29, 2017).

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to meet expected future spending needs while minimizing the risk that those needs will not be met.

For the purpose of our audit, we categorized investments into 5 asset classes as follows, and an additional class to incorporate all other assets:

1. Cash Equivalents (including cash and short-term securities)
Cash equivalents are investment vehicles such as Treasury bills, repurchase agreements, certificates of deposit, commercial paper, or a commingling of these vehicles, such as local government investment pools and money market mutual funds. Cash equivalents are typically a low risk investment used to balance other riskier asset classes.
2. Fixed Income
Fixed income investments provide pension plans with a fixed rate of return, a nearly certain return of principal, and help to offset the long-term liabilities of the plan. They act as a portfolio diversifier since they generally have a low correlation³⁴ with the return of stocks. These investments may include Treasury notes and bonds, Treasury Inflation Protected securities, and other bonds (domestic and international).
3. Public Equity
Public equity consists of domestic and foreign stocks. These investments are primarily used by pension systems to seek real returns in excess of inflation. However, this increase in returns corresponds to an increase in volatility. Additionally, foreign stocks may add another dimension of risk due to trading securities in different currencies.

Foreign currency risk is the risk that fluctuations in exchange rates will adversely affect the fair value of an investment. The foreign currency exposures at December 31, 2015 are listed in the table below.

Currency	Total Fair Value (in thousands)
Euro	\$1,566,933
British pound sterling	\$ 791,796
Japanese yen	\$ 707,644
Swiss franc	\$ 415,125
Hong Kong dollar	\$ 315,415
Australian dollar	\$ 204,330
Canadian dollar	\$ 176,056
South Korean won	\$ 120,005
Swedish krona	\$ 118,868

³⁴ Correlation, in the finance and investment industries, is a statistic that measures the degree to which two securities move in relation to each other. Having a low correlation means the two securities typically do not move in relation to each other.

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Other foreign currencies	\$ 490,313
Total	\$4,906,485

Source: SERS' Comprehensive Annual Financial Report as of December 31, 2015, page 24.

4. Alternatives

Alternatives encompass a variety of instruments that are either non-traditional assets or non-traditional methods, like hedge funds, private debt, private equity, or venture capital. These investments may play a role in offsetting the volatility of traditional assets classes. However, they present unique risks and oversight challenges that need extreme prudence and care in their use.

5. Real Assets

Real estate represents an ownership position but also the economic value is predominantly in the form of a stream of payments. Therefore, its functionality can be viewed as a hybrid of stocks and bonds. In addition to real estate, real assets also include commodities and infrastructure.

Numerous studies have concluded that the single most important component determining overall performance of an investment portfolio is how that portfolio is allocated among different types of investments.³⁵ Following the tenets of Modern Portfolio Theory, asset allocation is the key to managing risks, as well as driving returns. Modern Portfolio Theory relies on asset classes that move in opposite directions over time, thereby cancelling each other's volatility. Taken together, in theory, the overall portfolio would increase in value at a steady rate.³⁶

Background of the Public Employee Pension Forfeiture Act

Act 140 of 1978, the Public Employee Pension Forfeiture Act (Act),³⁷ provides for the forfeiture of the pensions of certain public officials and employees, and authorizes the Commonwealth to forfeit pension benefits upon conviction of certain criminal offenses related to their office or position of employment. These state crimes include theft, forgery, bribery, perjury, tampering with public records, or intimidation of witnesses/victims. When a member forfeits his or her pension benefits, no employee contributions are included in the forfeiture. The court can, however, order the contributions, as well as the interest earned on employee contributions, to be used for restitution.

In September of 2004, the Act was amended to include certain sex crimes committed by a school employee against a student, including rape, statutory sexual assault, involuntary deviate sexual

³⁵ *Pension Investing: Fundamentals and Best Practices*, Government Finance Officers Association, http://www.gfoa.org/sites/default/files/PensionInvesting_FundamentalsAndBestPractices.pdf, page 15.

³⁶ <http://www.investopedia.com/walkthrough/fund-guide/introduction/1/modern-portfolio-theory-mpt.aspx> (accessed May 19, 2017).

³⁷ 43 P.S. § 1311 *et seq.* (Act 140 of 1978, as amended.)

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intercourse, sexual assault, aggravated indecent assault, indecent assault, and indecent exposure.³⁸ Between January 1, 2013 and October 31, 2016, SERS processed and closed 40 cases that resulted in pension forfeiture.

³⁸ Act 86 of 2004, effective September 13, 2004. The specific language added to the definitional section of the Act was as follows: "Any of the criminal offenses set forth in Subchapter B of Chapter 31 (relating to definition of offenses) when the criminal offense is committed by a school employee as defined in 24 Pa.C.S. § 8102 (relating to definitions) against a student." *See* 43 P.S. § 1312.

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Issue Area 1 – SERS failed to develop and implement a formal Board education program; legislative and procedural improvements are needed.

Issue Area Summary: Findings 1.1 and 1.2

Retirement systems must define the key elements necessary for trustees to fulfill their responsibilities in accordance with fiduciary standards. The Government Finance Officers Association³⁹ (GFOA) states that one fundamental tenet of public pension governance is to ensure the governing board receives adequate education and training to fulfill its fiduciary duties.⁴⁰ The SERS' Board of Trustees (Board) is bound by these fiduciary duties, which can be divided into three categories:⁴¹

Duty of Loyalty	Duty of Care	Duty of Prudence
<ul style="list-style-type: none">• The obligation to act for the exclusive benefit of the plan participants and beneficiaries.• The trustees must put the interest of all plan participants and beneficiaries above their own interests or those of any third party.• As a fiduciary, the trustee does not represent a specific constituency or interest group.	<ul style="list-style-type: none">• The responsibility to administer the plan efficiently and properly.• The trustee must consider and monitor the financial sustainability of the plan design and funding practices.	<ul style="list-style-type: none">• The obligation to act prudently in exercising power or discretion over the interests subject to the fiduciary relationship.• A trustee should act in a way that a reasonable person acts in a similar situation or in the conduct of his or her own affairs.

As a result of these fiduciary duties, each trustee must carefully assess investment goals, risk versus return, and diversification of assets. Under the duty of prudence, to be considered a *prudent investor*, a trustee must only acquire investments or expose the fund to risks that a person of reasonable intelligence would consider wise with a low probability of permanent

³⁹ The Government Finance Officers Association (GFOA) represents public finance officials throughout the United States and Canada. **GFOA's mission is to promote excellence in state and local government financial management.** The organization provides best practice guidance, consulting, networking opportunities, publications, recognition programs, research, and training opportunities for those in the profession. <http://gfoa.org/about-gfoa> (accessed March 20, 2017).

⁴⁰GFOA Best Practice “*Governance of Public Employee Post-Retirement Benefits Systems.*”

http://gfoa.org/sites/default/files/GFOA_CCIBPGovernanceofPublicEmployeePostRetirementBenefitsSystems.pdf.

⁴¹ Ibid.

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loss.⁴² In other words, each trustee should take a reasonable approach to investing that meets the needs of beneficiaries while preserving fund assets. The objectives of this audit focus only on the responsibility of the Board to guide the investment of the system assets and not on any other services provided by SERS.

As part of our audit procedures, we conducted a survey of all 20 Board members and designees (**hereinafter collectively referred to as trustees**) that served on the Board in January 2017 (see Appendix B). Our survey focused on whether the trustees consider SERS' governance structure, investment expertise, and resources for decision-making adequate to provide effective oversight on investment operations. We received 13 completed surveys and have incorporated the results throughout the audit report.

Based on the results of our audit, the most problematic area related to SERS Board governance is its ability to ensure each trustee of the system possesses the knowledge and skills to prudently make decisions on investing the system's \$26.8 billion of assets. There are no statutory requirements for any trustees to have investment knowledge or to obtain a minimum amount of investment training each year. Additionally, the SERS Board did not have a Board education policy or formal education program in place during our audit period.

Finding 1.1 – The State Employees Retirement Code lacks provisions detailing the investment knowledge the Board must possess and the minimum hours of annual education each trustee must receive in order to fulfill their fiduciary duties.

The State Employees Retirement Code (SERC) does not require the Board as a whole to possess a minimum level of investment or financial knowledge. SERS' Board Bylaws are also silent on the minimum amount of knowledge the Board as a whole must possess to meet its fiduciary duties in relation to making sound investment decisions. Further, the Board does not maintain biographies of each trustee to evidence each individual's educational, career, or personal experience with investments. Therefore, while the experience of certain members may be commonly known by other trustees, the collective investment knowledge of the Board is unknown and not documented.

According to SERS management, the Board Bylaws do not include a required level of investment knowledge for the collective Board and the Board does not maintain trustee biographies because all of the Board members are either appointed by the Governor or General Assembly or are on the Board through holding an elected position. SERS management indicated

⁴² 71 Pa.C.S. § 5931(a). SERS Board members are held to “exercise...that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the funds, considering the probable income to be derived therefrom as well as the probable safety of their capital....”

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that the Board is not able to require specific qualifications for each trustee, and any additional restrictions would have to come from the General Assembly. While the Board may not be able to control if Board members are qualified, they can opt to collect and retain biographies/resumes to formally document the level of investment knowledge and the experience of each trustee. Additionally, having this information available to its members and the public by posting it on the SERS' website would assist in assuring the fund is being handled by capable individuals.

Although one would expect the individuals who selected the trustees⁴³ considered investment knowledge and experience as a qualification, we believe that reliance on an individual's judgment does not alleviate the need for a legal requirement. As noted in the table below, there are several other state public pension systems that require some form of investment knowledge or experience within its statutory law.

State Public Pension System	Statutory Investment Knowledge Requirements of Board
Iowa Public Employees Retirement System	"Three public members, appointed by the governor, who are not members of the retirement system and who each have substantial institutional investment experience or substantial institutional financial experience." ⁴⁴
Virginia Retirement System	"The gubernatorial appointees shall be as follows: two shall have a minimum of five years of experience in the direct management, analysis, supervision, or investment of assets..." ⁴⁵
Arizona State Retirement System	"B. Four of the members shall have at least ten years' substantial experience as any one or a combination of the following: 1. A portfolio manager acting in a fiduciary capacity. 2. A securities analyst. 3. An employee or principal of a trust institution, investment organization or endowment fund acting either in a management or an investment related capacity. 4. A chartered financial analyst in good standing as determined by the CFA institute. 5. A professor at the university level teaching economics or investment related subjects. 6. An economist. 7. Any other professional engaged in the field of public or private finances." ⁴⁶

⁴³ This excludes the State Treasurer that is required to serve on the Board by way of his/her job position (also known as "ex officio member").

⁴⁴ IA Code § 97B.8A, Subsection 4.a.(1)(a).

⁴⁵ VA Code § 51.1-124.20(G).

⁴⁶ Ariz. Rev. Stat. § 38-713(b).

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New York State Teachers Retirement System	“Two members who are not employees of the state, each of whom shall be or shall have been a trustee or member of the board of education of a school district in this state, and at least one of whom shall be or shall have been an executive officer of an insurance company, elected by the board of regents of The University of the State of New York to serve for a term of three years, from a list of five or more persons having broad experience and ability in the fields of finance and investment to be presented to the regents by the board of directors of the New York State School Boards Association, Inc.” ⁴⁷
Ohio Public Employees Retirement System	“Two members, known as the investment expert members, who shall be appointed...and each of whom shall have...direct experience in the management, analysis, supervision, or investment of assets.” ⁴⁸
Teacher Retirement System of Texas	“The governor shall appoint to the board: (1) three persons who have experience in the fields of securities investment, pension administration, or pension law...” ⁴⁹

Although trustees need to have experience in several areas, investment knowledge is crucial given that these individuals are being entrusted with over \$26.8 billion of fund assets. Without having an established prerequisite for comprehensive knowledge of investments for the collective Board, the trustees could be making uninformed decisions and putting state employees' retirement funds at risk.

In addition to not establishing a minimum amount of investment knowledge the collective Board must possess, the SERC also does not include a minimum amount of hours of educational sessions trustees must obtain annually. There are several state pension systems that have ongoing training requirements for trustees within the retirement codes, including:

- The California Public Employees' Retirement System board members are required to receive a minimum of 24 hours of education within the first two years of assuming office and for every subsequent two-year period the member continues to hold membership on the board. Each member must attend an annual training on the fiduciary duties applicable to trustees of a public pension system.⁵⁰
- The Texas Retirement Code directs the pension review board to establish minimum training requirements, which resulted in the requirements of a minimum of 7 hours of training within the first year of service and 4 hours of training every two years after that.⁵¹

⁴⁷ NY Educ. L § 504(2)(b).

⁴⁸ Ohio Rev. Code Title 1, § 145.04(A)(5)(a)(iii).

⁴⁹ Texas Govt. Code Title 8, § 801.103(b)(1).

⁵⁰ Cal. PERL, Title 2, Div. 5, Part 3, § 20100.

⁵¹ Texas Govt. Code Title 8, § 801.211, <<http://www.prb.state.tx.us/resource-center/trustees-administrators/educational-training-program/>> (accessed June 7, 2017).

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- The Maryland State Retirement Code also requires each member to annually participate in at least eight hours of investment and fiduciary training.⁵²

Finding 1.2 – The SERS Board failed to develop and implement a formal education and training program.

During our audit period, SERS did not have a Board education policy and the informal education program had several deficiencies, as outlined below.

- Trustees new to the Board were provided an orientation booklet and met with SERS' executive management. However, according to our survey, 2 of the 13 respondents indicated that they were not given sufficient information during the orientation to be able to make a contribution to the Board quickly.⁵³
- The Board did not have trustees conduct self-evaluations of their investment educational levels or needs to identify where improvements can be made.
- SERS provided no education sessions to Board members during the calendar year 2013 and the majority of 2014. In October 2014, the Investment Office began presenting a series of asset class summaries to the Board. Since that time, the Board was provided a total of 15 education sessions, as outlined below.

Calendar Year	Number of Sessions
2014	3
2015	7
2016	5
Total	15

Source: Auditor-compiled totals from a list of educational sessions provided by SERS. The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available, and we performed certain tests of the reasonableness of the data. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

- The Board did not track trustee attendance at educational sessions or industry events.

Other than the new trustee orientation booklet and small amount of education sessions offered, SERS had no other elements of a formal Board education program. Trustees need investment education in order to make informed decisions. SERS staff and hired consultants/managers provide the majority of the training and are also responsible for proposing investment opportunities to the Board. Trustees that lack an adequate investment knowledge base would not

⁵² MD SPP Code § 21-108(a)(3).

⁵³ The other 11 respondents felt the new member orientation was sufficient.

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have the ability to independently analyze information presented or perform additional research for potential weaknesses. This increases the risk of trustees voting in favor of recommendations made to the Board without fully understanding each aspect of the investment decision.

According to SERS management, it took steps to provide relevant topics for education to trustees at Board meetings, but a formal Board education policy was not drafted until SERS hired a consultant to perform a review of its governance and organizational structure. The final report of this independent review, which contained language for a draft education policy, was presented to the Board in March 2016. Currently, SERS is working towards implementing the recommendations suggested by the consultant and expects to present a draft education policy to the Board for approval later in 2017.

Our trustee survey results indicated that the majority of trustees feel they have sufficient knowledge regarding investments to assist the Board in making decisions. However, 3 of the 13 respondents were unclear on the topics of investment fee structures, risk, and performance benchmarks. Additionally, the majority of trustees indicated the amount of educational sessions related to investments is sufficient, except for two trustees that indicated further training on external investment manager selection, risk management, and investment fees would be beneficial.

We utilized the Clapman Report 2.0⁵⁴ published by the Stanford Institutional Investors' Forum Committee on Fund Governance as a model for board education. The report was developed in the aftermath of several well-publicized governance failures at both public and private pension funds and endowments. The report was based on the premise that good governance practices help to ensure better organizational performance, fewer conflicts of interest, a higher probability that goals and objectives will be attained, and to ensure less opportunity for misuse of fund assets.

The Clapman Report 2.0 states, in part: "The principal function of a public pension fund trustee is to work with his/her peers on the board to establish the strategic direction of the system, to hire the necessary staff and consultants with the expertise to carry out that direction and administer the system on a day-to-day basis, and then to oversee the work being done to ensure that the direction is carried out." The report goes on to say that, "it is incumbent upon all board members to develop the requisite expertise to fulfill their responsibilities and meet their core competencies. This assumes that the new board member is fundamentally **capable** and requires the development of an educational regimen that allows a quick transition to **able**."⁵⁵ While extensive investment experience is not required to serve on the Board, a working knowledge of basic investment principles and concepts will help a trustee fulfill his/her duties.

⁵⁴ *Clapman Report 2.0*, published by the Stanford Institutional Investors' Forum Committee on Fund Governance, available at <http://law.stanford.edu/wp-content/uploads/sites/default/files/event/392911/media/slspublic/ClapmanReport_6-6-13.pdf>.

⁵⁵ *Ibid.*, page 14.

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We compared the model to the Board's draft Education Policy, which states that trustees should individually and collectively aspire to develop an understanding of peer practices and the issues involved in managing large pools of assets. The draft Education Policy includes almost all of the key elements of the model, including having the Board/Board members:

- Outline the core competencies the trustees should understand.
- Perform Board member self-assessments.
- Biennially conduct an evaluation and establish a plan focused on identifying trustee skill sets and prioritize training to develop the core competencies, consisting of a new member orientation program, continuous in-house training, and continuous industry educational events/conferences.
- Participate in a minimum of four hours of training annually.
- Conduct new member orientation and assign a mentor (if requested, to assist in becoming familiar with Board responsibilities).
- Maintain a list of recommended external educational events or industry trainings.

The draft Education Policy appears to establish a solid foundation to implement an education program, but it lacks procedures to track each trustee's attendance at education sessions to ensure and document that each trustee is in compliance with the minimum number of hours of training included in the policy.

According to SERS management, pursuant to the SERC, the Executive Director is responsible for ensuring the proper implementation of Board policies, including establishing any record-keeping activities required to track the Policy's annual training requirements. The specific process the Executive Director uses to track the attendance at events is "for the Executive Director to determine and not one to be etched into policy." We disagree. The procedures used to track attendance at education sessions is an essential process that needs to be formally documented to establish accountability and responsibility and should specify how the Executive Director will ensure the Board is in compliance with the policy.

Recommendations for Issue Area 1

We recommend that the General Assembly amend the PA State Employees Retirement Code to:

1. Include a minimum amount of investment expertise the Board as a whole must possess in order to make informed investment decisions and promote effective oversight of investment operations.
2. Require that all new board members and designees be mandated to attend a board orientation session when appointed to the board.

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3. Mandate a minimum amount of continuing education or training each Board member and designee must obtain annually, specifying the minimum amount of hours of training and the core subject matters the trainings must encompass.
4. Clarify that designees are subject to the same mandated training and education as Board members.
5. Include a clarification of Board trustees' fiduciary duties and the standard to which they are subject under Section 5931(a) of the SERC, 71 Pa.C.S. § 5931(a).

We recommend that SERS and its Board of Trustees:

6. Obtain and maintain biographies of each Board member and designee to evidence educational, career, or other experience related to key Board processes, including institutional investments.
7. Include Board member biographies on the SERS website to increase transparency.
8. Finalize, adopt, and implement its draft Education Policy.
9. Establish and implement a provision within the Board's adopted Education Policy to require the Board Liaison (or other individual separate from the Board) to track every educational session by Board member and designee, noting the length of the training in hours and the subject matter of each session.

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Issue Area 2 – Although SERS' investment strategy decision-making within its asset allocation policy appears standard, SERS should strive to lower investment expenses. SERS should take a leadership role in the public pension sector by continuing to improve its reporting of investment expenses and fund performance.

Issue Area Summary: Findings 2.1, 2.2, and 2.3

The majority of public pension fund investment expenses are created through the use of external investment managers and non-traditional investments, such as private equity, real estate, or absolute return. These investments tend to have higher investment fees and more complex fee structures. However, investment expenses cannot be viewed in isolation to determine if they are too high. Higher costs may be justified if the investment managers are top quality and are able to produce higher returns than the general market.

In order to determine if investment fees charged to SERS were reasonable and consistent with investment performance, we analyzed SERS' investment expense and performance reporting practices. Based on our procedures, we found that SERS' management of investment expenses within the constraint of its asset allocation policy appears to be reasonable. Additionally, although SERS' reporting of its investment expenses and fund performance is better than the majority of other state pension systems, it should strive to take a leadership role by improving the clarity of its reporting.

Finding 2.1 – Although SERS' investment strategy decision-making within its asset allocation policy appears standard, SERS should make every effort to lower investment expenses.

SERS manages its assets with the primary objectives of the payment of benefit obligations to participants in the plans as well as to maximize return with acceptable risk considerations and sufficient liquidity so that employer contributions can be minimized.⁵⁶ To achieve these objectives, the Board adopted a long-term plan by which the assets of the system will be managed and enhanced through prudent investments.⁵⁷

According to SERS management, the allocation of funds to various types of investments is of utmost importance in structuring an efficient portfolio designed to meet the system's investment objectives. In order to assure the most beneficial allocation of funds, the Board, with the advice

⁵⁶ SERS Statement of Investment Policy, <http://sers.pa.gov/pdf/Investments/SERS-SIPincludingEmergingInvestmentManagerGuidelinesClean.pdf?path=pdf&file=Investments/InvestmentPolicy.pdf>, page 1.

⁵⁷ Ibid.

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of SERS' investment staff, consultants, and investment managers, adopts an investment plan. This plan establishes the long-term allocation ranges for the asset classes and identifies work initiatives to be pursued over the near term.⁵⁸ SERS investment plan is reviewed and updated biennially for strategic asset allocation purposes, as well as for diversification needs within each asset class.⁵⁹ SERS strategically diversifies its assets to minimize the risk of losses within any one asset class, fund sub-sector, investment strategy, industry, maturity date, or geographic location.⁶⁰

A strategic asset allocation is essentially a long-term approach which incorporates financial goals, time horizon, risk tolerance, and historic returns for various asset classes in determining how a portfolio should be diversified among multiple asset classes. One key decision involved in implementation of the plan is whether an active or passive investment strategy is employed.

There are considerable debates in investing over the benefits of active versus passive portfolio management. Passive portfolio management, commonly referred to as indexing, attempts to match the performance of a given benchmark index. There is no research required to select securities and infrequent trading, causing investment costs to remain low. This approach is based on the efficient market concept, which theorizes that because all investors have access to all the necessary information about a company and its securities, it is difficult, if not impossible, to gain an advantage over any other investor over the long term. As new information becomes available, market prices adjust in response to reflect a security's true value, which means that reducing investment costs should be a key to improving net returns.⁶¹

On the other hand, in active portfolio management, a manager tries to beat the performance of a given benchmark index by using judgment in selecting individual securities and deciding when to buy and sell them. Proponents of active management reason that by picking the right investments, taking advantage of market trends, and attempting to manage risk, a skilled investment manager can generate returns that outperform a benchmark index. Active strategies are more expensive to implement and include the risk that they may underperform the benchmark index.⁶²

Investors can succeed using both passively and actively managed funds; however, the main determinate of the success is the cost of the strategy. A CEM Benchmarking study released in June 2016 shows a comparison of average annual net returns and expenses by asset classes for the period of 1998 through 2014. As seen in the chart below, the private equity asset class, which

⁵⁸ Ibid., page 8.

⁵⁹ SERS Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=CAFR/2015_SERS_CAFR.pdf, page 44.

⁶⁰ Ibid., page 45.

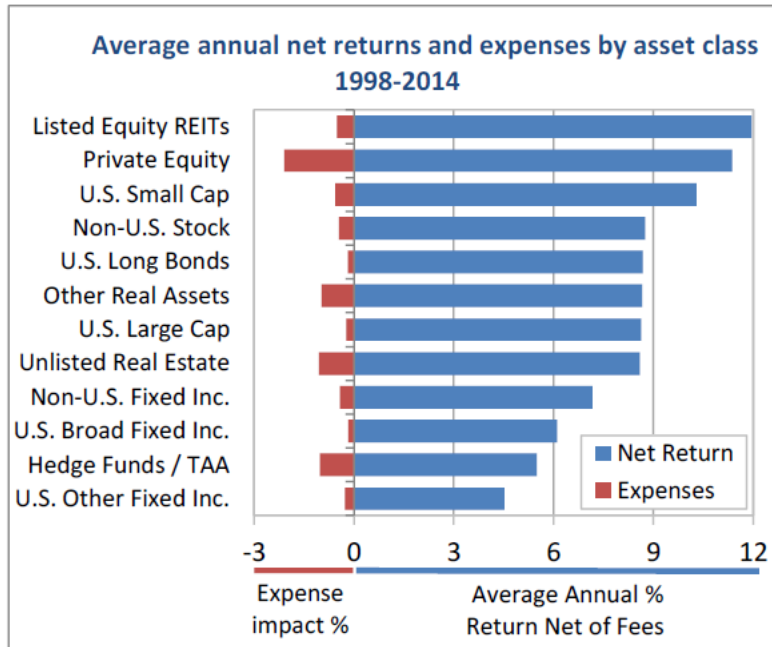
⁶¹ <https://www.aicpa.org/InterestAreas/PersonalFinancialPlanning/Resources/PracticeCenter/ForefieldAdvisor/DownloadableDocuments/FFActiveversuspassiveconceptpiece.pdf>.

