Comprehensive Annual Financial Report

For the year ended December 31, 2013

Commonwealth of Pennsylvania State Employees' Retirement System

A Component Unit of the Commonwealth of Pennsylvania



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Prepared by the staff of the Pennsylvania State Employees' Retirement System

David E. Durbin

Executive Director

Anthony J. Faiola

Chief Financial Officer

State Employees' Retirement System

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May 30, 2014

The Honorable Tom Corbett Governor, Commonwealth of Pennsylvania

The Honorable Senators and Representatives General Assembly, Commonwealth of Pennsylvania

The Esteemed Members State Employees' Retirement System

Dear Governor Corbett, Senators, Representatives, and SERS Members,

On behalf of the 11-member board of the Pennsylvania State Employees' Retirement System (SERS), I am pleased to provide you with this copy of SERS' calendar year 2013 Comprehensive Annual Financial Report (CAFR). I hope that you find this financial, investment, actuarial, and statistical material to be both interesting and useful.

SERS is not legally required to produce a CAFR; we do so in the interest of public transparency and accountability. Issuing this report is part of our fundamental commitment to providing accurate and meaningful information to policymakers, SERS members, and the public. Moreover, this publication also satisfies the legal requirement that SERS publish independently audited financial statements on or before July 1 of each year.

Despite the ongoing media focus and public debate about "the pension crisis," the picture that emerges from this years' data is not wholly grim. In fact, SERS' net position increased by about \$2 billion in 2013.

As you may know, SERS' pension benefits are funded by SERS members, SERS employers, and SERS investments. Each played an important part in this year's growth:

- **SERS members** continued to provide important and consistent cash flow to the system, contributing on average 6.25% of every paycheck, week in and week out. This year, members contributed about \$352 million.
- **SERS employers** confirmed their discipline and commitment to SERS members by continuing to honor the contribution schedule set forth in Pennsylvania Act 2010-120. Even amid budgetary strain, in 2013 employers contributed 16.0% of payroll, up from 11.5% the year before. In fact, employers were paying approximately 31% of the actuarially required contribution rate when the law was passed but, by last year, their steadily increasing contributions had grown to over 60%. If employers stay the course, projections show that contributions will peak in the middle of 2017. Then all things being equal the actuarially required employer contribution rate and the unfunded liability will decline and the system's funded ratio will increase each year thereafter.
- SERS investments intersected with the 2013 positive performance in two ways. First, the fund produced returns of 13.6%, generating net investment income of approximately \$3.7 billion. Second, SERS completed recognizing 2008 investment losses in 2012, thus, the system was able to begin smoothing in net gains earned over the previous five years.

Having become chairman of the State Employees' Retirement Board in January, I would be remiss if I did not acknowledge, thank, and attribute many of the 2013 positive outcomes to the Honorable Nicholas J. Maiale, SERS' previous chairman, whose exceptional service and unparalleled commitment spanned many decades.

I have thus far enjoyed ample opportunity to come to know and respect many of SERS capable professionals. In all the budgetary rhetoric and in light of some recent organizational challenges, it's easy to forget that SERS retirement counselors, investment professionals, auditors, accountants, information technologists, and others consistently focus on providing expert service to members and ensuring vigilant stewardship of public funds. Every day, fewer than 200 SERS professionals ably serve nearly a quarter of a million people; accurately deliver an annual payroll of nearly \$3 billion; precisely account for more than \$27 billion; and manage investments that generated about \$3.7 billion in revenue last year.

I am deeply committed to my work as SERS' new chairman and am thankful to know that I lead a team who so clearly shares my dedication. Indeed, the information in this CAFR – including recognition from the Government Finance Officers Association of the United States and Canada for achievement in excellence in financial reporting – confirms that the funds entrusted to SERS are carefully managed. Active and retired SERS members can feel confident that their retirement system is sound. Taxpayers and policymakers can be reassured that rigorous control and oversight are exercised in the administration of public funds.

Thank you for your interest in the Pennsylvania State Employees' Retirement System. I look forward to leading SERS board and working with SERS professionals to continue to administer the system with integrity and resolve

Sincerely,

Glenn E. Becker Chairman of the Board

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INTRODUCTORY SECTION

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GFOA Award Certificate



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Commonweath of Pennsylvania
State Employees' Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2012

Executive Director/CEO

PPCC Public Pension Standards Award Certificate



Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2013

Presented to

Pennsylvania State Employees' Retirement System

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

> Alan H. Winkle Program Administrator

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May 30, 2014

Mr. Glenn E. Becker Chairman, State Employees' Retirement Board Commonwealth of Pennsylvania 30 North Third Street, Suite 150 Harrisburg, PA 17101

Dear Chairman Becker,

We are pleased to provide you with this Comprehensive Annual Financial Report (CAFR) for the Pennsylvania State Employees' Retirement System (SERS) for the calendar year ended December 31, 2013.

KPMG conducted an independent audit of SERS' 2013 financial statements, which are prepared in accordance with generally accepted accounting principles. Their audit includes tests and procedures reasonably designed to assure that SERS' financial statements are free from any material misstatement and are fairly presented. As is our standard practice, independent auditors have full and unrestricted access to you and the board to discuss their findings regarding the adequacy of SERS' internal controls and the integrity of SERS' financial reporting.

We are pleased to report that SERS has again received an unmodified opinion in 2013 (see financial section).

As you know, founded in 1923, SERS is a component unit of the Commonwealth of Pennsylvania that provides a cost-sharing, multiple-employer retirement plan for public employees. In 2013, SERS served 104 employers as well as more than 120,000 retirees and 105,000 active members.

There has been considerable public debate in Pennsylvania about the appropriate system and level of benefits for state employees; the implications of varying employer contribution rates; SERS' fiscal health; and other pension-related issues. SERS has supported policymakers by providing timely, accurate data and sharing our technical expertise to help explore and evaluate policy ideas. Despite the debate, SERS will continue to provide accurate, accountable stewardship of public funds and high-quality, responsive service to our members.

In this report, you'll find that SERS' funded ratio ended 2013 at 59.2%, which represents a slight improvement over the previous year. Global public equity and alternative investments helped the SERS portfolio produce investment returns of 13.6% last year, generating net investment gains of approximately \$3.7 billion. In addition, investment expenses continued their steady decline; they were \$9 million lower in 2013 than in 2012. Of course, SERS always reports its investment performance net of fees. Our earnings have been positive for 16 of the last 20 years and actual earnings have exceeded the assumed rate of return for 14 of them. Over the past three, five, and 10 years, the SERS Fund has earned compounded annual returns of 9.3%, 9.8%, and 7.4%, respectively (see management's discussion and analysis).

You'll also note that, in 2013, approximately 6,900 new retirees were added to the annuity payroll; their average annual benefit was approximately \$25,700. More than 3,900 retirees, who had average annual benefits of about \$13,500, were removed from the rolls.

It's important to note the changing pace of SERS benefit obligations. The system was established in 1923 but did not pay more than \$1 billion in annual benefits until 1997. Annual payments reached the \$2 billion mark just a decade later, in 2007 and – based on recent forecasts – will reach \$3 billion this year.

Despite the increasing outflows, SERS' funded ratio is actually projected to improve as employees hired before January 2011 retire and post-January 2011 hires begin to fill employee ranks in greater proportion. In fact, if employers maintain the payment schedule provided in Act 2010-120, projections show that contributions will peak in commonwealth fiscal year 2017/18. Then the actuarially required employer contribution rate and the unfunded liability will decline, and the system's funded ratio will increase more significantly each year thereafter as employees pay their statutory contributions and the SERS Fund achieves its assumed rate of return.

We are solely responsible for the contents of this report, however we do wish to acknowledge the significant contributions of many SERS professionals whose work to compile, quality assure, and produce it are essential. Moreover, we are mindful of and thankful for the nearly 200 SERS employees whose daily work enables our organization to maintain effective internal controls to assure that assets are safeguarded, transactions are properly executed, and financial statements conform to generally accepted accounting principles – all while providing effective, high-quality member services.

In addition to assisting with annual independent audits and preparation of this CAFR, these are the same professionals whose day-to-day hard work last year earned SERS the Public Pension Coordinating Council Standards Award for our "high level of plan design, funding, member communications and administrative practices" as well as a Certificate of Achievement of Excellence in Financial Reporting from the Government Finance Officers Association of the United States and Canada. As is our custom, we will submit this year's work for scrutiny as well.

Finally, please accept our congratulations on being selected as the new chairman of the State Employees' Retirement Board. You can count on our steadfast commitment to SERS members as well as our accountability to taxpayers, policymakers, SERS' board, and you.

Respectfully submitted,

David E. Durbin Executive Director

Anthony J. Faiola, CPA Chief Financial Officer

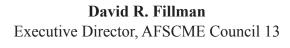
SERS Board

As of December 31, 2013

Honorable Nicholas J. Maiale Chairman



Honorable Robert A. Bittenbender Former State Secretary of the Budget





Honorable Dan B. Frankel State Representative



Honorable Robert W. GodshallState Representative



SERS Board

As of December 31, 2013

Honorable Vincent J. HughesState Senator



Honorable Charles T. McIlhinney, Jr. State Senator



Glenn E. Becker
President of The Swarthmore Group, Inc.



Honorable Robert M. McCord State Treasurer



Oliver C. Mitchell, Jr. Attorney



Honorable M. Joseph RocksRetired Member and Former State Senator



INTRODUCTORY SECTION

SERS Mission, Vision, and Organizational Chart

Mission

To provide retirement benefits and services to our members through sound administration and prudent investments.

Vision

To navigate the fiscal storm so that SERS continues to progress toward fully-funded status while sustaining effective and responsive member services.

Organizational Chart



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KPMG LLP Suite 1000 30 North Third Street PO Box 1190 Harrisburg, PA 17108-1190

Independent Auditors' Report

The Members of the Board Commonwealth of Pennsylvania State Employees' Retirement System:

Report on the Financial Statements

We have audited the accompanying statements of plan net position of the Commonwealth of Pennsylvania State Employees' Retirement System (SERS), a component unit of the Commonwealth of Pennsylvania, as of and for the years ended December 31, 2013 and 2012, and the statements of changes in plan net position and the related notes to the financial statements for the years then ended.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net position of the Commonwealth of Pennsylvania State Employees' Retirement



System as of December 31, 2013 and 2012, and its changes in plan net position for the years then ended in accordance with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 3–12 and Required Supplementary Information Schedules 1 and 2 on page 30 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise SERS' basic financial statements. The Supplementary Information Schedules 1 and 2 on pages 31 - 32 and the introductory section, investment section, actuarial section and statistical section as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Supplementary Information Schedules 1 and 2 are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplementary Information Schedules 1 and 2 are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory, investment, actuarial and statistical sections have not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.



Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

This section presents Management's Discussion and Analysis of the Pennsylvania State Employees' Retirement System's (SERS) financial statements and the significant events and conditions which affected the operations and performance of SERS during the years ended December 31, 2013, 2012, and 2011.

The Management's Discussion and Analysis includes forward looking statements that involve certain risks and uncertainties. Actual results and performance may differ materially from those expressed or implied in the forward looking statements due to a wide range of factors including: changes in securities markets, general economic conditions, interest rates, energy policies, legislation, and global conflicts.

Overview of the Financial Statements and Accompanying Information

- (1) Fund Financial Statements. SERS presents Statements of Plan Net Position as of December 31, 2013 and 2012 and Statements of Changes in Plan Net Position for the years then ended. These statements reflect resources available for the payment of benefits as of year end, and the sources and uses of those funds during the year.
- (2) Notes to Financial Statements. The notes to financial statements are an integral part of the financial statements. SERS encourages readers to review them because the additional detailed information will provide a better understanding of the financial statements. The notes provide information about SERS' organization, benefits and contributions, how asset values are determined, the limited use of derivatives in managing SERS' assets, contingencies and commitments, actuarial methods, assumptions, and funding.

- (3) Required Supplementary Information. The Required Supplementary Information (RSI) consists of:
 - This Management's Discussion and Analysis;
 - A schedule reflecting the funding progress of SERS; and
 - A schedule showing the employer required contributions in dollars and percentage.
- (4) Other Supplementary Information Schedules. Other schedules include detailed information on administrative expenses incurred by SERS, a breakout of investment expenses, and fees paid to consultants for professional services.

Financial Analysis

SERS provides retirement benefits to the employees of the Commonwealth of Pennsylvania (commonwealth) and certain other public agencies. SERS' benefits are funded through member and employer contributions and investment income. The net position of SERS increased approximately \$2.0 billion for the year ended December 31, 2013 compared to an increase of approximately \$1.0 billion for the year ended December 31, 2012, as reflected in the table on page 12. SERS investment program (SERS Fund) earned an annual rate of return of 13.6%, 12.0%, and 2.7% in 2013, 2012, and 2011, respectively. SERS' 2013 actuarial funded status of 59.2% increased from 58.8% in 2012 mainly due to the fact that in 2013 SERS is no longer recognizing or smoothing in significant losses suffered in 2008. Currently, SERS is smoothing in net gains greater than the assumed rate of return for the past five years. This increase is offset by the cost of having employer contributions capped below the actuarially required rates. By comparison, as reported in the Wilshire Associates' 2014 Wilshire Report on State Retirement Systems, a compilation of 2013 data on 134 state pension plans, the average funding level of state plans was 75%.

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

Every five years, SERS is required to undergo an actuarial experience study to determine whether the assumptions used in the annual actuarial valuation are representative of current and anticipated trends. The latest 17th Investigation of Actuarial Experience study for the period 2006–2010 was released in January 2011. The actuary, in coordination with the board's oversight, reviewed economic assumptions such as the assumed future investment returns on SERS Fund assets and salary increases as well as demographic assumptions regarding turnover, retirement, disability, and death rates. While some of the changes in assumptions increase the projected cost to SERS and some decrease the cost, overall adoption of the recommended assumptions will slightly lower costs, due primarily to the slower expected pace of future salary increases.

Economic assumption recommendations resulting from the experience study included keeping the targeted investment return rate assumption at 8.0%; decreasing the inflation rate from 3.0% to 2.75%; and decreasing the general salary growth rate from 3.3% to 3.05%. In addition to the five-year experience study, every year, as part of the annual valuation, SERS performs an updated review of its investment return assumption taking into account the latest economic conditions. These reviews resulted in a recommendation and adoption by the board of the actuarial assumed rate of return on assets to be reduced to 7.5% from 8.0% for the 2012 and 2013 actuarial valuations.

Most of the demographic assumptions were similar to or the same as experienced in the last five years, with two exceptions. First, the actuary recommended adding a margin to the annuitant mortality rates to anticipate continued improvement in mortality. SERS' experience showed some signs that the continuous improvement in mortality may have paused, with higher than expected mortality at both younger (under 55) and older (over 90) ages. Second, it is assumed

that the rate of disability retirements will be lower, but not as large a decrease in rates as observed during the last five years. Therefore, the disability rate should be set at 85% of the experience rather than 100%.

The board adopted the actuarial assumptions set forth in the 17th Investigation of Actuarial Experience at the January 2011 meeting. The complete report can be viewed at www.SERS.state.pa.us.

Biennially, SERS reviews and modifies, as necessary, its strategic investment plan. This process enables SERS to position itself to respond to changing dynamics and fulfill its primary mission of meeting its benefit obligations to SERS' members. A restructuring of the investment strategy is underway with an emphasis on liquidity, as outlined in the 2012-2013 Strategic Investment Plan. The restructuring was driven by the fact that benefit expenses, including refunds of contributions, were expected to rise in the future.

Funded Ratio

SERS' funded ratio measures the ratio of actuarially determined assets against actuarial liabilities; which is a good indicator of a pension fund's fiscal strength and ability to meet its obligations to its members. SERS is required by statute to perform an annual actuarial valuation. The actuarial process to develop the funded ratio is highly dependent on estimates and assumptions, particularly those regarding investment returns, salary growth, inflation, and demographics. In addition, statutorily mandated methods such as amortization periods affect employer contribution rates and the funded ratio of SERS. SERS' funded ratio as of December 31, 2013 was 59.2%, an increase from 58.8% at December 31, 2012. The funded ratio of SERS for 2013 increased slightly due to an increase in actuarial assets which was nearly the same as the increase in actuarial liabilities. SERS' funded ratio as of December 31, 2012 was 58.8%, a decrease

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

from 65.3% at December 31, 2011. The funded ratio of SERS for 2012 changed due to a decrease in actuarial assets and an increase in actuarial liabilities.

Actuarial assets increased approximately 2.8% to \$26.0 billion at December 31, 2013 from \$25.3 billion at December 31, 2012. At December 31, 2011, the actuarial assets were \$27.6 billion. The increase in 2013 actuarial assets was directly impacted by SERS amortizing net losses from returns below the assumed rate of return in 2012 and net gains from returns exceeding the assumed rate of return in 2013. This increase was offset by the cost of limiting employer contributions under Pennsylvania Act 2010-120. The collars capped the employer contributions at 16.0% excluding the Benefits Completion Plan (BCP), as described in note 3 to the financial statements, of retirement covered compensation for the commonwealth fiscal year (FY) beginning July 1, 2013 and at 11.5% for FY beginning July 1, 2012. These rates were well below the actuarial prescribed rates of 31.2% for FY 13/14 and 26.4% for FY 12/13. The actual contributions paid were only 60.2% and 53.9% of the annual required contribution (ARC) calculated by the actuary under Governmental Accounting Standards Board (GASB) guidelines for 2013 and 2012, respectively. The increase in actuarial liabilities to \$43.9 billion at December 31, 2013 from \$43.1 billion at December 31, 2012 is due to natural benefit and interest growth. The increase in actuarial liabilities to \$43.1 billion at December 31, 2012 from \$42.3 billion at December 31, 2011 was due to natural benefit and interest growth.

Member Contributions

Member contributions were approximately \$352 million for the year ended December 31, 2013, \$348 million for the year ended 2012, and \$351 million for the year ended 2011. There was a slight increase in gross salaries, which were \$5.6 billion for 2013 and \$5.5 billion for 2012. This was a

result of across the board salary increases offset by an overall decrease of 862 in active membership as of year end. The member rate of 6.25% of gross salary for most members is set by statute and has remained unchanged for the years presented.

Employer Contributions

Employer contributions were approximately \$795 million, \$566 million, and \$392 million for the years ended December 31, 2013, 2012, and 2011, respectively, with 2013 contributions representing an increase of \$229 million or 40.5% compared to 2012. The increase in 2013 from 2012 was due to an increase in the employer rate on July 1, 2013 to 16.0% from 11.5% excluding the BCP as described in note 3 to the financial statements. The \$174 million. or 44.4% increase in 2012 from 2011 was due to an increase in the employer rate on July 1, 2012 to 11.5% from 8.0%. Act 2010-120 established employer contribution collars with the rate increase being capped at 3.0% for commonwealth FY 11/12, 3.5% for FY 12/13, and 4.5% each subsequent year until no longer needed. According to this payment schedule, employer contributions as a percentage of payroll to the SERS Fund are set to rise 4.5% over the next few years and is anticipated to peak at 29.92% for FY 17/18. In response to these projected employer rate increases, Pennsylvania policy makers have been exploring possible changes to the SERC. SERS has been providing data and technical assistance to help in those efforts.

Over the last 10 years, employer contributions have been the smallest component of additions to SERS' plan net position. Employer contributions were kept artificially low due to statutory contribution rates being less than the ARC as calculated under GASB standards. From 2004 through 2013, employer contributions totaled \$3.2 billion, representing 12% of total additions to plan net position, compared to \$3.4 billion or 13% of total additions attributed to

Management's Discussion and Analysis

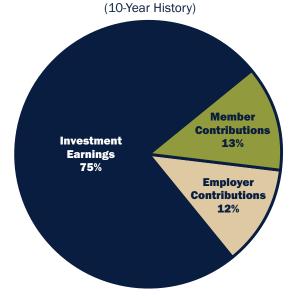
As of December 31, 2013 and 2012 (unaudited)

member contributions, and \$19.7 billion, or 75%, of total additions attributed to investment earnings as illustrated in the following charts.