⁶² Ibid.

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must be actively managed, clearly has the highest investment expense. However, it also has the second highest net returns.⁶³



Source: CEM Benchmarking "Asset Allocation and Fund Performance of Defined Benefit Pension Funds in the United States, 1998-2014."⁶⁴ The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

The above chart also demonstrates there are other asset classes, such as Non-U.S. Stocks, U.S. Long Bonds, and U.S. Large Cap Stocks, that earned almost a 9 percent average annual return net-of-fees without the higher investment expenses.

SERS uses passive management when the asset class is considered efficient and there is less of an opportunity to outperform a benchmark index. These investments would have very low associated costs but, also, little to no chance of outperforming the benchmark index. However, if inefficiencies exist within the asset class that may present an opportunity to outperform the benchmark index, SERS actively manages the assets. Actively managing investments creates an opportunity to outperform the benchmark index, but comes with higher fees. See SERS' current allocation between passive (index) and active management below.

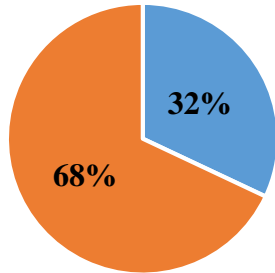
⁶³ http://www.cembenchmarking.com/Files/Documents/Asset_Allocation_and_Fund_Performance_June_2016.pdf, page 2.

⁶⁴ *Ibid.*, page 2.

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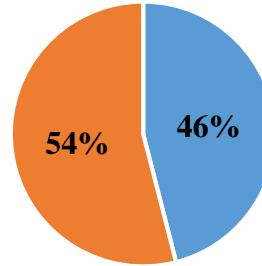
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SERS' 9/30/2016 Allocation



■ Index ■ Active

After 4/26/2017 Board Meeting



■ Index ■ Active

Source: SERS management. The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

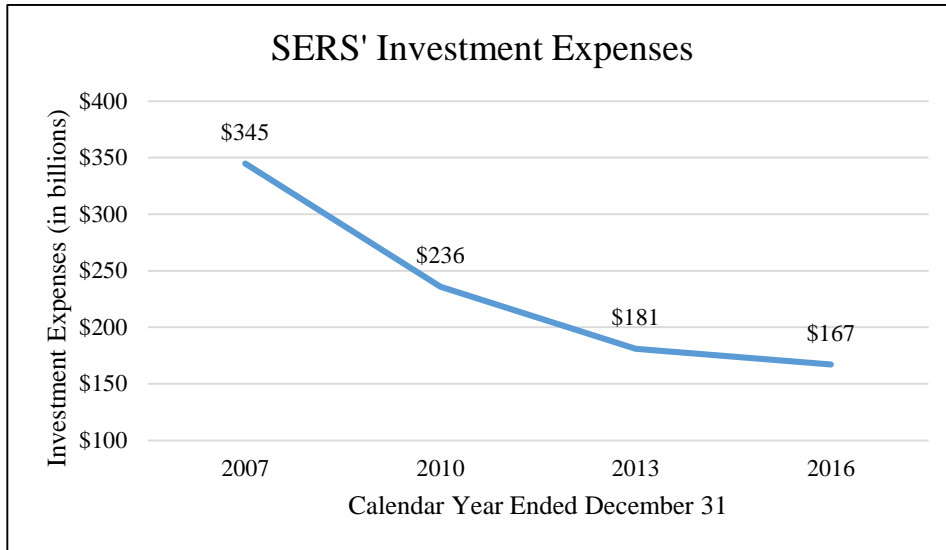
According to SERS management, since October 2016, SERS terminated 18 active strategies with \$3.9 billion of assets and moved the funds into passive strategies. This movement decreased SERS' annual fees by approximately \$17 million. In total, SERS has lowered its investment manager expenses from \$345 million in calendar year ended December 31, 2007, to \$167 million in calendar year ended December 31, 2016.⁶⁵ SERS management plans to continue to enhance its efficiency, while simultaneously allocating resources to low-cost passive strategies or best-in-class actively managed opportunities where the board, investment office, and external consultants have the highest conviction that the opportunities can generate excess return.⁶⁶

⁶⁵ SERS Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=CAFR/2015_SERS_CAFR.pdf, page 94.

⁶⁶ SERS 2016-2017 Strategic Investment Plan, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=Investments/StrategicInvestmentPlan.pdf, page 10.

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Source: SERS Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015.

Based on our audit procedures, SERS' strategic approach to investing, specifically the key decision of whether it is most prudent to actively or passively manage portfolios within its asset allocation policy appears to be reasonable. However, being able to meet its objectives using this strategy is highly dependent upon hiring high-quality external investment managers and monitoring the performance of these managers on a regular basis. SERS' hiring and monitoring of external investment managers are discussed in Issue Area 3.

Finding 2.2 – Although SERS' reporting of investment expenses surpasses its peer public pension systems, additional disclosure improvement can still be made.

SERS employs external investment managers to manage all of its \$26 billion of investments. For the calendar year ended December 31, 2015, SERS paid \$70 million, or 44 percent of the total \$159 million of manager investment fees, to alternative investment managers.⁶⁷ One of the ongoing issues across the nation has been that the current accounting and disclosure practices do not address how to report the expenses for complex alternative investments like private equity.⁶⁸

⁶⁷ SERS 2016 Supplemental Budget Book, http://sers.pa.gov/pdf/Supplemental_Budget_Book/budgetbinder2016.pdf, page 30.

⁶⁸ April 2017, The PEW Charitable Trusts "State Public Pension Funds Increase Use of Complex Investments," http://www.pewtrusts.org/~media/assets/2017/04/psrs_state_public_pension_funds_increase_use_of_complex_investments.pdf, page 1.

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There are several types of expenses involved in alternative investments including:

1. **Management fees** – The General Partner (GP), or private equity firm, charges a percent per year on the dollar of assets under their management. This fee could be based on the amount of money committed to the GP or the amount of money actually invested by the GP.
2. **Performance fees/carried interest** – A percent fee based on gains above a preferred rate of return over the life of the investment.
3. **Fund expenses** – Fees at the fund-level, such as legal costs, audit costs, and taxes, which are paid by the GP and passed on to the Limited Partners (LPs), which include pension funds.
4. **Portfolio-company⁶⁹ charges** – Fees paid by the portfolio company to the GP for advisory services, of which the LP is typically entitled a portion. Often the LP portion of the fee is not explicitly transferred but is kept by the GP and used as a payment of the management fee. Typically, only the residual fee amount, which is the management fee less the LP share of the portfolio company fees, is disclosed to LPs.⁷⁰

State pension funds, at a minimum, are required to follow *Government Accounting Standards and Financial Reporting Standards*,⁷¹ issued by the Governmental Accounting Standards Board, which sets the standards for financial reporting. These standards require investment-related costs to be reported as investment expense “if they are separable from (a) investment income and (b) the administrative expense of the pension plan.”⁷² This standard does not provide specific guidance to determine what costs are “separable,” which allows pension funds to determine what costs are separable and allows significant costs to be netted from returns and not separately presented in financial statements.⁷³

In addition to state pension funds lacking clear guidance on reporting investment expenses, there are no standardized rules regulating how private equity firms should disclose investment fees and expenses to its investors. This lack of rules often creates an inability for pension funds, as an LP in the private equity fund, to obtain detailed reports on investment expenses from the GP, or private equity firm.⁷⁴

⁶⁹ A portfolio company is a single investment in the GP's overall portfolio.

⁷⁰ April 2015 CEM Benchmarking “*The Time Has Come for Standardized Total Cost Disclosure for Private Equity*.” http://www.cembenchmarking.com/Files/Documents/CEM_article_-_The_time_has_come_for_standardized_total_cost_disclosure_for_private_equity.pdf, page 2.

⁷¹ These standards represent generally accepted accounting principles for government entities.

⁷² Statement No. 67 of the Government Accounting Standards Board “*Financial Reporting for Pension Plans*.”

⁷³ April 2015 CEM Benchmarking “*The Time Has Come for Standardized Total Cost Disclosure for Private Equity*.” http://www.cembenchmarking.com/Files/Documents/CEM_article_-_The_time_has_come_for_standardized_total_cost_disclosure_for_private_equity.pdf, page 2.

⁷⁴ *Ibid.*, page 2.

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Therefore, typically, only directly-billed management fees are easily segregated and regularly disclosed by pension plans. Though private equity firms generally disclose information on all types of fees, it is often reported deep in an annual financial statement and is not reported or not clearly reported directly to LPs. However, performance fees, other fund-level fees, and portfolio company fees often represent more than half of the total private equity investment expenses.⁷⁵ This lack of clarity and openness has led to pension funds often reporting investment fees that often do not depict the total investment fees accrued by private equity firms. In the absence of clearly defined standards, states that voluntarily disclose more comprehensive accounts of total investment fees may be put at a disadvantage in state-to-state comparisons.⁷⁶

For instance, the South Carolina Retirement System (SCRS) has been widely criticized for being subject to some of the highest fees in the country, but CEM Benchmarking⁷⁷ found that South Carolina was “simply reporting more costs than other funds rather than incurring more costs.”⁷⁸ See the SCRS investment expense ratios, or total investment expenses divided by total investments, in the table below.

South Carolina Retirement System	
Fiscal Year Ended	Investment Expense
June 30	Ratio
2013	1.59%
2014	1.66%
2015	1.26%
2016	0.95%

Source: The expense ratios were calculated based on information reported in the South Carolina Retirement System Comprehensive Annual Financial Reports as of June 30, 2013 through 2016. The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding, conclusions, and recommendations.

Unlike most of the other state pension plans, the SCRS reports net management fees, performance fees, and other fund-level expenses in the plan's Comprehensive Annual Financial Report.⁷⁹ It also identifies which fees have been directly invoiced by the manager and which fees

⁷⁵ Ibid., page 3.

⁷⁶ http://comptroller.nyc.gov/wp-content/uploads/documents/SEC_SignOnPDF.pdf.

⁷⁷ CEM Benchmarking is an independent provider of objective benchmarking information for large pools of capital including pension funds, endowments/foundations, and sovereign wealth funds. They specialize in benchmarking cost and performance of investments, making 'apples-to-apples' comparisons, and providing insights into best practices.

⁷⁸ April 2015 CEM Benchmarking “*The Time Has Come for Standardized Total Cost Disclosure for Private Equity.*” http://www.cembenchmarking.com/Files/Documents/CEM_article_-_The_time_has_come_for_standardized_total_cost_disclosure_for_private_equity.pdf, page 1.

⁷⁹ February 2016, The PEW Charitable Trusts “*Making State Pension Investments More Transparent.*” http://www.pewtrusts.org/~media/assets/2016/02/making_state_pension_investments_more_transparent.pdf, page 4.

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were deducted from the fund on a net basis by individual manager.⁸⁰ Other pension funds may not undertake this detailed validation process because it is time consuming and they may not have enough resources.⁸¹

SERS reports management fees and performance fees, which account for the majority of investment expenses (see SERS' investment expense ratios in the table below). However, it does not report fund-level expenses or portfolio company fees as investment expenses in its annual financial statements. SERS management stated that reporting this way is appropriate because it is consistent with generally accepted accounting principles and industry standards. Additionally, SERS plans to evaluate the resources needed to track and report other investment expenses in accordance with the ILPA Fee Reporting Template, which is a well-known tool used by public pension systems to gather a standard breakout of these expenses from each manager.⁸²

SERS	
Calendar Year Ended December 31	Investment Expense Ratio
2012	0.76%
2013	0.68%
2014	0.70%
2015	0.66%

Source: The expense ratios were calculated based on information reported in the SERS Comprehensive Annual Financial Reports as of December 31, 2012 through 2015.

Without reporting all investment manager expenses in annual financial reports, the system members and other stakeholders cannot obtain a full picture of investment performance and costs. We believe that all investment manager expenses should be reported in an easily understood manner in order to provide accountability.

There are challenges with collecting the full array of costs associated with private equity investments, but doing so can yield benefits beyond improved disclosure and transparency. Understanding true costs could lead to negotiating lower fees with private equity managers or more efficient investment selections since high fees can significantly affect performance.

⁸⁰ South Carolina Retirement System Comprehensive Annual Financial Report as of June 30, 2016. <https://www.peba.sc.gov/assets/cafr.pdf>, page 110.

⁸¹ April 2015 CEM Benchmarking "The Time Has Come for Standardized Total Cost Disclosure for Private Equity." http://www.cembenchmarking.com/Files/Documents/CEM_article_-_The_time_has_come_for_standardized_total_cost_disclosure_for_private_equity.pdf, page 5.

⁸² The Institutional Limited Partners Association (ILPA) Fee Reporting Template was released in January 2016 in order to encourage uniformity in these disclosures, both to provide LPs with an improved baseline of information to streamline analysis and drive decision making, and to reduce the compliance burden on general partners being asked to report against a range of disparate formats from LPs, <https://ilpa.org/best-practices/reporting-template/> (accessed May 19, 2017).

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Finding 2.3 – SERS' reporting of fund performance is comprehensive, but does not directly or clearly show the true costs associated with the investment returns.

In February 2016, the PEW Charitable Trusts⁸³ published a report discussing state public pension funds and transparency of investment manager performance. In order to help stakeholders develop a more complete understanding of both the returns and costs of different investment strategies, it recommended the following steps to improve transparency:

- Make investment policy statements transparent and accessible.
- Disclose bottom-line performance, both gross and net of fees.
- Expand reporting to include long-term performance results.
- Report results by asset class.⁸⁴

On its public website, SERS reports investment returns within several reports, including its Supplemental Budget Book and its Comprehensive Annual Financial Reports (CAFRs), which contain the annualized total portfolio returns (net-of-fees) for the past 1-year, 3-years, 5-years, and 10-years by asset class as compared to the established fund custom benchmark.^{85,86} See the table below.

Calendar Year Ended December 31	Annualized Total Returns (%) Net-of-Fees	1-Year	3-Year	5-Year	10-Year
2013	Total Portfolio	13.6%	9.3%	9.8%	7.4%
	Fund Custom Benchmark	13.7%	9.5%	11.6%	8.3%
2014	Total Portfolio	6.4%	10.6%	9.2%	6.6%
	Fund Custom Benchmark	6.3%	10.4%	9.2%	7.6%
2015	Total Portfolio	0.4%	6.7%	6.9%	5.2%
	Fund Custom Benchmark	1.2%	6.9%	7.1%	6.3%

Source: SERS Comprehensive Annual Financial Reports as of December 31, 2013 through 2015.

⁸³ PEW Charitable Trusts is an independent nonprofit organization which performs detail analysis and research in order to improve public policy in matters relating to public opinion research, arts and culture, state and consumer policy initiatives.

⁸⁴ February 2016, The PEW Charitable Trusts “*Making State Pension Investments More Transparent.*” http://www.pewtrusts.org/~media/assets/2016/02/making_state_pension_investments_more_transparent.pdf, page 2.

⁸⁵ SERS Investment Policy outlines the market index or combination of indices that each asset class is to be measured against. This is known as the custom benchmark.

⁸⁶ SERS Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015, http://sers.pa.gov/pdf/CAFR/2015_SERS_CAFR.pdf.

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According to the three CAFRs covering our audit period, it appears the total portfolio has not been outperforming its custom benchmark in all but the 1-year, 3-year, and 5-year returns for calendar year 2014 as seen in the table above.

SERS also reports investment returns over long periods of time, which demonstrates its long-term approach for the retirement fund. The SERS CAFR for calendar year ended December 31, 2015, charts the annual returns by year back to 1986 and the 2017 Supplemental Budget Book reports a 20-year, 25-year, and 30-year rate of return as seen in the table below.⁸⁷

SERS Long-Term Returns	
Time Period	Annualized Rate of Return
20-Year	7.2%
25-Year	8.1%
30-Year	8.6%

Source: SERS 2017 Supplemental Budget Book, page 16, on SERS' website (sers.pa.gov). The data is of undetermined reliability as noted in Appendix A; however, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

Although information on its fees and performance is readily available to the public, SERS does not display the information in a comprehensive manner depicting just how much of the percent return is being consumed by investment fees. A direct comparison of returns on a net and gross basis is a clear and easy method for examining the impact of fees on fund performance.

Additionally, comparing the gross and net returns by manager could indicate how aggressively SERS was able to negotiate fees. However, SERS management stated it only reports performance on a net-of-fee basis because reporting gross-of-fees is not useful. Although we agree that solely reporting net-of-fee returns is better than solely reporting gross-of-fee returns, reporting both returns shows to what extent expenses affect the returns on those investments.

Recommendations for Issue Area 2

We recommend that SERS and its Board of Trustees:

1. Report all investment expenses, including management fees, performance fees, fund expenses, and portfolio-company charges, in its Comprehensive Annual Financial Reports, other reports, and public website.
2. Contractually require investment managers to distinctly identify and report all investment fees and expenses incurred by SERS.

⁸⁷ Ibid.

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3. Report investment performance on both a gross-of-fee and net-of-fee basis in its Comprehensive Annual Financial Reports, other reports, and public website.
4. Evaluate the costs and benefits of utilizing internal investment managers for certain asset classes to lessen the multi-million dollar fees to external managers.

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Issue Area 3 – SERS properly procured and monitored its investment consultants and managers, but inadequately pursued competitive offers, failed to document fee negotiations, and lacked written procedures for monitoring private investments.

Issue Area Summary: Findings 3.1, 3.2, and 3.3

In order to determine if SERS' investment fees were reasonable and consistent with investment performance, we analyzed SERS' procedures for contracting with investment consultants and investment managers, as well as how SERS monitors the performance of the external investment managers. We compared SERS' procedures for hiring and monitoring investment managers to best practices in the industry. We found that SERS' procedures to sufficiently research and hire investment managers and investment consultants appear to be adequate; however, SERS extended its real estate consultant contract for three years without pursuing other competitive offers. Additionally, SERS failed to document its fee negotiations in order to demonstrate that management made a prudent effort to obtain the most advantageous fee structure for each investment manager and consultant. Due to this lack of documentation, we were unable to determine the extent to which SERS negotiated its fees.

We found SERS adequately monitored and documented its monitoring of its public investment managers, including specialized processes for the underperforming managers, in accordance with its written monitoring policy and procedures. However, we found SERS did not have written procedures for monitoring the performance of its private investment managers⁸⁸ to ensure investment managers were monitored regularly, consistently, and in accordance with SERS' policies. Although SERS lacked written procedures for monitoring its private investment managers, we were able to obtain sufficient documentation evidencing that comprehensive monitoring was performed by SERS for the managers we selected for testing.

Finding 3.1 – Although SERS procured investment consultants in accordance with its written procedures, it extended a contract twice without using a competitive process.

SERS utilizes investment advisory consultants who provide a wide range of services to SERS, including recommending revisions to the asset allocation policy, selecting and monitoring investment managers, and reporting performance. SERS relies heavily on the expertise and

⁸⁸ A private investment manager oversees investments in limited partnerships, limited liability companies, and other entities that invest in private debt, private equity, or venture capital. SERS Private Equity Statement of Investment Policy, <http://sers.pa.gov/pdf/Investments/SERS-PrivateEquityStatementofInvestmentPolicy.pdf?path=pdf&file=Investments/InvestmentPolicy-AlternativeInvestments.pdf>, page 3.

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guidance of its investment advisors. During our audit period, SERS contracted with four advisory consultants, including a general investment advisory consultant who provides advice on SERS' overall investments and three specialty advisory consultants who provide more specific investment advice relating to hedge funds,⁸⁹ private equity and real estate investments.

The Investment Office follows SERS' documented procedures for the hiring and managing of investment consultants. Approximately one year before a current investment consultant's contract is up for renewal, or when the Investment Office and the Board deem it necessary to hire a new investment consultant, a selection committee⁹⁰ develops a Request for Invitation (RFI). The RFI and a due diligence questionnaire are provided to potential investment consultants.

Candidates then submit technical proposals to SERS' Investment Office and Legal Office, which jointly recommends three to four semi-finalists to the Board's consultant selection committee. The selection committee interviews the semi-finalists and selects two to three finalist consultants for the full Board to interview. SERS investment staff provides a memo to the full Board, describing the finalists' profiles and fee structures and the selection committee's recommendation. The full Board interviews the finalists during a regular Board meeting and then decides through a vote which consultant is to be awarded the contract.

We selected two of the four investment consultants that contracted with SERS during the audit period for testing to verify that:

- The work statement within the RFI contained key provisions related to the fiduciary duties of the consultants, including reporting potential conflicts of interest with the Board or its investment managers.
- The RFI was reviewed and approved by appropriate management prior to release and that the RFI was properly offered to potential investment consultants for responses.
- SERS' investment staff reviewed all responses and the methodology for their selection of recommendations to the Board's consultant selection committee was consistent.
- The Board approved the firm per its Board meeting minutes.
- The required signatures were on the contract evidencing the final contract was reviewed and approved.
- SERS had adequate documentation of whether a potential conflict of interest existed between the consultant and any individual or firm affiliated with SERS, such as current investment managers. There were no potential conflicts identified for the two consultants tested.

Based on our audit procedures, we found that SERS appears to have properly procured its investment consultants in accordance with its written procedures; however, a unique situation

⁸⁹ SERS did not renew its contract with its direct hedge fund consultant in 2015 as a result of changes to SERS' investment strategies.

⁹⁰ The Board Chairman selects which Board members will serve on the selection committee.

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caused SERS to extend the contract with its real estate consultant twice without considering other qualified consultants.

SERS' contract with its real estate investment consultant expired on June 30, 2014. However, SERS' Chief Investment Officer (CIO) resigned towards the end of calendar year 2013. According to SERS management, it did not make sense to hire a new real estate investment consultant prior to the Board hiring a new CIO because the new CIO would want to evaluate the needs of the Investment Office and lead the process of hiring a real estate investment consultant. Therefore, the Board approved to extend the contract for one year until June 30, 2015.

In December 2014, the Board hired a new CIO. However, the portfolio manager and the senior managing director of the real estate program resigned in January 2015 and March 2015, respectively, leaving SERS with no real estate investment professionals. Therefore, the Board extended the contract for two additional years, until June 30, 2017. The extension also expanded the scope of work of the consultant to help the Investment Office manage SERS' real estate program and compensate for the lack of internal real estate investment professionals, increasing the annual retainer fee by two times from \$348,000 to \$728,000. As of January 2017, both positions remained vacant.

The SERS' Board originally contracted with this real estate consultant in 1994 for a period of five years. The Board continued to contract with this consultant, issuing new contracts every five years, in 1999, 2004, and 2009. The Board did not formally evaluate any other candidates for the real estate investment consultant or obtain new due diligence information for the two extensions during our audit period, which means it had not considered other competitive offers since the 2009 contract.⁹¹

SERS' written policy/procedures⁹² provides that, where circumstances require, the Board reserves the right to extend the term of the current contract to allow the RFI process to be properly performed, and/or for the potential transition from the previous consultant to be appropriately completed. We understand that in an extraordinary situation, a contract may need to be extended for a limited period of time, but three years appears to be excessive.

The Commonwealth Procurement Code⁹³ states, in part:

(a) General rule.--A contract may be awarded for a supply, service or construction item without competition if the contracting officer first determines in writing that one of the following conditions exists:***(8) The contract is for investment advisors or managers selected by the Public School Employees' Retirement System, the State Employees' Retirement System or a State-affiliated entity.⁹⁴

⁹¹ The Board used its RFI process to select a new real estate consultant effective July 1, 2017.

⁹² *Hiring and Managing Investment Consultants*, January 2017 edition, page 2, provided by SERS.

⁹³ 62 Pa.C.S. § 101 *et seq.*

⁹⁴ 62 Pa.C.S. § 515(a)(8).

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SERS management stated that because the procurement of investment consultants is exempt under the sole source requirements within the Commonwealth Procurement Code there are no mandated requirements that other consultants needed to be considered. However, just because competitive bids are not required by law, that does not mean that SERS should not make it a point to offer all RFIs to multiple firms or to publicly advertise RFIs to ensure its hiring practices are the most prudent and cost-effective.

We acknowledge that awarding a contract to investment consultants without competition does not violate the Commonwealth Procurement Code nor SERS' internal written policy/procedures. However, if SERS fails to pursue a competitive advantage by considering other consultants, it loses the opportunity to negotiate the best contract terms and threatens its compliance with the prudent investor rules. SERS illustrated this point when it ultimately conducted the RFI process for its real estate consultant and found a more suitable and less costly consultant than this firm it had been contracting with for the past two decades.

Finding 3.2 – SERS failed to document its investment manager fee negotiations.

According to the Government Finance Officers Association (GFOA), selecting the proper investment manager is a crucial part of managing a pension fund, and it requires a detailed, logical, and disciplined investment manager selection process.⁹⁵ Due diligence is a process designed to mitigate risks and other factors involved in making investment decisions. Thorough due diligence investigations are essential for a pension plan to fulfill its fiduciary duties in carrying out its investment obligations. For investments, due diligence includes the process of research and analysis that takes place in advance of any investment commitment.