10-Year Cumulative Additions to Plan Net Position



Additions by Component as a Percent of Total Additions



Over this time period, the retirement covered compensation has grown from \$5.0 billion in 2004, to \$5.9 billion in 2013.

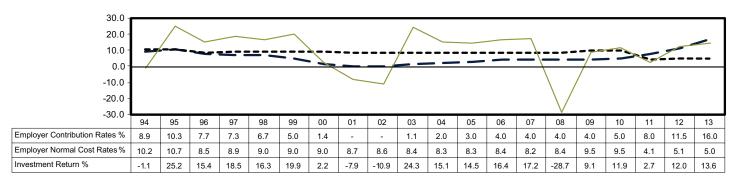
With the investment return of 13.6% for 2013, this marks 16 out of the last 20 years that SERS Fund's annual earnings have been positive and 14 out of the last 20 years they have exceeded the actuarial assumed rate of return. As shown in the table at the top of page 7, employer contribution rates from 1996 through 2011 were relatively low. One of the reasons for the low employer contribution rates was the SERS Fund's overall positive investment returns. This was the primary driver of lower contribution rates until 2005. However from 2005 forward, the lower employer rates were statutorily driven as a result of passage of Pennsylvania Act 2003-40 and Act 2010-120. The significant provisions of Act 2003-40 changed the periods in which unfunded liabilities were amortized in a manner that artificially suppressed the employer contribution rate below the ARC as recommended by GASB guidelines. Since 2005, the actual employer contributions have ranged from approximately 31% to 60% of the ARC. The benefits of reduced employer contributions pass directly back to the participating commonwealth agencies and the taxpayers of Pennsylvania. However, the short-term benefits of lower employer contributions resulting from artificially suppressed rates will result in the employers contributing a substantially larger amount over a 30-year period due to implied financing costs. These financing costs are being incurred because the monies are not presently available to invest and compound.

The employer normal cost is the cost of future benefits that is allocated to the current year by the actuarial cost method. In theory, if the unfunded actuarial liability were zero and there were no deviations from the actuarial assumptions or amendments to the SERC, the employer normal cost would be that amount required to fund the ongoing liabilities for plan participants.

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

SERS Employer Contribution Rates, Employer Normal Cost Rates, and Investment Returns



Employer Contribution Rates %

----- Employer Normal Cost Rates %

Investment Return %

The chart above shows the history of the employer contribution rate, employer normal cost, and investment returns from 1994 through 2013. In the first nine years, with some fluctuations, the general trend of the employer contribution rate has been downward with the rate declining from 8.9% in 1994 to zero in accordance with the 2000 and 2001 valuations. The primary reason for the downward trend was the excess of the investment return over the assumed investment rate of return over the years. The higher than expected investment return resulted in reductions in cost in those earlier years. Over the last 11 years, employer rate movement reacted less to investment returns because the employer rates were statutorily held at a low level. Had the commonwealth agencies paid the employer normal cost over the last 20 years, there would have been approximately \$3.2 billion additional employer contributions paid into SERS.

The significant losses in 2008 reduced SERS' 10-year annualized investment return to 6.0% for 2011, 8.4% for 2012, and 7.4% for 2013. As a result of the losses in 2008 and other factors, the employer rate was expected to spike significantly in FY 12/13. To address this rate spike, Act 2010-120 was passed. The chart at the top shows a decline in the normal cost rate from valuation year 2010 to 2011. This decline is directly related to the passage of Act 2010-120. See pages 10 and 11 for a summary of Act 2010-120 provisions.

Net Investment Income

Investment portfolio performance produced investment returns of 13.6%, 12.0%, and 2.7% for the years 2013, 2012, and 2011, respectively. Performance contributed to net investment income of approximately \$3.7 billion in 2013, \$2.8 billion in 2012, and \$0.5 billion in 2011. Strong performance in the global public equity and alternative investment asset classes helped the overall SERS Fund performance for 2013. For the three, five, and 10-year periods ended December 31, 2013, the SERS Fund earned compounded annual rates of return of 9.3%, 9.8%, and 7.4%, respectively.

Annual Rates of Return

Asset Class	2013	2012	20111/
Alternative Investments	12.8%	11.4%	12.7%
Global Public Equity	26.3	17.6	-7.0
Real Assets	8.0	8.6	6.0
Diversifying Assets	11.2	8.6	-1.8
Fixed Income	-2.2	10.0	6.2
Liquidity Reserve	0.3	0.4	0.2
Total SERS Fund	13.6%	12.0%	2.7%

¹/As discussed earlier, as part of the adoption of the 2012-2013 Strategic Investment Plan, the asset classes and strategies were restructured. Returns for 2011 were reclassifed to conform to the new asset allocation.

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

Investment expenses decreased \$9 million in 2013 as compared to a decrease of \$8 million in 2012. SERS' assets are managed 100% by external investment managers hired by the board. Many of these managers are paid a fee based on the assets under management. Managers were generally compensated less in 2013 than in prior years because of a shift in asset allocation and negotiated lower fee structures. For investments in the alternative investment class, the industry practice for the limited partners is to pay fees to the general partner based on commitments to the partnership during the initial years.

Benefits, Refunds, and Expenses

Benefit payments to annuitants are the most significant recurring deduction from plan net position. During 2013 and 2012, SERS paid out approximately \$2.8 billion and \$2.7 billion in benefits and refunds. There were approximately 6,900 new retirees added to the annuity payroll in 2013 with an average annual benefit of \$25,700. This was an increase from the 5,500 retirees added in 2012 at an average annual benefit of \$24,800. As is typical in mature retirement plans, new retirees in 2013 received a much higher annual benefit than those removed from rolls. There were more than 3,900 retirees removed from the rolls with an average annual benefit of \$13,500. In 2013, supplemental payments increased 15%, from \$371 million in 2012 to \$428 million in 2013. This increase is attributable to more retirees withdrawing accumulated contributions and interest from SERS in 2013 as compared to 2012. Those withdrawals reduce the retirees' payments over the annuitants' remaining life. Act 2010-120 no longer allows the withdrawal of accumulated contributions and interest for Class A-3 and A-4 members when they retire.

Going forward, SERS expects benefit expenses to continue to steadily rise. This is attributable to the fact that the number of new retirees added to the rolls is expected to be about 75% higher than retirees removed from the rolls. Additionally, new retirees'

monthly annuity is approximately 100% higher than the annuity of those being removed. SERS was established in 1923 but did not pay more than \$1 billion in annual benefits until 1997. SERS' annual benefit payments reached \$2 billion in 2007. Based on recent actuarial projections, annual benefit payments will reach \$3 billion by 2014.

Growth in Annuity Payroll

	December			
	2013	2012	2011	
Monthly annuity payroll (\$ millions)	\$205	\$194	\$187	
Retirees	120,052	117,061	115,342	

The administrative costs of SERS represented 0.1% of plan net position in 2013 and 2012. All costs were within budget.

SERS Assets

Investments are the most significant component of SERS' assets. The fair value of investments increased to \$27.7 billion in 2013 from \$25.6 billion as of December 31, 2012. The \$2.1 billion increase in investments was primarily due to the fact that net investment gain of \$3.7 billion and contributions of \$1.2 billion exceeded the \$2.8 billion paid in benefits.

SERS reports its assets at "fair value" as discussed in the accounting policies note 2(c) to the financial statements. Fair value is the value SERS expects to receive in a current sale between a willing buyer and a willing seller that are equally motivated; that is, other than a forced or liquidation sale. The value of publicly traded securities, stocks, and bonds is determined using the latest quote from national exchanges or pricing services. Those prices reflect the securities' pricing at the close of business and are affected by such items as liquidity, current events, and the size of lots being traded.

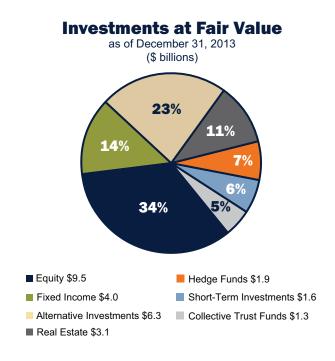
Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

Real estate is valued by the investment manager using discounted cash flows, recent comparable sales, and current market conditions to arrive at a fair value. The real estate portfolios undergo an annual independent financial audit of the estimated fair values as well as an independent appraisal process on a routine cycle conducted by approved appraisers who meet specified professional qualifications. The appraisal process involves a significant amount of judgment and estimating. As a result, the ultimate value on sale of the asset may differ from the appraised value.

Values for alternative investment and real estate limited partnerships are determined by the general partners by a process reviewed by valuation committees. The partnerships' investments, as well as the assumptions and estimates used in developing the investment values, are subject to annual independent audits. Because the investments in those partnerships are generally illiquid and holding periods may last for several years, the ultimate value realized by SERS on the disposition may differ materially from the estimated values reflected in the financial statements

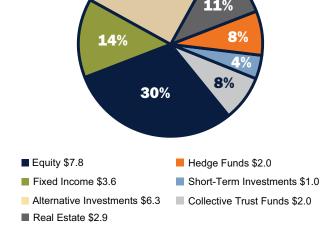
Equity fair values increased \$1.7 billion to \$9.5 billion in 2013 from \$7.8 billion in 2012. The increase was mainly due to favorable market returns. Fixed income values increased to \$4.0 billion in 2013 from \$3.6 billion in 2012. Alternative investment values were \$6.3 billion in 2013 and 2012, respectively. Real estate values increased to \$3.1 billion in 2013 from \$2.9 billion in 2012. Hedge fund values decreased to \$1.9 billion in 2013 from \$2.0 billion in 2012. Short-term investments values increased to \$1.6 billion in 2013 from \$1.0 billion in 2012. Collective trust funds values decreased to \$1.3 billion in 2013 from \$2.0 billion in 2012 due to reallocation as well as less favorable market returns. The total investment portfolio fair value of \$27.7 billion for 2013 was comprised as shown by the chart at the top of the next column.



The total investment portfolio fair value of \$25.6 billion for 2012 was comprised as shown by the chart below.

as of December 31, 2012 (\$ billions) 25%

Investments at Fair Value



Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

SERS earns additional investment income by lending investment securities to brokers. The brokers provide collateral to SERS for borrowed securities generally equal to 102% to 105% of the borrowed securities. SERS invests the collateral to earn interest. Income, net of expenses, from securities lending is dependent on the volume of lending generated at the custodian bank and the spreads (profits) on those loaned securities. In 2008, certain securities purchased with cash collateral by the lending agent had values significantly less than the amortized cost reflected on the custodian records. The loss to SERS was approximately \$25 million in 2008 and was established as a liability in the financial statements. This liability was reduced to approximately \$7 million in 2013 and is expected to be paid off in 2014. Despite this loss, SERS earned \$57 million over the last 10 years. Since 2008, due to the increased risk associated with the market uncertainty, the securities lending program was scaled back in both the number of securities on loan and the market value of those securities for which cash collateral was provided. The pool's investment guidelines provide for investment of cash collateral in highly liquid, highly rated securities. As of December 31, 2013 and 2012, the fair value of loaned securities was \$287 million and \$344 million, respectively; the fair value of the associated collateral was \$295 million and \$354 million, of which \$212 million and \$203 million was cash, respectively.

Derivatives

Within narrowly prescribed policy guidelines, SERS permits investment managers to use derivatives as a means to provide market exposure to various asset classes. Used properly, these derivatives deliver returns similar to indexed returns in the respective asset classes in a cost efficient manner without disrupting the liquidity needs of SERS. SERS' investment managers manage counterparty credit risk by entering into contracts with parties with strong credit ratings and by establishing collateral

requirements. SERS monitors derivative levels and types to ensure that portfolio derivatives are consistent with the intended purpose and at the appropriate level.

Liquidity

In the past, SERS' liquidity needs were met through member and employer contributions, earnings from investments, and its well diversified investment portfolio. Increasing liquidity requirements of the SERS Fund necessitated a change in the role and strategy of the investment program. The 2012-2013 Strategic Investment Plan established a liquidity reserve asset class that will serve as the primary source of short-term liquidity for the SERS Fund. In periods of market distress, liquid reserves will reduce capital impairment risk (i.e. selling assets below intrinsic value) and enhance fund returns by enabling the purchase of mispriced securities from distressed sellers. At December 31, 2013, SERS Fund held \$1.3 billion, or 4.8%, in the liquidity reserve asset class. The long-term target for the liquidity reserve is 3.0% of SERS Fund.

Pennsylvania Act 2010-120

On November 23, 2010, the Governor signed HB 2497 into law as Act 2010-120. This legislation preserved the benefits in place for the current members at that time but mandated a number of benefit reductions for new members by reducing the retirement benefit "accrual rate," increasing the normal retirement age, eliminating the lump sum withdrawal option, extending the vesting period from five years to 10 years, and other provisions for employees hired on or after January 1, 2011. One aspect of Act 2010-120 is that retirement provisions for legislators elected after December 1, 2010, were reduced and made consistent with those of most rank-and-file employees. Additionally, Act 2010-120 capped growth of employer contributions to 3% in commonwealth FY 11/12, 3.5% in commonwealth

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

FY 12/13, and 4.5% each year thereafter until no longer needed. SERS existing liabilities were reamortized over 30 years through an actuarial fresh start under Act 2010-120. Act 2010-120 also prohibits the use of pension obligation bonds, which are issued by a state or local government in order to pay their obligation to the pension fund.

It will take considerable time to realize benefits from the lower costs detailed above. SERS' funded ratio will improve as employees hired before January 2011 retire and post-January 2011 hires begin to fill employee ranks in greater proportion.

Management's Discussion and Analysis

As of December 31, 2013 and 2012 (unaudited)

Condensed Financial Information

(\$ millions)

Plan Net Position

	2012	Increase	2012	Increase	2011
Assets	2013	(Decrease)	2012	(Decrease)	2011
Total receivables	\$217	\$(86)	\$303	\$(304)	\$607
Total investments	27,677	2,102	25,575	1,579	23,996
Securities lending collateral pool	212	9	203	88	115
Total assets	28,106	2,025	26,081	1,363	24,718
Liabilities					
Accounts payable and accrued expenses	55	9	46	(10)	56
Securities lending collateral pool payable	7	(3)	10	(3)	13
Investment purchases and other liabilities	438	5	433	276	157
Obligations under securities lending	212	9	203	88	115
Total liabilities	712	20	692	351	341
Total plan net position	\$27,394	\$2,005	\$25,389	\$1,012	\$24,377

Changes in Plan Net Position

		Increase		Increase	
Additions	2013	(Decrease)	2012	(Decrease)	2011
Member contributions	\$352	\$4	\$348	\$(3)	\$351
Employer contributions	795	229	566	174	392
Net investment gain	3,724	930	2,794	2,314	480
Total additions	4,871	1,163	3,708	2,485	1,223
Deductions					
Benefits and refunds	2,844	170	2,674	(31)	2,705
Administrative expenses	22	-	22	(5)	27
Total deductions	2,866	170	2,696	(36)	2,732
Increase/(decrease) in plan net position	\$2,005	\$993	\$1,012	\$2,521	\$(1,509)

Statements of Plan Net Position

Statements of Plan Net Position

Years ended December 31, 2013 and 2012 (\$ thousands)

	2013	2012
Assets		
Receivables		
Plan members	\$1,086	\$923
Employers	48,361	27,304
Investment income	54,881	53,202
Investment proceeds and other receivables	108,835	216,182
Miscellaneous	3,763	5,578
Total receivables	216,926	303,189
Investments		
Short-term investments	1,596,487	1,039,802
United States government securities	2,281,000	2,315,575
Corporate and foreign bonds and notes	1,707,692	1,276,514
Common and preferred stocks	9,533,111	7,865,595
Collective trust funds	1,249,802	1,955,956
Hedge funds	1,887,350	1,967,400
Real estate	3,113,115	2,870,536
Alternative investments	6,308,780	6,284,053
Total investments	27,677,337	25,575,431
Securities lending collateral pool	211,893	202,880
Total assets	28,106,156	26,081,500
Liabilities		
Accounts payable and accrued expenses	55,108	45,582
Securities lending collateral pool payable	7,146	10,426
Investment purchases and other liabilities	437,853	433,277
Obligations under securities lending	211,893	202,880
Total liabilities	712,000	692,165
Net position held in trust for pension benefits	\$27,394,156	\$25,389,335

See accompanying notes to financial statements.

Statements of Changes in Plan Net Position

Statements of Changes in Plan Net Position

Years ended December 31, 2013 and 2012 (\$ thousands)

	2013	2012
Additions		
Contributions		
Plan members	\$351,968	\$347,937
Employers	794,911	565,621
Total contributions	1,146,879	913,558
Investment gain		
Net appreciation in fair value of investments	3,554,227	2,268,730
Collective trust fund (depreciation)/appreciation and income	(77,878)	275,103
Interest	120,815	144,431
Dividends	204,214	190,733
Real estate	99,314	97,641
Miscellaneous	668	4,583
	3,901,360	2,981,221
Investment expenses	(181,042)	(189,722)
Net gain from investing activities	3,720,318	2,791,499
From securities lending activities		
Securities lending income	4,326	3,953
Securities lending expenses	(606)	(512)
Net income from securities lending activities	3,720	3,441
Total net investment gain	3,724,038	2,794,940
Total additions	4,870,917	3,708,498
Deductions		
Benefits	2,833,676	2,664,242
Refunds of contributions	10,609	9,891
Administrative expenses	21,811	22,209
Total deductions	2,866,096	2,696,342
Net increase	2,004,821	1,012,156
Net position held in trust for pension benefits		
Balance, beginning of year	25,389,335	24,377,179
Balance, end of year	\$27,394,156	\$25,389,335

See accompanying notes to financial statements.

Notes to Financial Statements

As of December 31, 2013 and 2012

(1) Organization and Description of SERS

(a) Organization

SERS was established as of June 27, 1923, under the provisions of Public Law 858, No. 331. SERS was developed as an independent administrative agency of the board which exercises control and management of SERS, including the investment of its assets. The State Employees' Retirement Board has 11 members including the State Treasurer (ex officio), two members from the Senate, two members of the House of Representatives, and six members appointed by the Governor, one of whom is an annuitant of SERS. At least five board members must be active members of SERS and at least two must have 10 or more years of credited service.

SERS is the administrator of a cost-sharing multiple-employer defined benefit retirement plan established by the Commonwealth of Pennsylvania (commonwealth) to provide pension benefits for employees of state government and certain independent agencies. SERS is a component unit of the commonwealth and is included in the commonwealth's financial report as a pension trust fund. Administration costs are financed through contributions and investment earnings.

Membership in SERS is mandatory for most state employees. Members and employees of the General Assembly, certain elected or appointed officials in the executive branch, department heads, and certain employees in the field of education are not required, but are given the option to participate. At December 31, 2013 and 2012, SERS membership consisted of the following:

SERS Membership

	2013	2012
Retirees and beneficiaries currently receiving benefits	120,052	117,061
Terminated members entitled to but not yet receiving benefits	6,395	6,725
Current active members	105,186	106,048
Total members	231,633	229,834
Participating agencies	104	105

(b) Pension Benefits

SERS provides retirement, death, and disability benefits. Cost of Living Adjustments (COLA) are provided at the discretion of the General Assembly. Article II of the Commonwealth of Pennsylvania's Constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly.

Prior to Act 2010-120, employees who retire at age 60 with three years of service, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the General Assembly and certain employees classified in hazardous duty positions can retire with full benefits at age 50, with at least three years of service. Act 2010-120 preserved all benefits in place for members, but mandated a number of benefit reductions for new members effective January 1, 2011. The benefit reduction included a new class of membership that accrues benefits at 2% of their final average salary instead of the previous 2.5%. The new vesting period changed from five to 10 years of credited service, and the option to withdraw lump-sum accumulated deductions was eliminated. The new normal retirement age is 65 for most employees and age 55 for members of the General Assembly and certain employees classified in hazardous duty positions.

Most members of SERS, and all state employees hired after June 30, 2001 and prior to January 1, 2011

Notes to Financial Statements

As of December 31, 2013 and 2012

(except state police officers and certain members of the judiciary and legislators), are Class AA members. Each class of benefits is based on a multiple of the base accrual rate of 2%, which is called the multiplier. The multiplier for Class AA is 1.25, which translates into an annual benefit of 2.5% of the member's highest three-year average salary times years of service and became effective for members July 1, 2001. The general annual benefit for Class A members is 2% of the member's highest three-year average salary times years of service.

State police are entitled to a benefit equal to a percentage of their highest annual salary, excluding their year of retirement. The benefit is 75% of salary for 25 or more years of service and 50% of salary for 20-24 years of service. Judges are entitled to a benefit of 4% of final average salary for each of the first 10 years of service and 3% for subsequent years. District Justices are entitled to a benefit of 3% of final average salary for each year of service. Legislators taking office before December 1, 2010 are Class D-4. The multiplier for Class D-4 is 1.5, which translates into an annual benefit of 3% of the final average salary for each year of service.

Act 2010-120 created a new A-3 class of service and an optional A-4 class for most employees that entered SERS membership for the first time on or after January 1, 2011 and December 1, 2010 for legislators newly elected in November 2010. Employees who enter SERS membership after the effective date of Act 2010-120 enter as members of the A-3 class with a 45-day window to elect membership in the optional A-4 class. The general annual benefit for Class A-3 members is 2% of the member's highest three-year average salary times years of service while the Class A-4 benefit accrual rate is 2.5%.

According to the SERC, all obligations of SERS will be assumed by the commonwealth should SERS terminate

(c) Contributions

SERS' funding policy, as set by the board, provides for periodic active member contributions at statutory rates. The SERS' funding policy also provides for periodic employer contributions at actuarially determined rates, expressed as a percentage of annual retirement covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. However, Act 2010-120 imposes rate increase collars (limits on annual rate increases) on employer contributions that keep the employer contribution rate below the rates established in accordance with actuarial parameters suggested by the GASB standards. The collar for commonwealth FY 11/12 was 3%, capping the employer contribution rate at 8%. The commonwealth FY 12/13 collar was 3.5% capping the rate at 11.5%. The collar for commonwealth FY 13/14 is 4.5% and will remain at that rate until no longer needed.

A variation of the entry age normal actuarial cost method is used to determine the liabilities and costs related to all of SERS' benefits, including superannuation, withdrawal, death, and disability benefits, and to determine employer contribution rates. The significant difference between the method used for SERS and the typical entry age normal actuarial cost method is that the employer normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. SERS believes that this variation should produce approximately the same results as the typical method over the long run. These rates are computed based upon actuarial valuations on SERS' fiscal year end of December 31 and applied to the commonwealth based on its fiscal year end of June 30; therefore, the employer contribution rates, in effect for SERS' year end of December 31, reflect a blended average of calculated rates. The blended contribution rates, which include the Benefits Completion Plan (BCP), were as follows:

Notes to Financial Statements

As of December 31, 2013 and 2012

2012

Blended Contribution Rates

	2013	2012
Employer normal cost	5.06%	4.59%
Amortization of unfunded actuarial assets in excess of liabilities	23.75	18.07
Maximum rate factor	(14.99)	(12.86)
Total employer cost	13.82%	9.80%

In addition to the employer normal cost, the total employer cost includes other costs and credits resulting from COLAs, differences between actual investment results and actuarial estimated returns. and changes in benefits. These additional costs and credits are amortized over a period of future years as set by the legislature. Act 2010-120 established a fresh start 30-year amortization on liabilities beginning in 2011. The general membership contribution rate for all Class A and Class AA members is 5% and 6.25% of salary, respectively. The general membership contribution rate under Act 2010-120 for A-3 and A-4 members is 6.25% and 9.3% of salary, respectively. The contribution rate for Class D-4 members is 7.5%. Judges and district justices have the option of electing special membership classes requiring a contribution of 10% and 7.5%, respectively. All employee contributions are recorded in individually identified accounts that are credited with interest, calculated at 4% per annum, as mandated by statute. Accumulated employee contributions and credited interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting

The financial statements of SERS are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues

are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Member and employer contributions are based on when member salaries are earned and are recognized when due, pursuant to statutory requirements and formal commitments. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

2012

(b) Use of Estimates

Management of SERS has made certain estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates

(c) Investments

SERS' investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller – that is, other than in a forced or liquidation sale. The investments in short-term investment funds, including those managed by the treasurer of the commonwealth, are reported at cost plus allocated interest, which approximates fair value. The securities lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at cost

Notes to Financial Statements

As of December 31, 2013 and 2012

plus accrued interest, which approximates fair value. U.S. government securities, corporate and foreign bonds and notes, common and preferred stocks, and some hedge funds, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Securities that are not traded on a national security exchange are valued by the asset manager, valued by third parties based on similar sales, or valued by valuation committees. Foreign exchange, futures, and swap contracts are marked to market daily with changes in fair value recognized as part of investments and investment income. Real estate investments, which are subject to annual independent audits, are primarily valued based on independent appraisals. For properties that have not been appraised, projected future net income streams are used to approximate fair value.

Alternative investments – which are subject to annual independent audit, include interests in limited partnerships invested in venture capital, private equities, and other investments – are valued based on estimated fair value established by valuation committees.

The collective trust funds (CTF) consist primarily of domestic and international institutional mutual and index funds. The funds do not pay interest or dividends to shareholders, and reinvest all income earned on securities held by the fund. The fair value of the CTF is based on the reported share net asset value of the respective fund. The CTF is subject to annual independent audit.

Unsettled investment sales are reported as investment proceeds receivable and unsettled investment purchases are reported as investment purchases payable. Investment expenses consist of investment managers' fees and those expenses directly related to SERS' investment operations.

Investments in venture capital, private equity, and real estate are generally illiquid. Because of the inherent uncertainty in valuing privately held securities, the fair value may differ from the values that would have been used had a ready market for such securities existed, and the difference can be material. Accordingly, the realized value received upon the sale of the asset may differ from the fair value.

(d) Commitments

As of December 31, 2013 and 2012, SERS had contractual commitments totaling approximately \$1.4 billion and \$1.5 billion, respectively, to fund future alternative investments over the next several years, and \$163 million and \$125 million, respectively, to fund future real estate investments over the next several years.

(e) Federal Income Taxes

The Internal Revenue Service (IRS) issued a favorable tax determination letter on September 30, 2013 qualifying SERS as a Governmental Plan under the Internal Revenue Code (IRC). Therefore, SERS is exempt from federal income taxes. This tax determination is conditioned on the General Assembly enacting certain corrective amendments to the SERC to satisfy the qualification requirements.

(f) Risk Management

SERS is exposed to various liabilities and risks of loss related to theft or destruction of assets, injuries to employees, and court challenges to fiduciary decisions. As an administrative agency of the commonwealth, SERS is accorded sovereign immunity. SERS participates in certain commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage. SERS is self insured for fiduciary and

Notes to Financial Statements

As of December 31, 2013 and 2012

director and officer liability. During the past three fiscal years, SERS' insurance settlements did not exceed insurance coverage.

(g) Future Accounting Pronouncements

The GASB issued Statement No. 67 (GASB 67) ("Financial Reporting for Pension Plans an amendment of GASB Statement No. 25.") This statement replaces the requirements of Statements No. 25 and No. 50 related to pension plans that are administered through trusts or equivalent arrangements. The requirements of Statements No. 25 and No. 50 remain applicable to pension plans that are not administered through trust or equivalent arrangements. The requirements of GASB 67 are effective for financial statements for fiscal years beginning after June 15, 2013. This will be applicable to SERS financial statements for the year ending December 31, 2014. GASB 67 establishes consistent methodologies for calculating and reporting the pension plan's net pension liability/asset in the notes to the financial statement independent of how those pension plans are funded. The pronouncement will also enhance the amount of information in the RSI to include 10-year schedules of various financial data such as total pension liability/asset and the components of the changes in the liability/asset each year.

The GASB issued Statement No. 68 (GASB 68) ("Accounting and Financial Reporting for Pension Plans an amendment of GASB Statement No. 27.") This statement replaces the requirements of Statements No. 27 and No. 50 as related to pensions provided by pension plans that are administered through trusts or equivalent arrangements. The requirements of Statements No. 27 and No. 50 remain applicable to pension plans that are not administered through trust or equivalent arrangements. The requirements of GASB 68 are effective for financial statements for fiscal years beginning after June 15, 2014. This will enhance reporting for employers of

SERS using information from GASB 67 to record and report their proportionate share of the net pension liability/asset, pension expense, and pension related deferred outflows/inflows of resources directly into the employer's financial statements.

(h) Reclassification

Certain 2012 balances have been reclassified to conform to the 2013 presentation.

(3) Description of Accounts

The SERC requires SERS to maintain the following accounts representing the net position held for future and current benefit payments:

The Member Savings Account accumulates contributions and interest earnings of active employees. Member balances are transferred to the Annuity Reserve Accounts as members retire.

The **State Accumulation Account** accumulates contributions of the employer and the net earnings of the SERS Fund. Funds are transferred to the Annuity Reserve Accounts as members retire. The amount transferred is actuarially determined. Negative balances represent the amounts transferred to other reserve account balances in excess of accumulated employer contributions and net earnings.

The Annuity Reserve Accounts are the accounts from which all death and retirement benefits and supplemental annuities are paid. The balances in these accounts are actuarially determined.

The **Interest Reserve Account** accumulates all income earned by the SERS Fund and from which all administrative and investment expenses incurred by the SERS Fund and the board necessary for operation of SERS are paid. Any balance in this reserve is transferred to the State Accumulation Account at year end.

Notes to Financial Statements

As of December 31, 2013 and 2012

The Benefits Completion Plan (BCP) Reserve Account accumulates all BCP employer contributions and net earnings of the SERS Fund less any benefits paid out of SERS Fund. Act 2002-234 amended the SERC by adding Section 5941 to the SERC. Section 5941 directs the board to establish and serve as trustee of a retirement benefit plan that is in conformity with IRC Section 415(m), the BCP. The BCP is a separate trust fund established to provide benefits to all annuitants of SERS' defined benefit plan and their survivor annuitants and beneficiaries whose retirement benefit exceeds the IRC Section 415(b) limits. A monthly annuity or death benefit is paid under the BCP only if a corresponding monthly annuity or death benefit is paid from the defined benefit plan to the extent permitted by IRC Section 415(b) and the SERC. There were 25 and 21 individuals receiving benefits from the BCP at December 31, 2013 and 2012, respectively.

Account balances at December 31, 2013 and 2012 are as follows:

Account Balances

(\$ thousands)

	2013	2012
Member savings account	\$4,636,219	\$4,551,507
State accumulation account	(292,691)	(1,260,147)
Annuity reserve accounts		
Annuitants and beneficiaries	20,908,046	20,083,517
State police	2,093,166	1,965,067
Enforcement officers	45,505	46,467
Benefits completion plan reserve	3,911	2,924
account		
Total	\$27,394,156	\$25,389,335

(4) Investments

As provided by statute, the board has exclusive control and management responsibility of SERS funds and full power to invest the funds. In

exercising its fiduciary responsibility to SERS membership, the board is governed by the "prudent investor" rule in establishing investment policy. The "prudent investor" rule, requires the exercise of that degree of judgment, skill, and care under the circumstances then prevailing which investors 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 permanent disposition of the funds, considering the probable income to be derived there from, as well as the probable safety of their capital. The board has adopted its Statement of Investment Policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of SERS.

SERS' investments are subject to various risks. Among these risks are custodial credit risk, credit risk, interest rate risk, and foreign currency risk. Each of these is discussed in more detail on the following pages.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, SERS would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Pursuant to Title 71, Pennsylvania Consolidated Statutes Section 5931(c), the State Treasurer serves as custodian of SERS Fund. In accordance with a contractual relationship between the commonwealth's Treasury Department and its custodial agent, substantially all investments, where securities are used as evidence of the investment, are held by the custodian in book-entry form in SERS' name. Those investments are defined as insured or registered investments for which the securities are held by SERS or its agent and, therefore, have a very minimal level of custodial credit risk losses. All remaining

Notes to Financial Statements

As of December 31, 2013 and 2012

investments do not have securities that are used as evidence of the investments. These investments are primarily in collective trust funds, hedge funds, and limited partnerships, which include real estate and alternative investments

In June 2012, the board approved the SERS' 2012-2013 Strategic Investment Plan. Under this plan, fixed income is structured to generate current income to pay benefits, provide liquidity sufficient to preserve capital and satisfy liabilities, and protect SERS Fund against inflation and deflation. Secondarily, when market conditions are favorable, the program will seek to enhance the total return of SERS Fund. This plan established a target allocation to the fixed income asset class of 19%. This allocation is divided among four distinct segments each of which fulfills a specific role within the scope of the fixed income structure. The segments are as follows:

- **Core Plus Fixed Income:** contributes excess total return to SERS Fund when market conditions permit.
- **Core Fixed Income:** provides income and liquidity with relatively low risk.
- **Treasury Inflation Protected** Securities (TIPS): protects SERS Fund against inflation and provides liquidity.
- Nominal U.S. Treasuries: protects SERS Fund against deflation and provides liquidity.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating agencies such as Moody's Investors Services (Moody's), Standard and Poor's (S&P), and Fitch Ratings (Fitch).

For securities exposed to credit risk in the fixed income portfolio, the following table discloses aggregate fair value, by the least favorable credit rating issued using Moody's, S&P, and Fitch credit ratings at December 31, 2013 and 2012:

Debt Securities Exposed to Credit Risk

(\$ thousands)

	Fair Value		
Rating	2013	2012	
AAA	\$280,903	\$283,575	
AA	537,357	262,509	
A	282,703	218,029	
BAA	680,549	437,974	
BA and below	477,602	416,388	
$NA^{1/}$	29,370	27,591	
Short-term investments ^{2/}	1,568,708	1,005,525	
Total exposed to credit risk ^{3/}	\$3,857,192 \$2,651,591		

¹/NA represents securities that were either not rated or had a withdrawn rating. NA also includes the fair value of certain swaps, which by nature do not have credit quality ratings. See note 6 for additional information regarding the nature of these swap agreements.

^{2/}Represents short-term investments mostly in the Commonwealth of Pennsylvania Treasury Department's Short-Term Investment Fund (STIF). This category is comprised of short-term, investment grade securities, which are mainly U.S. treasuries, agencies, or repurchase agreements.

^{3/}Debt securities exposed to credit risk and U.S. government guaranteed securities, as noted in the subsequent paragraph, are comprised of short-term investments, U.S. government securities, and corporate and foreign bonds and notes from the Statements of Plan Net Position.

Notes to Financial Statements

As of December 31, 2013 and 2012

U.S. government guaranteed securities with a fair value of \$1.7 billion and \$2.0 billion as of December 31, 2013 and 2012, respectively, were not included in the previous table because they are not subject to credit risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As a means for limiting SERS' exposure to fair value losses arising from rising interest rates, SERS' long-term asset allocation policy diversifies its fixed income core segment between intermediate

duration and longer duration strategies based on the Barclays Capital Aggregate Index. Duration is a measure of an investment's sensitivity to changes in interest rates. The higher the duration, the greater the changes in fair value when interest rates change. SERS measures interest rate risk using option-adjusted duration, which considers the effect of a security's embedded options on cash flows.

At December 31, 2013 and 2012, SERS' fixed income portfolio had the following option-adjusted durations by debt sector:

Debt Option-Adjusted Durations

(\$ thousands)

	2013		2012	
	Fair Value	Option-Adjusted Duration	Fair Value	Option-Adjusted Duration
Sovereign debt	\$316,618	8.0	\$313,102	8.2
Government	1,726,087	6.9	1,962,377	7.4
Corporates	800,839	5.6	533,056	6.3
Mortgage-backed securities	530,793	4.5	357,365	2.7
Agencies	128,108	4.5	80,937	7.4
Private placements ^{1/}	436,712	3.9	344,629	5.1
Asset-backed securities	77,380	1.3	32,298	1.9
Short-term investments	1,568,708	0.1	1,005,525	0.1
Other investments ^{2/}	(66)	NA	2,602	NA
Total ^{3/}	\$5,585,179		\$4,631,891	

¹/Private placements raise capital via offerings directly to qualified investors rather than through public offerings. Private placements do not have to register with the Securities and Exchange Commission if the securities are purchased for investment as opposed to resale. These private placements have exposure to various fixed income securities.

²/Other investments represent certain securities and the value of swaps and futures agreements as of December 31, for which the duration is not available. In 2013, foreign exchange contracts were the largest component of the other investment category and their net position was negative.

³/Total fair values exposed to interest rate risk are comprised of short-term investments, U.S. government securities, and corporate and foreign bonds and notes from the Statements of Plan Net Position.

Notes to Financial Statements

As of December 31, 2013 and 2012

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. As part of SERS' program to

manage risk and enhance returns, SERS invests in global markets. At December 31, 2013 and 2012, SERS had the following currency exposures:

Foreign Currency Exposures 2013

(\$ thousands)

Currency	Short-Term Investments ^{1/}	Fixed Income	Equity	Real Estate	Alternative Investments	Total
European Euro	\$7,483	\$17,741	\$1,072,160	\$22,112	\$877,349	\$1,996,845
British Pound Sterling	2,357	41,768	766,957	15,052	21,724	847,858
Japanese Yen	6,029	1,916	604,980	52,696	-	665,621
Swiss Franc	3,281	-	380,624	1,301	-	385,206
Hong Kong Dollar	(230)	-	278,645	17,108	-	295,523
Canadian Dollar	687	12,221	170,325	2,501	-	185,734
Australian Dollar	115	1,390	165,021	16,420	-	182,946
South Korean Won	7	9,031	147,531	-	-	156,569
Swedish Krona	157	1,701	73,318	2,197	14,768	92,141
Mexican Peso	147	31,878	28,539	25,898	-	86,462
New Taiwan Dollar	963	-	77,392	-	-	78,355
Brazilian Real	473	11,491	55,938	-	-	67,902
Singapore Dollar	(153)	-	50,735	11,109	-	61,691
Norwegian Krone	76	-	44,809	-	-	44,885
Danish Krone	550	-	42,025	-	-	42,575
South African Rand	231	9,893	32,386	-	-	42,510
Malaysian Ringgit	30	1,859	25,473	-	-	27,362
Thai Baht	86	-	20,111	-	-	20,197
Indonesian Rupiah	49	5,913	8,340	-	-	14,302
New Turkish Lira	80	2,749	8,349	-	-	11,178
Hungarian Forint	364	8,414	1,694	-	-	10,472
Chilean Peso	-	9,204	1,195	-	-	10,399
Indian Rupee	-	9,187	1,072	-	-	10,259
Other currencies (10)	1,693	3,009	34,854	-	-	39,556
Total	\$24,475	\$179,365	\$4,092,473	\$166,394	\$913,841	\$5,376,548

¹/Includes receivables and payables as of December 31 for securities sold and purchased.

Notes to Financial Statements

As of December 31, 2013 and 2012

Foreign Currency Exposures 2012

(\$ thousands)

	Short-Term	Fixed			Alternative	
Currency	Investments ^{1/}	Income	Equity	Real Estate	Investments	Total
European Euro	\$5,596	\$29,547	\$834,076	\$17,393	\$913,935	\$1,800,547
British Pound Sterling	4,696	48,388	654,578	16,638	26,475	750,775
Japanese Yen	(731)	2,547	514,073	47,867	-	563,756
Swiss Franc	3,961	-	282,313	1,865	-	288,139
Hong Kong Dollar	1,621	-	166,642	32,523	-	200,786
Australian Dollar	1,728	454	151,938	29,898	-	184,018
Canadian Dollar	1,877	14,437	149,524	5,115	-	170,953
Singapore Dollar	308	-	54,186	15,970	-	70,464
Swedish Krona	3,424	(2,776)	54,697	2,437	7,819	65,601
Mexican Peso	1,159	28,473	-	26,901	-	56,533
Norwegian Krone	69	-	38,331	-	-	38,400
Danish Krone	96	-	33,489	-	-	33,585
South Korean Won	(147)	8,455	24,492	-	-	32,800
Polish Zloty	319	12,194	-	-	-	12,513
Brazilian Real	2	11,012	599	313	-	11,926
Malaysian Ringgit	110	9,355	553	-	-	10,018
Other currencies (15)	1,896	49,462	19,718	-	-	71,076
Total	\$25,984	\$211,548	\$2,979,209	\$196,920	\$948,229	\$4,361,890

¹/Includes receivables and payables as of December 31 for securities sold and purchased.