SERS' internal investment professionals work with the agency's investment consultants to perform investment manager searches and due diligence with respect to potential investment manager candidates. During a Board meeting, the SERS' Investment Office and consultant present their results, including any potential conflicts of interest, and recommend which candidates should be interviewed by the Board. At a subsequent Board meeting, the selected investment manager presents its investment and is available to answer any questions trustees may have. The Board then publicly votes on whether to proceed with general contract negotiations with the manager.

⁹⁵ "Pension Investing: Fundamentals and Best Practices," http://www.gfoa.org/sites/default/files/PensionInvesting_FundamentalsAndBestPractices.pdf, page 39 (accessed January 31, 2017).

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The procedures used in the due diligence process are detailed in SERS' internal written policy/procedures for hiring investment managers. The due diligence processes include:

- Conducting face-to-face meetings at the investment manager's offices.
- Reviewing completed due diligence questionnaires submitted by the managers.
- Analyzing the investment manager's operations, team members, investment philosophy, and fund performance.

Additionally, SERS' Statement of Investment Policy requires all investment managers and consultants to disclose any and all economic positions that may conflict with SERS' investment objectives and guidelines. Specifically, the due diligence questionnaires require the managers to disclose (1) whether any investments are offered by related parties; (2) the use of placement agents;⁹⁶ and (3) whether the manager or any of its employees made direct or indirect campaign contributions for the purpose of initiating, retaining or increasing a business relationship with SERS.

Based on our audit procedures, it appears SERS' procedures to identify potentially conflicting relationships between consultants and managers and to report these relationships to the Board prior to contracting and during the contract period are adequate.

Between January 1, 2013, and October 31, 2016, the SERS Board approved 55 new advisory agreements with investment managers. We selected 9 of the 55 agreements for testing. We found that SERS and its consultants performed and documented an adequate amount of due diligence in compliance with its investment policy and recommended the manager to the Board with adequate justification for each of the nine agreements. We also found that the required signatures for each agreement were present evidencing the review and approval of each final agreement.

However, we did not find consistent evidence that SERS negotiated for lower investment fee structures with the managers. To minimize the impact of investment management fees on portfolio returns, the GFOA recommends that retirement systems adopt an investment fee policy that will allow the system to negotiate the lowest competitive fee possible while looking out for the system's long-term earning potential. The policy should detail its measures and techniques such as determining what fees similar investors are paying and making these fee comparisons part of the negotiation process. The GFOA also recommends including a "Most Favored Nation" clause in the agreement, which ensures the type and size of fees are at the level that is being made available to other similar investors.⁹⁷ This type of clause would ensure that even after the contract is in place, if a similar investor receives a lower fee structure, the firm is contractually required to offer the same rate to SERS.

⁹⁶ Placement agents are hired by investment funds to raise capital quickly and efficiently, which they achieve by introducing the fund managers to qualified investors. <http://www.investopedia.com/terms/p/placement-agent.asp> (accessed June 21, 2017).

⁹⁷ "Best Practice: Investment Fee Policies for Retirement Systems", <http://gfoa.org/investment-fee-policies-retirement-systemsgfoa.org> (accessed March 20, 2017).

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All nine of the agreements tested included a “Most Favored Nation” clause. However, SERS did not document its fee negotiations or otherwise justify the reasonableness of the fee structure. For the nine agreements reviewed, the results of SERS’ negotiations are shown in the table below.

Type of Investment	Investment Amount (in millions)	Fees in Initial Offer ⁹⁸	Fees in Final Agreement (if different from Initial Offer)
Fixed Income	\$200	0.30% on first \$75 million 0.25% on \$75-150 million 0.20% in excess of \$150 million	0.25% on first \$100 million 0.23% on next \$100 million 0.21% in excess of \$200 million
Public Equity	\$75	1.0% on first \$50 million 0.95% on next \$50 million	0.45% first 12 months 0.55% 2nd 12 months 0.65% after 24 months
Hedge Fund	\$20	1.5% management fee 20% performance fee	No change.
Real Estate	\$25	1.5% management fee 20% performance fee	No change.
Real Estate	\$50	1.5% management fee 20% performance fee	No change.
Private Equity	\$50	2% management fee 20% performance fee	No change.
Private Equity	\$50	2% management fee 20% performance fee	No change.
Private Equity	\$15	2.5% management fee (declining 10% per year) 25% performance fee	No change.
Private Equity	\$100	1.5% management fee 20% performance fee	No change.

Source: Auditor General staff compiled from advisory agreements and other support documentation provided by SERS.

As seen in the table above, SERS’ negotiations resulted in a lower fees structure for two of the nine agreements tested. SERS’ Chief Investment Officer stated he is reluctant to commit the conversations about negotiations to writing due to the possibility of these records being considered contractual and possibly violate the investment manager’s “most favored nation” agreements with other investors. However, in response to discussions with the auditors, SERS management stated that it intends to incorporate the negotiation documentation as part of its manager hiring checklist. According to SERS management, the outcomes of the contracting process show there were fee negotiations. However, we did not observe evidence of this in the remaining seven agreements we reviewed.

⁹⁸ See explanation of management and performance fees in Issue Area 2.

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Without adequate documentation evidencing SERS' attempts to negotiate a lower fee structure or justify the offered fee structure as reasonable, we were unable to determine if SERS' negotiation procedures were sufficient to obtain the lowest fees possible. Every effort should be made, on a regular and consistent basis, to continue to negotiate for lower fees to allow more of the taxpayers' funds to remain in the Fund to pay retirees instead of being paid to investment managers.

Finding 3.3 – SERS lacked written procedures for monitoring private investment managers resulting in inconsistent documentation.

The GFOA states that investment manager performance evaluation is similar to the process of manager selection in that pension systems must make judgments about the future performance of managers based on a combination of quantitative and qualitative information.⁹⁹ Pension systems need to develop specific procedures for performance analysis and response.

These procedures should include establishing benchmarks which have been customized to evaluate managers, verifying the accuracy of data self-reported by the manager, and identifying ratios or performance measures on which to focus.¹⁰⁰ Further, these procedures should identify the individuals responsible for completing the monitoring and the expected time frame for monitoring. Due to the long-term measures of some asset classes, deciding on whether to retain or terminate a manager could be measured over a full-market cycle (3 to 5 years).¹⁰¹

In addition to these quantitative factors, the GFOA states qualitative measures should also be reviewed on a regular basis, including whether assigned objectives are being accomplished, whether the manager maintains a consistent investment approach, the quality of reports produced by the manager, and any turnover of key personnel.¹⁰²

SERS had advisory agreements with 220 investment managers as of December 31, 2016. Between January 1, 2013, and October 31, 2016, SERS approved 55 new investment manager advisory agreements. We selected 9 of these 55 investment manager agreements for testing, including three public investments and six private investments, and reviewed related monitoring documents and communications for the quarters ended December 31, 2015, March 31, 2016, June 30, 2016, and September 30, 2016. The next two sections describes our results.

⁹⁹ "Pension Investing: Fundamentals and Best Practices," http://www.gfoa.org/sites/default/files/PensionInvesting_FundamentalsAndBestPractices.pdf, page 45 (accessed January 31, 2017).

¹⁰⁰ Ibid., page 46.

¹⁰¹ Ibid., page 38.

¹⁰² Ibid., page 45.

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Public Investment Monitoring

SERS maintains written review and oversight procedures for asset classes that may be valued at least monthly, including global public equity, public real estate investment trusts, hedge funds, fixed income, and cash.

SERS' general investment consultant analyzes monthly reports from each investment manager and compares its returns to the industry benchmarks, custom benchmarks,¹⁰³ and the returns of the manager's peer group across a variety of time periods. Investment managers are also reviewed for any qualitative performance issues, such as a change in key personnel, deviation from its investment style, or violations of SERS' investment policy guidelines. After SERS Investment Office reviews the analysis for completeness and accuracy, the consultant presents a summary of the quarterly performance of the investment managers to the Board.

For each of the three public external managers, we verified the following for each of the quarters tested without exception:

- A quarterly performance report was received from both the investment manager and the SERS' consultant, and the performance measures in the reports agreed.
- The performance measures were compared to the appropriate benchmarks.
- Adequate evidence of qualitative monitoring was documented, including notes from telephone conversations and meetings between the manager, consultant, and SERS investment staff and management.

SERS' general investment consultant also provides an "Investment Manager Evaluation List" to the Board each quarter documenting its enhanced oversight of managers that have underperformed in prior periods. The monitoring policy outlines the criteria for a manager to be added and removed from the Evaluation List. The investment staff and consultants together decide whether the performance data and qualitative factors are significant enough to place the manager on the Evaluation List. Consideration is given to how the role of the investment manager and its strategy suits SERS' entire portfolio. The consultant and SERS Investment Office typically make a decision regarding termination of a manager after the manager has remained on the list for 12 months and there is unlikely to be a satisfactory resolution. The Board must approve all manager terminations.

There were between 8 and 14 investment managers on the Evaluation List each of the four quarters we tested. We reviewed the consultant's performance reports to ensure the list was complete and included any manager that met the criteria to be on the list. Also, we selected eight of the investment managers on the list and verified the manager was added or removed from the list in accordance with the criteria detailed in the monitoring policy. Based on our audit

¹⁰³ SERS' general investment consultant establishes a customized benchmark for each investment based on its historical returns (10-30 years).

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procedures, it appears SERS adequately monitored the underperforming investment managers on its Evaluation List.

Private Investment Monitoring

With the exception of the use of the Evaluation List, SERS appears to regularly monitor private investments in a similar manner to its public investments. However, private investments are not incorporated into its monitoring policy/procedures. According to SERS management, private investment agreements are for longer periods of time (10 years or more) and, due to the nature of the agreements, they are not easily terminated.

For each of the six private external managers, we verified the following for the period of October 1, 2015, through September 30, 2016:

- A quarterly performance report was received from the investment manager.
- A semi-annual performance report from the SERS' consultant, including a comparison of the manager's performance to the appropriate benchmarks, was provided to the Board.
- Adequate evidence of qualitative monitoring was documented, including notes from telephone conversations and meetings between the manager, consultant, and SERS investment staff and management.

Based on our review, we found that SERS adequately monitored its private investment managers; however, the lack of written procedures resulted in inconsistent documentation of communications regarding qualitative monitoring. For example, for three of the nine managers reviewed, SERS did not have documented communications/meetings between its internal investment professionals and its consultants regarding monitoring beyond the consultants' summary reports to the Board.

An important part of an agency's system of internal controls is formally documented policies and procedures.¹⁰⁴ Without clear, written and current procedures, an internal control structure is weaker because processes may not be applied consistently, correctly, and uniformly throughout the agency. Unwritten procedures are easier to circumvent and can reduce accountability.

¹⁰⁴ Committee of Sponsoring Organizations, Internal Control Integrated Framework 2013, <https://www.coso.org/Pages/ic.aspx> (accessed June 12, 2017).

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Recommendations for Issue Area 3

We recommend that SERS:

1. Adopt an investment fee policy that details the measures and techniques used to obtain lower fees, such as determining what fees similar investors are paying and making these fee comparisons part of the negotiation process.
2. Prudently negotiate fee structures with investment managers to obtain the lowest fees possible.
3. Document all fee structure discussions and negotiations between SERS and the investment manager, including why the fee structure was determined to be reasonable and a justification if the initial fee schedule was unable to be altered/lowered.
4. Develop written monitoring procedures for the processes used to monitor both quantitative and qualitative measures for private equity investments, including specific aspects to review, a list of the individuals responsible for reviewing, how monitoring results are to be reported to management, and how to address issues that may affect manager retention.
5. Use a competitive process to procure investment consultants and managers and consider more than one firm for each contract/agreement.

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Issue Area 4 – Despite fulfilling its statutory duties and responsibilities, the SERS Board's composition, vague ethics policy, and nonexistent attendance policy jeopardize its level of independence and reliability.

Issue Area Summary: Findings 4.1 through 4.4

A retirement system's governance structure is the framework of rules and practices by which a board of trustees ensures accountability and transparency to its members. This framework consists of:

- Contracting with vendors to assist the board in fulfilling its responsibilities.
- Procedures for identifying and reconciling conflicting interests.
- Policies and procedures utilized for decision-making.
- Proper supervision and control over monitoring and assessing performance.

The establishment of policies and continuous monitoring of their proper implementation assists the board in enhancing the prosperity and viability of the retirement system.¹⁰⁵

Retirement systems must define the key elements necessary for trustees to fulfill their responsibilities in accordance with fiduciary standards. The Government Finance Officers Association¹⁰⁶ (GFOA) states that the fundamentals of public pension governance are ensuring the governing board and governance policies are in place and functioning properly and adopting and maintaining a written governance manual.

The SERS Board is an independent board made up of 11 members. Although the size of SERS' Board¹⁰⁷ is slightly larger than its peer state systems, it does not appear to hinder Board processes. However, we found that not only are no Board members elected by SERS members, but the Governor has unusually strong control over the selection of Board members, including selection of the Chairman.

Additionally, we found there is too much reliance placed on the individual trustees¹⁰⁸ to self-report potential conflicts of interest. There is no independent body or, at minimum, a SERS division or staff member assigned to act as an impartial monitor to verify that trustees do not have potential conflicts of interest with investment firms vying for a Board contract. Trustees need to (1) be held to higher ethical standards than other public employees; (2) attend ethics

¹⁰⁵ <http://www.businessdictionary.com/definition/governance.html> (accessed March 7, 2017).

¹⁰⁶ The Government Finance Officers Association (GFOA) represents public finance officials throughout the United States and Canada. **GFOA's mission is to promote excellence in state and local government financial management.** To meet the many needs of its members, the organization provides best practice guidance, consulting, networking opportunities, publications including books, e-books, and periodicals, recognition programs, research, and training opportunities for those in the profession, <http://gfoa.org/about-gfoa> (accessed May 19, 2017).

¹⁰⁷ 71 Pa.C.S. § 5901(a).

¹⁰⁸ Throughout the audit report, the term "trustees" means Board members and designees.

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training regularly; and (3) annually acknowledge the understanding of their ethical duties and compliance with the Public Official and Employee Ethics Act¹⁰⁹ and policies.

The Board has adopted several policies to guide the governance process. Based on our review of the draft Education Policy that is to be implemented later in 2017 (see Issue Area 1) and making minor changes to address the issues noted above, we found the investment-related policies appear to be thorough and provide a strong foundation for good governance. However, these policies are not aggregated, and therefore compiling these separate policies into a single, comprehensive governance manual would be beneficial.

Based on the Board responsibilities outlined in the investment policies and the SERC, the Board performed its duties in relation to adopting rules and internal controls over the investment process, establishing and regularly reviewing the asset allocation of the total portfolio, contracting with investment firms, and monitoring the performance of investments. We address the adequacy of the Board's performance of these duties in Issue Areas 3 and 5.

As part of our audit procedures, we conducted a survey of all 20 Board members and designees that served on the Board in January 2017 (see Appendix B). Our survey focused on whether the trustees consider SERS' governance structure, investment expertise, and resources for decision-making adequate to provide effective oversight on investment operations. We received 13 responses. Overall, the results were very favorable for SERS; however, there were certain comments that we point out throughout the report that indicate where SERS can make improvements.

Finding 4.1 – The SERS Board lacks an attendance policy, representation of its members, and autonomy from the Governor.

Using the listing of Board members reported in SERS' Comprehensive Annual Financial Report for fiscal years ended December 31, 2013, 2014, and 2015, and the attendance at board meetings documented through meeting minutes from January 1, 2013 through June 30, 2016, we found that the Board composition throughout the audit period was in compliance with the requirements enumerated in the SERC.

As noted earlier, although the size of SERS' Board is slightly larger than its peer state systems, it does not appear to hamper Board processes. However, we found that not only are no Board members elected by SERS members, but the Governor has unusually strong control over the selection of Board members, including selection of the Chairman. Additionally, we found that, despite the Board lacking an attendance policy, the Board members and designees appear to regularly attend meetings.

¹⁰⁹ 65 Pa.C.S. § 1101 *et seq.*

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The Board lacks representation of its members and autonomy from the Governor.

We compared the SERS' Board composition and structure to that of 87 other state retirement systems as reported by the National Association of State Retirement Administrators.¹¹⁰ Based on our analysis of these public pension fund boards, the average board size is 9-10 members. Given that the SERS' Board is 11 members, it is just slightly larger than the average. Our observations of Board meetings and survey results of current trustees did not indicate that the size of the Board is a source of difficulty. However, we found three uncommon characteristics of the Board that cause concern:

- The Governor appoints the majority of Board members.
- The Governor selects the Chairman of the Board.
- No Board members are elected by SERS' members.

A majority of the Board members, 6 of the 11, is appointed by the Governor.¹¹¹ The SERC does not impose any criteria on the Governor's appointees other than that one must be an annuitant of the system. Additionally, the SERC authorizes the Governor, not the Board, to select the Board's Chairman. While the Chairman only has one vote, the Board Bylaws grants the Chairman key influential duties, including to:

- Establish Board meeting agendas.
- Call special and emergency meetings.
- Establish special advisory or review committees (including committees that review and score responses to requests for information to provide Board services).
- Appoint committee members.

The Chairman also serves as the Board's primary link with the SERS Executive Director and Chief Investment Officer (CIO) to carry out the Board's policies and directives.

In addition to the Governor having unusually strong control of the Board, none of the Board members are elected or nominated by the SERS members. At a majority of state public pension systems, including the Pennsylvania Public School Employees Retirement System, at least some members are elected by the membership.¹¹² The SERC requires at least five Board members be active members of SERS and at least two must have ten or more years of credited state service.¹¹³ However, the SERS members are either the State Treasurer, legislators, or appointed by the Governor.

¹¹⁰<http://www.nasra.org/files/Topical%20Reports/Governance%20and%20Legislation/Board%20Governance%20Policies/Board%20Composition.pdf>.

¹¹¹ The other five Board members consist of two senators appointed by the President pro tempore of the Senate, two representatives appointed by the Speaker of the House of Representatives, and the State Treasurer.

¹¹² <http://www.nasra.org/governance> (accessed June 2, 2017).

¹¹³ 71 Pa.C.S. § 5901(a).

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Reducing the Governor's control over SERS would enhance the Board's ability to ensure that SERS and its Board members have the level of autonomy appropriate to its underlying mission which is properly focused on providing benefits and services to SERS' members.¹¹⁴

Additionally, with the majority of Board members being appointed by the Governor, the Board may be viewed as a political unit, instead of an independent administrative board, which would be inherently in conflict with the Board's fiduciary responsibility to the system's members.

Further, having a more diversified Board is beneficial because the trustees are likely to possess different levels of knowledge and skills. A diversified Board is able to make decisions more effectively by reducing the risk of groupthink, or the tendency of the members of a group to surrender to the desire for consensus or agreement at the cost of considering alternative courses of action.¹¹⁵ Additionally, having trustees elected by SERS members establishes an independent representative of the system's members that can more accurately speak for the common public employee, who otherwise may not be aware of pension-related issues.

Without authorizing the Board members to elect the Board Chairman from its numbers, it provides the opportunity for the Chairman to be partial to political agendas or less responsive to other individual Board members when it comes to placing issues on the Board's agenda.

The Board lacked an attendance policy.

During our audit period, the Board did not have an attendance policy for trustees. According to SERS management, SERS hired a consultant to evaluate the governance and organization of the Board and, as a result of this study, will be recommending that the Board amend its Bylaws to include a section pertaining to attendance at Board meetings and committee meetings later in 2017. SERS management stated an attendance policy was never adopted in the past because attendance at Board meetings was never an issue. We agree that, during our audit period, Board member and designee attendance at Board meetings was fairly consistent. Specifically, the majority of the time both the Board member and his/her designee would be present at meetings (see table below), which significantly promotes better decision-making.

¹¹⁴ <https://gpc.stanford.edu/gpcthinks/us-public-pension-fund-governance-balance-expertise-and-representation> (accessed June 20, 2017).

¹¹⁵ <http://www.businessdictionary.com/definition/group-think.html> (accessed May 26, 2017).

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Board Position	Board Member		Designee		Number of meetings both missed	Percent of meetings both missed
	Number of meetings attended	Percent of meetings attended	Number of meetings attended	Percent of meetings attended		
Republican Senator	24	69%	18	51%	2	6%
Democratic Senator	7	20%	29	83%	4	11%
Republican Representative	26	74%	32	91%	1	3%
Democratic Representative	29	83%	34	97%	1	3%
State Treasurer (ex-officio)	22	63%	26	74%	0	0%

Source: Auditor General staff compiled from Board meeting minutes from www.sers.pa.gov.

Good governance practices indicate that the organization’s expectations of trustees must be clearly detailed in a written policy.¹¹⁶ These expectations should include attendance requirements and what happens if trustees do not fulfill their responsibilities. Without a formal attendance policy, sporadic or repeated absences could occur and lead to members not being fully prepared when a matter comes to vote due to not understanding the development of the issue that was discussed in past meetings. Also, when trustees do not consistently attend meetings, the Board loses critical resources and multiple perspectives that contribute to better governance.

Finding 4.2 – The SERS Board’s Ethical Conduct Policy and related procedures need to be strengthened.

The standards of conduct, ethics, and conflicts of interest rules need to be clearly outlined and codified in order for the Board to fulfill its fiduciary duties. Using the “Model Code of Conduct and Ethics Policy” issued by the Association of Public Pension Fund Auditors¹¹⁷ as a guide for best practices, we identified the typical activities to which a pension fund’s ethics policy is applied and where rules should be established specifically in relation to pension fund trustees, as follows:

¹¹⁶ *Enhancing Public Retiree Pension Plan Security: Best Practice Policies for Trustees and Pension Systems*, page 17, <https://m.afscme.org/news/publications/for-leaders/pdf/AFSCME-report-pension-best-practices-1.pdf>.

¹¹⁷ http://www.appfa.org/wp-content/uploads/APPFA-Code-of-Conduct-and-Ethics-Policy_Feb13-Final3.pdf.

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- | | |
|--|--|
| ❖ Personal interest in the fund's activities and outside activities/employment | ❖ Employment negotiations and post-employment restrictions |
| ❖ Use of the fund's assets | ❖ Investments |
| ❖ Conflicts of interest | ❖ Confidentiality |
| ❖ Nepotism | ❖ Illegal acts |
| ❖ Hiring and contracting | ❖ Diligence of a prudent investor |
| ❖ Attendance at functions | ❖ Financial interests |
| ❖ Gifts and honoraria | ❖ Conduct at board meetings |
| ❖ Travel and incidental reimbursements | ❖ Interactions with outside parties, fund members, and fund management staff |

The Board members and designees have a fiduciary duty to act in the best interests of its members and a legal and ethical duty to its member agencies, sponsors, and the citizens of the Commonwealth. These duties may challenge the character of those who serve the pension system as they must resist temptation to place their own interests above the interests of the system members. The Board can foster disciplined conduct by establishing a high standard of ethics and routinely communicating its commitment to operating ethically through its policies. Having a policy brings ethics to the forefront as an important organizational issue and gives members a starting point for seeking guidance on ethical issues.

The Board's Ethical Conduct Policy is written very broadly and states that Board members and designees are not to engage in conduct defined as a conflict under the Public Official and Employee Ethics Act¹¹⁸ (Ethics Act) and the Code of Conduct for Appointed Officials and State Employees.¹¹⁹ Although the Board's Ethical Conduct Policy may be interpreted to include several of the topics in the model policy, it does not provide enough detail to specifically prohibit situations that may directly or indirectly affect its Board members and designees. Establishing a thorough, comprehensive ethics policy to clearly indicate what constitutes acceptable ethical behavior is vital to pension governance.

The other critical part of an ethics policy is implementation and enforcement. We found the Board's Ethics Policy lacked sufficient administrative procedures, including providing regular

¹¹⁸ 65 Pa.C.S. § 1102. The Ethics Act defines a "Conflict" or "conflict of interest" as follows, in pertinent part: "Use by a public official or public employee of the authority of his office or employment or any confidential information received through his holding public office or employment for the private pecuniary benefit of himself, a member of his immediate family or a business with which he or a member of his immediate family is associated. ..." Ibid.

¹¹⁹ 4 Pa. Code § 7.151. This relates to the Governor's Code of Conduct, Executive Order 1980-18 Amended.

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ethics trainings to trustees and obtaining signed annual ethics acknowledgement statements from trustees. Additionally, the Board relied on each trustee to disclose potential conflicts of interest and did not verify whether this self-reporting was complete.

No regular ethics training.

The Board's Ethical Conduct Policy does not address ethics training. The Board's draft Education Policy lists standards of conduct, conflict of interests, and ethics as a core competency, but there is no requirement for ongoing training in these areas. Revising the policy to establish a minimum amount of ethics training that each trustee must receive and ensuring the minimum amount is attained would provide assurance that ethics is routinely addressed with each trustee.

In our trustee survey, 3 of the 13 respondents indicated that they have felt pressure from investment staff, consultants, or outside parties to make a certain decision regarding investment opportunities. This is why effective ethics training is fundamental to instill values and promote ethical behaviors.

No signed ethics statements.

The Board's Ethical Conduct Policy does not require each trustee to sign an acknowledgement statement when initially joining the Board. However, the model policy indicates each Board member and designee must annually confirm his or her understanding and commitment to the Board's ethical standards and core values and affirm no ethical violations have or will occur. Without consistent declarations, trustees may go for extended periods of time not considering or reporting ethical behaviors.

Reliance on self-reporting.