Notes to Financial Statements

As of December 31, 2013 and 2012

(5) Securities Lending

In accordance with a contract between the commonwealth's treasurer and its custodian. SERS participates in a securities lending program.

The custodian, acting as lending agent, lends SERS' equity, debt, and money market securities for cash, securities, or letter of credit collateral. Collateral is required at 102% of the fair value of the securities loaned except for the equity securities of non-U.S. corporations, for which collateral of 105% is required. Collateral is marked to market daily. If the collateral falls below guidelines for the fair value of the securities loaned, additional collateral is obtained. Cash collateral is invested by the lending agent in accordance with investment guidelines approved by the board. The lending agent cannot pledge or sell securities collateral unless the borrower defaults.

As of December 31, 2013 and 2012, SERS' credit exposure to individual borrowers was limited because the amounts SERS owed the borrowers exceeded the amounts the borrowers owed SERS. The treasurer's contract with the lending agent requires the agent to indemnify SERS if the borrowers fail to return the underlying securities and the collateral is inadequate to replace the loaned securities or if the borrowers fail to pay income distributions on the loaned securities.

All loaned securities at December 31, 2013 and 2012 could be terminated on demand by either the lending agent or the borrower. Cash collateral is invested in a short-term collective investment pool. The duration of the investments in the pool at December 31, 2013 and 2012 was two days. Interest rate risk may be posed by mismatched maturities and could be affected by other program features, such as the lending agent's ability to reallocate loaned securities among all of its lending customers.

In 2008, certain securities purchased with cash collateral by the lending agent, had values at levels significantly less than amortized cost reflected on the custodian records. SERS established an approximately \$25 million liability on its financial statement related to this loss. Subsequent securities lending income is being used to repay the liability. The balance of the liability at December 31, 2013 and 2012 was \$7.1 million and \$10.4 million, respectively.

As of December 31, 2013 and 2012, the fair value of loaned securities was \$287 million and \$344 million, respectively; the fair value of the associated collateral was \$295 million and \$354 million, of which \$212 million and \$203 million was cash, respectively. As of December 31, 2013 and 2012, noncash collateral of \$83 million and \$151 million, respectively, is invested in U.S. government guaranteed securities which are not subject to credit risk.

(6) Derivative and Structured Financial **Instruments and Restricted Assets**

Within narrowly prescribed guidelines, SERS permits investment managers to enter into certain derivative and structured financial instruments primarily to enhance the performance and reduce the volatility of its portfolio. Typically, investment managers enter into foreign exchange contracts to make payment for international investments, futures contracts to gain exposure to certain equity markets and to manage interest rate risk, and swaps to gain equity exposure.

SERS is exposed to counterparty credit risk on all open derivative positions. Counterparty credit risk is the risk that a derivative counterparty may fail to meet its payment obligation under the derivative contract. As of December 31, 2013 and 2012, SERS' counterparty credit risk was not significant. SERS mitigates its legal risk on investment holdings including derivatives by carefully reviewing and

Notes to Financial Statements

As of December 31, 2013 and 2012

selecting investment managers. It manages its exposure to market risk within risk limits set by management.

SERS' managers also indirectly hold foreign exchange contracts, futures contracts, and certain swap contracts through its investments in collective trust funds and hedge funds. These funds invest in instruments directly and indirectly through a securities lending collateral pool, to gain foreign exchange exposure, to synthetically created equity-like returns, and to manage interest rate risk by altering the average life of the portfolio.

Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed upon price and settlement date. The investment manager uses these contracts primarily for its international investments to settle pending trades that occur more than two business days after trade date. The contracts are used by the investment manager for the purpose of eliminating foreign exchange risk. As a matter of policy, the investment managers enter into these contracts at their full discretion to protect currency fluctuations. To reduce the risk of counterparty nonperformance, the investment managers generally enter into these contracts with institutions regarded as meeting high standards of credit worthiness. The unrealized gain/loss on contracts is included in SERS' net position and represents the fair value of the contracts on December 31. At December 31, 2013 and 2012, SERS' contracts to purchase and sell by foreign currencies are shown in the following tables:

Foreign Exchange Contracts

As of December 31, 2013 (\$ thousands)

		Unrealized		Unrealized
Currency	Purchases	Gain/(Loss)	Sells	Gain/(Loss)
Chilean Peso	\$9,204	\$(186)	\$ -	\$ -
Indian Rupee	9,187	81	-	-
South Korean Won	9,031	112	-	-
European Euro	7,887	47	47,195	(665)
British Pound Sterling	6,919	84	3,132	(25)
Indonesian Rupiah	3,602	(392)	-	-
Canadian Dollar	2,742	8	3,093	(22)
Australian Dollar	1,444	(1)	34,862	953
Turkish Lira	1,085	(50)	1,085	50
Swedish Krona	1,060	19	4,052	(101)
Swiss Franc	-	-	29,009	(912)
Polish Zloty	-	-	11,039	(262)
New Zealand Dollar	-	-	10,512	(43)
Norwegian Krone	-	-	7,618	191
Other (8)	1,122	(1)	4,553	
Total	\$53,283	\$(279)	\$156,150	\$(836)

Notes to Financial Statements

As of December 31, 2013 and 2012

Foreign Exchange Contracts

As of December 31, 2012 (\$ thousands)

		Unrealized		Unrealized
Currency	Purchases	Gain/(Loss)	Sells	Gain/(Loss)
Japanese Yen	\$13,014	\$(304)	\$36,072	\$3,936
Brazilian Real	10,717	276	1,450	(33)
South Korean Won	8,602	382	-	-
Indian Rupee	6,835	(38)	-	-
Chilean Peso	5,901	44	-	-
Russian Ruble	5,534	156	-	-
European Euro	4,223	24	28,337	(376)
British Pound Sterling	971	10	12,484	(186)
New Romanian Leu	421	5	-	-
Australian Dollar	-	-	47,256	(1,615)
Swiss Franc	-	-	19,293	(211)
Norwegian Krone	-	-	8,522	(300)
New Zealand Dollar	-	-	7,359	81
Other (4)	103	-	7,667	(87)
Total	\$56,321	\$555	\$168,440	\$1,209

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. The exchange assumes the risk that the counterparty will not pay and generally requires margin payments to minimize such risk. Futures are generally used to achieve the desired market exposure of a security or index or to rebalance the total portfolio. SERS' exposure to futures contracts was not significant at December 31, 2013 and 2012.

Swap agreements provide for periodic payments between parties based on the change in value of underlying assets, indexes, rates, and credit worthiness. SERS uses contracts with multiple counterparties as well as collateral posting requirements to manage its counterparty credit risk. Credit default swaps are agreements with counterparties to either purchase or sell credit protection. SERS' managers use credit default swaps to either increase or decrease credit exposure to certain credit markets. Interest rate swaps are over-the-counter contracts that allow counterparties to exchange a fixed rate liability for a floating rate liability or vice versa. SERS' managers use interest rate swaps as a cost effective way of gaining exposure to certain sectors of the fixed income market. SERS' exposure to swap agreements was not significant at December 31, 2013 and 2012.

(7) Commission Recapture Program

SERS has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investments directly to SERS. During the years ended December 31, 2013 and 2012, SERS earned approximately \$109,000 and \$103,000 of income resulting from a commission recapture program, respectively. No expenditures were paid from the program in either year. At December 31, 2013 and 2012, SERS had accumulated commissions of \$4.1 million and \$4.0 million, respectively. These commissions can be used to pay for future expenditures.

Notes to Financial Statements

As of December 31, 2013 and 2012

(8) Post-Employment Benefits for Employees of SERS

SERS makes employer contributions to the pension plan. SERS' employees' contribution requirements and benefits are described in note 1. SERS' contributions for the years ended December 31, 2013, 2012, and 2011 were \$1.3 million, \$0.9 million, and \$0.6 million, respectively. The contributions were equal to the statutorily required contributions each year.

SERS also participates in the Commonwealth of Pennsylvania Office of Administration's (OA) Retired Employees Health Program (REHP). The REHP is a single employer plan and provides certain healthcare benefits to qualifying individuals meeting specified age and/or service requirements. The OA, in its sole discretion, determines available REHP benefits on an ongoing basis.

The REHP is administered through the Pennsylvania Employees' Benefit Trust Fund (PEBTF) as a third-party administrator for the commonwealth. Employer costs for retiree healthcare benefits are charged as a component of payroll expenditures on a "pay as you go" basis. During 2013, SERS funded REHP benefits by paying \$265 per pay period from January 1 to June 30, 2013, and \$305 per pay period from July 1 to December 31, 2013 for each active SERS employee.

The commonwealth's latest actuarial valuation, dated August 2013, provides an ARC for the REHP amounting to \$869.1 million for the commonwealth's FY ended June 30, 2013; SERS' allocated portion of the total REHP ARC was \$2.2 million. Based on the aggregate REHP qualifying contributions for FY 2013, SERS' net other post-employment benefits (OPEB) liability was approximately \$722,000. The commonwealth's 2011 actuarial valuation provided the OPEB reporting used for FY 2012 and 2011. The ARC for the REHP for the commonwealth's

FY ended June 30, 2012 was \$870.2 million; SERS' allocated portion of the total REHP ARC was \$2.0 million. Based on the aggregate REHP qualifying contributions for FY 2012, SERS' net OPEB liability was approximately \$550,000. The ARC for the REHP for the commonwealth's FY ended June 30, 2011 was \$883.1 million; SERS' allocated portion of the total REHP ARC was \$2.0 million. Based on the aggregate REHP qualifying contributions for FY 2011, SERS' net OPEB liability was approximately \$633,000. The cumulative three-year total net OPEB liability as of the commonwealth's FY ended June 30, 2013 was \$1.9 million. This information is summarized in the following table:

OPEB Liability

As of the commonwealth's FY ending June 30 (\$ thousands)

	Commonwealth	SERS'	SERS' Net
Year	ARC	ARC	OPEB
2013	\$869,140	\$2,240	\$722
2012	870,200	1,975	550
2011	883,160	2,005	633
Three-year	\$1,905		

Both valuation reports can be viewed in their entirety on the Office of the Budget's website at: http://www.budget.state.pa.us/portal/server.pt/community/financial_reports/4574.

(9) Litigation and Contingencies

SERS is involved in various lawsuits, generally related to benefit payments, which, in the event of an adverse result, could increase estimated actuarial liabilities by approximately \$1 billion. Some of the cases involve legal issues that, if extended to the entire membership, may result in significant costs to SERS. If such an event were to occur, the additional costs would be recovered by SERS through adjustments to the employer contribution rate.

Notes to Financial Statements

As of December 31, 2013 and 2012

(10) Additional Pension Disclosures

(a) Plan Description

SERS is the administrator of a cost-sharing multiple-employer defined benefit pension plan. SERS provides retirement, death, and disability benefits. COLAs are provided at the discretion of the General Assembly. SERS was developed as an independent administrative agency of the board which exercises control and management of SERS, including the investment of its assets. SERS issues a publicly available financial report that includes financial statements and RSI.

SERS investments are reported at fair value as discussed in note 2(c) Summary of Significant Accounting Policies. The ARC is actuarially determined, but for the commonwealth FY beginning July 1, 2011, the maximum annual contribution rate has been reduced from the actuarially determined rate through Act 2010-120. For commonwealth FY beginning July 1, 2014, the actuarially determined rate is 31.41% and the actual composite rate including BCP is 20.53%. For the commonwealth FY beginning July 1, 2013, the actuarially determined rate was 31.22% and the actual composite rate including BCP was 16.05%.

(b) Funding Status and Funding Progress

As of December 31, 2013, the most recent actuarial valuation date, SERS was 59.2% funded. The actuarial accrued liability for benefits was \$43.9 billion, and the actuarial value of assets was \$26.0 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$17.9 billion. The covered payroll (annual payroll of active employees covered by SERS) was \$5.9 billion, and the ratio of the UAAL to the covered payroll was 303.5%.

As of December 31, 2012, SERS was 58.8% funded. The actuarial accrued liability for benefits was \$43.1 billion, and the actuarial value of assets was \$25.3 billion, resulting in an UAAL of \$17.8 billion. The covered payroll was \$5.8 billion, and the ratio of the UAAL to the covered payroll was 304.2%.

The schedule of funding progress, presented as RSI following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of SERS assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

For 2013, the ARC and the percentage contributed were \$1,314,925 and 60.2%. For calendar years 2012 and 2011, the ARC was \$1,044,632 and \$913,778, respectively. The percentage contributed for the same periods were 53.9% and 42.8%.

(c) Actuarial Methods and Assumptions

In the December 31, 2013 and 2012 actuarial valuations, a variation of the entry age actuarial cost method was used. The significant difference between the method used for SERS and the typical entry age actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. The SERS variation should produce approximately the same results as the typical method over the long run. The actuarial assumptions included (a) a 7.5% investment rate of return (b) projected salary increases ranging from 4.3% to 11.05% with an average increase of 6.1%, and (c) a 2.75% rate of inflation. The assumptions did not include a COLA. The remaining closed amortization period at December 31, 2013 was 26 - 30 years.

For purposes of determining the ARC, a 30-year equivalent closed amortization period was used for both December 31, 2013 and 2012.

Required Supplementary Information

(unaudited)

Schedule 1 Schedule of Funding Progress

(\$ millions)

Actuarial Valuation Year Ended December 31	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Covered Payroll ^{1/}	UAAL as a Percentage of Covered Payroll
2013	\$25,975	\$43,875	\$17,900	59.2%	\$5,898	303.5%
2012	25,303	43,056	17,753	58.8	5,836	304.2
2011	27,618	42,282	14,664	65.3	5,891	248.9
2010	29,444	39,180	9,736	75.2	5,852	166.4
2009	30,205	35,797	5,592	84.4	5,936	94.2
2008	30,636	34,437	3,801	89.0	5,660	67.2

¹/Covered payroll represents the total annualized compensation adjusted to an appropriate fiscal year (July 1 to June 30) using the salary scale assumption and expected turnover and replacement estimates.

Schedule 2 Schedule of Employer Contributions

(\$ thousands)

Year Ended	Annual Required	Percentage
December 31	Contributions	Contributed
2013	\$1,314,925	60.2%
2012	1,044,632	53.9
2011	913,778	42.8
2010	866,822	31.4
2009	643,861	39.1
2008	584,248	39.9

See accompanying independent auditors' report.

For establishing the ARC, GASB 25 establishes a range of actuarial cost and amortization methods for the UAAL. The scheduled contributions for the past several years have been below the amount required to meet the GASB minimum. Underfunding of the ARC in 2008 and 2009 was the result of significant provisions of Act 2003-40, which changed the periods in which unfunded liabilities were amortized

in a manner that artificially suppressed the employer contribution rate below the ARC. Underfunding of the ARC from 2010 through 2013 was the result of significant provisions of Act 2010-120, which capped increases in the employer contribution rate. The capped contribution rates during those years were below the respective years' ARC contribution rate.

Supplementary Information

Schedule of Administrative Expenses

As of December 31, 2013 (\$ thousands)

Personnel services	
Salaries	\$9,571
Benefits	5,066
Temporary personnel wages, overtime, and outservice training	79
Total personnel services	14,716
Professional services	
Treasury department services	943
Information technology services	594
Consultant fees	415
Other commonwealth services	219
Legal fees	212
Other specialized services	148
Total professional services	2,531
Rentals	
Real estate rent	1,597
Other equipment rental	67
Total rentals	1,664
Communication	
Postage	857
Telephone	484
Printing and advertising	235
Total communication	1,576
Other expenses	
Maintenance	657
EDP and office equipment	326
Supplies	149
Travel and conferences	102
Subscriptions and memberships	90
Total other expenses	1,324
Total administrative expenses	\$21,811

See accompanying independent auditors' report.

Supplementary Information

Summary of Investment Expenses and Consultant Fees

As of December 31, 2013 (\$ thousands)

Investment Expenses

	Expenses
Investment manager expenses	
Alternative Investments	\$75,743
Real Assets	41,400
Global Public Equity	20,560
Diversifying Assets	14,826
Fixed Income	9,700
Liquidity Reserve	353
Total investment manager expenses	162,582
Investment related expenses	
Alternative Investments	10,930
Consultants	3,573
Investment personnel	1,637
Real Estate	1,552
Investment administrative	534
Custodial	187
Other	47
Total investment related expenses	18,460
Total investment expenses	\$181,042

Consultant Fees^{1/}

Firm	Service Type	Fees
StepStone Group	Alternative investments	\$1,975
R.V. Kuhns & Associates	General investment	524
Albourne America	Direct hedge funds	389
The Hay Group	Actuary	376
The Townsend Group	Real estate	333
GCM Customized Investment Group	Portfolio management	218
Institutional Shareholder Services	Proxy services	87
Other	Miscellaneous	86
Total consultant fees		\$3,988

^{1/}Includes both investment expenses and administrative expenses.

See accompanying independent auditors' report.

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May 30, 2014

Dear Members of the State Employees' Retirement Board:

The following pages detail the structure, strategy, and performance of the SERS' investment program. The data contained in the Investment Section that follows was compiled by SERS' investment, accounting, and auditing professionals; SERS' consultants, R.V. Kuhns & Associates, Inc., StepStone Group LLC, the Townsend Group and Albourne America LLC; and SERS' sub-custodian, BNY Mellon. Performance was calculated using the Modified Dietz day-weighted return methodology.

In 2013, SERS' investments generated a net gain of 13.6%, well ahead of the system's 7.5% actuarial return assumption. When added to member and employer contributions, the \$3.7 billion in net investment income resulted in total fund contributions of \$4.9 billion for the year. These were offset by benefit and expense payments of \$2.9 billion, resulting in a roughly \$2.0 billion increase in total fund assets. SERS' 10-year annualized net return is 7.4% while SERS long-term annualized net returns over 20, 25, and 30 years are 8.4%, 9.2%, and 9.7%, respectively.

The SERS Fund is managed in accordance with the investment policy and objectives established by the board, operating as fiduciaries for the exclusive benefit of members and beneficiaries of the pension plan. The primary investment objective of the fund is to assure the adequate accumulation of reserves at the least cost to the citizens of the commonwealth, while preserving the principal of the fund against erosion resulting from inflation. The board seeks to meet these objectives within acceptable risk parameters through broad diversification of investments by type, industry, investment manager style, and geographic location.

Asset allocation decisions are among the most important decisions the board makes to achieve the fund's investment objectives and investment diversification is the primary approach used to achieve return objectives with minimal acceptable risk. The fund's structure is highly-complex and broadly-diversified. The investment program utilizes more than 200 investment managers overseeing approximately 470 investment portfolios with distinct mandates.

The SERS investment office, in conjunction with the fund's consultants, performs a biennial review of the Strategic Investment Plan, recommending modifications, as appropriate. The results of and recommendations from this review are presented to the board for consideration and action.

SERS' 2012-2013 Strategic Investment Plan emphasizes liquidity to ensure that benefit payment obligations can easily be met and to mitigate capital impairment risk. Two key activities during the year included:

- creating and fully funding a designated liquidity reserve, consisting primarily of cash and short-duration government bonds; and
- reducing the fund's allocation to less-liquid asset classes (i.e., alternative investments, which include private equity, special situations, and venture capital, as well as, diversifying assets, which include absolute return and hedged strategies) while increasing exposure to more-liquid market segments (i.e., public equity).

The entire portfolio must be analyzed and adjusted in order to balance risk, achieve the liquidity goal, and produce a total return that equals or exceeds the present actuarial assumption of 7.5%.

Capital market returns were strong in 2013, especially in U.S. and other developed countries' public equities. The public equity market has been rising steadily for five straight years. In 2013, global monetary policy remained accommodative and economic conditions continued to improve. Developed economies gained momentum as emerging markets softened; even so, the emerging markets are expected to account for the bulk of global economic growth in the coming years. For this reason, our exposure to emerging market equities should continue to enhance the fund's return.

Corporations generated record profits in 2013 and continued to have strong balance sheets with large cash reserves. The capital base and liquidity of the global financial system continued to improve as the banking system worldwide continues to recapitalize and loosen lending. As recapitalization continues, global credit capacity will also improve and should enable additional economic activity. Thus, while inflation may pose increasing risk ahead, it is currently restrained due to slack in economic capacity worldwide.

As quantitative easing is tapered in the U.S., interest rates are expected to rise. Analysts are uncertain of the impact tapering will have on the markets as this is the U.S. economy's first real test of standing on its' own without the benefit of stimulus since the Great Recession. Against this backdrop of economic uncertainty, the well-diversified SERS Fund is structured to preserve capital while generating returns equal to, or in excess of, the actuarial assumed rate of return of 7.5%.

SERS' investment professionals and consultants vigilantly monitor economic conditions and market events, working to position the fund to achieve its performance objectives under a wide variety of economic scenarios. Under the supervision and guidance of the board, please be assured that SERS is making every effort to ensure that our members receive the financial security they have earned and deserve.

Sincerely,

Thomas F. Brier

Acting Chief Investment Officer

Investment Policy and Objectives

Investment Policy

The SERS Board originally adopted a formal Statement of Investment Policy in 1979. It has been revised periodically to incorporate legislative changes governing investments and amendments to policies and procedures guiding the investment of the defined benefit portfolio. The latest Statement of Investment Policy was adopted in 2009.

The purpose of the statement is to formalize the board's investment objectives, policies, and procedures; to establish guidelines for the investment of SERS Fund assets; and to define the duties and responsibilities of the various entities involved in the investment process.

The major elements of the statement are:

- as fiduciaries, the board will exercise that degree of judgment, skill, and care under the circumstances then prevailing which investors of prudence, discretion, and intelligence, who are familiar with such matters, exercise in the management of their own affairs in investment matters:
- the SERS Fund's overall investment objective is to provide a total rate of return, over full economic cycles, which exceeds the return of a fully diversified market portfolio within each asset class—the board seeks to meet this objective within acceptable risk parameters through adherence to a policy of diversification of investments by type, style, capitalization, sector/industry, quality, and geographic location;
- the board employs an investment staff and also contracts with investment managers and consultants to provide expert, unbiased professional judgment in all investment decisions:

- a strategic investment plan is prepared to establish the allocation of funds among investment managers and categories of assets during the year;
- objectives are established for each category of assets used by the SERS Fund's investment managers to provide a framework for monitoring quality, diversification, and liquidity;
- SERS is committed to promoting and improving good corporate governance practices of companies within the portfolio; and
- where investment characteristics, including return, risk, and liquidity, are equivalent, the board's policy favors investments which have a positive impact on the economy of the Commonwealth of Pennsylvania.

Investment Objectives

As indicated in SERS' Statement of Investment Policy, the primary goal of the SERS Fund is to provide benefit payments to plan participants and beneficiaries at the lowest cost to the commonwealth through a carefully planned and diligently executed investment program.

Consistent with this goal, the SERS Fund's overall investment objective is to achieve a total net return over a rolling five- to 10-year period that:

- exceeds the actuarial rate of return adopted by the board; and
- exceeds the composite benchmark of the SERS Fund in the board-approved strategic investment plan, with market risk (i.e., equity beta) that does not exceed that of the SERS Fund's composite benchmark.

Investment Returns

(unaudited)

Calendar Year, Net-of-Fees Returns 1/

For the Period Ending December 31, 2013

	1-Year Total	3-Year Total	5-Year Total	10-Year Total
Asset Class	Return	Return	Return	Return
Alternative Investments ^{2/5/}	12.8%	12.3%	8.7%	13.0%
ThomsonOne Private Equity All Index 3/5/	17.5	10.2	6.7	9.6
Russell 3000 Index + 3% ^{4/5/}	25.3	20.3	13.9	11.4
Global Public Equity	26.3	11.4	16.7	7.1
MSCI ACW Investable Market Index (Net)	23.6	9.8	15.6	7.6
Real Assets 5/	8.0	7.5	2.4	8.0
Real Assets Custom Benchmark 5/	9.1	9.3	2.7	6.8
<i>CPI</i> + 3%	4.5	5.1	5.1	5.4
Diversifying Assets	11.2	5.8	7.5	N/A
Diversifying Assets Custom Benchmark	22.2	10.4	7.6	N/A
HFRI FOF Comp Index	8.7	2.4	4.8	N/A
Fixed Income	-2.2	4.5	11.0	6.0
Barclays U.S. Aggregate Bond Index	-2.0	3.3	4.4	4.5
Liquidity Reserve	0.3	0.3	0.3	2.0
BofA ML 3 Month U.S. T-Bill Index	0.1	0.1	0.1	1.7
Total Fund	13.6%	9.3%	9.8%	7.4%
Total Fund Custom Benchmark	13.7%	9.5%	11.6%	8.3%
Total Fund Custom Public Market Equivalent Benchmark	15.5%	10.5%	12.2%	8.6%

¹/Returns for periods greater than one year are annualized. Performance was calculated using the Modified Dietz day-weighted return methodology.

²/Historical Alternative Investment performance includes Private Equity, Special Situations, and Venture Capital.

³/The ThomsonOne Private Equity All Index is intended to compare the program's performance to its peers.

⁴/The Russell 3000 Index + 3% is a long-term benchmark by which SERS measures its private market performance. Shorter term variances (1-year and 3-year) can be pronounced due to the nature of private assets and are not as relevant for benchmark purposes.

⁵/Alternative Investments, its corresponding benchmarks, the Private Energy, Non-Core Real Estate, Core Real Estate, and REIT sections of Real Assets, and the corresponding Real Assets Custom Benchmark are reported on a quarter lagged basis.

Largest Assets Held

As of December 31, 2013 (unaudited)

U.S. Equity

Non-U.S. Equity

Holding	Fair Value	Holding	Fair Value
Apple Inc	\$82,160,818	Nestle SA	\$73,541,670
Microsoft Corp	79,709,524	Roche Holdings AG	66,517,220
Google Inc	77,878,138	Bayer AG	51,262,585
Exxon Mobil Corp	68,777,139	Novartis AG	50,994,763
TJX Companies Inc	52,626,641	Vodaphone Group PLC	46,444,246
JPMorgan Chase and Co	51,379,358	Sanofi SA	46,318,711
Citigroup Inc	48,832,229	HSBC Holdings PLC	46,062,632
Proctor and Gamble Co	47,995,510	Toyota Motor Corp	45,347,109
Pfizer Inc	47,040,758	AIA Group Ltd	40,367,200
Occidental Petroleum Corp	46,994,521	Unilever NV CVA	38,949,065

Non-U.S. Fixed Income

Holding	Fair Value
Buoni Poliennali Del Tes, 5.000% August 1, 2039	\$14,692,563
Russian Federation Bond, Variable Rate March 31, 2030	13,516,932
United Kingdom Gilt Inflation Linked, 2.250% March 7, 2014	11,731,736
Brazilian National Treasury Note, 10.000% January 1, 2023	9,983,721
United Mexican States, 8.500% May 31, 2029	9,188,487
New S Wales Treasury Corp, 6.000% April 1, 2016	8,353,680
United Mexican States, 8.500% November 18, 2038	8,237,043
United Mexican States, 7.750% November 13, 2042	7,830,275
Hungary Government Bond, 5.500% February 12, 2016	7,605,577
Germany Government Inflation Linked Bond, 1.750% April 15, 2020	5,576,957

Note: A detailed list of SERS' investment holdings at December 31, 2013, may be viewed at www.SERS.state.pa.us.

Largest Assets Held

As of December 31, 2013 (unaudited)

U.S. Government and Government Related Fixed Income

Holding	Fair Value
U.S. Treasury Note, 1.625% November 15, 2022	\$200,661,318
U.S. Treasury Note, 2.750% November 15, 2023	146,189,272
U.S. Treasury Inflation Index Note, 1.875% July 15, 2019	55,014,095
U.S. Treasury Inflation Index Note, 0.125% January 15, 2022	48,270,752
U.S. Treasury Note, 1.375% September 30, 2018	42,793,905
U.S. Treasury Inflation Index Note, 1.375% January 15, 2020	42,351,304
U.S. Treasury Inflation Index Note, 2.000% January 15, 2026	41,290,402
U.S. Treasury Inflation Index Note, 1.750% January 15, 2028	35,427,874
U.S. Treasury Inflation Index Note, 2.500% July 15, 2016	35,357,216
U.S. Treasury Inflation Index Note, 0.375% July 15, 2023	32,978,418

U.S. Corporate Fixed Income

Holding	Fair Value
Goldman Sachs Group Inc, 5.750% January 24, 2022	\$8,836,667
SRERS Funding Ltd, Variable Rate May 9, 2046	8,253,930
Marathon Real Estate, Variable Rate May 25, 2046	7,786,512
Countrywide Home Equity Loan Trust, Variable Rate November 15, 2035	7,525,069
Resolution Funding Corp, 0.000% April 15, 2030	7,333,230
Atlas Pipeline Partners LP, 5.875% August 1, 2023	5,065,395
Morgan Stanley, 5.750% January 25, 2021	4,977,544
SLM Student Loan Trust, Variable Rate December 15, 2038	4,319,600
Commercial Mortgage Trust, Variable Rate May 10, 2043	4,311,809
Silverleaf Finance LLC, 4.450% March 17, 2025	4,290,596

Note: A detailed list of SERS' investment holdings at December 31, 2013, may be viewed at www.SERS.state.pa.us.

Schedule of Trading Broker Commissions

(unaudited)

Schedule of Trading Broker Commissions

Year Ended December 31, 2013

Broker fees on equity and fixed income investment transactions for the year ended December 31, 2013 were \$4.7 million. Below is a list of brokers receiving fees in excess of \$20,000 during the year.

Broker	Commissions
Merrill Lynch	\$816,844
UBS Securities	302,318
Goldman Sachs	298,751
JP Morgan Chase	238,432
Morgan Stanley Smith Barney	238,038
Credit Suisse First Boston	215,527
Citigroup	163,126
Barclays	158,447
Deutsche Bank	148,429
Liquidnet	129,196
HSBC Securities	113,243
Macquarie Bank	102,298
Investment Technology Group	100,096
Nomura Group	89,467
Sanford C Bernstein & Company	82,291
Credit Agricole	67,135
RBC Dominion Securities	66,210
Sturdivant and Company	63,443

Broker	Commissions
Stifel Nicolaus	\$48,799
Bloomberg Tradebook	45,774
Jefferies and Company	42,956
Raymond James & Associates	39,591
Wells Fargo and Company	37,390
Weeden and Company	36,840
First Southwest Company	35,950
Pershing	35,807
Daiwa Bank	34,534
KCG Holdings	33,255
BNP Paribas	32,576
Redburn Partners	29,305
BTIG	29,197
ISI	27,423
Baird	24,916
Citation Group	23,919
Exane	21,230

Investment Summary

As of December 31, 2013 (unaudited)

The assets of SERS are administered by the board. The board adopted an investment policy that incorporates the provisions of the Retirement Code which govern the investment of SERS' assets.

SERS' investment plan is reviewed and updated biennially for strategic asset allocation purposes, as well as for diversification needs within each asset class

SERS Asset Allocation

(\$ millions)

			Long-Term
		% of	10-Year
Asset Class	Market Exposure ^{1/}	Total Fund	Strategic Target
Alternative Investments	\$6,125.4	22.4%	13.0%
Global Public Equity	9,770.9	35.7	38.0
Real Assets	4,269.3	15.6	15.0
Diversifying Assets	1,887.3	6.9	12.0
Fixed Income	4,032.3	14.7	19.0
Liquidity Reserve	1,304.4	4.8	3.0
Total Fund	\$27,389.7	100.0%	100.0%

Numbers may not add due to rounding.

Number of Investment Managers

Asset Class Investment Managers Alternative Investments 140 Global Public Equity 18 Real Assets 37 **Diversifying Assets** 15 Fixed Income 16 Liquidity Reserve 3 **Total Managers** 229

Number of Investment Portfolios

Asset Class	Investment Portfolios
Alternative Investments	337
Global Public Equity	19
Real Assets	76
Diversifying Assets	15
Fixed Income	19
Liquidity Reserve	4
Total Portfolios	470

^{1/} The market exposure includes receivables and accruals at year-end.

As of December 31, 2013 (unaudited)

Asset Class Description

Alternative Investments (AI) include SERS Fund assets held in commingled limited partnerships that pursue private market investment strategies, mainly private equity, special situations, and venture capital. These strategies require capital commitments greater than five years, offer premium returns to compensate for the illiquidity of these assets, and are subject to the funding limitation on illiquid investments established by the strategic investment plan.

Role in the SERS Fund

AI seeks high, long-term capital appreciation to enhance total SERS Fund returns. The program's investment horizon is longer than most public investments, often targeting seven- to 10-year investment periods.

The program is constructed to increase SERS Fund diversification and participate in opportunities not available to other investors or from public markets.

The program includes both pro-cyclical and counter-cyclical positions across a broad range of industries, countries, and securities to generate returns in all economic environments.

Portfolio Exposure

The AI program is well diversified by sub-sector, geography, and industry focus. As of September 30, 2013, based on fair value, the program's exposure was:

By Fund Sub-Sector

39.1%
23.9
19.7
12.6
4.7

By Geography^{2/}

United States	67.4%
United Kingdom	6.9
Germany	2.1
China	2.0
Italy	1.8
France	1.6
Canada	1.5
Rest of World	16.7

By Industry^{2/}

_	
Consumer Discretionary	27.3%
Financials	20.5
Information Technology	16.3
Health Care	12.6
Industrials	9.2
Consumer Staples	4.7
Materials	3.4
Energy	2.4
Telecommunication Svcs	2.0
Other	1.6

¹/ Some managers with a domestic investment focus may invest globally. Thus, Non-U.S. exposure measured on a portfolio company basis will be greater.

²/Geography and industry are determined by the portfolio company.

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Program Objectives

The 2012-2013 objectives of the AI program are to:

- generate investment returns that exceed the total return of public equity markets by 3% and the mean return for the asset class over a market cycle;
- reduce the overall SERS Fund exposure to this asset class to 21% within five years and 13% within 10 years;
- increase liquidity of the AI portfolio;
- decrease cash-flow volatility; and
- reduce program complexity and overhead.

Asset Class Benchmarks

AI performance is measured and evaluated over a seven- to 10-year period based on the following benchmarks:

- Public Market Benchmark Russell 3000 + 300 basis points (illiquidity premium)
- Private Market Benchmark ThomsonOne Private Equity All Index

SERS Alternative Investments

Sub-Asset Class	Unfunded Commitments (\$ millions)	Fair Value (\$ millions)	% of Total Fund
Private Equity	\$927.8	\$3,760.7	13.7%
Special Situations	306.8	948.2	3.5
Venture Capital	188.3	1,416.4	5.2
Total Alternative Investments	\$1,422.9	\$6,125.4	22.4%

Numbers may not add due to rounding.

As of December 31, 2013 (unaudited)

Private Equity Committed, Drawn, and Distributed

The capital committed column represents total dollars allocated from SERS to each limited partnership. Accumulated capital drawn is the portion of SERS' capital commitments drawn by the general partner to be invested with underlying portfolio companies. The accumulated distributions column shows the value of capital and profits returned to SERS.

•	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
1.	ABRY Broadcast Partners III	Growth Equity	02/07/1997	\$25,000,000	\$22,746,123	\$28,386,169
	ABRY Partners IV	Middle	03/30/2001	35,000,000	25,303,466	51,280,668
	ABRY Partners V	Middle	07/29/2005	45,000,000	41,516,319	69,060,872
	ABRY Partners VI	Middle	03/26/2008	50,000,000	58,574,203	56,738,856
	ABRY Partners VII	Middle	08/10/2011	30,000,000	25,781,068	5,005,660
2.	ABS Capital Partners III	Growth Equity	03/26/1999	35,000,000	29,428,915	18,542,069
	ABS Capital Partners IV	Growth Equity	10/13/2000	35,000,000	30,984,280	64,114,921
	ABS Capital Partners V	Growth Equity	11/14/2005	20,000,000	19,704,037	21,210,537
	ABS Capital Partners VI	Growth Equity	03/13/2009	40,000,000	37,513,356	2,975,636
3.	Advent International GPE VI-A	Large	07/07/2008	35,000,000	33,361,330	14,636,324
	Advent International GPE VII-B	Large	12/06/2012	50,000,000	9,300,000	(40,285)
	Advent Latin American Private Equity Fund IV	Middle	08/02/2007	30,000,000	29,297,073	24,117,842
	Advent Latin American Private Equity Fund V	Middle	05/17/2010	15,000,000	6,525,000	1,230,000
4.	Alpha Private Equity Fund 4	Small	05/15/2002	26,508,000	35,605,050	75,876,296
	Alpha Private Equity Fund 5	Small	04/01/2006	57,796,800	65,860,056	50,187,099
5.	APAX Europe IV	Mega	03/31/1999	32,424,000	29,909,800	38,975,946
	APAX Europe V	Mega	04/27/2001	53,262,000	70,385,477	142,230,798
	APAX Europe VI	Mega	05/19/2005	76,349,190	76,500,597	63,965,975
	APAX Europe VII	Mega	06/27/2007	132,170,235	133,301,425	30,060,772
	APAX Excelsior VI	Small	07/03/2000	35,000,000	34,151,324	53,994,943
6.	Apollo Investment Fund IV	Mega	09/30/1998	75,000,000	74,838,620	124,594,705
	Apollo Investment Fund V	Mega	08/23/2001	50,000,000	46,638,778	118,104,972
	Apollo Investment Fund VI	Mega	07/19/2006	40,000,000	37,239,540	29,306,840
7.	Asia Alternatives Capital Partners	Fund of Funds	06/26/2007	50,000,000	23,618,282	10,693,583
	Asia Alternatives Capital Partners II	Fund of Funds	03/07/2008	50,000,000	20,882,805	3,281,873
	Asia Alternatives Capital Partners III	Fund of Funds	08/03/2012	50,000,000	12,075,096	1,000,013
	Asia Alternatives Korea Buyout Investors (Hahn and Co)	Small	07/22/2011	7,000,000	4,577,020	1,236,179
	Penn Asia Investors	Fund of Funds	09/28/2012	33,000,000	7,683,370	2,671,479
8.	Asia Pacific Growth Fund III	Growth Equity	09/28/1999	15,000,000	15,334,963	13,602,250
9.	Audax Private Equity Fund	Middle	05/25/2000	35,000,000	36,839,098	55,479,437
	Audax Private Equity Fund II	Middle	06/17/2005	25,000,000	25,517,169	34,884,999
	Audax Private Equity Fund III	Middle	11/07/2007	37,000,000	40,387,904	23,542,339
10.	Bain Capital Asia Fund	Middle	10/18/2007	12,000,000	11,430,000	4,883,138
	Bain Capital Europe III	Mega	07/10/2008	72,432,276	54,096,638	10,122,991

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Private Equity Committed, Drawn, and Distributed (continued)