According to the Board's Ethical Conduct Policy, if a potential conflict of interest exists or is perceived to exist, the trustee is required to recuse themselves from voting. The reason for the recusal must be stated at the Board meeting and a written recusal form will be filed with the SERS' Secretary.

Between January 1, 2013 and October 31, 2016, trustees submitted 5 written recusals to the Board. We reviewed the Board meeting minutes and verified that all recusals in the minutes had a corresponding recusal form and reason for the potential conflict of interest was publicly announced during a Board meeting.

The Board relies on each trustee to voluntarily inform the Board that a potential conflict of interest may exist and does not take proactive measures to ensure each trustee complies with the policy. For instance, the Board did not obtain the campaign contribution reports elected officials are required to submit to the Department of State for the five trustees that hold public offices in order to confirm any potential conflicts of interest related to political contributions were reported to the Board.¹²⁰

¹²⁰ The five trustees that hold public offices are two Senators, two House Representatives, and the State Treasurer.

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Our survey found 2 of the 13 respondents indicated the process of identifying potential conflicts of interest for the investment firms and Board members/designees is inadequate since it relies on the members to report their conflicts. One of these trustees commented that the Board may need a better system. Additionally, one trustee did not respond to this part of the survey, stating he/she does not know what the processes are for identifying conflicts of interest.

According to SERS management, it is not statutorily required to provide ethics training annually or obtain the campaign finance reports, and SERS management believes that having trustees file a Code of Conduct form along with a Statement of Financial Interests annually to SERS, as required by the Public Official and Employee Ethics Act and the Governor's Code of Conduct, is sufficient. However, these existing statutes should not preclude SERS from establishing policies and procedures beyond the statewide requirements to certify the Board is meeting its fiduciary duties.

Even though it is not a statutory requirement, SERS management should be providing training and obtaining this information for transparency purposes and to promote good governance. Despite trustees' competing responsibilities, recurring ethics training is important and can have an impact on pension governance and SERS' reputation. The Board cannot afford to leave ethical decision making to chance or place sole reliance on an individual to fully disclose all conflicting relationships. One misinformed decision of a trustee can harm the entire system. Beyond the obvious legal ramifications, the Board could also lose the trust of its members and other stakeholders as well as opportunities to establish quality relationships with principled vendors.

Finding 4.3 – The SERS Board completed its duties related to investment operations as outlined in the SERC and the Board's investment policies.

The Board exercises exclusive control and management of SERS, including the investment of its assets. The Board is to serve the members and the stakeholders of the system by prudently investing the assets of the system, maintaining a financially-sound system, and effectively managing the resources of the system.

The SERC outlines the duties and responsibilities of the Board in relation to investment operations.¹²¹ The Board's Statement of Investment Policy includes and expands upon those statutory provisions. We performed procedures to verify that the Board completed each of its investment-related duties as described below. The adequacy of the Board's processes used to complete these duties are discussed in other areas of the audit report as noted.

¹²¹ 71 Pa.C.S. § 5902.

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- Adopt rules and regulations for the uniform administration of the system.¹²²

The Board has implemented the Statement of Investment Policy, Real Estate Statement of Investment Policy, Private Equity Statement of Investment Policy, Investment Manager Monitoring Policy, Board Bylaws and other policies/guidelines to promote consistency and accountability throughout the system. We discuss an overview of these policies in Finding 4.4 and a detailed analysis of the Board's draft Education Policy and Ethical Conduct Policy in Findings 1.2 and 4.2, respectively.

- Ensure that proper internal controls are developed to safeguard the assets of the system.

There are several parties involved in investment operations decision making. The Investment Office Staff (IOS) along with consultants are responsible for the day-to-day administration of the investment operations. The IOS and external investment managers manage investment portfolios consistent with the investment policies and guidelines. The Board is ultimately responsible for managing the investment process. The Office of Finance and Administration processes, monitors, and records investment transactions. Finally, the Internal Audit Division ensures the established procedures are functioning as intended.

We identified four key decision-making processes within investment operations in which there needs to be a clear segregation of duties as follows:

- Asset Allocation
- Contracting with Consultants
- Contracting with External Investment Managers
- Monitoring and Terminating External Investment Managers

The responsibilities for each of these key processes must be shared in a way that disperses the critical functions of that process to more than one person or department. Based on our review, SERS appears to have adequately designed its internal controls over investment operations to ensure a clear segregation of duties for key investment decision-making exists.

Our detailed audit results for the review of each of these processes can be found in Issue Areas 3 and 5 of the audit report.

- Establish an Asset Allocation strategy and ensure funds are invested in accordance with Board policies.

At least biennially, the IOS and the General Investment Consultant review the strategic asset allocation policy target located within the Strategic Investment Plan and determine

¹²² 71 Pa.C.S. § 5902(h).

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if changes need to be made to the target distribution of funds amongst the different asset classes. The Board approves any revisions to the strategic asset allocation policy targets during a board meeting.

Each month, the Office of Finance and Administration produces an asset allocation report fund summary. The CIO, in consultation with the Board Chairman, initiates a rebalancing within 90 days after a breach in the asset allocation range. The CIO informs the Board in writing of any rebalancing actions taken prior to the next regular Board meeting. All rebalancing actions are included in the comprehensive fund cash flow report prepared by staff and presented to the Board in Executive Session.

Our detailed audit results for the review of the asset allocation process can be found in Issue Area 5 of the audit report.

➤ Contract with external portfolio managers and investment consultants.

SERS utilizes a Request for Information (RFI) process to select investment consultants. The SERS Investment Office sends the RFI and due diligence questionnaires to candidates. The SERS Investment Office and Legal Office review the responses and provide a summary profile and fee analysis to the Board's consultant selection committee. The selection committee interviews the candidates and recommends two to three candidates to the full Board. The full Board interviews the final candidates and selects the desired consultant. Between January 1, 2013 and October 31, 2016, the SERS Board approved four new consultant contracts. We verified the Board's approval for these contracts was documented in the Board's meeting minutes.

For external investment managers, the SERS Investment Office and the appropriate investment consultant perform a detailed investigation of potential firms and ultimately choose the investment manager that best compliments the investment program. During a Board meeting, the SERS Investment Office and consultant recommend which candidates should be interviewed by the Board. At a subsequent Board meeting, the selected investment manager presents their investment and is available to answer any questions trustees may have. The Board will then vote to hire the manager. Between January 1, 2013 and October 31, 2016, the Board approved agreements with 55 external investment managers. We verified the Board's approval for each was documented in the Board's meeting minutes.

Based on our audit procedures, it appears the Board performed its duty of approving contracts with consultants and advisory agreements with external investment managers. Our detailed audit results for the review of the contracting process can be found in Issue Area 3 of the audit report.

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- Monitor the performance of investments.

SERS' General Investment Consultant, specialty consultants, and the Investment Office perform daily monitoring of investment performance and report monitoring results to the Board on a regular basis. If an external investment manager is continuously experiencing poor returns or there is a significant change in the firm, such as significant personnel changes or a substantial deviation from their investment style, and the problems are unlikely to be resolved timely, SERS Investment Office and investment consultant recommend to the Board whether to retain the investment manager.

Our detailed audit results for the review of investment performance monitoring, including addressing poor performance, can be found in Issue Area 3 of the audit report.

- Arrange an actuary to perform an annual valuation of the various accounts and by resolution adopt the report and recommendations of the actuary.¹²³

The Hay Group Incorporated performed an annual actuarial valuation for all three calendar years ended during our audit period (December 31, 2013, 2014, and 2015). We verified the Board adopted each of these actuarial reports and recommendations through resolutions documented in the Board's meeting minutes.

- Prepare an annual financial statement for each fiscal year ended December 31,¹²⁴ and provide for an annual audit of the system by an independent certified public accounting firm.¹²⁵

SERS operates as a component unit of the Commonwealth of Pennsylvania. We verified SERS prepared a Comprehensive Annual Financial Report for the calendar years ended December 31, 2013, 2014, and 2015. The Board obtained an independent audit of its financial statements from KPMG for each year. We verified the Board accepted the financial statements and approved the accompanying audit report through resolutions documented in the Board's meeting minutes.

In conclusion, during our audit period, it appears the Board performed its investment-related duties and responsibilities as required by the SERC and the Board's Statement of Investment Policy. The adequacy of the Board's oversight of investment operations is further discussed in detail in other sections of the audit report as indicated above.

¹²³ 71 Pa.C.S. § 5902(j).

¹²⁴ 71 Pa.C.S. § 5902(m).

¹²⁵ 71 Pa.C.S. § 5902(n).

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Finding 4.4 – The SERS Board lacks a comprehensive governance manual to unify its numerous policies and guidelines.

During our audit period, the SERS' Board did not have a governance manual, which typically serves as a fundamental document for public pension governance. The GFOA recommends that a governance manual include an outline of authority under which the system operates and the roles and responsibilities of the board of trustees, executive director, and staff.¹²⁶ Additionally, the governance manual should contain all of the board policies and a description of all permanent committees.

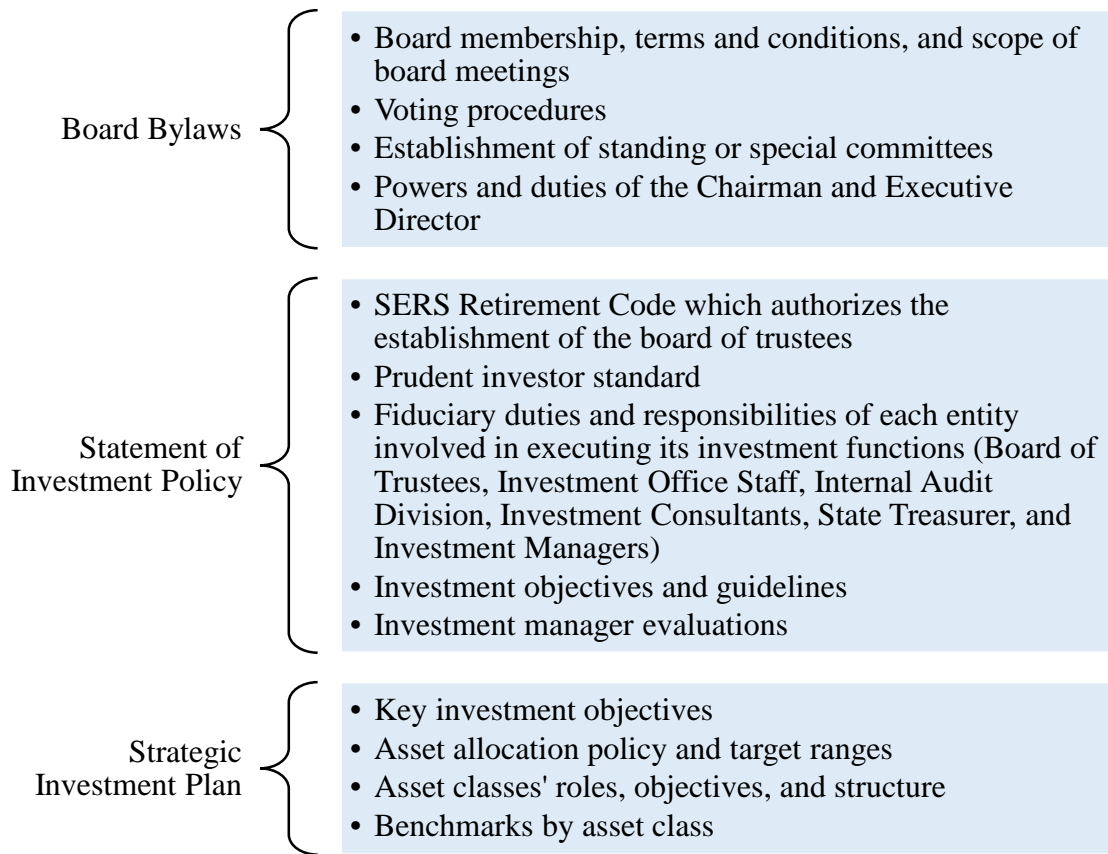
Although the Board does not have a single document governance manual, the Board maintains a multitude of individual policies. According to SERS management, SERS hired a consultant to evaluate the governance and organization of the Board and, as a result of this study, will be recommending that the Board consolidate its policies into a governance manual later in 2017.

The three most significant and comprehensive Board policies related to investment operations are the Board Bylaws, Statement of Investment Policy, and Strategic Investment Plan. A summary of the contents of each of these documents is outlined below:

¹²⁶ <http://www.gfoa.org/governance-public-employee-postretirement-benefits-systems> (accessed June 21, 2017).

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The Board's other policies are dedicated to specific topics, such as hiring consultants and managers, monitoring performance, and ethics. Between the current policies and the drafted policies, it appears the Board has all the pieces to create an adequate governance manual. We agree with the study results that they should be incorporated into one document. A well designed governance manual facilitates effective management and provides a tool to educate trustees and stakeholders on fund operations. Without a governance manual, SERS does not have a central source for the fund's primary governance documents, which may cause incomplete awareness of all existing policies and duplications or inconsistencies between the policies.

Recommendations for Issue Area 4

We recommend that the General Assembly amend the State Employees Retirement Code to:

1. Require regular attendance by the board members or their designee(s).
2. Authorize the Board, in consultation with the Executive Director, to remove a board member (excluding ex-officio members, but not their designee) or designee from the board for failure to regularly attend board meetings.

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3. Authorize SERS to develop an attendance policy for all board members and/or designees.
4. Authorize the Board members to select the Chairman of the Board from its numbers.
5. Authorize the SERS members to elect one or more Board members.
6. Modify the Board composition to ensure the Governor, or any single individual or entity, does not have the authority to appoint or elect a majority of Board members.

We recommend that SERS and its Board of Trustees:

7. Establish and implement a specific and detailed attendance policy for Board members and designees.
8. Establish and implement provisions within the Board's Ethical Conduct Policy to:
 - a. Put in place a minimum amount of ethics training each Board member and designee must receive, with emphasis placed on identifying and disclosing conflicts of interest, and ensure that it is obtained.
 - b. Require each Board member and designee to sign an ethics policy acknowledgement/certification statement upon being appointed to the Board and annually thereafter.
 - c. Develop procedures to verify that conflict of interest self-reporting is complete for each Board member and designee.
 - d. Request that the Ethics Commission provide the Board with ethics training on an annual basis and provide guidance on the trustees' use of its sample written memo for disclosing a conflict in compliance with 65 Pa.C.S. § 1103(j).
9. Obtain the Statement of Financial Interest and campaign contribution reports for each trustee, as applicable, and have an individual (independent of the Board) compare them to the list of owners/principals of each investment firm prior to presenting the firm to the Board for vote.
10. Aggregate the Board's policies and guidelines into a single, comprehensive governance manual.

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Issue Area 5 – SERS' procedures to ensure it is meeting its diversified investment strategy appear adequate.

Issue Area Summary: Findings 5.1, 5.2, and 5.3

The goal of a public pension system is to provide promised retirement benefits to its members, ongoing retirement security, and to ensure fiscal sustainability of the system.¹²⁷ In order to accomplish these goals, sufficient investment returns must be generated. Two fundamental principles of prudent investing are diversification and asset allocation. Diversification is holding multiple asset classes and multiple funds within each asset class. Asset allocation is a method used to diversify a portfolio that determines which asset classes would be beneficial and how funds should be distributed among those asset classes.¹²⁸

According to the Government Finance Officers Association, the single most important investment decision that pension trustees can make is the asset allocation determination.¹²⁹ Most public pension systems own hundreds of securities, so one security contributes relatively little to the overall investment performance. It is the balance of the different asset classes and how those asset classes perform in terms of risk and return that significantly influence overall portfolio performance. See the description of each asset class and how it relates to risk and return in the *Introduction and Background* section of our audit report and definitions of investment-related terms in *Appendix C*.

There are an abundance of factors that contribute to establishing a diversified portfolio. Some of these factors include the risk preference, demographics, and the funded status of the system. Each pension system's strategy must be customized to address all of the variables specific to its portfolio. According to its investment policy,¹³⁰ the SERS Board is required to review and approve a biennial investment plan that includes the long-term target allocation ranges. The Board must also review and approve the results of an asset/liability study on a periodic basis, but at least every five years. The asset/liability study is then used as a tool to examine how well differing asset allocations address the objectives of the system, and acts as a guide in the selection of a target allocation. Based on the results of our audit procedures, SERS' processes to review and adjust the asset allocation strategy appear to be adequate.

¹²⁷ Patten Priestley Mahler, Matthew M. Chingos, and Grover J. "Russ" Whitehurst, *Improving Public Pensions: Balancing Competing Priorities*, Brown Center on Education Policy at Brookings, February 2014, page 1. https://www.brookings.edu/wp-content/uploads/2016/06/Improving-Public-Pensions_FINAL.pdf.

¹²⁸ *Beginner's Guide to Asset Allocation, Diversification, and Rebalancing*, <https://www.sec.gov/reportspubs/investor-publications/investorpubsassetallocationhtm.html> (accessed March 29, 2017).

¹²⁹ Government Finance Officers Association, *Pension Investing: Fundamentals and Best Practices*, page 15, http://www.gfoa.org/sites/default/files/PensionInvesting_FundamentalsAndBestPractices.pdf.

¹³⁰ <http://sers.pa.gov/pdf/Investments/SERS-SIPincludingEmergingInvestmentManagerGuidelinesClean.pdf?path=pdf&file=Investments/InvestmentPolicy.pdf>.

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In order to ensure the actual net asset value for each asset class remains within the asset allocation strategy target range, the SERS' Investment Office staff (IOS) perform a comparison monthly. Based on our audit procedures, it appears SERS is consistently and adequately performing these comparisons. Further, we found that SERS' strategy to invest in different asset classes and numerous individual funds within each asset class appears to be reasonable.

Finding 5.1 – SERS adequately reviewed its asset allocation strategy and verified whether its actual asset values remained within the established target range on a regular basis.

SERS reviewed its allocation of funds to different asset classes on a regular basis.

According to SERS' investment policy, the Board must review and approve the strategic investment plan, which contains the target asset allocation policy range, at least every two years.¹³¹ The IOS and the general investment consultant evaluate the SERS' strategic investment plan and present their suggested revisions to the Board.

For the period January 1, 2013 through December 31, 2016, the Board approved the revisions to the target asset allocation policy range twice.¹³² For these two adjustments to the asset allocation, we verified the justification for the adjustments was reasonable and adequately documented. Additionally, we verified the justification for the adjustments was presented to and approved by the Board. Based on our review, we found SERS adequately reviewed its asset allocation strategy biennially and adjusted the target range as needed.

SERS compared actual net asset values to the asset allocation target range monthly.

In accordance with the written procedures in SERS' Portfolio Rebalancing Policy, to ensure the actual value of the assets remain within the established asset allocation target range, the IOS staff and the general investment consultant compare these figures each month. For instance, if the target range policy states 12-15% of total funds should be allocated to fixed income securities and, at the end of the month, the actual value of fixed income securities is 13% of total funds, it is within the target range and no action needs to be taken. However, if the actual value of fixed income securities is 17% of total funds, the portfolio would need to be rebalanced. Funds would be transferred out of fixed income securities to bring the percentage back into the target range.

¹³¹ <http://sers.pa.gov/pdf/Investments/SERS-SIPincludingEmergingInvestmentManagerGuidelinesClean.pdf?path=pdf&file=Investments/InvestmentPolicy.pdf>.

¹³² The Board approved the 2014-2015 Strategic Investment Plan in April 2014 and the 2016-2017 Strategic Investment Plan in December 2015.

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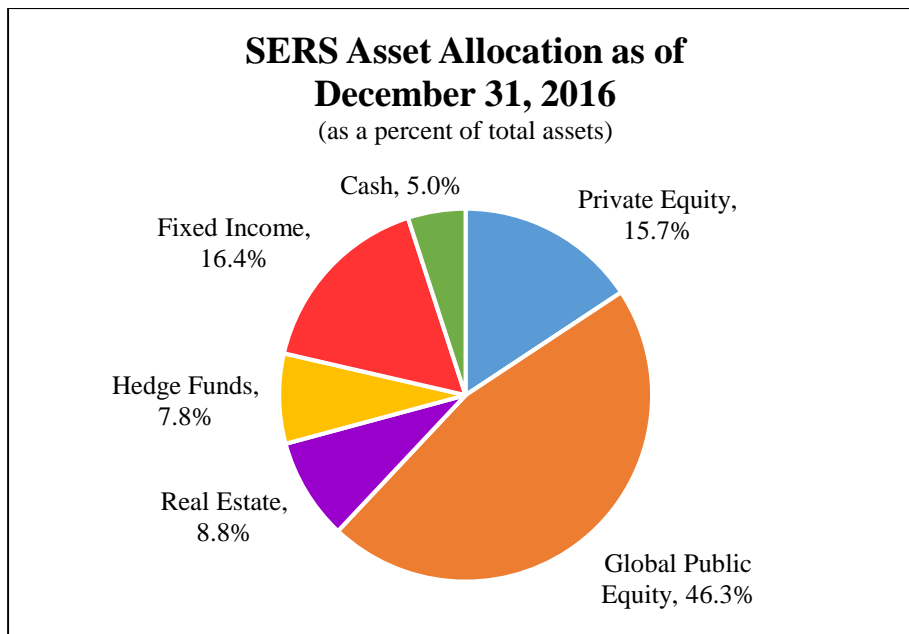
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The results are reviewed by the Chief Investment Officer (CIO). If any asset values breach the target range, the CIO, in consultation with the Board Chairman, initiates a rebalancing within 90 days after the breach. The CIO informs the Board in writing of any rebalancing actions taken prior to the next regular Board meeting. All rebalancing actions are included in the comprehensive fund cash flow report prepared by staff and presented to the Board in an executive session. To verify that the actual value of the assets remained within the established asset allocation target range, or were otherwise rebalanced, we reviewed SERS' monthly asset allocation comparisons.

Using auditor's judgment, we selected 8 of the 48 monthly asset allocation comparisons to test from the period January 1, 2013, through December 31, 2016. For each comparison, we verified the target range agreed with the current asset allocation strategy within the strategic investment plan and determined whether the actual value of the asset classes were within the target range. For 6 of the 8 months selected, one or more of the asset classes breached the target policy range. For these six months, we verified that SERS rebalanced its asset allocation in accordance with its Portfolio Rebalancing Policy. Based on our review, we found that SERS, as prescribed by policy, adequately verified that actual asset values remained within the established target range, or otherwise rebalanced the portfolio on a monthly basis.

Finding 5.2 – SERS' efforts to develop a diversified asset allocation that minimizes market risk appear to be sufficient.

As of December 31, 2016, SERS' total pension investments (asset allocation basis) totaling \$26.3 billion were allocated throughout different asset classes, as shown in the chart below.

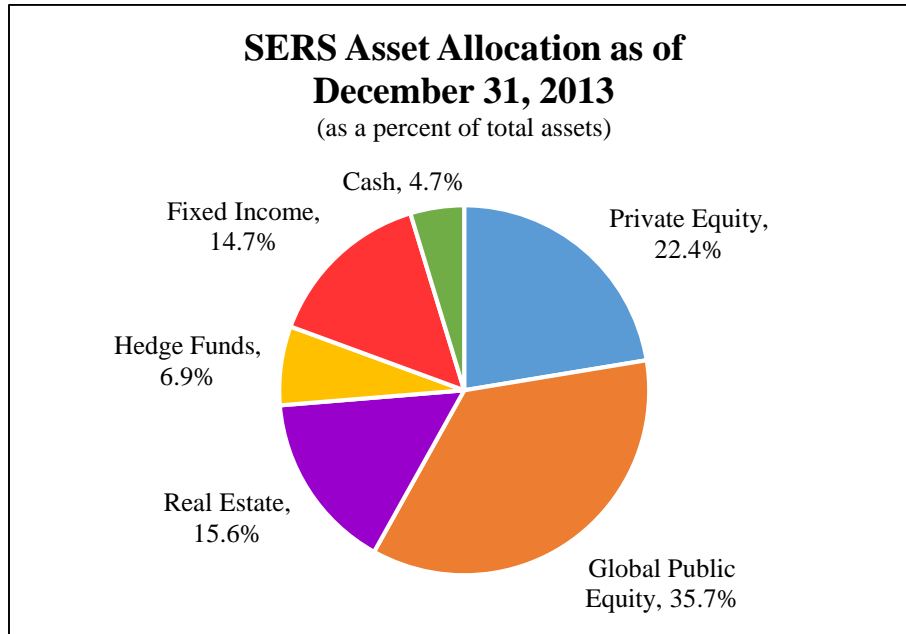


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Source: Auditor General staff compiled from information in the SERS 2017 Supplemental Budget Book. The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our findings and conclusions.

A comparison of SERS December 31, 2013 asset allocation to SERS December 31, 2016 asset allocation reveals a shift in investments from Private Equity and Real Estate to Global Public Equities.



Source: Auditor General staff compiled from information in the SERS' Comprehensive Annual Financial Report as of December 31, 2013.