	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
	Bain Capital Fund IX	Mega	04/10/2006	\$75,000,000	\$73,940,663	\$54,834,560
	Bain Capital Fund VII	Mega	07/06/2000	25,000,000	25,000,000	45,689,626
	Bain Capital Fund VIII-E	Mega	12/15/2004	12,144,000	13,208,655	12,917,566
	Bain Capital Fund X	Mega	01/15/2008	90,000,000	85,050,000	13,576,827
	Bain Capital IX Coinvestment Fund	Mega	04/20/2006	15,000,000	15,067,623	12,008,017
	Bain Capital X Coinvestment Fund	Mega	07/28/2008	5,000,000	1,225,000	186,243
11.	Baring India Private Equity Fund III Limited	Small	10/10/2008	5,000,000	5,053,649	354,668
	Baring Vostok Private Equity Fund IV	Middle	03/10/2008	30,000,000	25,485,478	5,335,169
12.	BC European Capital IX	Large	09/16/2011	26,472,535	12,596,598	1,405,951
	BC European Capital VII	Large	07/28/2000	32,658,500	37,921,760	96,088,110
	BC European Capital VII Top Up	Large	07/02/2001	10,046,300	12,351,504	32,241,386
	BC European Capital VIII	Large	12/13/2005	98,107,500	95,897,582	52,336,192
13.	Berkshire Fund VI	Middle	07/11/2002	20,000,000	19,011,000	33,273,182
	Berkshire Fund VII	Middle	11/15/2006	32,000,000	29,857,791	18,069,676
	Berkshire Fund VIII	Middle	08/25/2011	30,000,000	8,643,489	0
14.	Blackstone Capital III	Mega	11/03/1997	75,000,000	77,299,538	155,117,678
	Blackstone Capital IV	Mega	02/26/2003	75,000,000	68,655,567	144,444,612
	Blackstone Capital Partners V	Mega	05/30/2006	150,000,000	147,242,902	43,369,480
	Blackstone Communications Partners I	Mega	08/29/2000	25,000,000	25,101,999	26,159,679
15.	Brait IV	Small	12/11/2006	25,000,000	21,362,580	2,839,239
16.	Brynwood Partners V	Small	07/31/2005	10,000,000	10,491,974	13,247,242
	Brynwood Partners VI	Small	10/13/2009	10,000,000	10,255,938	7,642,918
17.	Charterhouse Capital Partners IX	Middle	04/28/2009	66,385,000	41,237,178	7,814,096
	Charterhouse Capital Partners VII	Middle	01/17/2003	61,145,000	54,972,470	95,236,624
	Charterhouse Capital Partners VIII	Middle	04/19/2006	73,374,000	72,116,616	35,454,797
18.	Charterhouse Equity Partners III	Middle	12/31/1997	50,000,000	55,395,586	75,223,288
19.	Chequers Capital XV	Middle	07/05/2006	26,000,000	32,668,266	4,207,667
20.	Clayton Dubilier & Rice V	Middle	06/30/1995	50,000,000	49,840,854	54,377,619
	Clayton Dubilier & Rice VI	Middle	12/31/1998	50,000,000	36,437,713	57,716,912
21.	Clessidra Capital Partners II	Middle	11/05/2008	19,915,736	13,733,692	5,658,811
22.	Code Hennessy & Simmons III	Middle	09/30/1997	40,000,000	38,724,000	56,329,887
	Code Hennessy & Simmons IV	Middle	09/16/1999	100,000,000	100,000,000	154,943,496
	Code Hennessy & Simmons V	Middle	11/10/2005	50,000,000	53,549,443	44,129,485
23.	Cognetas Fund II	Middle	11/02/2005	49,707,800	46,065,666	10,764,737
24.	DLJ Merchant Banking Fund II	Large	03/31/1997	75,000,000	83,261,424	105,370,005
	DLJ Merchant Banking Fund III	Large	08/14/2001	85,000,000	88,145,658	166,437,814
25.	Elevation Partners	Middle	11/10/2005	35,000,000	30,800,752	42,420,519
26.	Eureka II	Growth Equity	01/30/2006	20,000,000	17,896,803	9,353,085
	Eureka Growth Capital III	Growth Equity	*	20,000,000	0	0

As of December 31, 2013 (unaudited)

Private Equity Committed, Drawn, and Distributed (continued)

	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
27.	Excelsior Capital Asia Partners III	Small	08/17/2006	\$25,000,000	\$24,515,585	\$10,422,984
28.	Francisco Partners	Middle	07/27/2000	50,000,000	47,825,987	44,470,733
	Francisco Partners II	Middle	07/10/2006	30,000,000	28,092,932	20,982,962
	Francisco Partners III	Middle	10/17/2011	20,000,000	11,150,000	0
29.	FSN Capital IV	Middle	*	46,049,703	0	0
30.	Great Hill Equity Partners	Middle	04/12/1999	30,000,000	30,000,000	30,444,856
	Great Hill Equity Partners II	Middle	03/28/2001	35,000,000	35,063,336	69,940,735
	Great Hill Equity Partners III	Middle	03/07/2006	35,000,000	34,037,500	14,315,000
	Great Hill Equity Partners IV	Middle	09/08/2008	25,000,000	20,350,662	14,388,162
31.	Gryphon Partners II	Small	11/03/1999	35,000,000	34,700,788	41,953,023
	Gryphon Partners III	Small	09/08/2004	30,000,000	36,936,825	30,426,971
32.	GTCR IX	Middle	12/01/2006	50,000,000	46,666,718	28,099,995
	GTCR VI	Middle	09/30/1998	50,000,000	50,000,000	43,229,799
	GTCR VII	Middle	03/15/2000	55,000,000	50,074,671	121,729,912
	GTCR VIII	Middle	07/07/2003	75,000,000	69,393,599	101,046,316
	GTCR Fund XI	Middle	*	25,000,000	0	0
33.	H.I.G. Growth Buyouts and Equity Fund II	Growth Equity	07/20/2011	15,000,000	3,383,832	0
	H.I.G. Europe Capital Partners II	Small	*	27,544,596	0	0
34.	Halpern Denny Fund III	Growth Equity	04/26/2000	25,000,000	24,886,871	28,097,819
35.	HarbourVest IPEP III	Fund of Funds	06/30/1998	40,000,000	39,400,000	57,763,883
	HarbourVest IPEP IV	Fund of Funds	04/09/2001	40,000,000	38,800,000	52,265,119
	HarbourVest Partners VI	Fund of Funds	05/07/1999	200,000,000	196,086,055	185,949,620
	HarbourVest Partners VII	Fund of Funds	03/24/2003	75,000,000	71,062,500	38,313,000
	HarbourVest Partners VIII	Fund of Funds	10/05/2006	100,000,000	86,500,000	22,977,518
	HIPEP V-Asia Pacific and Rest of World	Fund of Funds	05/09/2006	30,000,000	27,045,316	11,094,829
36.	Hellman and Friedman Capital Partners V	Large	12/20/2004	80,000,000	71,678,792	156,529,830
	Hellman and Friedman Capital Partners VI	Large	06/05/2007	125,000,000	118,993,840	83,696,036
37.	Horizon Impact Fund - BAML	Small	*	50,000,000	0	0
38.	Incline Equity Partners III	Small	01/14/2013	15,000,000	2,796,018	111,542
39.	InterMedia Partners VII	Small	01/05/2007	15,000,000	16,972,670	2,084,388
40.	Invemed Catalyst Fund	Small	10/19/1999	25,000,000	14,420,087	11,020,749
41.	J.H. Whitney IV	Small	02/01/2000	20,000,000	17,958,772	6,970,458
	J.H. Whitney V	Small	03/29/2001	20,000,000	23,454,301	44,497,646
	J.H. Whitney VI	Small	01/05/2006	50,000,000	49,775,045	20,996,914
	J.H. Whitney VII	Small	10/12/2010	25,000,000	11,807,115	2,077,319
42.	J.W. Childs Equity Partners III	Middle	08/20/2002	40,000,000	41,932,374	57,639,096
43.	JMI Equity Fund V	Growth Equity	06/07/2005	24,000,000	24,009,205	102,921,185
	JMI Equity Fund VI	Growth Equity	06/27/2007	40,000,000	39,120,000	11,973,855
	JMI Equity Fund VII	Growth Equity	02/14/2011	10,000,000	5,220,000	1,296,923

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Private Equity Committed, Drawn, and Distributed (continued)

	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
44.	Kelso VII	Middle	10/18/2004	\$40,000,000	\$41,056,308	\$48,145,910
	Kelso VIII	Middle	11/29/2007	150,000,000	118,483,305	14,356,965
45.	Leeds Equity Partners IV	Small	11/12/2004	20,000,000	20,337,259	13,714,514
46.	LLR Equity Partners	Middle	02/04/2000	25,000,000	24,576,062	52,308,155
	LLR Equity Partners II	Middle	01/29/2004	25,000,000	25,000,000	34,109,845
	LLR Equity Partners III	Middle	07/24/2008	30,000,000	28,508,721	12,702,366
	LLR Equity Partners IV	Middle	*	50,000,000	0	0
47.	Madison Dearborn Capital Partners III	Middle	04/06/1999	75,000,000	75,186,728	114,490,161
	Madison Dearborn Capital Partners IV	Middle	04/02/2001	90,000,000	90,662,194	148,633,408
	Madison Dearborn Capital Partners V	Middle	12/14/2006	75,000,000	70,942,932	24,547,096
	Madison Dearborn Capital Partners VI	Middle	05/27/2008	50,000,000	34,550,498	18,264,018
48.	Meridian Venture Partners II	Small	02/11/2005	10,000,000	10,000,000	8,987,734
49.	New York Life Capital Partners III	Fund of Funds	06/30/2006	50,000,000	52,001,863	16,985,104
	New York Life Capital Partners IV	Fund of Funds	04/04/2008	50,000,000	52,229,330	24,487,609
50.	NewSpring Growth Capital II	Growth Equity	12/05/2006	10,000,000	8,500,000	5,255,253
	NewSpring Growth Capital III	Growth Equity	07/27/2012	25,000,000	4,375,000	(32,603)
51.	Nordic Capital V	Middle	05/07/2004	34,996,500	46,006,701	116,025,997
	Nordic Capital VI	Middle	07/25/2006	54,369,000	64,223,642	44,876,680
	Nordic Capital VII	Middle	05/02/2008	92,519,165	82,170,060	9,875,431
52.	Oakhill Capital Partners	Middle	05/17/1999	53,703,178	53,718,802	93,552,688
53.	Palamon European Equity	Growth Equity	07/23/1999	29,779,989	38,406,197	55,442,800
	Palamon European Equity II	Growth Equity	10/25/2005	36,114,000	42,043,309	26,076,720
54.	Parthenon Investors II	Small	08/09/2001	20,000,000	22,117,245	31,934,934
55.	Patriot Financial Partners	Small	06/12/2008	25,000,000	23,142,767	2,146,667
56.	Permira European Fund	Large	09/30/1997	33,494,536	32,159,947	84,005,717
	Permira European Fund II	Large	06/07/2000	48,000,000	45,672,612	86,938,536
	Permira European Fund III	Large	01/12/2004	115,960,000	125,707,519	176,158,833
	Permira IV	Large	12/14/2006	127,779,198	130,780,404	50,670,513
57.	PNC Equity Partners II	Small	08/30/2007	15,000,000	13,203,626	8,061,018
58.	Providence Equity Partners IV	Large	11/27/2000	25,000,000	23,412,704	53,942,844
	Providence Equity Partners V	Large	04/04/2005	45,000,000	42,304,251	32,327,847
	Providence Equity Partners VI	Large	03/16/2007	50,000,000	49,121,155	14,480,671
59.	Segulah IV	Middle	09/25/2008	16,705,647	12,014,855	2,250,584
60.	Sentinel Capital Partners V	Middle	*	10,000,000	0	0
61.	ShoreView Capital Partners	Small	06/16/2003	38,000,000	32,239,048	48,788,659
	ShoreView Capital Partners II	Small	03/27/2008	40,000,000	34,895,186	10,658,540
62.	Siguler Guff BRIC Opportunities Fund	Fund of Funds	05/08/2006	10,000,000	9,558,299	3,076,705
	Siguler Guff BRIC Opportunities Fund II	Fund of Funds	04/09/2008	25,000,000	21,657,450	1,368,557

As of December 31, 2013 (unaudited)

Private Equity Committed, Drawn, and Distributed (continued)

	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
63.	Sterling Capital Partners I	Middle	10/31/2002	\$15,000,000	\$14,979,168	\$27,351,249
	Sterling Capital Partners II	Middle	08/18/2005	30,000,000	29,722,511	19,061,880
	Sterling Capital Partners III	Middle	08/13/2007	32,000,000	30,640,020	4,430,215
64.	Summit IV	Middle	09/30/1995	25,000,000	24,250,000	183,419,644
	Summit Partners Private Equity Fund VII	Middle	02/09/2006	97,134,500	97,134,505	28,975,642
	Summit V	Growth Equity	03/31/1998	37,500,000	36,187,500	49,906,903
	Summit Ventures VI	Growth Equity	03/23/2001	62,000,000	63,914,751	105,272,196
65.	TA/Advent VIII	Small	06/30/1997	30,000,000	29,400,000	66,756,735
66.	TA IX	Middle	09/20/2000	45,000,000	43,741,796	102,875,924
	TA X	Middle	04/25/2006	70,000,000	69,358,959	41,883,959
67.	Thomas H. Lee Equity Fund V	Large	07/03/2001	100,000,000	104,799,936	158,691,128
	Thomas H. Lee Equity Fund VI	Large	11/14/2006	50,000,000	46,015,366	11,943,488
68.	TPG Partners III	Mega	01/13/2000	75,000,000	64,119,169	153,844,104
	TPG Partners IV	Mega	12/29/2003	30,000,000	27,981,463	37,992,815
	TPG Partners V	Mega	06/27/2006	100,000,000	91,911,775	24,223,806
	TPG Partners VI	Mega	05/22/2008	45,000,000	39,579,109	12,246,003
	TPG Asia V	Large	02/19/2008	22,500,000	21,395,340	3,439,669
	Newbridge Asia III	Middle	02/15/2001	15,000,000	14,438,357	54,857,234
	Newbridge Asia IV	Middle	09/27/2005	40,000,000	38,862,256	51,095,178
69.	Vestar Capital Partners III	Middle	06/30/1997	25,000,000	24,362,534	27,724,534
	Vestar Capital Partners IV	Middle	01/25/2000	100,000,000	97,630,147	156,150,332
	Vestar Capital Partners V	Middle	01/25/2006	50,000,000	50,950,991	16,352,319
70.	Weston Presidio III	Growth Equity	12/31/1998	35,000,000	31,989,586	30,440,421
	Weston Presidio IV	Growth Equity	06/21/2000	35,000,000	34,451,015	36,410,295
	Weston Presidio V	Growth Equity	12/08/2005	50,000,000	47,547,829	34,130,199
71.	Yucaipa American Alliance Fund II	Middle	01/13/2009	25,000,000	26,803,155	9,506,428
	Total Active Private Equity			\$7,828,048,884	\$7,109,720,206	\$7,350,860,712

Numbers may not add due to rounding.

Cash flows as of 9/30/13.

Inactive Private Equity Funds

Total Inactive Private Equity	\$830,030,323	\$812,420,506	\$1,611,619,751
	Capital Committed	Capital Drawn	Distributions
		Accumulated	Accumulated

^{*}Not funded as of 9/30/13.

¹/Commitments as of 12/31/13.

^{2/}Distributions include stock distributions. Distributions may include additional fees that are recorded as negative distributions to be offset against future distributions of the underlying limited partnership investment.

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Special Situations Committed, Drawn, and Distributed

The capital committed column represents total dollars allocated from SERS to each limited partnership. Accumulated capital drawn is the portion of SERS' capital commitments drawn by the general partner to be invested with underlying portfolio companies. The accumulated distributions column shows the value of capital and profits returned to SERS.

	Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
1.	ABRY Advanced Securities Fund	Distressed/ Restructuring	08/01/2008	\$25,000,000	\$23,066,394	\$30,453,420
	ABRY Mezzanine Partners	Mezzanine	03/15/2002	30,000,000	26,684,952	46,539,842
	ABRY Senior Equity II	Mezzanine	07/27/2006	30,000,000	27,598,260	38,647,645
2.	AG Capital Recovery Partners IV	Distressed/ Restructuring	02/04/2003	50,000,000	35,415,216	55,920,214
	AG Capital Recovery Partners V	Distressed/ Restructuring	04/17/2006	20,000,000	20,000,000	18,772,603
3.	Avenue Asia Special Situations Fund IV	Distressed/ Restructuring	06/30/2006	50,000,000	31,897,973	17,039,925
	Avenue Europe Special Situations Fund	Distressed/ Restructuring	07/30/2008	38,632,500	25,749,356	36,739,739
	Avenue Special Situations Fund IV	Distressed/ Restructuring	03/27/2006	50,000,000	50,000,000	68,495,399
	Avenue Special Situations Fund V	Distressed/ Restructuring	06/04/2007	70,000,000	70,004,050	91,847,695
	Avenue Special Situations Fund VI	Distressed/ Restructuring	11/02/2010	20,000,000	20,068,464	356,781
4.	AXA Secondary Fund III	Secondaries	11/19/2004	26,000,000	21,550,041	33,854,934
	AXA Secondary Fund III-2	Secondaries	11/24/2004	14,000,000	11,563,136	17,211,513
	AXA Secondary Fund IV	Secondaries	02/26/2007	80,000,000	64,762,321	28,362,605
	AXA Secondary Fund V B	Secondaries	06/19/2012	75,000,000	43,146,428	3,665,236
5.	Centerbridge Capital Partners I	Distressed/ Restructuring	02/27/2007	50,000,000	55,918,861	69,223,271
6.	Cerberus Institutional Partners	Distressed/ Restructuring	03/05/1999	35,000,000	35,000,000	79,031,120
	Cerberus Institutional Partners Series Four	Distressed/ Restructuring	11/27/2006	75,000,000	69,258,215	41,296,025
	Cerberus Institutional Partners Series Three	Distressed/ Restructuring	11/13/2003	35,000,000	22,321,354	35,237,199
	Cerberus Institutional Partners Series Two	Distressed/ Restructuring	10/09/2001	35,000,000	30,100,793	84,745,502
7.	CVI Global Value Fund	Distressed/ Restructuring	02/23/2007	60,000,000	57,151,667	48,727,109
8.	Dover Street VII	Secondaries	07/02/2008	30,000,000	27,695,287	10,698,311
9.	H.I.G. Bayside Debt and LBO Fund II	Distressed/ Restructuring	06/17/2008	30,000,000	17,450,000	10,227,823
	H.I.G. Bayside Loan Opportunities Fund III	Distressed/ Restructuring	06/12/2013	50,000,000	11,364,799	(56,010)

As of December 31, 2013 (unaudited)

Special Situations Committed, Drawn, and Distributed (continued)

	Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ²
10.	JP Morgan US Corp Finance Investors II	Distressed/ Restructuring	01/14/2003	\$50,000,000	\$51,971,443	\$52,067,893
11.	KPS Special Situations Fund IV	Distressed/ Restructuring	*	25,000,000	0	0
12.	Landmark Equity IV	Secondaries	03/31/1995	14,923,291	12,495,850	18,728,790
	Landmark Equity Partners V	Secondaries	12/31/1995	19,624,113	19,434,947	23,521,627
13.	LBC Credit Partners III	Mezzanine	03/04/2013	50,000,000	12,401,834	1,248,374
14.	Lexington Capital Partners II	Secondaries	06/30/1998	40,000,000	39,538,000	51,275,231
	Lexington Capital Partners III	Secondaries	01/26/1999	35,000,000	34,516,449	41,766,246
	Lexington Capital Partners V	Secondaries	01/17/2002	75,000,000	74,623,418	109,727,661
	Lexington Capital Partners VI	Secondaries	10/21/2005	50,000,000	52,531,789	34,580,823
15.	Matlin Patterson Global Opportunities Partners	Distressed/ Restructuring	05/31/2001	35,000,000	30,091,262	56,689,513
	Matlin Patterson Global Opportunities Partners II	Distressed/ Restructuring	06/30/2004	30,000,000	30,410,597	10,578,309
16.	Oaktree Capital Management	Distressed/ Restructuring	05/28/2004	40,000,000	40,581,778	82,064,331
	Oaktree Opportunities Fund IX	Distressed/ Restructuring	03/26/2013	50,000,000	7,500,000	0
	OCM Opportunities Fund II	Distressed/ Restructuring	03/31/1998	40,000,000	40,000,000	60,332,637
	OCM Opportunities Fund III	Distressed/ Restructuring	01/20/2000	60,000,000	60,007,890	89,022,706
	OCM Opportunities Fund IV	Distressed/ Restructuring	09/26/2001	70,000,000	70,000,000	115,396,501
	OCM Opportunities Fund V	Distressed/ Restructuring	08/12/2004	40,000,000	40,003,507	60,868,204
	OCM Opportunities Fund VI	Distressed/ Restructuring	09/28/2005	40,000,000	40,000,000	56,375,450
	OCM Opportunities Fund VII	Distressed/ Restructuring	05/16/2007	40,000,000	40,000,000	45,680,549
	OCM Opportunities Fund VIIb	Distressed/ Restructuring	06/03/2008	40,000,000	36,000,000	52,463,522
	Oaktree Capital Management Opportunities Fund VIII	Distressed/ Restructuring	09/20/2010	12,500,000	12,583,425	5,022,792
	Oaktree Capital Opportunities Fund VIIIb	Distressed/ Restructuring	08/22/2011	12,500,000	11,875,000	0
	OCM Principal Opportunities Fund IV	Distressed/ Restructuring	01/24/2007	20,000,000	20,400,000	15,767,356
	OCM Principal Opportunities II	Distressed/ Restructuring	04/24/2001	25,000,000	25,000,000	43,803,186
17.	Platinum Equity Capital Partners III	Distressed/ Restructuring	08/05/2013	50,000,000	11,205,097	5,647,952

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Special Situations Committed, Drawn, and Distributed (continued)

	Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
18.	Sankaty Credit Opportunities III	Distressed/ Restructuring	03/08/2007	\$50,000,000	\$50,000,000	\$25,605,173
	Sankaty Credit Opportunities IV	Distressed/ Restructuring	07/15/2008	40,000,000	38,000,000	39,211,445
19.	Templeton Strategic Emerging Markets Fund III	Distressed/ Restructuring	05/29/2009	100,000,000	93,367,388	17,709,920
20.	Versa Capital Partners	Distressed/ Restructuring	10/16/2005	20,000,000	23,611,753	15,988,714
	Versa Capital Partners II	Distressed/ Restructuring	07/31/2008	15,000,000	12,004,074	3,161,134
21.	W Capital Partners II	Secondaries	08/08/2007	40,000,000	38,920,218	33,489,412
	Total Active Special Situations			\$2,208,179,904	\$1,866,843,287	\$2,034,833,354

Numbers may not add due to rounding.

Cash flows as of 9/30/13.

Inactive Special Situations Funds

	Capital	Accumulated	Accumulated
	Committed	Capital Drawn	Distributions
Total Inactive Special Situations	\$306,600,000	\$269,083,536	\$452,256,760

^{*}Not funded as of 9/30/13.

 $^{^{1}}$ Commitments as of 12/31/13.

^{2/}Distributions include stock distributions. Distributions may include additional fees that are recorded as negative distributions to be offset against future distributions of the underlying limited partnership investment.

As of December 31, 2013 (unaudited)

Venture Capital Committed, Drawn, and Distributed

The capital committed column represents total dollars allocated from SERS to each limited partnership. Accumulated capital drawn is the portion of SERS' capital commitments drawn by the general partner to be invested with underlying portfolio companies. The accumulated distributions column shows the value of capital and profits returned to SERS.

	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
1.	Abingworth Bioventures IV	Balanced	09/01/2003	\$20,000,000	\$19,368,000	\$7,750,829
	Abingworth Bioventures V	Balanced	01/23/2007	33,775,000	25,066,536	22,488,244
2.	Accel Europe	Early Stage	07/02/2001	15,000,000	11,350,000	12,076,190
3.	Adams Capital Management II	Early Stage	10/01/1999	30,000,000	30,000,000	3,800,000
	Adams Capital Management III	Early Stage	11/21/2000	30,000,000	30,000,000	7,011,905
4.	Advanced Technology Ventures VI	Balanced	03/09/2000	10,000,000	10,000,000	3,847,939
	Advanced Technology Ventures VII	Balanced	07/11/2001	27,000,000	27,000,000	14,471,900
5.	Alloy Annex I	Early Stage	10/31/2003	5,000,000	5,000,000	345,895
	Alloy Ventures 2000	Early Stage	05/19/2000	20,000,000	20,000,000	4,058,488
	Alloy Ventures 2002	Early Stage	07/22/2002	25,000,000	25,000,000	14,527,240
	Alloy Ventures 2005	Early Stage	08/11/2005	25,000,000	25,000,000	2,903,124
6.	APEX Investment Fund IV	Early Stage	09/17/1999	25,000,000	25,765,509	2,661,681
	APEX Investment Fund V	Early Stage	04/19/2002	20,000,000	20,574,278	5,195,683
7.	Artiman Ventures II	Early Stage	10/27/2006	25,000,000	24,500,000	0
	Artiman Ventures III	Early Stage	08/09/2010	20,000,000	9,810,000	0
8.	Atlas Venture Fund IV	Early Stage	03/31/1999	26,000,000	23,809,496	8,556,942
	Atlas Venture Fund V	Early Stage	02/07/2000	37,200,000	37,211,109	40,115,109
	Atlas Venture Fund VI	Early Stage	08/01/2001	24,800,000	24,800,000	11,117,236
9.	Austin Ventures IX	Balanced	01/09/2006	15,000,000	14,642,039	2,476,362
	Austin Ventures VIII	Balanced	07/26/2001	20,932,140	21,100,362	21,036,541
10.	Battery Ventures VIII Side Car Fund	Balanced	08/29/2008	9,000,000	6,399,150	8,013,373
	Battery Ventures VIII	Balanced	08/13/2007	25,000,000	24,406,736	15,119,004
11.	Birchmere Ventures III	Early Stage	05/05/2005	10,000,000	10,101,805	7,434,574
12.	Care Capital Investments III	Balanced	02/08/2006	25,000,000	18,165,299	2,928,536
13.	Charles River Partnership XI	Early Stage	02/15/2001	11,032,259	10,933,018	14,360,660
14.	CID Greater China Venture Capital Fund II	Balanced	08/10/2007	20,000,000	17,400,000	6,439,746
15.	Clearstone Venture Partners III-A	Early Stage	12/22/2004	25,000,000	23,000,000	267,818
16.	Cross Atlantic Technology Fund	Balanced	02/14/2000	20,000,000	20,149,041	23,742,240
	Cross Atlantic Technology Fund II	Balanced	01/28/2002	32,900,000	32,900,000	18,871,600
17.	Devon Park Bioventures	Balanced	12/15/2006	10,842,697	7,990,446	950,627
18.	Draper Fisher Jurvetson Fund VI	Early Stage	08/13/1999	8,000,000	8,000,000	3,961,765
	Draper Fisher Jurvetson Fund VII	Early Stage	09/22/2000	20,000,000	20,000,000	3,178,088
	Draper Triangle Ventures	Early Stage	12/20/1999	20,000,000	20,431,137	10,505,577
	Draper Triangle Ventures II	Early Stage	10/13/2004	12,000,000	12,431,069	1,347,356

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Venture Capital Committed, Drawn, and Distributed (continued)

	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
19.	Fairview Capital	Fund of Funds	09/30/1994	\$10,000,000	\$10,000,000	\$4,543,128
	Fairview II	Fund of Funds	03/31/1998	10,000,000	9,870,000	3,982,519
20.	Frazier Healthcare III	Balanced	03/31/1999	30,000,000	30,000,000	10,685,916
	Frazier Healthcare IV	Balanced	09/27/2001	30,000,000	29,670,000	21,009,036
	Frazier Healthcare V	Balanced	05/10/2005	30,000,000	29,370,000	30,853,380
21.	Grotech Partners V	Early Stage	09/30/1998	25,000,000	25,000,000	24,521,934
22.	Guggenheim Technology Ventures I	Early Stage	11/17/2008	2,000,000	2,000,000	337,134
23.	Healthcare Ventures V	Early Stage	12/31/1997	25,000,000	25,000,000	52,355,501
	Healthcare Ventures VI	Early Stage	06/19/2000	35,000,000	35,000,000	3,542,050
	Healthcare Ventures VII	Early Stage	10/29/2002	35,000,000	33,862,500	16,404,798
	Healthcare Ventures VIII	Early Stage	08/22/2005	30,000,000	25,275,000	8,700,895
24.	Highland Capital Partners VI	Early Stage	10/25/2001	25,000,000	25,000,000	32,938,620
	Highland Capital Partners VII	Early Stage	10/13/2006	35,000,000	33,250,530	7,802,839
	Highland Consumer Fund I	Early Stage	05/04/2007	25,000,000	22,263,199	0
25.	IP II	Balanced	12/17/2001	8,600,000	8,584,074	2,602,522
	IP III	Balanced	11/19/2004	10,500,000	9,555,000	10,186,745
	IP IV	Balanced	09/21/2007	14,000,000	13,300,000	3,497,809
26.	Insight Venture Partners VI	Balanced	08/21/2007	30,000,000	32,244,177	13,237,041
	Insight Venture Partners VII	Balanced	04/27/2011	20,000,000	18,460,031	2,944,028
	Insight Venture Partners VIII	Balanced	07/10/2013	50,000,000	7,200,000	0
27.	InterWest Partners IX	Balanced	10/19/2005	20,000,000	17,000,000	6,386,563
	InterWest Partners VIII	Early Stage	08/25/2000	25,000,000	25,000,000	9,657,162
	InterWest Partners X	Balanced	10/30/2008	30,000,000	19,500,000	1,120,736
28.	JP Morgan Venture Capital Investors	Fund of Funds	07/08/1999	100,000,000	106,806,765	60,182,247
	JP Morgan Venture Capital Investors II	Fund of Funds	09/08/2000	100,000,000	109,668,050	69,606,479
	JP Morgan Venture Capital Investors III	Fund of Funds	06/20/2006	100,000,000	98,756,160	30,847,336
29.	Kline Hawkes Pacific	Balanced	08/30/2000	15,000,000	15,100,498	6,873,957
30.	Knightsbridge Venture Capital VI	Fund of Funds	12/07/2004	20,000,000	17,933,334	2,776,966
31.	Lightspeed Venture Partners VII	Early Stage	02/27/2006	18,000,000	17,287,490	6,375,151
	Lightspeed Venture Partners VIII	Early Stage	06/27/2008	15,000,000	13,350,000	6,673,550
32.	Media/Communications Ventures Fund V	Growth Equity	09/27/2000	35,000,000	34,812,205	53,935,285
33.	Meritech Capital Partners II	Late Stage	01/02/2001	26,475,166	24,842,529	34,714,200
	Meritech Capital Partners III	Late Stage	04/05/2006	35,000,000	33,950,000	113,457,354
	Meritech Capital Partners IV	Late Stage	02/10/2011	20,000,000	12,600,000	2,995,054
34.	Mid-Atlantic Venture Fund III	Early Stage	06/30/1997	20,008,308	20,000,000	5,654,702
	Mid-Atlantic Venture Fund IV	Early Stage	05/04/2000	30,000,000	30,246,718	9,177,849

As of December 31, 2013 (unaudited)

Venture Capital Committed, Drawn, and Distributed (continued)

	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Accumulated Capital Drawn	Accumulated Distributions ^{2/}
35.	Morgenthaler Partners IX	Balanced	11/25/2008	\$20,000,000	\$13,000,000	\$6,515,332
	Morgenthaler Partners VII	Balanced	07/26/2001	35,000,000	35,143,798	25,362,215
	Morgenthaler Partners VIII	Balanced	10/03/2005	35,000,000	34,004,696	16,690,140
36.	NEPA Venture-II	Balanced	12/31/1992	7,500,000	7,500,000	34,879,769
37.	New Enterprise Associates 11	Early Stage	03/01/2004	25,000,000	23,750,000	20,454,363
	New Enterprise Associates 12	Early Stage	06/26/2006	35,000,000	34,479,833	20,081,601
	New Enterprise Associates IX	Early Stage	11/15/1999	20,000,000	19,600,000	5,220,073
	New Enterprise Associates VI	Early Stage	03/31/1994	25,000,000	25,000,000	200,407,487
	New Enterprise Associates VII	Early Stage	12/31/1996	30,000,000	30,000,000	102,186,705
	New Enterprise Associates X	Early Stage	12/11/2000	35,000,000	34,503,000	29,672,731
38.	Novitas Capital III	Early Stage	04/17/2003	10,000,000	9,200,000	3,374,854
39.	Oak Investment Partners XI	Late Stage	07/21/2004	35,000,000	35,000,000	13,703,385
	Oak Investment Partners XII	Late Stage	07/10/2006	40,000,000	40,000,000	12,004,762
40.	Permira UK Venture Fund IV	Balanced	09/30/1996	15,248,000	15,993,572	23,494,012
41.	Pitango Venture Capital Fund IV	Early Stage	07/19/2004	20,000,000	19,601,534	9,809,664
	Pitango Venture Capital Fund V	Early Stage	08/22/2007	30,000,000	24,263,295	3,593,498
42.	Polaris Venture Partners II	Balanced	09/30/1998	25,000,000	24,750,000	38,417,126
	Polaris Venture Partners III	Balanced	01/21/2000	50,000,000	49,500,000	26,626,571
	Polaris Venture Partners IV	Balanced	09/30/2002	50,000,000	49,750,000	29,473,908
	Polaris Venture Partners V	Balanced	08/08/2006	50,000,000	46,000,000	21,950,538
43.	Quaker BioVentures	Balanced	02/20/2003	20,000,000	20,000,000	3,526,430
	Quaker BioVentures II	Balanced	04/03/2007	25,000,000	19,500,000	3,565,264
44.	SCP Private Equity Partners II	Late Stage	06/15/2000	25,000,000	25,000,000	5,972,493
45.	Sofinnova Venture Partners VII	Early Stage	01/18/2007	20,000,000	16,600,000	13,279,806
46.	Sprout VII	Early Stage	03/31/1995	18,000,000	18,000,000	48,322,026
47.	Summit Accelerator Fund	Early Stage	11/15/1999	8,000,000	7,609,500	12,339,964
	Summit Partners Venture Capital Fund II	Early Stage	09/22/2006	15,000,000	15,823,703	13,785,911
48.	T. Rowe Price Stock Distribution Account ^{3/}	Late Stage	01/03/2005			
49.	Three Arch Capital	Balanced	12/20/2000	20,000,000	19,500,000	9,848,908
	Three Arch Partners IV	Balanced	06/04/2004	20,000,000	19,050,000	6,209,207
50.	TL Ventures IV	Early Stage	05/13/1999	35,000,000	35,000,000	25,582,809
	TL Ventures V	Early Stage	10/18/2000	40,000,000	40,048,219	13,261,389
51.	US Venture Partners VII	Balanced	02/18/2000	13,750,000	13,750,000	4,800,279
	US Venture Partners VIII	Early Stage	06/01/2001	26,250,000	25,830,000	27,302,424

Investment Summary - Alternative Investments

As of December 31, 2013 (unaudited)

Venture Capital Committed, Drawn, and Distributed (continued)

					Accumulated	
	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Accumulated Distributions ^{2/}
EO	<u> </u>					
52.	Weathergage Venture Capital	Fund of Funds	06/26/2007	\$25,000,000	\$21,750,000	\$3,817,019
	Weathergage Venture Capital II	Fund of Funds	06/29/2010	25,000,000	13,000,000	0
53.	Worldview Technology Partners IV	Balanced	01/31/2001	18,130,023	16,951,175	7,034,048
	Total Active Venture Capital			\$2,739,943,593	\$2,582,515,613	\$1,814,709,465

Numbers may not add due to rounding.

Cash flows as of 9/30/13.

Inactive Venture Capital Funds

	Capital Committed	Accumulated Capital Drawn	Accumulated Distributions
Total Inactive Venture Capital	\$464,236,097	\$456,462,060	\$745,881,452

¹/Commitments as of 12/31/13.

²/Distributions include stock distributions. Distributions may include additional fees that are recorded as negative distributions to be offset against future distributions of the underlying limited partnership investment.

³/T. Rowe Price acts as a stock liquidation account. All cash and stock distributions are reflected in the corresponding distributions.

Investment Summary - Global Public Equity Investments Summary

As of December 31, 2013 (unaudited)

Asset Class Description

Global Public Equity (GPE) comprises SERS Fund assets held in publicly traded equity securities of companies located throughout the developed world and emerging markets. These companies have a wide range of market capitalizations in different industries and sectors that offer vastly different return opportunities.

Role in the SERS Fund

GPE provides the SERS Fund with high total return but with high volatility. This asset class offers immediate liquidity in normal capital market conditions and can provide moderate inflation protection.

Investing in public equity securities globally, rather than in limited regions, offers the best risk-adjusted return and diversification benefits for the SERS Fund

Program Objective

The 2012-2013 objective of the GPE program is to generate annualized total net return that exceeds the Global Equity benchmark return by 100 to 200 basis points per annum, accomplished through active and passive ownership of large, mid, and small capitalization stocks worldwide.

Asset Class Benchmark

GPE performance is measured and evaluated over a three- to five-year period relative to the MSCI All-Country World Investable Market Index (ACWI-IMI) benchmark.

Investment Summary - Global Public Equity Investments Summary

As of December 31, 2013 (unaudited)

Global Public Equity

Manager	Investment Style	Market Exposure as of 12/31/13 ^{1/} (\$ millions)
Global Mandates		
1. Walter Scott and Partners Limited	Growth	\$637.0
Total Global Mandates		637.0
U.S. Equity		
2. Cornerstone Growth	Large-cap growth	328.2
3. Diamond Hill Concentrated	Large-cap concentrated	380.1
4. Emerald Advisers - PA Companies	Small-cap PA companies	446.1
5. Epoch Value	Large-cap value	354.9
6. Iridian Asset Management LLC	Mid-cap private business value	358.6
7. Mellon Capital Management Russell 1000 Index	Russell 1000 Index	2,563.7
Mellon Capital Management Corp-PA Companies	Small-cap PA companies	266.4
Total U.S. Equity		4,698.0
Non-U.S. Developed Markets Equity		
8. Artisan Partners - Global ex U.S.	Global ex U.S. growth	434.1
9. Harris Associates	Small-cap intrinsic value	526.2
Mellon Capital Management MSCI World ex U.S. Index	MSCI World ex U.S. Index	1,511.1
10. Morgan Stanley Investment Management Limited-Developed ex U.S.	EAFE value	435.4
11. Pictet Asset Management Limited	Small-cap value	0.2
12. Templeton Investment Counsel - Global ex U.S.	Global ex U.S. value	648.7
Total Non-U.S. Developed Markets Equity		3,555.6
Emerging Markets Equity		
13. Ashmore EMM	Small-cap value	132.4
14. BlackRock/Emerging Markets Index Non-Lendable Fund	MSCI Emerging Markets Index	146.7
15. Delaware Investment Advisers	Mid-/Large-cap value	271.8
16. GlobeFlex Capital	Small-cap - GARP	78.0
17. Martin Currie Investment Management	All-cap	251.3
Total Emerging Markets Equity		880.2
Transition Assets		
18. Northern Trust Public Equity	Transition Assets	0.1
Total Transition Assets		0.1
Total Global Public Equity		\$9,770.9

Numbers may not add due to rounding.

 $^{^{1/}}$ Includes stocks and cash which the manager had available for investment.

Investment Summary - Real Assets

As of December 31, 2013 (unaudited)

Asset Class Description

Real Assets (RA) include the SERS Fund's investments that predominantly own or develop physical assets and that are highly correlated to inflation. Two categories of investments make up SERS' RA asset class:

Real Estate

- Core real estate through separate account relationships with reasonable levels of liquidity over a 12- to 18-month period.
- Non-core real estate through private real estate limited partnerships requiring long-term capital commitments and offering limited liquidity.
- REITS, which are publicly traded real estate investment trusts

The most recent property diversification data is as follows:

- 39% pooled funds, 61% separate accounts;
- 21% office, 4% industrial, 10% retail, 31% multifamily, 11% hotel, 7% timber, 16% other (including senior and student housing, land, and various niche property investments);
- 6% Pennsylvania, 37% East excluding Pennsylvania, 28% West, 12% South, 6% Midwest, 11% International;
- 12% of the fair value of the separate accounts was invested in 13 investments located in Pennsylvania.