According to SERS' 2016-2017 Strategic Investment Plan, after reviewing the system's increasing maturity, the results of the asset/liability study, and the risks associated with the forced sale of liquid assets at undesirably low valuations in market declines, the Board determined that a steady decline in illiquid real estate investments to a level better aligned with the system's current and evolving structure is appropriate.¹³³

One initiative SERS has adopted to lower its illiquid investments is to consolidate its real estate fund commitments into high-quality funds to build long-term strategic partnerships, improve operational efficiency by reducing the number of funds, and improve SERS' leverage to negotiate lower management fees.¹³⁴

Additionally, SERS has been allocating more funds to the public equities asset class through external managers that use low-cost passive strategies or high-quality actively managed

¹³³ SERS' 2016-2017 Strategic Investment Plan, page 9, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=Investments/StrategicInvestmentPlan.pdf.

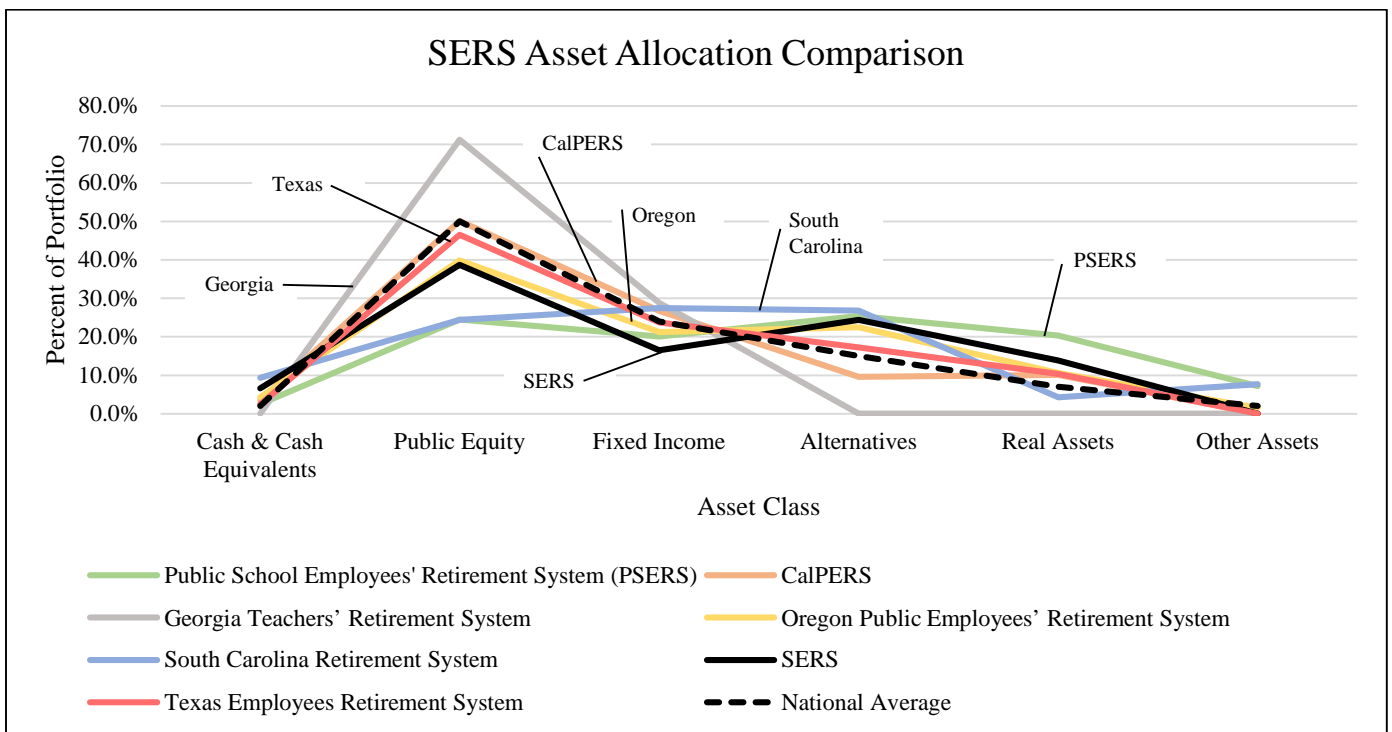
¹³⁴ Ibid., page 10.

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opportunities where the board, investment office, and external consultants have the highest conviction that the opportunities can generate excess return.¹³⁵

We gathered asset allocation data for six other state pension systems on an individual basis, including the nation's largest state retirement system, the California Public Employees Retirement System (CalPERS).¹³⁶ We then compared SERS' and these states' asset allocations to the national average asset allocation as reported on the National Association of State Retirement Administrators' website. Hereinafter referred to as the national average,¹³⁷ it includes public employee and public teacher retirement systems from all 50 states. The comparison is illustrated in the graph below.



Source: The 2015 national average was obtained from the National Association of State Retirement Administrators and the individual peer system asset allocations were compiled from information contained in the systems' Comprehensive Annual Financial Reports for the fiscal years

¹³⁵ Ibid.

¹³⁶ PA Public School Employees Retirement System CAFR for the fiscal year ended June 30, 2015, <http://www.psers.pa.gov/FPP/Publications/General/Documents/2015%20CAFR%20Complete.pdf>; Teachers Retirement System of Georgia CAFR for the fiscal year ended June 30, 2015, http://www.trsga.com/downloadPublications/CAFR%202015_FINAL_web2016.pdf; South Carolina Retirement System CAFR for the fiscal year ended June 30, 2015, <https://www.peba.sc.gov/assets/cafr2015.pdf>; Texas Employees Retirement System CAFR for the fiscal year ended August 31, 2015, https://www.ers.state.tx.us/About_ERS/Reports/; California Public Employees Retirement System CAFR for the fiscal year ended June 30, 2015, <https://www.calpers.ca.gov/docs/forms-publications/cafr-2015.pdf>; Oregon Public Employees Retirement System CAFR for the fiscal year ended June 30, 2015; <http://sos.oregon.gov/audits/Documents/2015-33.pdf>.

¹³⁷ National Association of State Retirement Administrators, <<http://www.nasra.org/investment>> (accessed March 16, 2017).

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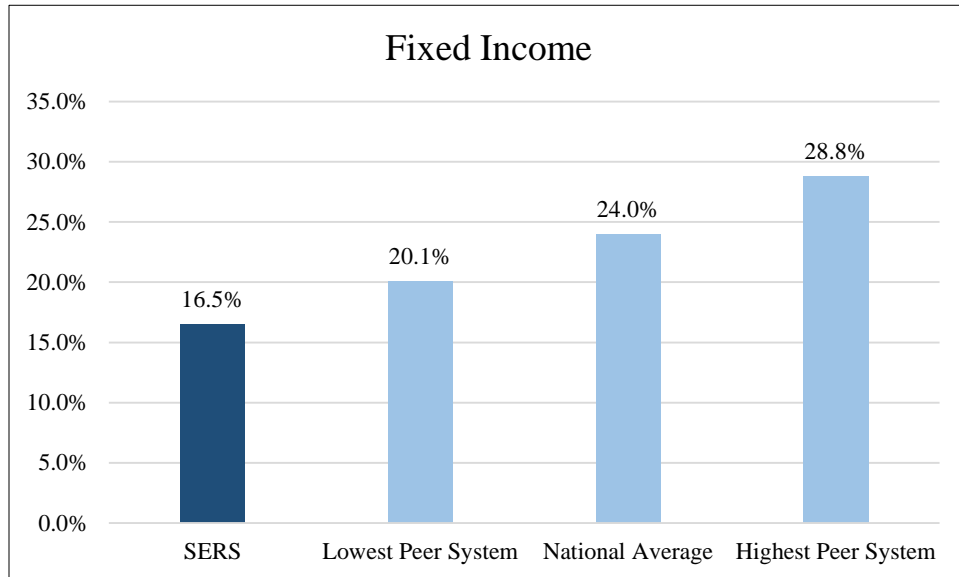
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ended in 2015. With the exception of SERS and the PA Public School Employees' Retirement System, the data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

Based on the above comparison of both the national average and the six individual peer state system asset allocations, we found two asset classes, Fixed Income and Alternatives, where SERS' asset allocation differed notably from other state pension systems.

Fixed Income

SERS invested 16.5% of funds into fixed income securities, which is less than the national average of 24.0% and the lowest of the six peer state systems reviewed, which ranged from 20.1% to 28.8%, as seen in the chart below.



Source: The 2015 national average was obtained from the National Association of State Retirement Administrators and the individual peer system asset allocations were compiled from information contained in the systems' Comprehensive Annual Financial Reports for the fiscal years ended in 2015. With the exception of SERS and the PA Public School Employees' Retirement System, the data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

According to SERS management, fixed income includes investments in publicly traded debt obligations of sovereign, quasi-sovereign, and corporate entities. The asset class generates current income and the repayment of principal at maturity. Fixed income investments have substantially lower volatility than public equities and most fixed income investments are significantly uncorrelated with public equity returns.¹³⁸

¹³⁸ SERS Comprehensive Annual Financial Report as of December 31, 2015, page 66, http://sers.pa.gov/get_pdf.aspx?path=pdf&file=CAFR/2015_SERS_CAFR.pdf.

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Under SERS' investment plan, fixed income is structured to:

- Generate income to pay benefits.
- Provide liquidity to minimize capital impairment risk.
- Reduce volatility in the total fund.
- Protect the fund against deflation (and inflation via inflation protection securities).
- Contribute to total fund return when market conditions permit.¹³⁹

The second lowest of the peer state systems compared was the Public School Employees' Retirement System (PSERS), which invested 20.1% of its funds into fixed income. According to PSERS management, it uses fixed income investments for similar reasons, including to serve as a hedge against disinflation and/or deflation,¹⁴⁰ their general ability to produce current income in the form of periodic interest payments, and their ability to provide sufficient liquidity to meet the Fund's obligations to pay member benefits and support other investment commitments.¹⁴¹

The highest of the peer state systems compared was the Teacher's Retirement System of Georgia (TRSG), which invested 28.8% of its funds into fixed income. The Georgia Code limits the types of investments in which the TRSG is able to invest.¹⁴² According to its Comprehensive Annual Financial Report (CAFR) for fiscal year ended June 30, 2015, TRSG's adopted asset allocation policy calls for targeting 55% - 75% of investments to the equities asset class and 25% - 45% to fixed income. Although the returns for the various asset categories vary from year to year, over the long term equities usually outperform fixed income and cash by a very wide margin. For that reason, the system has generally maintained a significant equity exposure with the remainder of the fund invested in fixed income securities designed to generate income and preserve capital.¹⁴³

Alternatives

SERS invested 24.4% of funds in alternative investments, which is higher than the national average of 15.0% and the third highest the six peer state systems reviewed, which ranged from no alternative investments to 26.8%, as seen in the chart below.

¹³⁹ Ibid., page 19.

¹⁴⁰ Deflation is a decrease in general price levels of throughout an economy. Disinflation, on the other hand, shows the rate of change of inflation over time. The inflation rate is declining over time, but it remains positive, <http://www.investopedia.com/ask/answers/032415/what-difference-between-deflation-and-disinflation.asp#ixzz4joWQQha4> (accessed June 12, 2017).

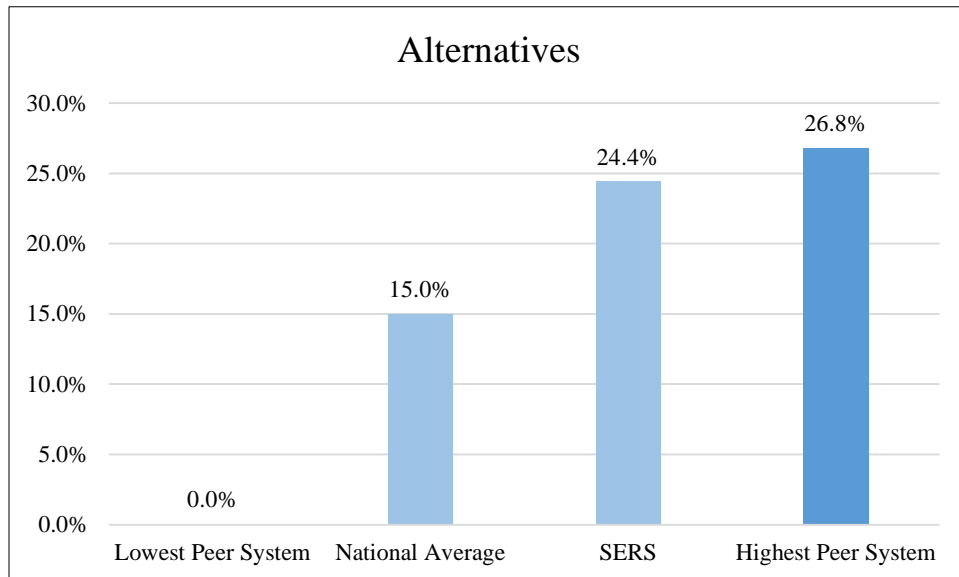
¹⁴¹ PSERS' 2016-2017 Budget Book, page 76, <http://www.psers.pa.gov/FPP/Publications/General/Documents/Complete%20copy%20of%20the%202016-2017%20Budget%20Hearing%20Document.pdf>.

¹⁴² O.C.G.A. 47-20-84.

¹⁴³ Teachers Retirement System of Georgia Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2015, page 43, http://www.trsga.com/downloadPublications/CAFR%202015_FINAL_web2016.pdf.

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Source: The 2015 national average was obtained from the National Association of State Retirement Administrators and the individual peer system asset allocations were compiled from information contained in the systems' Comprehensive Annual Financial Reports for the fiscal years ended in 2015. With the exception of SERS and the PA Public School Employees' Retirement System, the data is of undetermined reliability as noted in Appendix A. However, this data is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

According to SERS management, alternative investments are typically made over a multi-year period and offer a premium return to compensate for illiquidity. It seeks high, long-term capital appreciation to enhance SERS' overall returns with an investment return horizon that is typically seven or more years. Specifically, SERS utilizes private equity investments to seek a higher return and growth opportunities to capture market inefficiencies through active management in the private markets.¹⁴⁴

The highest of the peer state systems compared was the South Carolina Retirement System (SCRS), which allocates 26.8% to alternative investments. According to the SCRS' Comprehensive Annual Financial Report, due to their low correlation to traditional asset classes, alternative investments diversify the portfolio and help to reduce the risk associated with volatility of returns.¹⁴⁵

The second highest of the peer state systems compared was PSERS, which allocated 25.4% of funds to alternative investments. Similarly to SERS and SCRS, PSERS management utilizes alternative investments to diversify its portfolio where market inefficiencies exist.¹⁴⁶

¹⁴⁴ SERS' 2016-2017 Strategic Investment Plan, page 17,

<http://www.sers.pa.gov/pdf/Investments/StrategicInvestmentPlan.pdf>.

¹⁴⁵ South Carolina Retirement System Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015, pg. 64, <https://www.peba.sc.gov/assets/cafr.pdf>.

¹⁴⁶ PSERS' 2015-2016 Budget Book, pg. 56-57,

<http://www.psers.pa.gov/FPP/Publications/General/Documents/2015%20House%20Version%20Final%20Draft.pdf>.

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It is not surprising that SERS' investment strategy varies slightly from other state pension systems. There is no one asset allocation strategy that would address the specific characteristics and needs of all public pension systems. Therefore, it is most important that the decisions made by the system are based on the individualistic profile of the system, and that the decisions are reevaluated on a regular basis to adequately respond to market, demographic, or other changes. These decisions should be based on the opinions of industry experts. Based on our review, SERS' efforts to develop a diversified asset allocation that minimizes market risk appear to be adequate.

Finding 5.3 – SERS' efforts to invest in multiple funds within each asset class to develop a diversified portfolio appear to be adequate.

Diversification within asset classes in a portfolio also helps to balance its exposure to risks and reduces the volatility of the overall investment. If a portfolio is not diversified, its exposure to risk and volatility increases. On the other hand, if portfolios are too diversified, there is a potential of paying more investment fees for duplication of services. Similar to the discussion of asset allocation above, the amount and type of funds within an asset class needs to be based on the pension system's investment time horizon, the demographics of the plan participants and beneficiaries, the cash flow requirements of the system, the actuarial assumptions approved by the board, the funded status of the system, the employers' financial strength, and the board's willingness and ability to take risk. As of December 31, 2016, SERS had 220 external investment managers, split between asset classes as shown in the table below.

Asset Class	Number of Investment Managers
Private Equity	147
Global Public Equity	14
Real Estate	25
Hedge Funds	14
Fixed Income	19
Cash	1
Total	220

Source: SERS 2017 Supplemental Budget Book, page 25, on SERS' website (sers.pa.gov). The data is of undetermined reliability as noted in Appendix A. However, this data is the best data available and we performed certain tests of the reasonableness of the data. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our finding and conclusions.

The majority of the external investment managers are in the private equity asset class. According to SERS management, the contractual lifespan of private equity investments is typically 10 years. New funds being added to the portfolio each year and the inability to exit from current funds for such long periods of time causes the larger number of funds in these areas. However, as noted above SERS is working towards reducing the number of private equity funds.

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For comparison purposes, the number of SERS external investment managers is 30% greater than the Public School Employees' Retirement System (PSERS), which has a total of 169 externally-managed portfolios. This is mainly because PSERS uses internal investment staff to manage 35% of its investments and SERS uses only external managers. However, both systems' private equity investments consist of about half of the external managers/portfolios.

Based on our review, the diversity of SERS' investment portfolio appears to be determined by an investment strategy which is prudent to minimize risk based on market conditions.

Recommendations for Issue Area 5

We recommend that the SERS Board of Trustees:

1. Ensures it has sufficient information and adequate discussions to fully understand the complexities and importance of its asset allocation strategy in order to fulfill its fiduciary duty to prudently invest funds.
2. Continues to analyze its investment strategies and target asset allocation on a regular basis to ensure the Board makes prudent investment decisions, including active and passive investing, as conditions change.

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Issue Area 6 – SERS generally complied with the Public Employee Pension Forfeiture Act, but significant legislative changes and procedural improvements are needed.

Issue Area Summary: Findings 6.1, 6.2, and 6.3

Act 140 of 1978, as amended, or the Public Employee Pension Forfeiture Act¹⁴⁷ (Act), provides that members of the Pennsylvania State Employees' Retirement System (SERS) could be subject to pension forfeiture if the member pleads guilty or is sentenced/convicted¹⁴⁸ of an Act 140 specified criminal offense and the member's public position was used to commit the crime. The pension benefits are to be forfeited upon conviction.¹⁴⁹

Based on our interviews with SERS management and our test procedures, we found SERS' case discovery procedures appear to be complete and accurate. SERS also appears to have made accurate pension forfeiture determinations in compliance with Act 140 and sought recoupment of annuity payments made after the date of conviction. However, we identified several issues regarding the Act and SERS' implementation of the Act that need improvement.

Our greatest concern regarding the Act lies in the overly restrictive language used in the Act,¹⁵⁰ as amended in 2004,¹⁵¹ regarding the victims of sex crimes. The Act mandates that the victim of certain sex crimes committed by a "school employee"¹⁵² in a "public school",¹⁵³ including State-owned colleges and universities, the Pennsylvania State University, and community colleges, within the course of his/her employment is limited to a "student" in order for pension forfeiture to occur. This stipulation is incongruous given that sex crimes can victimize all individuals that are present in a public school or involved in school-related business.

¹⁴⁷ 43 P.S. § 1311 *et seq.*; members of both SERS and the Public School Employees' Retirement System are subject to the act.

¹⁴⁸ I.e., if found guilty by jury trial.

¹⁴⁹ PSERS and SERS have **no** discretion in the application of the Act whenever a specified criminal offense is involved.

¹⁵⁰ 43 P.S. § 1312.

¹⁵¹ Act 86 of 2004, effective September 13, 2004. As pointed out in an earlier footnote, the specific language added to the definitional section of the Act is restricted to a criminal offense committed by a school employee as defined in 24 Pa.C.S. § 8102 (relating to definitions) against a student. *See* 43 P.S. § 1312.

¹⁵² The definition of "School employee" in the Public School Employee Retirement Code (PSERC) includes: "Any person engaged in work relating to a public school for any governmental entity and for which work he is receiving regular remuneration as an officer, administrator or employee excluding, however, any independent contractor or a person compensated on a fee basis." *See* 24 Pa.C.S. § 8102.

¹⁵³ The definition of "Public school" states, in part, in the PSERC: "Any or all classes or schools within this Commonwealth conducted under the order and superintendence of the Department of Education including, but not limited to: all educational classes of any employer charged with the responsibility of public education within this Commonwealth as well as those classes financed wholly or in part by the Federal Government, **State-owned colleges and universities, the Pennsylvania State University, community colleges....**" [Emphasis added.] *Ibid.*

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We also point out that the definitions of “public school” and “school employee” should be defined in the State Employee Retirement Code (SERC) and it should be ensured that the provision covers anyone who performs any services directly benefiting a public school¹⁵⁴ and receives pension benefits. This definition should also apply to any independent contractor or a person compensated on a fee basis receiving any form of remuneration qualifying for pension benefits. This would expand the Act to cover retired school employees who continue to directly perform services for a public school or governmental entity.

Additionally, the Act should be expanded to address protective service employees, or any person engaged in work relating to protective services — for children or for adults who are mentally/physically challenged or incarcerated and therefore unable to give willing consent — with any governmental entity or public school under the Child Protective Services Act, the Older Adults Protective Services Act, the Human Services Code, or the Prisons and Parole Code. Therefore, we believe that the Act and retirement code should be amended to include a narrowly tailored definition of “public protective services employee”¹⁵⁵ engaged in work with minors or adults who, due to various reasons, are not able to give informed consent. Public employees and officials must be held to high standards of behavior and are expected to conduct themselves with ethical and moral integrity at all times.

Further, we found that the pension forfeiture legal determinations related to state charges and non-judicial employees were made by an Administrative Officer and were not reviewed and formally approved by the Office of Chief Counsel prior to informing the member of the pension forfeiture. There was also no supervisory review of the monitoring or documenting of cases which resulted in inconsistent and incomplete case records.

Finally, SERS' written procedures for pension forfeiture need to be strengthened — specifically, procedures related to supervisory review of case determinations and the monitoring and documentation of case records. Our results are discussed in detail in the below findings.

Finding 6.1 – Overly restrictive language in the Public Employee Forfeiture Act limits pension forfeitures to school employees against students.

The Act states that no public official or public employee is entitled to receive retirement or other benefits if the public official/employee is convicted of a criminal offense enumerated in the Act related to public office or public employment.¹⁵⁶ For that reason, the Act applies to both the SERS and Public School Employees' Retirement System members.

¹⁵⁴ As considered in *Sandusky v. Pennsylvania State Emp. Ret. Bd.*, 127 A.3d 34 (Pa. Commwlth., 2015).

¹⁵⁵ As discussed later, this definition should include a reference to the fact that the public protective services employee receives regular remuneration as an officer, administrator or employee including any independent contractor or a person compensated on a fee basis.

¹⁵⁶ 43 P.S. § 1311 *et seq.*

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In September 2004, the Act was amended to include certain sex crimes in its list of criminal offenses. A member's pension could be forfeited because the member was convicted of one or more of the following crimes under the Act when committed by a *school employee* as defined in the Public School Employees' Retirement Code (PSERC)¹⁵⁷ against a *student*: rape, statutory sexual assault, involuntary deviate sexual intercourse, sexual assault, aggravated indecent assault, indecent assault, and indecent exposure (hereinafter referred to as sex crimes).

The Act refers to the PSERC for the definition of school employee. The PSERC defines a school employee as "Any person engaged in work relating to a public school for any governmental entity and for which work he is receiving regular remuneration as an officer, administrator or employee excluding, however, any independent contractor or a person compensated on a fee basis."¹⁵⁸

Consequently, the amended Act's language restricts pension forfeiture to *school employees* convicted of sex crimes whom are predominantly PSERS members. The term "school employee" should be broadened to include provisions for anyone receiving pension benefits who performs any services directly benefiting a public school or governmental entity, as well as any independent contractor and a person compensated on a fee basis receiving any form of pension benefits. Further, the changes should be added to the SERC so that the provision regarding sex crimes for school employees will clearly apply to school employees receiving SERS pension benefits.

Additionally, the amended Act limits pension forfeiture to members convicted of sex crimes against only *students* in a public school as defined in the PSERC. This limitation should be removed. When a member commits a sex crime in a public school through his or her public office/position or when the public employment placed the member in a position to commit the crime, public pension forfeiture needs to apply to the member regardless of whether the victim is a student. The Act should be expanded to address protective service employees, or any person engaged in work relating to protective services — for children or for adults who are mentally/physically challenged or incarcerated and therefore unable to give willing consent — with any governmental entity or a public school (as defined in Act 140) under the Child Protective Services Act, the Older Adults Protective Services Act, the Human Services Code, or the Prisons and Parole Code.

¹⁵⁷ It is important to note that certain "school employees" have the option of joining either SERS or PSERS including working for the Pennsylvania Department of Education, the Pennsylvania State University, the State System of Higher Education/universities, and certain community colleges or possibly another retirement plan. Therefore, as discussed later, the definitions of "school employee" and "public school" should also be included in the SERS Code. The SERS membership guidelines provide as follows, "Educational Employees If you work for the Pennsylvania Department of Education, the State System of Higher Education or its member universities, Penn State, or certain community colleges, you can choose to either join SERS or to join the Public School Employees' Retirement System, or, possibly, to join another retirement plan offered by your employer."
<http://sers.pa.gov/members-membership-in-sers.aspx>.

¹⁵⁸ 24 Pa.C.S. § 8102.

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For instance, in our testing of SERS' pension forfeiture cases described in the findings below, we found three instances where a SERS member was convicted of one of the sex crimes listed in the Act, but the individual **was able to keep their pension benefits**. This is because the Act requires the perpetrator of the applicable sex crimes to be a school employee and the victim to be a student, which does not apply to the majority of SERS members. The three instances in which a SERS member convicted of an enumerated sex crime but was able to keep their pension benefits are listed below:

- A Food Service Instructor at a state correctional institution administered by the PA Department of Corrections was convicted of Institutional Sexual Assault of an inmate.
- An employee of Polk Center administered by the Department of Human Services was convicted of Institutional Sexual Assault of a mentally-disabled resident.
- A prison guard trainee at a state correctional institution administered by the PA Department of Corrections was convicted of Indecent Exposure against an inmate.

The Act should be amended to allow for all participants in a public pension system convicted of one of the enumerated sex crimes against any protected individual¹⁵⁹, not just against a student, when committed by a school employee to be subject to pension forfeiture. Public employees and officials must, at all times, be accountable to the Commonwealth citizens and serve them with the utmost accountability, integrity, and loyalty. No public employee or official should be able to receive pension benefits after using his or her position to commit such heinous crimes.

Finding 6.2 –SERS determined convicted members' pension benefits were forfeited prior to obtaining legal review and approval.

The SERC requires public employers to provide information to SERS when requested by the Board.¹⁶⁰ SERS has adopted "Special Rules of Administrative Practice and Procedure" regarding implementation of the Forfeiture Act in its regulations¹⁶¹ that requires state employers to report

¹⁵⁹ We believe that this should include any child or adult who is mentally/physically challenged or incarcerated and therefore is unable to give willing consent.

¹⁶⁰ 71 Pa.C.S. § 5906(b) relating to "Records and information.": "At any time at the request of the board and at termination of service of a member, the head of department shall furnish service and compensation records and such other information as the board may require and shall maintain and preserve such records as the board may direct for the expeditious discharge of its duties." The definition of "Head of department" in the SERC is as follows: "The chief administrative officer of the department, the chairman or executive director of the agency, authority, or independent board or commission, the Court Administrator of Pennsylvania, and the Chief Clerk of the Senate, or the Chief Clerk of the House of Representatives." See also 71 Pa.C.S. § 5102.

¹⁶¹ 4 Pa. Code §§ 250.11 to 250.15.

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potential pension forfeiture situations involving its public employees to the SERS Board.¹⁶² Additionally, SERS has a Management Directive which states that the head of the employer agency shall provide notice to SERS' Bureau of Benefit Administration as soon as a SERS member is charged with a crime and again when the member is convicted or pleads guilty/no defense to the charges.¹⁶³ Beyond employer reporting, SERS also identifies potential pension forfeiture cases through:

- Subscriptions to online newspaper services.
- Online media searches.
- Attorneys/prosecutors.
- Anonymous tip hotline.

Based on its statutory authority, its regulation, its management directive, and other supplemental procedures described above to identify potential pension forfeiture cases, it appears SERS' discovery process for potential pension forfeiture cases is comprehensive.

A SERS' Administrative Officer (AO) within the Bureau of Benefit Administration is responsible for reviewing, processing, and monitoring the status of potential pension forfeiture cases. According to SERS' written procedures, the AO is to obtain a legal opinion from the SERS' Office of Chief Counsel (OCC) only if the case involves a federal crime or judicial members. Otherwise, the AO makes the pension forfeiture legal determinations.

Once the AO makes a determination, she composes and sends a letter to the SERS member informing them of the pension forfeiture. Afterwards, the AO sends a memo to the Chief Counsel and other executives¹⁶⁴ stating the facts and determination of the case. Although SERS management verbally stated that the letters to the SERS members and executive staff are typically sent the same day, our testing of pension forfeiture cases revealed the memo was sent anywhere from the same day to almost 4 months later.

Deciding whether pension forfeiture applies to a SERS member involves interpreting the Act. This determination, if not made by the SERS' OCC, needs to be reviewed and approved by the OCC prior to sending the letter to the member explaining the details and determination of the case. This is imperative, especially given the noted time delays between sending the letter to the SERS member and sending the memo to the OCC.

According to SERS management, the letter to the member is sent immediately, prior to any review, because it is time sensitive and the notification of the member is priority. Additionally, SERS management stated that the OCC is kept apprised of all activity related to the Act and is

¹⁶² 4 Pa. Code § 250.13(a) requires employers to on "its own initiative," report to SERS any possible pension forfeiture cases.

¹⁶³ Management Directive 570.15 Amended "Reporting Potential Public Employee Pension Forfeiture Crimes to the State Employees' Retirement System."

¹⁶⁴ The other executives are the Director of the Office of Member Services, Director of Communications and Legislation, Director of Bureau of Benefit Administration, Press Secretary, and Executive Director.

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consulted prior to the determination if assistance is needed. However, without having the OCC review and formally approve all legal determinations, there is a risk that an erroneous determination may be made and communicated to the SERS member.

Finding 6.3 – SERS' lack of supervisory review of pension forfeiture processing and determinations made, as well as inadequate written procedures, resulted in inconsistent and incomplete case documentation.

SERS' written procedures for pension forfeiture outline the processes related to receiving notification of potential pension forfeiture cases, reviewing court documents, recuperating overpayment of annuity benefits, and the appeal process. It also includes the individuals involved, information systems used, and documents to archive in the member's pension file. If the case is determined to be not subject to the Act, a memo stating that fact and the justification is archived in the member's pension file.

Although the written procedures state that the AO should monitor the status of the case, it does not include details regarding how to document the monitoring. SERS management stated that the written procedures are sufficient and clearly indicate that the AO is to continuously monitor the case until closure. However, continuous monitoring is not defined and no other details are included. Monitoring the cases is a key process to ensure the status of the cases is regularly confirmed/updated and the determinations of the cases are timely. Without detailed written procedures, including defining how often is "continuous," the monitoring may be inadequate to address pertinent facts of the case, be inconsistently completed with insufficient or inaccurate documentation, or be untimely.

In practice, the AO informally maintains a tracking spreadsheet to monitor the cases. However, we found this tracking spreadsheet lacked important case information, including how and when the case was identified and the date when the final pension forfeiture determination was made. The AO stated she does not record this information on the tracking spreadsheet because it is not relevant to her, but all the key dates are documented within the member's file. This informal spreadsheet is the only place that contains a historical, comprehensive list of all pension forfeiture cases over time. Having the essential case information easily accessible on the tracking spreadsheet would eliminate the time and effort involved in searching for a date within several documents maintained in each individual case file.

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We tested SERS' pension forfeiture case files to determine if SERS made pension forfeiture determinations in accordance with the Act and its written procedures. SERS identified and closed 109 pension forfeiture cases from January 1, 2013, through October 31, 2016.

Results of Closed Cases	Number of Cases
Pension was Forfeited	40
Pension was not Forfeited	69
Total Closed Cases	109

Source: Pension forfeiture list of cases provided by SERS. We performed certain tests and deemed this data to be reliable with a limitation that no one independent source existed to ensure the population is complete as noted in Appendix A.

Out of the 109 pension forfeiture cases, 40 cases were determined to be subject to the Act and resulted in a pension forfeiture. The remaining 69 cases were not subject to the Act, and the member's pension benefits were not forfeited. We selected 29 cases to test, including 11 cases that resulted in pension forfeiture and 18 cases that did not result in pension forfeiture.

Based on our test procedures, we found that SERS accurately determined whether pension forfeiture was warranted in accordance with the Act and its written procedures. Additionally, SERS sufficiently sought recoupment for any annuity payments made after the date of conviction, with assistance from the Office of the Attorney General. However, SERS management did not perform a supervisory review to ensure the cases were processed according to SERS' written procedures, including monitoring the cases and retaining documents in each member's file.

Having a supervisory review process in place is a good business practice¹⁶⁵ to ensure that the written procedures are operating as intended and the correct determinations were made. Without this second level of review, there is a risk for inconsistent, incomplete, or inaccurate treatment of cases. In fact, during our testing procedures, we found 3 of the 18 cases that were not subject to the Act had incomplete or missing court documents showing the ultimate disposal of the charges. Additionally, the tracking spreadsheet informally used to monitor cases had several minor errors and inconsistencies.

¹⁶⁵ Standards for Internal Control in the Federal Government, issued by the Comptroller General of the United States, page 65, states in part "Management performs ongoing monitoring of the design and operating effectiveness of the internal control system as part of the normal course of operations. Ongoing monitoring includes regular management and supervisory activities, comparisons, reconciliations, and other routine actions."

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Recommendations for Issue Area 6

We recommend that the **General Assembly** consider strengthening the provisions of Act 140 of 1978 and the State Employees' Retirement Code (SERS Code) as follows:

1. Broaden the language limiting application of the Act 140 sex crimes committed by a "school employee" against a "student" in the "public school" within the course of his/her employment; thus, expanding the application to sex crimes committed by *any* SERS member against any individual who is present in a public school¹⁶⁶ or involved in school-related business.¹⁶⁷

Our suggested change to Section 1312 of the Act pertaining to SERS includes the following:

"Crimes related to public office or public employment.' ...Any of the criminal offenses set forth in Subchapter B of Chapter 31 (relating to definition of offenses) [of the Crimes Code] when the criminal offense is committed by a school employee as defined in 24 Pa.C.S. § 8102 (relating to definitions) and 71 Pa.C.S. § 5102 (relating to definitions) against any individual present in a public school or involved in school-related business." ~~student.~~

Add definitions of "public school" and "school employee" to the SERS Code¹⁶⁸ and include provision for anyone receiving pension benefits who performs any services directly benefiting a public school, as well as any independent contractor or a person compensated on a fee basis as carried over from the PSERC as follows:

"School employee.' Any person engaged in work relating to a public school for any governmental entity for which work he is receiving regular remuneration as an officer, administrator or employee or any person receiving pension benefits who performs any services directly benefiting a public school including excluding, ~~however,~~ any independent contractor or a person compensated on a fee basis."¹⁶⁹

¹⁶⁶ As noted earlier, employees of the Pennsylvania State University, the State System of Higher Education/universities, and certain community colleges have the option of joining SERS or PSERS or another retirement plan. <http://sers.pa.gov/members-membership-in-sers.aspx>.

¹⁶⁷ 43 P.S. § 1312.

¹⁶⁸ Please note that the definition of "public school" and "school employee" are currently in the Public School Employee Retirement Code (PSERC).

¹⁶⁹ 24 Pa.C.S. § 8102.

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2. Add a narrowly tailored definition of “protective service employee” to Section 5102 of the SERS Code¹⁷⁰ to include those working with children or older, mentally/physically challenged and/or incarcerated adults who are not able to give informed consent and expand Section 1312 of the Act accordingly.¹⁷¹

Our suggested addition to Section 5102 of the SERS Code¹⁷² includes:

“Protective service employee’ Any person engaged in work with any governmental entity or public school relating to protective services for children or older, mentally/physically challenged, or incarcerated adults unable to give willing consent and is protected under the Child Protective Services Act, the Older Adults Protective Services Act, the Human Services Code, or the Prisons and Parole Code. The person subject to this definition must be receiving regular remuneration as an officer, administrator or employee or be receiving pension benefits who performs any services directly benefiting a governmental entity or public school including any independent contractor or a person compensated on a fee basis.”

Further, our suggested change to Section 1312 of the Act¹⁷³ pertaining to SERS includes:

“Crimes related to public office or public employment.’ ...Any of the criminal offenses set forth in Subchapter B of Chapter 31 (relating to definition of offenses) [of the Crimes Code] when the criminal offense is committed by a school employee as defined in 24 Pa.C.S. § 8102 (relating to definitions) and 71 Pa.C.S. § 5102 (relating to definitions) or protective service employee as defined in 71 Pa.C.S. § 5102 (relating to definitions) against any individual present in a public school or involved in school-related business or any individual receiving protective services pursuant to the Child Protective Services Act, the Older Adults Protective Services Act, the Human Services Code, or the Prisons and Parole Code.” student.”

We recommend that **SERS**:

3. Require the Office of Chief Counsel to review and formally approve all pension forfeiture determinations prior to sending the letter containing the results to the SERS member.
4. Develop and implement supervisory review procedures over the processing of pension forfeiture cases to ensure the processing and monitoring of the cases is complete, consistent, and in compliance with SERS’ written procedures, and the forfeiture determinations are accurate and timely.

¹⁷⁰ 71 Pa.C.S. § 5102.

¹⁷¹ 43 P.S. § 1312.

¹⁷² 71 Pa.C.S. § 5102.

¹⁷³ 43 P.S. § 1312.

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5. Formalize the use of a tracking spreadsheet to monitor the status of cases to include how and when the case was identified and the date of SERS' final determination.
6. Strengthen its written procedures for pension forfeitures to include the Office of Chief Counsel's review and formal approval of all pension forfeiture determinations, supervisory review of the processing and monitoring of cases to ensure accurate and timely forfeiture determinations, and the use of a tracking spreadsheet to evidence oversight of the pension forfeiture cases.

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Status of Prior Audit Findings

Our prior audit of the State Employees' Retirement System (SERS) covered the period January 1, 2001, through December 31, 2004, and contained six chapters with a total of 15 findings. Five of the 15 prior findings did not offer recommendations. The section below provides the status of the remaining 10 prior findings, which contained 18 recommendations, and offers one additional recommendation to eliminate one of the deficiencies currently identified. The remaining deficiencies are discussed in our current audit report.

Prior Finding 1.1 – SERS' Board policies regarding conflicts of interest require improvement to ensure that the policies properly reflect the fiduciary duties of Board members of a public pension plan like SERS. (Partially Resolved)

In our prior audit, we found that the SERS' Bylaws adopted the Pennsylvania Public Official and Employees Ethics Act (Ethics Act)¹⁷⁴ provisions regarding conflicts of interest. We concluded that these provisions were ineffective for addressing conflicts of interest that arise for Board members acting in their fiduciary capacities. Specifically, the Ethics Act and SERS' Bylaws did not contain monetary threshold amounts for which Board members would be required to disclose campaign contributions from firms that had business dealings with SERS. As a result of the absence of a monetary threshold, all campaign contributions did not necessarily have to be disclosed so that the other Board members, the staff, and the public, could be apprised of the relationships individual Board members had with firms doing business with SERS. We noted in the prior audit that there were instances in which Board meeting minutes revealed that members may have been uncertain or may have misunderstood when it was necessary for them to recuse themselves from voting.

We recommended that SERS issue guidelines regarding conflicts of interest for Board members and their designees that exceed those of the Ethics Act by implementing the following: (1) Defining conflict of interest as it specifically pertains to a Board member's fiduciary duty, including establishing a minimum campaign contribution amount that would trigger action by the Board member and indicating under what circumstances a Board member should publicly disclose a potential conflict, as well as abstain from voting and disclose on the record the nature of the potential conflict; (2) Requiring the Board's Secretary to obtain copies of all campaign finance reports that Board members, who are elected officials, are required to file with the Department of State so that the Board Secretary can assist Board members in identifying specific instances in which a Board member's vote would violate the conflict of interest policy; and (3) Requiring all investment advisory consultants and investment managers to provide an up-to-date comprehensive disclosure statement of all campaign contributions made by principals or employees of their investment firm to Board members, who are elected officials, each time that

¹⁷⁴ 65 Pa.C.S. § 1101 *et seq.*

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consultant or manager has a proposal before the Board so that the Board Secretary can assist Board members in complying with the conflict of interest policy.

Status as of this audit

SERS' Board established an Ethical Conduct Policy in January 2007, which provides that the trustees must recuse themselves from a vote by the Board on any matter that could be perceived as involving a conflict of interest with respect to them or any of their immediate family members, no matter what amount or value. Further, the policy includes a section detailing situations that would create potential conflicts of interest, such as personal bias or prejudice, family members' financial interest or material benefit, or receiving gifts, and addresses how the potential conflicts should be disclosed to the Board. Therefore, this prior audit recommendation has been adequately implemented.

SERS' management stated that it does not require the Board's Secretary to obtain copies of all required Department of State campaign finance reports for the Board members who are also elected officials because it does not have the staff available to examine or audit these reports. SERS' management relies on the Board members to recuse themselves from voting if a potential conflict of interest exists, as all Board members are subject to the Board's recusal policy in connection with the investment approval process. We disagree that solely relying on Board member's self-reporting is adequate. This prior audit recommendation **has not been implemented**. Further evaluation of this topic and our recommendations can be found in Finding 4.2 of the current audit report.

With regard to the third recommendation, SERS' amended its Master Due Diligence Questionnaire (DDQ), which is completed by each prospective manager and consultant, to require firms to disclose any contributions of campaign funds to any elected officials. The DDQ also requires all firms to certify it is in compliance with the Securities Exchange Commission's Rule 206(4)-5 (Pay to Play),¹⁷⁵ which refers to various arrangements by which investment advisers may seek to influence the award of advisory business by making or soliciting political contributions to the government officials charged with awarding such business. Additionally, SERS' management explained that when a potential relationship between the consultant and a recommended investment manager is identified, SERS' Investment Office ensures that the relationship is disclosed in the materials presented to the Board before the Board interviews the investment manager. We verified that SERS' current DDQ requires disclosure of this information and we also reviewed a presentation given to the Board discussing investment manager/consultant relationships. Based on these audit procedures, it appears that SERS' procedures to identify potentially conflicting relationships between consultants and managers and report these relationships to the Board prior to contracting is adequate. Therefore, this prior audit recommendation has been adequately implemented.

¹⁷⁵ <https://www.sec.gov/rules/final/2010/ia-3043.pdf>.

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Prior Finding 1.2 – SERS did not maintain a formal training program for its Board members or sufficiently track the number of training programs attended by each Board member. (Not Resolved)

In our prior audit, we did not find evidence that SERS maintained a formal training program for its Board members and designees. In fact, SERS did not have a training policy and did not track how much training each Board member and/or designee received. Although training sessions were made available to Board members, training records were not maintained.

We recommended that SERS' staff develop, with the Board's approval, a formal Board member training program, including objectives and guidelines for new and existing Board members to include minimum annual training requirements. Additionally, we recommended that SERS continue with in-house educational presentations, including a review of the prudence standard to which the Board members must adhere, while at the same time maintaining educational training records for each Board member.

Status as of this audit

Although SERS management created and implemented a board member orientation book in 2006, the remaining training issues were to be addressed in a longer term goal of a governance project. Funston Advisory Services, LLC reviewed the Board and organizational structure of SERS and issued its final report to the SERS Board in March 2016. The final report contained a draft Board Education Policy. Once the education policy is reviewed and approved by the Board it will be combined into the SERS Governance Policy Manual which is to be presented to the Board in the summer of 2017.

The draft Board Education Policy provides that each Board member should attempt to receive or attend at least four hours of training annually. The policy also lists core competencies of which Board members should aspire to develop a collective understanding. The draft policy does not address tracking or record keeping for the educational sessions.

During our audit period, we found that SERS did not conduct educational sessions for calendar year 2013 and the majority of 2014. Beginning in October 2014, SERS began conducting regular educational sessions at Board meetings. Additionally, SERS did not track the training and/or education each Board member or designee received. Therefore, our recommendations **have not been implemented** and this prior audit finding has not been resolved. Further evaluation of this topic can be seen in Finding 1.1 of the current audit report.

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Prior Finding 1.3 – SERS' Internal Audit Division lacked organizational independence. (Partially Resolved)

During our prior audit, we reported that the SERS' Internal Audit Division operated in an environment that did not permit its internal auditors to have complete audit independence. SERS' Statement of Investment Policy (Investment Policy) addressed independence and required its internal auditor to report to the Executive Director and, in certain circumstances, directly to the Board. In application, however, we noted that the internal auditor reported to neither the Executive Director nor the Board, but rather the Director of Auditing, Reporting, and Compliance, which is audited by the Internal Audit Division. As a result, we found that SERS' Internal Audit Division clearly did not adhere to the independence requirements of Institute of Internal Auditors (IIA) Standard 1100.¹⁷⁶

We also reported that no organizational oversight of SERS' internal audit function existed. The Board's Audit Committee did not appear to have the authority to oversee the work of the Internal Audit Division. Finally, we found that during the audit period, SERS' Internal Audit Division operated without an approved charter.

We recommended that: (1) SERS realign its current organizational structure so that the Internal Audit Division reports to both the Executive Director and the Board's Audit Committee. The Internal Auditor should periodically update SERS' Board and senior management on the Internal Audit Division's purpose, authority, responsibilities, and performance relative to its audit plan; (2) As part of this organizational realignment, the Board's Audit Committee assume the responsibility for assuring and maintaining the independence of the internal audit process, ensuring that there are no unjustified restrictions or limitations placed on the internal audit staff, reviewing with management and the Internal Auditor the charter, objectives, plans, activities, staffing, and organizational structure of the internal audit function, and reviewing the effectiveness of the internal audit function, including compliance with IIA standards; and (3) To strengthen the position of the Internal Audit Division, its charter be presented to the SERS Board for approval consistent with the IIA's Standard 1000.

Status as of this audit

SERS' Statement of Investment Policy, amended in January 2016, states the Director of Internal Audits reports functionally to the Audit Committee and administratively to the Executive Director. SERS management stated that the Internal Audit Division staff began reporting to both the SERS' Audit Committee and Executive Director in October 2003. We obtained and reviewed the organizational chart of SERS' Internal Audit Division (as of January 2016) which depicts the Internal Audit Division reporting to both the Executive Director and the SERS' Audit Committee. Therefore, this prior audit recommendation has been adequately implemented.

¹⁷⁶ <https://na.theiia.org/standards-guidance/Public%20Documents/IPPF%202013%20English.pdf>, pages 3-5.

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The Audit Committee Charter states it is responsible to oversee the planned scope of work of the internal auditors, the results of their work, changes in the scope of their work, and the extent and appropriateness of their activities. The Audit Committee also is empowered to review the effectiveness of the internal audit function and current industry standards. We reviewed the Internal Audit Division's audit plans for our audit period. Each plan contained a comprehensive description of the Internal Audit Division's mission, risk assessment, and identified the level of high, moderate, or low risk. Additionally, we reviewed the minutes of the quarterly meetings between the Audit Committee and the Internal Audit Division staff held between January 1, 2013, and December 31, 2016, which included discussions on a variety of topics, including audit objectives, plans, activities, staffing, budget qualifications, and organizational structure of the Internal Audit Division. Therefore, this prior audit recommendation has been adequately implemented.

Although the Audit Committee has a charter, the Internal Audit Division continues to operate without one. SERS management believes that the Audit Committee charter adequately serves to address the responsibilities of the Internal Audit Division. We disagree. Both entities need charters to outline their purpose, authority, and responsibilities.¹⁷⁷ The Internal Audit Division charter also needs to address the importance of independence and how it is maintained and monitored. Without this document, the internal audit function may not operate as intended. Therefore, this prior audit recommendation **has not been implemented.**

Recommendation

We recommend that SERS:

1. Develop an Internal Audit Division Charter, defining its purpose, authority, and responsibilities, and have it approved by the Board. The charter should include, at a minimum:
 - a. Defining the nature of the Internal Auditor Division's relationship to the Audit Committee, Board, and Executive Director.
 - b. Maintaining the division's independence and objectivity, including prohibiting the reassignment of internal audit division staff to duties that compromise its ability to maintain independence.
 - c. Conducting risk assessments of SERS' internal controls by the division on a recurring basis.

¹⁷⁷ The IIA Standard 1000 defines an internal audit charter as "a formal document that defines the internal audit activity's purpose, authority, and responsibility. The internal audit charter establishes the internal audit activity's position within the organization, including the nature of the chief audit executive's functional reporting relationship with the board; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities." <<https://na.theiia.org/standards-guidance/Public%20Documents/IPPF%202013%20English.pdf>>, page 3.

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- d. Establishing an annual audit plan by the division to be reviewed and approved by the Audit Committee.

Prior Finding 2.1 – Although SERS is subject to oversight by the Governor's Office of Administration (OA), OA appears to hamper neither SERS' independence to make investments nor its mission. (Resolved)

In our prior audit, SERS' staff indicated that the impact of OA's oversight is limited to administrative matters and does not hamper SERS' independence to make investments or its ability to achieve its mission.

We recommended that SERS make a more concerted effort to work closely with OA in order to ensure that the impact of administrative limitations is diminished, such as having a staff member acting as an OA liaison.

Status as of this audit

SERS management stated there have been no administrative issues with OA during the audit period. SERS specifically stated that SERS' Chief Financial Officer attends quarterly fiscal update meetings led by OA staff, SERS' Human Resources Director attends monthly update meetings led by OA staff, and the SERS' Director and Deputy Director of Member Services have daily interactions with OA staff regarding eligibility interpretations of employee benefits specific to retirees. Therefore, this prior audit finding is resolved.

Prior Finding 2.2 – The Governor's Office of General Counsel (OGC) on the whole appears to present no impediments that hamper SERS' independence to make investments nor its mission. (Resolved)

In our prior audit, we discussed the advantages and disadvantages of the current structure in place, which provides that the Governor's OGC provide legal support to SERS.

We recommended that: (1) SERS' legal staff make a concerted effort to work closely with OGC in order to help diminish any delays and unnecessary burdens that may arise as a result of OGC policies and procedures; and (2) If the relationship with OGC is determined to be problematic, seek complete independence from OGC.

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Status as of this audit

SERS' management stated that there have been no issues or concerns in working with the Governor's Office of General Counsel. As it appears that SERS continues to work cooperatively with OGC, and its independence and mission continue to be unhampered, this prior audit finding is resolved.

Prior Finding 2.3 – SERS has not been consistent with regard to identifying the prudence standard to which it has determined the Board is subject. (Resolved)

In our prior audit, we found that SERS had not consistently identified its prudence standard as either "prudent person" or "prudent investor." According to its Chief Counsel, the "prudent investor standard" is preferred. However, we found inconsistency in the standard used within various documents.

We recommended that: (1) SERS ensure that all of its documents consistently refer to the Prudent Investor Rule, which is the prudence standard to which SERS' Chief Counsel had determined the SERS Board members are subject; and (2) SERS Board members and their designees be provided with an immediate orientation session, a member orientation packet, and an additional training program about the prudence standard to which they are subject and their obligations and accountability to SERS members.

Status as of this audit

Currently, SERS' Statement of Investment Policy, Private Equity Statement of Investment Policy, and annual budget reports submitted to the General Assembly consistently incorporate the Prudent Investor Rule, by name or by language.

In 2006, SERS provided the Board members with training on the Prudent Investor Rule and their responsibilities under this level of care. Additionally, the orientation materials for new SERS Board members and designees address the Prudent Investor Rule. Therefore, this prior finding is resolved.

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Prior Finding 2.4 – It is unclear whether the prudence language in the SERS Retirement Code, which was adopted in 1974, is adequate to reflect the Prudent Investor Rule contained in the Uniform Prudent Investor Act as adopted in 1994 and amended into the Pennsylvania Probate Code in 1999. (Resolved)

We found that the SERS Board appeared to adhere to the requirements outlined in the Prudent Investor Rule, but questioned whether the prudence language in the SERS Retirement Code contains all elements to encompass modern portfolio theory and investment diversification principles as contained in the Prudent Investor Rule.

We recommended that (1) SERS seek a legislative change to the provision in the SERS Retirement Code containing the Board member's prudence standard to ensure that it encompasses all the key elements of the Prudent Investor Rule. Alternatively, or in the meantime, SERS should amend its investment policy accordingly; and (2) The General Assembly consider amending the SERS Retirement Code to reflect the Prudent Investor Rule.

Status as of this audit

SERS' management stated that there have been no amendments to the SERS' Retirement Code that would have provided an opportunity to revise this language. Since SERS has incorporated the higher standard of the Prudent Investor Rule consistently into all of its policies and contracts and legislative change is outside SERS' control, we consider this matter resolved as to SERS' potential actions. However, as noted in our recommendations for Issue Area 1, we do recommend that the General Assembly amend the SERC to include a clarification of the Board trustees' fiduciary duties and the standard to which they are subject under Section 5931(a) of the SERC.¹⁷⁸

Prior Finding 3.2 – SERS adequately monitored the relationships between its three investment advisory consultants and its external investment managers; however, SERS did not require annual disclosure documentation in its contracts with the consultants. (Resolved)

We reported that SERS monitored the relationships between the consultants and the investment managers by requiring its investment consultants to submit a copy of an annual report detailing the types of services they provide, the names of business to which they provide services, backgrounds of their principals, as well as a list of their other business activities. Our review of the documents provided by the three consultants disclosed both compliance by the consultants and no potential conflicts of interest. SERS' staff informed us that they would request this information annually from its consultants.

¹⁷⁸ 71 Pa.C.S. § 5931(a).

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We recommended that SERS amend the contracts with all three investment consultants to include annual disclosure documentation as a contractual requirement and include such a requirement in future contracts.

Status as of this audit

We reviewed two of the four consultant contracts with SERS during our current audit period and verified that it included a "Duty to Disclose" section. Essentially, this section requires that each consultant immediately and fully disclose any conflicts of interest or disclosable interest in writing to SERS in which the consultant has become aware or is made aware. We refer the reader to current audit report Finding 3.1 for more discussion about the results of our testing of the duty to disclose process for consultants. We consider this matter resolved.

Prior Finding 5.3 - The Securities Litigation Committee did not document its meetings and only twice during the audit period were notations made in the Board's meeting minutes that securities litigation activity was discussed. (Resolved)

In our prior audit, we found that the SERS' Securities Litigation Committee did not prepare and maintain meeting minutes. Additionally, we found only two instances during the audit period where class action litigation activity was indicated on the executive session agendas. Other than these two occasions, auditors found very limited documentation of SERS' Securities Litigation Committee activity.

We recommended that the Securities Litigation Committee document its meetings in written form.

Status as of this audit

We reviewed SERS' Securities Litigation Committee meeting minutes and other communications including emails and formal memorandums for the period January 2013 through August 2016. Our review revealed that SERS' Chief Counsel regularly communicated to the SERS' Board members regarding such matters as: amendments to the SERS' Securities Litigation Policy, consideration of new litigation matters, and updates to current securities cases involving SERS, during the audit period.

Additionally, we reviewed all 33 of the Board's executive session meeting agendas for the period January 2013 through January 2017. We found that each executive session meeting agenda had a litigation update section, indicating that the Board members were being updated on new and ongoing SERS' securities litigation matters. Based on these observations, the prior audit finding is resolved.

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Prior Finding 6.1 - SERS made a conscientious effort to make investments in Pennsylvania and reported these investments to the General Assembly. (Resolved)

In our prior audit, we stated that the Pennsylvania General Assembly demonstrates its interest in the investment of Pennsylvania businesses as a means of promoting community and economic development by articulating in Section 5931(e) of the Retirement Code:

The [Board] may, when possible and consistent with its fiduciary duties ... consider whether an investment in any project or business enhances and promotes the general welfare of this Commonwealth and its citizens, including, but not limited to, **investments that increase and enhance the employment of Commonwealth residents, encourage the construction and retention of adequate housing and stimulate further investment and economic activity in this Commonwealth.**¹⁷⁹

We reported that SERS invested in projects and businesses that have enhanced and promoted the general welfare of the Commonwealth and its citizens, when possible and consistent with its fiduciary duties.

We recommended that the SERS' Board continue to make a conscientious effort to invest in Pennsylvania projects and businesses consistent with the requirements of law and its fiduciary duty to SERS' members.

Status as of this audit

The four SERS' budget reports submitted to the General Assembly covering our audit period contained detailed sections on both Pennsylvania-based investment managers and investments in Pennsylvania. We found that the reports contained the fair value of investments by asset class, provided square feet of real estate portfolio investments, the number of dollars invested in Pennsylvania stocks, and the number of Pennsylvania-based limited partnerships. Finally, the top performing Pennsylvania stocks including the year's return is provided by SERS. Therefore, this prior finding has been resolved.

¹⁷⁹ 71 Pa.C.S. § 5931(e). (Emphasis added.)

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Agency's Response and Auditors' Conclusions

We provided copies of our draft audit findings and status of prior findings and related recommendations to the State Employees' Retirement System for its review. On the pages that follow, we included SERS' response in its entirety. Following the agency's response is our auditors' conclusions section.

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Audit Response from the State Employees' Retirement System



July 24, 2017

Honorable Eugene DePasquale
Department of Auditor General
Room 229, Finance Building
Harrisburg, Pennsylvania 17120-0018

**Reference: State Employees' Retirement System (SERS) Performance Audit Report
Management Responses to Findings and Recommendations**

Dear Auditor General DePasquale:

Please find attached SERS' responses to the findings and recommendations made by the Department of Auditor General (DAG) resulting from your performance audit of SERS covering the period January 1, 2013, through March 31, 2017. On behalf of the staff, I appreciate the thorough and thoughtful review of the SERS business processes and practices. I also wish to commend the DAG team for its professional conduct through all our interactions.

We are pleased you and your staff found SERS to be a professional and sound organization, as evidenced by the outcome of your audit, and the findings and recommendations generated from that effort. Moreover, SERS is very pleased that your report does not include any findings of fraud, waste or abuse. Nor does it raise violations of any statute, Retirement Code provision, regulation, management directive, by-law provision or other policy specific to those areas within the scope of the audit. For those findings and recommendations that are directed to the General Assembly, SERS has no authority on such matters and accordingly, makes no response to those items. For those findings and recommendations with which SERS concurs or will consider, management will develop an implementation plan contingent on the impact of the item.

As was communicated to and acknowledged by your staff, SERS is in the final stages of a project to enhance the board and agency's governance structure and policies. This effort includes development of a comprehensive governance manual that provides a framework for the SERS board, its committees, duties, powers and responsibilities. We note and appreciate that many recommendations of the audit validate the board's direction in that area, and we believe the completion of this project will address several of the DAG's recommendations, further improving the effectiveness of the SERS Board to better serve the needs of the System's participants and employers, with corresponding benefits for the taxpayers of Pennsylvania.

SERS remains dedicated to ensuring that the retirement benefits earned by state employees are secure, well-managed and delivered in a professional manner. The SERS board and staff believe that it is necessary, appropriate and in the best interest of its members, employers and the taxpayers of Pennsylvania to continually evaluate its governance and operations, and to enhance processes and procedures when appropriate. We appreciate the input of the DAG to assist SERS in those ongoing efforts.

Sincerely,

A handwritten signature in blue ink, appearing to read "David E. Durbin".

David E. Durbin
Executive Director

Enclosure

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ISSUE AREA 1 – SERS failed to develop and implement a formal Board education program; legislative and procedural improvements are needed.

Recommendations for Issue Area 1

We recommend that the General Assembly amend the PA State Employees Retirement Code to:

1. Include a minimum amount of investment expertise the Board as a whole must possess in order to make informed investment decisions and promote effective oversight of investment operations.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

2. Require that all new board members and designees be mandated to attend a board orientation session when appointed to the board.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

3. Mandate a minimum amount of continuing education or training each Board member and designee must obtain annually, specifying the minimum amount of hours of training and the core subject matters the trainings must encompass.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS. However, SERS notes that the recently enacted Act 2017-5 imposes an eight-hour annual training requirement for board members.

4. Clarify that designees are subject to the same mandated training and education as Board members.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

5. Include a clarification of Board trustees' fiduciary duties and the standard to which they are subject under Section 5931(a) of the SERC, 71 Pa.C.S. § 5931(a).

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

We recommend that SERS and its Board of Trustees:

6. Obtain and maintain biographies of each Board member and designee to evidence educational, career, or other experience related to key Board processes, including institutional investments.

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SERS RESPONSE: CONCUR – To the extent the information is available, SERS will continue to maintain and publicly display Board biographies.

7. Include Board member biographies on the SERS website to increase transparency.

SERS RESPONSE: CONCUR– To the extent the information is available, SERS will continue to maintain and publicly display Board biographies.

8. Finalize, adopt, and implement its draft Education Policy.

SERS RESPONSE: CONCUR – SERS will present a draft policy incorporating Act 2017-5 to the board for consideration at the July 2017 meeting.

9. Establish and implement a provision within the Board's adopted Education Policy to require the Board Liaison (or other individual separate from the Board) to track every educational session by Board member and designee, noting the length of the training in hours and the subject matter of each session.

SERS RESPONSE: CONCUR –SERS has assigned a manager of board education and training has been assigned in the executive office. This position will identify education and training opportunities, coordinate attendance, and monitor progress.

ISSUE AREA 2 – Although SERS' investment strategy decision-making within its asset allocation policy appears standard, SERS should strive to lower investment expenses. SERS should take a leadership role in the public pension sector by continuing to improve its reporting of investment expenses and fund performance.

Recommendations for Issue Area 2

We recommend that SERS and its Board of Trustees:

1. Report all investment expenses, including management fees, performance fees, fund expenses, and portfolio-company charges, in its Comprehensive Annual Financial Reports, other reports, and public website.

SERS RESPONSE: WILL CONSIDER - As noted by DAG, SERS' reporting of its investment expenses and fund performance is better than the majority of other state pension systems. SERS will continue to calculate and report performance management fees consistent with its current processes. SERS remains committed to its on-going evaluation of the value and resources required to implement the Institutional Limited Partners Association (ILPA) reporting template.

2. Contractually require investment managers to distinctly identify and report all investment fees and expenses incurred by SERS.

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SERS RESPONSE: WILL CONSIDER - SERS will evaluate the value of implementing the ILPA reporting template relative to the cost and resources required to manage such reporting. If value exceeds costs and the resources are available, SERS may consider adding the ILPA reporting template as a side letter term in our future negotiation process.

3. Report investment performance on both a gross-of-fee and net-of-fee basis in its Comprehensive Annual Financial Reports, other reports, and public website.

SERS RESPONSE: WILL CONSIDER - As noted by DAG, SERS' reporting of its investment expenses and fund performance is better than the majority of other state pension systems. SERS will evaluate the value and feasibility of reporting gross of fee returns on a prospective basis for private equity limited partnership structures.

4. Evaluate the costs and benefits of utilizing internal investment managers for certain asset classes to lessen the multi-million dollar fees to external managers.

SERS RESPONSE: WILL CONSIDER - SERS will evaluate the feasibility of managing assets internally to lessen fees paid to external investment managers.

ISSUE AREA 3 – SERS properly procured and monitored its investment consultants and managers, but inadequately pursued competitive offers, failed to document fees negotiations, and lacked written procedures for monitoring private investments.

Recommendations for Issue Area 3

We recommend that SERS:

1. Adopt an investment fee policy that details the measures and techniques used to obtain lower fees, such as determining what fees similar investors are paying and making these fee comparisons part of the negotiation process.

SERS RESPONSE: WILL CONSIDER - SERS will research and evaluate the merits of developing a fee policy that will assist in SERS' efforts to negotiate the lowest fees possible.

2. Prudently negotiate fee structures with investment managers to obtain the lowest fees possible.

SERS RESPONSE: CONCUR - SERS' standard operating practice to ensure that it is negotiating the lowest fees possible while considering the investment's quality, demand, and competing investment opportunities with similar risk, return, and liquidity profiles.

3. Document all fee structure discussions and negotiations between SERS and the investment manager, including why the fee structure was determined to be reasonable and a justification if the initial fee schedule was unable to be altered/lowered.

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SERS RESPONSE: CONCUR - SERS will include documentation of its fee negotiations in its due diligence checklist.

4. Develop written monitoring procedures for the processes used to monitor both quantitative and qualitative measures for private equity investments, including specific aspects to review, a list of the individuals responsible for reviewing, how monitoring results are to be reported to management, and how to address issues that may affect manager retention.

SERS RESPONSE: CONCUR - SERS will incorporate written monitoring procedures for private equity investments in its *Monitoring Investments and Advisors* process.

5. Use a competitive process to procure investment consultants and managers and consider more than one firm for each contract/agreement.

SERS RESPONSE: CONCUR - SERS will continue to follow its *Hiring and Managing Investment Consultants* process, use a competitive process to hire investment consultants, and evaluate more than one firm for each service.

ISSUE AREA 4 – Despite fulfilling its statutory duties and responsibilities, the SERS Board's composition, vague ethics policy, and nonexistent attendance policy jeopardizes its level of independence and reliability.

Recommendations for Issue Area 4

We recommend that the General Assembly amend the State Employees Retirement Code to:

1. Require regular attendance by the board members or their designee(s).

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

2. Authorize the Board, in consultation with the Executive Director, to remove a board member (excluding ex-officio members, but not their designee) or designee from the board for failure to regularly attend board meetings.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

3. Authorize SERS to develop an attendance policy for all board members and/or designees.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

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4. Authorize the Board members to select the Chairman of the Board from its numbers.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

5. Authorize the SERS members to elect one or more Board members.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

6. Modify the Board composition to ensure the Governor, or any single individual or entity, does not have the authority to appoint or elect a majority of Board members.

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

We recommend that SERS and its Board of Trustees:

7. Establish and implement a specific and detailed attendance policy for Board members and designees.

SERS RESPONSE: WILL CONSIDER- SERS will seek guidance from the General Assembly (refer to Recommendation 4.3). We concur with the Auditor General analysis that member attendance is NOT a problem (refer to Finding 4.1). However, we note the board has no discipline or removal authority.

8. Establish and implement provisions within the Board's Ethical Conduct Policy to:
 - a. Put in place a minimum amount of ethics training each Board member and designee must receive, with emphasis placed on identifying and disclosing conflicts of interest, and ensure that it is obtained.

SERS RESPONSE: WILL CONSIDER – SERS will consider this subject as an important component of the board education and training program.

- b. Require each Board member and designee to sign an ethics policy acknowledgement/certification statement upon being appointed to the Board and annually thereafter.

SERS RESPONSE: WILL CONSIDER - SERS will consider modifying the oath of office to include a statement regarding ethical conduct policy.

- c. Develop procedures to verify that conflict of interest self-reporting is complete for each Board member and designee.

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SERS RESPONSE: WILL CONSIDER – SERS will review prevailing practices among public pension industry leaders for potential modifications to the board Recusal Policy and make recommendations, as appropriate, to the board.

- d. Request that the Ethics Commission provide the Board with ethics training on an annual basis and provide guidance on the trustees' use of its sample written memo for disclosing a conflict in compliance with 65 Pa.C.S. § 1103(j).

SERS RESPONSE: WILL CONSIDER – SERS is willing to consider the Ethics Commission as a source; however, reserves the right to obtain other outside expertise as well.

9. Obtain the Statement of Financial Interest and campaign contribution reports for each trustee, as applicable, and have an individual (independent of the Board) compare them to the list of owners/principals of each investment firm prior to presenting the firm to the Board for vote.

SERS RESPONSE: WILL CONSIDER – SERS will review prevailing practices among public pension industry leaders for potential modifications to the board's policies and make recommendations, as appropriate, to the board.

10. Aggregate the Board's policies and guidelines into a single, comprehensive governance manual.

SERS RESPONSE: IN PROCESS - SERS has provided the board with a draft governance manual for its consideration. The manual incorporates external consultant suggestions as well as those from the board's Governance Oversight Committee.

ISSUE AREA 5 – SERS' procedures to ensure it is meeting its diversified investment strategy appear adequate.

Recommendations for Issue Area 5

We recommend that the SERS Board of Trustees:

1. Ensures it has sufficient information and adequate discussions to fully understand the complexities and importance of its asset allocation strategy in order to fulfill its fiduciary duty to prudently invest funds.

SERS RESPONSE: CONCUR - SERS board will ensure that SERS' investment staff and consultants continue to provide asset/liability and asset allocation reviews at board meetings.

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2. Continues to analyze its investment strategies and target asset allocation on a regular basis to ensure the Board makes prudent investment decisions, including active and passive investing, as conditions change.

SERS RESPONSE: CONCUR - SERS board will ensure that SERS' investment staff and consultants continue to provide regular updates on asset allocation exposures relative to policy targets and rebalancing actions.

ISSUE AREA 6 – SERS generally complied with the Public Employee Pension Forfeiture Act, but significant legislative changes and procedural improvements are needed.

Recommendations for Issue Area 6

We recommend that the General Assembly consider strengthening the provisions of Act 140 of 1978 and the State Employees' Retirement Code (SERS Code) as follows:

1. Broaden the language limiting application of the Act 140 sex crimes committed by a "school employee" against a "student" in the "public school" within the course of his/her employment; thus, expanding the application to sex crimes committed by *any* SERS member against any individual who is present in a public school or involved in school-related business. *[DAG's recommended additions to Section 5102 of the SERS Code and changes to Section 1312 of the Act are provided in the report.]*

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

2. Add a narrowly tailored definition of "protective service employee" to Section 5102 of the SERS Code to include those working with children or older, mentally/physically challenged and/or incarcerated adults who are not able to give informed consent and expand Section 1312 of the Act accordingly. *[DAG's recommended additions to Section 5102 of the SERS Code and changes to Section 1312 of the Act are provided in the report.]*

SERS RESPONSE: As this recommendation is directed toward the General Assembly, no response is required from SERS.

We recommend that SERS:

3. Require the Office of Chief Counsel to review and formally approve all pension forfeiture determination prior to sending the letter containing the results to the SERS member.

SERS RESPONSE: NON-CONCUR – SERS member services staff are well-trained and qualified to carry out their first-level application decisions of the Retirement Code and

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related corollary statutes. Current procedures call for administrative staff to seek legal advice when: 1) the case requires determining whether a federal criminal offense is substantially the same as an enumerated forfeiture triggering a Pennsylvania crime; 2) when there are questions as to whether the person involved is a public officer or public employee, 3) if the criminal conduct has the necessary nexus to public employment; or, 4) any questions exist about the case. In all other cases where the facts and circumstances are clear, involving the legal office only delays the resolution of the matter. Further, delay in the process may result in someone receiving payments to which they are not entitled.

4. Develop and implement supervisory review procedures over the processing of pension forfeiture cases to ensure the processing and monitoring of the cases is complete, consistent, and in compliance with SERS' written procedures, and the forfeiture determinations are accurate and timely.

SERS RESPONSE: CONCUR – SERS will implement supervisory review procedures for the pension forfeiture process to ensure compliance with written procedures.

5. Formalize the use of a tracking spreadsheet to monitor the status of cases to include how and when the case was identified and the date of SERS' final determination.

SERS RESPONSE: CONCUR – SERS will modify the tracking spreadsheet to include appropriate information.

6. Strengthen its written procedures for pension forfeitures to include the Office of Chief Counsel's review and formal approval of all pension forfeiture determinations, supervisory review of the processing and monitoring of cases to ensure accurate and timely forfeiture determinations, and use of a tracking spreadsheet to evidence oversight of the pension forfeiture cases.

SERS RESPONSE: CONCUR IN PART - SERS will update the written procedures for pension forfeitures to include applicable process improvements with the exception of the Office of Chief Counsel's review and formal approval of all pension forfeiture determinations. (Refer to recommendation 6.3.)

STATUS OF PRIOR AUDIT FINDINGS

Prior Finding 1.3 – SERS' Internal Audit Division lacked organizational independence. (Partially Resolved)

Recommendation

We recommend that SERS:

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1. Develop an Internal Audit Division Charter, defining its purpose, authority, and responsibilities, and have it approved by the Board. The charter should include, at a minimum:
 - a. Defining the nature of the Internal Auditor Division's relationship to the Audit Committee, Board, and Executive Director.
 - b. Maintaining the division's independence and objectivity, including prohibiting the reassignment of internal audit division staff to duties that compromise its ability to maintain independence.
 - c. Conducting risk assessments of SERS' internal controls by the division on a recurring basis.
 - d. Establishing an annual audit plan by the division to be reviewed and approved by the Audit Committee.

SERS RESPONSE: NON-CONCUR – SERS believes the existing Fourth Amended and Restated Audit Committee Charter adequately covers the purpose, authority and responsibilities of both the Audit Committee and SERS Internal Audit staff. The Position Descriptions of the Internal Audit staff as well as published organizational charts provide further detail into staff reporting structure and responsibilities. SERS internal audit division has a long-standing practice of performing risk assessments and internal control testing, as well as establishing annual audit plans; all of which are reviewed with the Audit Committee at quarterly meetings.

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Auditors' Conclusions to the State Employees' Retirement System's Response

Overall, SERS agreed or partially agreed with most of our recommendations and is committed to implementing many of the suggested recommendations or making such recommendations to the SERS Board for its consideration and possible action. Our current audit report made 23 recommendations to SERS and/or the SERS' Board of Trustees and 13 recommendations to the General Assembly. We also offer one recommendation to SERS regarding the unresolved issue noted in the prior audit report, dated September 2006. We are pleased with SERS' cooperative attitude in addressing our concerns. However, with regard to the SERS' response, the following items require further clarification:

Issue Area 6

Regarding SERS non-concur response to Recommendation 3, SERS management stated that where the facts and circumstances of potential pension forfeiture cases are clear, involving the SERS legal office would only delay its processing of the case and may result in someone receiving payments to which they are not entitled. Between January 1, 2013, and October 31, 2016, SERS management reviewed a total of 109 potential forfeiture cases. Having the legal office review the Administrative Officer's determination does not appear that it will hamper neither the legal office nor the timeliness of the case processing, considering this low volume of cases, which averages about two to three cases per month.

Additionally, the Administrative Officer already documents the first-level case determination in a memo distributed to the legal office and other executive management once the employee has been notified. It is our position that simply using this memo to obtain legal approval of the accuracy of the determination prior to notifying the employee would serve as a strong control in the pension forfeiture program and would help to minimize a possible later legal challenge to an individual forfeiture case.

Status of Prior Audit Findings

Regarding SERS non-concur response, we agree that the Audit Committee Charter adequately covers the purpose, authority, and responsibilities of the Board's Audit Committee. However, it does not address those topics for the Internal Audit Division, which is a distinct entity with unique roles and responsibilities. The Internal Audit Division has its own mission, professional standards to follow, scope of work and authority, and independence responsibilities that need to be documented in writing.

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Recent Legislation

Additionally, as noted in more detail in the footnote of our management letter appended to this report, we want to acknowledge legislation which was enacted subsequent to our audit period that affects one of our recommendations, as noted below:

Issue Area 1

On June 12, 2017, the General Assembly enacted Act 5 of 2017 which amended the SERS Retirement Code with regard to Board member education. Each member of the board is now required to obtain eight hours of mandatory training in investment strategies, actuarial cost analysis, and retirement portfolio management on an annual basis.¹⁸⁰ Therefore, our third recommendation to the General Assembly has been implemented.

¹⁸⁰ 71 Pa. C.S. § 5901(f).

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Appendix A

Objectives, Scope, and Methodology

The Department of the Auditor General conducted this performance audit in order to assess the Pennsylvania State Employees' Retirement System's (SERS) administration of investment operations related to its pension benefits fund, and to assess whether SERS appropriately follows the Public Employee Pension Forfeiture Act (Act 140 of 1978, as amended) and its associated regulations.

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Objectives

Our performance audit objectives were as follows:

- Determine if SERS appropriately follows the Public Employee Pension Forfeiture Act (Act 140 of 1978, as amended) and its associated regulations for public employees convicted of certain crimes relating to public office or public employment (see Issue Area 6).
- Determine if SERS' governance structure, delineation of decision-making responsibility, investment expertise, and resources are adequate to provide effective oversight of investment operations (see Issue Areas 1 and 4).
- Determine if SERS' external investment advisors and consultants are properly procured and investment fees are reasonable and consistent with investment performance measures (see Issue Areas 2 and 3).
- Evaluate the diversity of SERS' investment portfolio to determine if the investment strategy is prudent to minimize risk based on market conditions (see Issue Area 5).

We also conducted procedures to determine whether SERS implemented our prior audit report's findings and recommendations from the report issued in September 2006 (see Status of Prior Audit Findings).

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Scope

This audit report presents information for the period of January 1, 2013, through March 31, 2017, unless otherwise indicated, with updates through the report date.

SERS management is responsible for establishing and maintaining effective internal controls to provide reasonable assurance of compliance with applicable laws, regulations, contracts, grant agreements, and administrative policies and procedures.

In conducting our audit, we obtained an understanding of SERS' internal controls, including any information system controls, if applicable, that we considered to be significant within the context of our audit objectives.

For those internal controls that we determined to be significant within the context of our audit objectives, we also assessed the effectiveness of the design and implementation of those controls as discussed in the *Methodology* section that follows. Any deficiencies in internal controls that we identified during the conduct of our audit and determined to be significant within the context of our audit objectives are included in this report.

Methodology

To address our audit objectives, we performed the following procedures:

- Interviewed SERS management and staff responsible for administering pension forfeitures and the investment program, including individuals from the Office of Chief Counsel, Bureau of Benefit Administration, and the Investment Office.
- Reviewed the Public Employee Pension Forfeiture Act, State Employee's Retirement Code (SERC), the Public Official and Employee Ethics Act, and the PA Sunshine Act to determine legislative requirements related to the audit objectives.
- Reviewed the SERS' Board Bylaws, Statement of Investment Policy, Real Estate Statement of Investment Policy, Private Equity Statement of Investment Policy, Strategic Investment Plan, Ethical Conduct Policy, draft Education Policy, and other written policies and procedures to determine policy requirements related to the audit objectives.
- Reviewed SERS' Comprehensive Annual Financial Reports and Actuarial Valuation Reports for the fiscal years ended December 31, 2013, 2014, and 2015.
- Reviewed SERS' 2014 – 2017 Supplemental Budget Books.

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- Performed extensive research on current investment-related trending issues, including market events, investment expense comparison limitations, lack of transparency in reporting investment expenses and performance, and passive versus active management strategies.
- Reviewed model policies and best practices for Board governance and investment operations, including:
 - “Model Code of Conduct and Ethics Policy” issued by the Association of Public Pension Fund Auditors.
 - Government Finance Officers Association “Governance of Public Employee Post-Retirement Benefits Systems” and “Pension Investing: Fundamentals and Best Practices.”
 - “Clapman Report 2.0” issued by the Stanford Institutional Investors’ Forum Committee on Fund Governance.
 - The Pew Charitable Trusts “Making State Pension Investments More Transparent.”
- Performed online media searches for criminal cases that would appear to be covered by Act 140 of 1978 (Act) and compared the results of our searches with the population of cases being tracked by SERS.
- Using auditor’s judgment to ensure coverage of the audit period, we selected 11 cases that were subject to pension forfeiture and 18 cases that were not subject to pension forfeiture out of the 109 closed pension forfeiture cases between January 1, 2013, and October 31, 2016. We verified whether each case file contained sufficient documentation to evidence the details of the case, determined whether pension forfeiture was accurately applied, and confirmed SERS’ determination of the applicability of the Act was adequately supported and reviewed.
- For the 11 cases noted above that were subject to pension forfeiture, we verified whether pension benefits were terminated on the date of the member’s conviction.
- Attended the Board meetings from September 2016 through March 2017 to evaluate if Board meetings were interactive and the extent of Board discussions regarding investments.
- Reviewed Board meeting minutes between January 2013 and October 2016 to determine whether all contracts and reports requiring Board approval were presented to the Board, and to ensure the voting on investment contracts were documented in accordance with laws, bylaws, and policies.

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- Conducted a survey of all 20 Board members and designees who served on the Board in January 2017 (See Appendix B) regarding whether the trustees consider SERS' governance structure, investment expertise, and resources for decision-making adequate to provide effective oversight on investment operations. We reviewed and analyzed the 13 surveys that were returned.
- Compared the SERS' Board composition and structure to the SERC for compliance and that of 87 other state retirement systems as reported by the National Association of State Retirement Administrators for reasonableness.
- For the 35 regular Board meetings held between January 1, 2013, and October 31, 2016, we analyzed the attendance of Board members and designees and all votes related to investment contracting.
- Evaluated the five written recusals submitted to the Board between January 1, 2013, and October 31, 2016, in relation to investment contracting voting and discussions.
- Evaluated the SERS' Board Ethical Conduct Policy against best practices to determine whether its policy was adequate and compared its policy to actual procedures to determine whether SERS operated in compliance with its policy.
- Reviewed the campaign contributions received reports for calendar years 2013 through 2016 for the five elected officials serving on the Board between January 1, 2013, and December 31, 2016.
- Reviewed the Statement of Financial Interests reports for calendar years 2013 through 2015 for all Board members and designees on the Board between January 1, 2013, and December 31, 2016.
- Evaluated other state public pension systems' statutory requirements that mandate some form of investment knowledge or experience, including the Iowa Public Employees Retirement System, Virginia Retirement System, Arizona State Retirement System, New York State Teachers Retirement System, Ohio Public Employees Retirement System, and Teacher Retirement System of Texas.
- Compared the SERS' draft Board Education Policy with best practices for new member orientation and ongoing education to determine whether its policy is adequate and compared its policy to actual procedures to determine whether SERS operated in compliance with the policy.

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- Evaluated other state public pension systems' statutory requirements that mandate some form of ongoing training requirements for Board members and designees, including the California Public Employees' Retirement System, Texas retirement systems, and Maryland retirement systems.
- Reviewed a listing of the 15 educational sessions presented to the Board between January 1, 2013, and December 31, 2016 by SERS staff and/or general investment consultant.
- Reviewed the new member orientation booklet provided to the new Board members and designees from January 1, 2013, through January 31, 2017.
- Requested and reviewed biographical information for each Board member and designee who served on the Board between January 1, 2013, and September 30, 2016.
- Using a listing of 90 public sector retirement systems published by the Pew Charitable Trusts and auditor's judgment, we selected six peer state pension systems to use throughout the audit for comparison purposes, including the Board composition, asset allocations, investment fees, and investment returns. Based on total assets, we selected the largest state public pension system, the Pennsylvania Public School Employees' Retirement System (PSERS), the two state public pension systems closest in total assets to SERS, and the two state public pension systems closest in total assets to PSERS.
- Evaluated the organizational and decision-making responsibilities of the investment staff, Chief Investment Officer, consultants, and the Board to determine if they are adequately designed to provide a segregation of duties and levels of review/approval over the key investment decisions and actions.
- Selected the two investment consultant contracts with contract periods starting on or after January 1, 2013, and:
 - Reviewed the Request for Information (RFI) at a high level to ensure they were adequately written and included all key provisions, such as provisions addressing conflicts of interest. We also ensured the RFIs were reviewed and approved prior to sending to candidates for responses.
 - Reviewed SERS' supporting documentation for its candidate recommendations to the Board.
 - Verified the Board approved the consultant prior to the contract start date.
 - Reviewed the final contracts for services and verified the required signatures were on the final contracts evidencing the contracts were reviewed and approved.

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- Reviewed the Statements of Financial Interest filings with the State Ethics Commission and with the Governor's Office for the SERS' Board members involved in the procurements.
- Using auditor's judgment, we selected 9 of the 55 new external investment manager advisory agreements (based on higher risk asset classes and audit period coverage) that were approved by the Board between January 1, 2013, and October 31, 2016, and:
 - Reviewed the due diligence documentation.
 - Reviewed the fee negotiation documentation, if available, including the published fee schedules and fee information in public filings with the Securities Exchange Commission, e-mails and other evidence of communications, and the fee structure in the final contract terms.
 - Verified the Board approved a resolution to contract with each external investment manager.
 - Verified the required signatures were on the final advisory agreements evidencing the agreements were reviewed and approved; and verified the agreements included conflict of interest and "most favored nation" clauses.
- Using the same nine external investment managers, we reviewed evidence of quantitative and qualitative monitoring for the quarters ended December 31, 2015, March 31, 2016, June 30, 2016, and September 30, 2016, including:
 - Performance reports provided to SERS and/or its investment consultants by the investment managers.
 - Performance summary reports presented to SERS' Board by consultants.
 - Documentation of meetings, telephone conversations, and other pertinent information.
- Reviewed fund and asset class performance as reported to the Board for January 1, 2013, through March 31, 2017.
- Obtained copies of the four 2016 quarterly Investment Manager Evaluation Lists provided to the Board and corresponding comparative performance charts used to monitor investment managers to verify SERS monitored its underperforming public investment managers in accordance with its policy.

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- Reviewed Board meeting resolutions for January 1, 2013, through December 31, 2016, and verified the Board approved changes to the Strategic Investment Plan's target asset allocations at least every two years, in accordance with its policy.
- For the period January 1, 2013, through December 31, 2016, we judgmentally selected 8 of the 48 monthly asset allocation comparisons for review, focusing on months where at least one asset classes breached the target range and ensuring we reviewed two comparisons from each calendar year, verifying:
 - The asset class asset allocation target policy range on the comparison agreed to the asset allocation policy weight.
 - The current net asset value/percent was accurate based on the supporting data by fund.
 - The actual net asset value/percent was within the target policy range. For actual allocations that were outside of the policy range, we obtained and reviewed evidence of whether asset classes were rebalanced according to SERS' policy.
- Compared the SERS' asset allocation to peer state pension systems and the national average asset allocation as reported by the National Association of State Retirement Administrators.
- Reviewed the results of the asset/liability study performed by SERS' General Investment Consultant as presented to the Board in September 2015.

To address the Status of Prior Audit Findings, we performed the following procedures:

- Reviewed the Institute of Internal Auditors "International Standards for the Professional Practice of Internal Auditing."
- Reviewed SERS' Ethical Conduct Policy established in January 2007, which defines a conflict of interest and requires trustees to recuse themselves from a vote by the Board on matters involving a potential conflict of interest.
- Reviewed SERS' current Due Diligence Questionnaire (DDQ) form and verified it requires disclosure of potential relationships between SERS' consultants and the investment manager in materials presented to the Board prior to hiring the manager.
- Reviewed the two consultant contracts with contract periods starting on or after January 1, 2013, and verified that it included a "Duty to Disclose" section.

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- Reviewed SERS' Statement of Investment Policy, amended in January 2016, and the organizational chart of SERS' Internal Audit Division as of January 2016 to determine whether the Director of Internal Audits reports to SERS Board's Audit Committee and/or the Board's Executive Director.
- Reviewed the charter for the Board's Audit Committee.
- Reviewed the Audit Committee's quarterly meeting minutes between January 1, 2013, and December 31, 2016.
- Reviewed SERS' Internal Audit Division's audit plans for the audit period.
- Evaluated the use of the Prudent Investor Rule in SERS' current Board policies, reports, and training materials.
- Verified that SERS provided the Board members with training on the Prudent Investor Rule and their responsibilities under this level of care in 2006.
- Reviewed SERS' Securities Litigation Committee meeting minutes, e-mails, and memoranda communications, for the period January 2013 through August 2016, to determine whether SERS' Chief Counsel regularly communicated with SERS' Board members on securities litigation matters.
- Verified the SERS' Supplemental Budget Books for fiscal years ended June 30, 2013-2017 contained detailed sections on both Pennsylvania-based investment managers and investments in Pennsylvania.

Data Reliability

In performing this audit, we used information from state retirement systems' Comprehensive Annual Financial Reports and computer-processed information from SERS, including its pension forfeiture case tracking sheet, asset allocation reports, and the 2017 Supplemental Budget Book. We also used the national average asset allocation as issued by the National Association of State Retirement Administrators.

Government Auditing Standards require us to assess the sufficiency and appropriateness of computer-processed information that we use to support our findings, conclusions, or recommendations. The assessment of the sufficiency and appropriateness of computer-processed information includes considerations regarding the completeness and accuracy of the data for the intended purposes.

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The SERS' and PSERS' Comprehensive Annual Financial Reports are audited annually by independent auditing firms and are reported as component units within the Commonwealth of Pennsylvania's Comprehensive Annual Financial Report (CAFR). The Bureau of State and Federal Audits, Department of the Auditor General, audits the Commonwealth's CAFR each year and performs procedures to ensure the independent audit firms that audited the SERS' and PSERS' CAFRs are qualified and possess knowledge of applicable auditing standards and industry-specific knowledge and regulations. Based on these procedures, we found no limitations with using the data for our intended purposes. In accordance with *Government Auditing Standards*, we concluded the data reported within the SERS' and PSERS' CAFRs to be sufficiently reliable regarding completeness and accuracy for the purposes of this engagement.

For the other five peer states' CAFRs (California Public Employees Retirement System, Teachers Retirement System of Georgia, South Carolina Retirement System, Texas Employees Retirement System, and Oregon Public Employees' Retirement System), we verified the independent auditors issued an unqualified opinion on the CAFRs. However, we did not perform procedures to validate the information in the reports. As such, we deemed this information to be of undetermined reliability; however, this is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our findings, conclusions, and recommendations.

To assess the completeness and accuracy of the data in the pension forfeiture case tracking sheet, we conducted audit procedures as follows:

- Interviewed SERS management and staff responsible for maintaining and revising the tracking log as to their procedures used for data entry.
- Performed online media searches to attempt to verify the tracking sheet was complete.
- For 11 of the 109 closed cases that were subject to Act 140 during the audit period, we traced data in the tracking sheet to source documents including the SERS' administrative officer's summary memo, the forfeiture determination letter sent to the member, and official court documents.
- For 18 of the 69 closed cases that were not subject to forfeiture, we traced data in the tracking sheet to source documents, including the SERS' administrative officer's summary memo and court documents.

Based on the above procedures, we found the pension forfeiture tracking sheet is sufficiently reliable for the purposes of our engagement. However, the lack of one source that would capture all potential forfeiture cases did not exist during our audit period and caused a limitation on the reliability, as discussed in Finding 6.3.

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To assess the completeness and accuracy of the asset allocation comparisons, we conducted audit procedures as follows:

- Interviewed SERS management regarding the procedures used to perform the comparison.
- Verified the total asset class on the comparison agreed with the supporting detailed account information.
- Traced the target policy ranges used in the comparisons to the SERS' Strategic Investment Plan for the appropriate time period.
- Recalculated the amount of assets by asset class divided by the total assets to verify the accuracy of the percent allocation to the asset class.

Based on the above procedures, we found no limitations with using the data for our intended purposes. In accordance with *Government Auditing Standards*, we concluded the asset allocation comparisons to be sufficiently reliable regarding completeness and accuracy for the purposes of this engagement.

We did not perform procedures to validate the accuracy of the:

- National average asset allocation as issued by the National Association of State Retirement Administrators.
- Chart depicting the historical investment expenses and returns by asset class issued by CEM Benchmarking.
- Graphic depicting the change in allocations among Index and Active investments provided by SERS management.
- Listing of educational sessions provided by SERS management.
- Asset Allocation, long-term rates of return, and number of external investment managers within the 2017 Supplemental Budget Book.

As such, we deemed this information to be of undetermined reliability. However, this is the best data available. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our findings, conclusions, and recommendations.

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Appendix B

Board Member Survey

SERS Board of Trustees Survey

Please check the column that best represents your agreement or disagreement with the statement and add comments if necessary.

		Strongly Agree	Agree	Disagree	Strongly Disagree	Comments
1	The process for selecting or appointing board members is effective in producing a board capable of making investment decisions.					
2	The composition of the board is appropriate.					
3	The board collectively has the needed skills, diversity, and representation of all system members.					
4	When I was new to the board, I was given sufficient information to allow me to make a contribution to the organization quickly, including a new orientation training.					
5	I receive financial information from SERS' Chief Financial Officer that is understandable and gives me a clear sense of the SERS' financial position.					
6	The investment staff and consultants provide adequate information to the board to allow making informed decisions regarding investments.					
7	Materials related to significant investment decisions are provided to the board members far enough in advance of the meeting.					
8	I perform research on my own regarding investment decision making beyond the materials provided to the board.					
9	I feel other board members give adequate consideration to my opinions.					
10	I feel comfortable to say that I agree/disagree with another member or with investment/consultant staff within the Board meetings.					
11	I often ask questions regarding investment-related decisions during Board meetings (or ask the staff prior to Board meetings).					
12	There is sufficient discussion among board members for investment-related decisions.					
13	The board adequately addresses voiced concerns about investment staff or consultant recommendations.					
14	I have sufficient knowledge and experience in the following areas to assist the board in decision making:					
	Investment Fee Structure(s)					
	Risk					
	Performance Benchmarks					
	Assets Allocations					
	Portfolio Diversity					

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		Strongly Agree	Agree	Disagree	Strongly Disagree	Comments
15	The process of identifying potential conflicts of interest for each consultant and external investment manager is adequate.					
16	The process of identifying board members' conflicts of interest is adequate.					
17	I have felt pressure from investment staff/consultants to agree with their recommendations.					
18	I have felt pressure from outside parties to make a certain decision regarding an investment.					
19	The amount of educational sessions provided to the board members is sufficient in the following areas:					
	External Investment Manager Selection Process					
	Asset Allocations					
	Specific Asset Classes (real estate, public, equity, etc.)					
	Risk Management					
	Investment Fees					
	Portfolio Diversity					
	Current Market Conditions					
	Other (Please specify.)					

Other comments/concerns:

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Appendix C

Glossary of Investment Terms

Absolute Return	An investment policy/strategy that aims to give the same return regardless of market conditions. The return should not rise or fall in line with equities, but will often offer a fixed percentage above bank rates, inflation or other objective measure. ¹
Active Fund Management	The management of assets in which the skill of the fund manager is used to select particular stocks at particular times, with the aim of achieving higher than average growth for the asset class in question. ¹
Asset Allocation	An investment strategy that aims to balance risk and reward by apportioning a portfolio's assets among asset classes according to an investor's goals, risk tolerance, and investment horizon. ²
Asset Class	A group of financial instruments that exhibit similar characteristics, behaves similarly in the marketplace, and are subject to the same laws and regulations. The three main asset classes are equities, fixed-income, and cash and cash equivalents. ²
Benchmark	A measure against which fund management performance is to be judged. A series of appropriate indices is chosen which reflects the requirements of the trustees. ¹
Correlation	A statistical measure of how two securities or portfolios move in relation to each other. Correlations can range from negative 1 (perfect negative correlation) to positive 1 (perfect positive correlation). A correlation of 0 implies no relationship. ²
Diversification	The process of investing in a number of different asset classes, and individual investments within those asset classes to avoid any exposure to a single source of risk. ¹
Due Diligence	An investigation of a potential investment to confirm all facts, such as reviewing all financial records, plus anything else deemed material. Refers to the care a reasonable person should take before entering into an agreement or financial transaction. ²
Emerging Markets	A national market that is in an early stage of economic development and is expected to grow rapidly. ⁴
Gross of Fees	The total rate of return on an investment before the deduction of any fees or expenses. ²

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Hedging	The use of specialized instruments, such as financial futures and options, to modify the risk characteristics of a portfolio in order to protect against catastrophic losses if the market declines abruptly. ⁵
Index	A hypothetical portfolio of securities representing a particular market or a segment of it used to statistically measure change in the securities market. ²
Investment Consultant	A third-party firm retained by the Board to provide advice on various investment issues ranging from general advice to advice on specialty asset classes. ³
Investment Guidelines	An outline of policy or conduct expected in the management of an investment portfolio. ³
Investment Manager	A person or organization that makes investments in portfolios of securities on behalf of clients, in accordance with the investment objectives and parameters defined by these clients, as well as being responsible for all activities associated with the management of the portfolios including trading securities on a day-to-day basis associated with portfolio monitoring, transaction settlements, measuring performance, and regulatory and client reporting. ²
Investment Risk Strategy	Management of the investment portfolio risk to limit any potential negative affect. An investment strategy can help manage certain risks. Asset allocation and diversification are two ways to manage risk. ⁶
Modern Portfolio Theory (MPT)	Theory of trust investment and portfolio management that looks more toward the portfolio as a whole and less toward the prudence of a single investment in the portfolio. MPT assumes that investors: a) use a portfolio approach to evaluate investments; b) are risk-adverse; c) behave rationally; and d) make unbiased forecasts. ³
Most Favored Nation Clause	A provision that states that the client is entitled to the lowest fee the investment manager offers compared to similar advisory agreements with other clients. ⁸
Net Total Return	The pure return to the investor after all fees, expenses, and taxes. ²
Passive Fund Management	An investment strategy that limits active buying and selling and relies more on long-term appreciation and limited maintenance. Passive investments will track their benchmarks very closely and exhibit low tracking error. ²

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Performance-based Fee	An arrangement whereby a money manager is compensated in proportion to the degree by which investment results exceed a predetermined benchmark. ⁵
Private Markets	Non-traditional investments made in limited partnerships organized to make domestic and international private market investments such as venture capital, leveraged buyouts, distressed debt, and special situations acquired in primary or secondary markets. ⁷
Prudent Investor Standard	Requires a trustee to act prudently and with caution, discretion, loyalty, and care but does not restrict the assets in which the Board can invest. ³
Prudent Investment Clause	A policy that requires investments to be made with the judgment and care, under circumstances then prevailing, that persons of prudence, discretion, and intelligence would exercise in the management of their own affairs, not for speculation, but for investment, considering the probable income to be derived. ⁵
Risk	The uncertainty of outcome or the likelihood of not meeting an objective. This includes the possibility of losing some or all of the original investment. Risk is usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment. ³
Standard Deviation	A measure of volatility or fluctuation. Standard deviation is a way to measure the probable range within which an average investment return would be likely to fluctuate. ⁵
Volatility	Fluctuations in the market value or the rate of return of an investment. A highly volatile security is one whose price or yields change dramatically, and therefore fluctuate considerably from the average. ⁵

¹ Adapted from *The Pensions Regulator*, <http://www.thepensionsregulator.gov.uk/glossary.aspx>.

² Adapted from *Investopedia*, <http://www.investopedia.com/terms>.

³ SERS *Statement of Investment Policy*, <http://sers.pa.gov/pdf/investments/SERS-SIPincludingEmergingInvestmentManagerGuidelinesClean.pdf>.

⁴ Adapted from *Encarta Dictionary*, <http://www.bing.com>.

⁵ Government Finance Officers Association, *Pension Investing Fundamentals and Best Practices*, http://www.gfoa.org/sites/default/files/PensionInvesting_FundamentalsAndBestPractices.pdf.

⁶ Financial Industry Regulatory Authority, *The Reality of Investment Risk*, <http://www.finra.org/investors>.

⁷ SERS *Private Equity Statement of Investment Policy*, <http://sers.pa.gov/pdf/Investments/SERS-PrivateEquityStatementofInvestmentPolicy.pdf>.

⁸ Example investment manager side letter provided by SERS management.

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Appendix D

Distribution List

This report was distributed to the following Commonwealth officials:

The Honorable Tom Wolf

Governor

The Honorable David R. Fillman
Chairman
State Employees' Retirement System

Mr. David E. Durbin
Executive Director
State Employees' Retirement System

The Honorable Charles McIlhinney
Board Member
State Employees' Retirement System

The Honorable Vince Hughes
Board Member
State Employees' Retirement System

The Honorable Dan Frankel
Board Member
State Employees' Retirement System

The Honorable Robert Godshall
Board Member
State Employees' Retirement System

The Honorable Randy Albright
Secretary of the Budget
Office of the Budget

The Honorable Joseph Torsella
State Treasurer
Pennsylvania Treasury Department

The Honorable Josh Shapiro
Attorney General
Office of the Attorney General

The Honorable Sharon Minnich
Secretary of Administration
Office of Administration

Mr. Robert Caruso
Executive Director
State Ethics Commission

The Honorable Denise Smyler
General Counsel
Office of General Counsel

The Honorable Mike Folmer
Majority Chair
Senate State Government Committee

The Honorable Anthony Williams
Democratic Chair
Senate State Government Committee

The Honorable Daryl Metcalfe
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The Honorable Matthew Bradford
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House State Government Committee

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