Inflation Protection

- Public energy through commodities exposure, master limited partnerships, or other publicly traded securities with exposure to the energy markets
- Private energy through investments in limited partnerships requiring long-term capital commitments and offering limited liquidity.
- Commodities through both passive and active investment strategies which provide exposure to oil and gas, metals, livestock, and agricultural products.
- Natural resources through investment in publicly traded companies that generate a large portion of their revenues from natural resources
- Timberland and farmland through direct and indirect investment in real estate whose value is determined by timber and farming operations.
- Infrastructure through indirect investments in large-scale infrastructure projects such as toll roads, airports and ports, and pipelines.

Role in the SERS Fund

RA provides positive real return during periods of high or rising inflation and thereby helps preserve the purchasing power of the SERS Fund. The RA portfolio is also expected to generate attractive, long-term return with lower volatility than the broad equity markets.

RA provides significant diversification benefits to the SERS Fund due to its relatively low correlation to economic-sensitive assets such as stocks and bonds

Investment Summary - Real Assets

As of December 31, 2013 (unaudited)

Finally, energy investments, in particular, offer high total return opportunity, provide inflation protection, and are effective U.S. dollar hedges (because crude oil worldwide is denominated in U.S. dollars). These attributes are particularly attractive because SERS' liabilities are not indexed to inflation and are denominated in U.S. dollars.

Program Objectives

The 2012-2013 objectives of the RA program are to:

- primarily, generate real total return that exceeds inflation; and
- secondarily, provide competitive total return over the long term through capital appreciation and income generation.

Asset Class Benchmarks

RA performance is measured and evaluated over a three- to five-year period relative to the following benchmarks:

- Real Assets Custom Benchmark
- CPI + 3%

Real Assets

Manager	Vintage Year	Asset Type	Investment Structure	Fair Value as of 12/31/13 (\$ millions)
Private Energy				
1. Carlyle Energy Mezz Opp Fund	2012	Energy	Limited Partnership	\$23.9
2. Denham Commodity VI	2012	Energy	Limited Partnership	13.0
3. Energy Spectrum Partners IV	2004	Energy	Limited Partnership	0.5
Energy Spectrum Partners V	2007	Energy	Limited Partnership	10.5
4. First Reserve Fund X	2004	Energy	Limited Partnership	2.5
First Reserve Fund XI	2006	Energy	Limited Partnership	36.8
First Reserve Fund XII	2008	Energy	Limited Partnership	45.4
5. Lime Rock Partners III	2004	Energy	Limited Partnership	6.0
Lime Rock Partners IV	2006	Energy	Limited Partnership	32.0
Lime Rock Partners V	2008	Energy	Limited Partnership	37.7
Lime Rock Resources	2005	Energy	Limited Partnership	4.2
6. Oaktree Power Opportunities Fund III	2010	Energy	Limited Partnership	13.0
OCM/GFI Power Opportunities Fund II	2005	Energy	Limited Partnership	2.0
7. SFC Energy Partners I	2007	Energy	Limited Partnership	5.6
SFC Energy Partners II	2011	Energy	Limited Partnership	8.1
Total Private Energy	·	•		241.2

Total Private Energy 241.2

Investment Summary - Real Assets

As of December 31, 2013 (unaudited)

Real Assets (continued)

Real Assets (continued)						
	Manager	Vintage Year	Asset Type	Investment Structure	Fair Value as of 12/31/13 (\$ millions)	
No	n-Core Real Estate					
8.	AG Asia Realty Fund	2007	Diversified	Limited Partnership	\$9.9	
9.	Apollo Real Estate Fund III	1998	Diversified	Limited Partnership	1.1	
	Berwind Investment Partnership V ^{1/}	1999	Diversified	Limited Partnership	6.5	
	Berwind Investment Partnership VI ^{1/}	2002	Diversified	Limited Partnership	9.5	
	Berwind Investment Partnership VII ^{1/}	2005	Diversified	Limited Partnership	13.7	
	Berwind Investment Partnership VIII	2007	Diversified	Limited Partnership	12.1	
	Berwind Investment Partnership IX	2012	Diversified	Limited Partnership	7.0	
11.	Blackstone Real Estate Partners III	1999	Diversified	Limited Partnership	0.5	
	Blackstone Real Estate Partners IV	2003	Diversified	Limited Partnership	15.4	
	Blackstone Real Estate Partners V	2006	Diversified	Limited Partnership	58.0	
	Blackstone Real Estate Partners VI	2007	Diversified	Limited Partnership	112.3	
	Blackstone Real Estate Partners VII	2011	Diversified	Limited Partnership	56.2	
12.	Clerestory Small Cap Fund I	2007	Diversified	Limited Partnership	11.3	
13.	Colony Investors VIII	2007	Diversified	Limited Partnership	8.9	
4.	Fillmore East Fund	2005	Debt	Limited Partnership	4.1	
	Fillmore West Fund ^{1/}	2008	Debt	Limited Partnership	15.3	
5.	Goldman Sachs Whitehall VII and VIII	1996	Diversified	Limited Partnership	0.1	
6.	Grosvenor Residential Investment Partners I	2007	Residential	Limited Partnership	5.6	
7.	Hawkeye Scout Fund I	2006	Diversified	Limited Partnership	44.5	
8.	LEM Real Estate High-Yield Debt Fund III ^{1/}	2012	Debt	Limited Partnership	6.0	
9.	Lubert Adler Fund III	2000	Diversified	Limited Partnership	0.4	
	Lubert Adler Fund IV	2004	Diversified	Limited Partnership	3.2	
	Lubert Adler Fund V	2006	Diversified	Limited Partnership	9.1	
	Lubert Adler Fund VI ^{1/}	2008	Diversified	Limited Partnership	14.0	
20.	OCM Real Estate Opp Fund A	1996	Diversified	Limited Partnership	0.2	
	OCM Real Estate Opp Fund II	1998	Diversified	Limited Partnership	0.1	
	OCM Real Estate Opp Fund III	2003	Diversified	Limited Partnership	2.9	
21.	Oxford GSA Fund	2006	Diversified	Limited Partnership	14.9	
22.	Prudential Latin America Residential Fund III ^{1/}	2007	Residential	Limited Partnership	24.6	
	Prudential Latin America Retail Fund I	2006	Retail	Limited Partnership	25.9	
	Prudential Senior Housing Fund III	2006	Senior housing	Limited Partnership	32.2	
	Prudential Senior Housing Fund IV	2011	Senior housing	Limited Partnership	10.5	
23.	Rockpoint Finance Fund I	2006	Diversified	Limited Partnership	1.2	
	Rockpoint Real Estate Fund I	2004	Diversified	Limited Partnership	3.6	
	Rockpoint Real Estate Fund II	2005	Diversified	Limited Partnership	12.8	
	Rockpoint Real Estate Fund III	2007	Diversified	Limited Partnership	14.1	
24.		1997	Diversified	Limited Partnership	0.2	
	Starwood Fund VI	2001	Diversified	Limited Partnership	19.2	
	Starwood Fund VII	2005	Diversified	Limited Partnership	24.9	
	Starwood Fund VIII	2007	Diversified	Limited Partnership	56.0	

Investment Summary - Real Assets

As of December 31, 2013 (unaudited)

Real Assets (continued)

	Manager	Vintage Year	Asset Type	Investment Structure	Fair Value as of 12/31/13 (\$ millions)
No	n-Core Real Estate (continued)				,
25.	Westbrook Fund III ¹ /	1998	Diversified	Limited Partnership	\$0.1
	Westbrook Fund IV ^{1/}	2000	Diversified	Limited Partnership	0.2
	Westbrook Fund V	2004	Diversified	Limited Partnership	1.3
	Westbrook Fund VI	2005	Diversified	Limited Partnership	13.3
	Westbrook Fund VII	2006	Diversified	Limited Partnership	27.0
	Westbrook Fund VIII	2009	Diversified	Limited Partnership	43.3
	Total Non-Core Real Estate				753.5
Co	ore Real Estate				
26.	Fidelity Real Estate Opportunistic Income Fund	2007	Debt	Limited Partnership	56.2
	Forest I.M.A.	1992	Timber	Separate Account	170.3
28.	Heitman America Real Estate Trust	2007	Diversified	Limited Partnership	138.3
	Heitman I.M.A.	1988	Diversified	Separate Account	150.7
29.	LaSalle I.M.A.	1994	Diversified	Separate Account	298.3
30.	Lowe I.M.A.	1994	Diversified	Separate Account	416.3
	Lowe GTO	2012	Diversified	Separate Account	418.4
31.	UBS Trumbull Property Fund	1988	Diversified	Open-Ended Fund	59.3
	UBS Trumbull Property Income Fund	1988	Diversified	Open-Ended Fund	53.5
	Total Core Real Estate				1,761.1
RE	lTs				
32.	CBRE Clarion Real Estate Securities	1996	REITs	Separate Account	262.0
33.	Urdang Real Estate Securities	2002	REITs	Separate Account	47.9
	Total REITs				309.9
Co	mmodities and Infrastructure				
34.	BAAM Commodities	2007	Commodities	Open-Ended Fund	513.0
35.	Harvest Fund MLP	2013	MLPs	Separate Account	163.0
36.	Kayne Anderson MLP	2013	MLPs	Separate Account	160.3
37.	Wellington DIH	2004	Commodities	Open-Ended Fund	367.2
	Total Commodities and Infrastructure				1,203.6
	Total Real Assets				\$4,269.3

Numbers may not add due to rounding.

¹/ Fair values for these managers have not been received as of year-end. The values are third quarter fair values adjusted by fourth quarter cash flows.

Investment Summary - Diversifying Assets

As of December 31, 2013 (unaudited)

Asset Class Description

The assets that comprise the Diversifying Assets (DA) portfolio include:

- Absolute Return Strategies (Fund-of-Hedge Fund) which include customized separate accounts and commingled funds that invest in hedge funds;
- Hedged Strategies (Fund-of-One) mandates with SERS as sole limited partner, with discretion given to general partners to build customized programs in which SERS benefits from greater transparency, increased oversight, and better liquidity; and
- Direct Investments (Direct Hedge Fund) is a new program which will include investments in commingled direct hedge funds designed to provide total returns comparable to the total fund but with less volatility and lower correlation to the other asset classes

Role in the SERS Fund

DA seeks to generate a return equal to or greater than the SERS Fund's total return target with lower volatility than that of public equities. DA targets a liquidity profile between public equity markets and private equity buyouts, with a three-year investment horizon. The portfolio provides significant fund diversification due to the low correlation of the underlying strategies to public capital markets. Diversification is achieved through long/short equity, global macro, managed futures, long/short credit, and event-driven strategies—all with long-term histories of attractive risk-adjusted returns.

Program Objectives

The 2012-2013 objectives of the DA program are to:

- produce annualized total returns of 8-12%, net of fees, with volatility (standard deviation of returns) below that of public equities;
- provide competitive total returns in bull markets and preserve capital in bear markets; and
- increase SERS Fund diversification

Asset Class Benchmark

Performance of the DA program will be measured and evaluated over a five- to seven-year period based on the Diversifying Assets Custom Benchmark and the HFRI FOF Comp Index.

Investment Summary - Diversifying Assets

As of December 31, 2013 (unaudited)

Diversifying Assets

	Diversitying Assets							
	Managar	Investment Chylo	Market Exposure as of 12/31/13 ^{1/} (\$ millions)					
ho	Manager	Investment Style	(\$ millions)					
	olute Return Strategies	F 1 - C II - 1 F 1	\$2 <i>C C</i>					
1.	Arden	Fund-of-Hedge Fund	\$36.6					
2.	Blackstone - Stable Alpha	Fund-of-Hedge Fund	98.1					
3.	Mesirow Financial	Fund-of-Hedge Fund	53.7					
4.	Morgan Stanley Alternative Investment Partners	Fund-of-Hedge Fund	20.8					
5.	PAAMCO	Fund-of-Hedge Fund	30.6					
6.	Robeco Investment	Fund-of-Hedge Fund	0.9					
7.	Rock Creek	Fund-of-Hedge Fund	25.9					
Hed	ged Strategies							
8.	Arden Keystone	Fund-of-One	124.3					
9.	Blackstone Keystone	Fund-of-One	907.8					
10.	Entrust Keystone	Fund-of-One	296.2					
11.	Tiger Keystone	Fund-of-One	216.5					
	Total Hedged Strategies		1,544.7					
)ire	ct Investments							
12.	Hoplite Capital	Direct Hedge Fund	20.9					
13.	Luxor Capital	Direct Hedge Fund	20.0					

12.	Hoplite Capital	Direct Hedge Fund	20.9	
13.	Luxor Capital	Direct Hedge Fund	20.0	
14.	MKP Capital	Direct Hedge Fund	15.0	
15.	Pine River Capital	Direct Hedge Fund	20.1	
	Total Direct Investments		76.0	
	Total Diversifying Assets		\$1,887.3	

Numbers may not add due to rounding.

 $^{^{1/}}$ Includes securities and cash which the manager had available for investment.

Investment Summary - Fixed Income

As of December 31, 2013 (unaudited)

Asset Class Description

Fixed Income (FI) includes the SERS Fund's investments in publicly traded debt obligations of sovereign, quasi-sovereign, and corporate entities. FI generates income from the periodic payment of interest as well as the eventual repayment of principal at maturity. Debt obligations are contractual in nature and are senior to equity securities. The legal protection afforded to debt and the shorter duration of debt compared to equities result in lower volatility (i.e., investment risk) than equities.

Role in the SERS Fund

Historically, the SERS' FI portfolio was managed for excess return. Changing financial and capital market conditions, threats from deflation and inflation, and increasing liquidity requirements of the SERS Fund has necessitated changes in the role and strategy of the FI program.

FI is now structured to generate current income to pay benefits, provide liquidity sufficient to preserve capital and satisfy liabilities, and protect the SERS Fund against inflation and deflation. When market conditions are favorable, the program also seeks to enhance the total return of the SERS Fund

Program Objectives

The 2012-2013 objectives of the fixed income allocation are to:

- provide income and liquidity with a relatively low risk:
- protect the SERS Fund against inflation and deflation: and
- contribute excess total return to the SERS Fund when market conditions permit.

Asset Class Benchmarks

FI performance will be evaluated over a three- to five-year period related to the following benchmarks:

- Fixed income assets Barclay's U.S. Aggregate Bond Index
- Liquidity reserve assets BofA ML 3 Month U.S. T-Bill Index

Investment Summary - Fixed Income

As of December 31, 2013 (unaudited)

SERS Fixed Income

	Manager	Investment Style	Market Exposure as of 12/31/13 ^{1/} (\$ millions)
Co	re Plus		
1.	Brandywine Global	Global Sovereign Credit	\$191.8
2.	Oaktree Capital Management	Mezzanine Fund (liquidating)	0.2
3.	PIMCO EMD	Emerging Market Debt (liquidating)	0.2
4.	Pyramis Global Advisors	Commercial Mortgage-Backed Securities	285.0
5.	SEI Structured Credit Fund	High Yield Bank Loans	222.6
6.	Stone Harbor	Emerging Market Debt	156.4
	Stone Harbor	Global High Yield	173.5
7.	Waterfall Asset Management	Asset-Backed Securities	168.1
8.	W.R. Huff	High Yield (liquidating)	15.8
	Total Core Plus		1,213.6
Co	re		
9.	BNY Mellon Cash Investment Strategies	Barclays Aggregate	899.6
	MacKay Shields Core	Barclays Aggregate	194.0
	PIMCO Core	Barclays Aggregate ex. Treasuries	240.0
11.	Taplin, Canida and Habacht (TCH)	U.S. Credit	171.7
12.	UBS Core Bond	Barclays Aggregate	99.2
	Total Core		1,604.5
Glo	bal Treasury Inflation Protected S	ecurities (TIPS)	
13.	Brown Brothers Harriman	Global TIPS	195.4
14.	New Century Advisors	Global TIPS	101.5
15.	NISA Investment Advisors	U.S. TIPS	441.9
	Total Global Treasury Inflation Protected Secu	urities (TIPS)	738.9
No	minal U.S. Treasuries		
	PIMCO U.S. Treasuries	Domestic Treasuries	238.9
16.	Wellington U.S. Treasuries	Domestic Treasuries	236.4
	Total Nominal U.S. Treasuries		475.3
	Total Fixed Income Investments		\$4,032.3

Numbers may not add due to rounding.

^{1/}Includes securities and cash which the manager had available for investment.

Investment Summary - Fixed Income

As of December 31, 2013 (unaudited)

Liquidity Reserve^{1/}

Manager	Investment Style	Market Exposure as of 12/31/13 ^{2/} (\$ millions)
Short-Term Notes		
1. PNC Short Duration	Short Duration Government Credit	\$230.8
2. StoneRidge Short Duration	Short Duration Government Credit	115.3
Total Short-Term Notes		346.1
Cash Equivalent		
3. PA State Treasury (STIF)	Cash	955.4
PA Treasury Overnight Cash	Cash	2.9
Total Cash Equivalent		958.3
Total Liquidity Reserve Investments		\$1,304.4

Numbers may not add due to rounding.

¹/ The SERS Liquidity Reserve is jointly managed by SERS Fixed Income and Investment Operations.

 $^{^{2/}}$ Includes securities and cash which the manager had available for investment.

Actuarial Section

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HayGroup[®]

May 1, 2014

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Dear Mr. Durbin:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the Commonwealth of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan. The results provided herein are based upon the December 31, 2013 annual actuarial valuation.

The funding objective of the plan is set forth in the State Employees' Retirement Code (SERC). The annual employer contribution is equal to the sum of the following for the fiscal year beginning July 1, 2014:

- (1) The employer share of the normal cost.
- (2) The fresh start amortization of the December 31, 2009 unfunded liability over a 30-year period beginning July 1, 2010 and ending on June 30, 2040.
- (3) The amortization of the change in liability due to Act 2010-120 over a 30-year period beginning July 1, 2011 and ending on June 30, 2041.
- (4) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2009 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.
- (5) The amortization of benefit improvements, including cost-of-living increases, over 10-year periods beginning with the July first following the actuarial valuation determining such changes.

The amortization payments are level amounts over the remaining applicable amortization periods. The employer cost is determined as a percent of retirement covered compensation. The total employer cost is the average contribution amount that needs to be received from the employer groups participating in the system. Some employer groups contribute a higher percent of compensation, and some employer groups contribute a lower percent of compensation depending on the benefits payable to their employees.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account the past experience of SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

Mr. David E. Durbin May 1, 2014 Page 2

The actuarial valuation is based on financial and participant data, which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to their use in the actuarial valuation.

The actuarial valuation uses assumptions regarding future rates of investment return and rates of retirement, withdrawal, death, and disability among SERS members and their beneficiaries. The current set of assumptions used in the December 31, 2013 actuarial valuation, with the exception of the investment return assumption, was adopted by the State Employees' Retirement Board (the Board) based upon actual experience of SERS during the years 2006 through 2010. Based upon subsequent review of SERS investment data and results, the Board approved a reduction in the assumed annual investment return from 8.0% to 7.5% effective as of the December 31, 2011 actuarial valuation. The 7.5% assumption remains in effect for the December 31, 2013 actuarial valuation. We will continue to closely monitor this assumption and will recommend changing it if conditions warrant such change. The actuarial value of assets is developed by recognizing the difference between the expected actuarial value of assets and the market value of assets over a five-year period.

Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The scheduled payments since July 1, 2005 have been below the minimum amount required to meet the GASB #25 minimum. Previously this was a result of financing changes implemented by Act 2003-40 in December 2003. Currently this is a result of the contribution collars required under Act 2010-120. After June 30, 2015, provided that employer contributions are made in accordance with current law, we expect employer contributions to exceed the GASB #25 minimum.

The "Schedule of Funding Progress" and "Schedule of Employer Contributions" included in the Financial Section are provided as part of the accounting disclosure statements in accordance with GASB #25. These two schedules were derived from the December 31, 2013 actuarial valuation.

With the exception of the "Schedule of Retirees and Beneficiaries Added to and Removed from Rolls" and the "Summary of Plan Provisions", the schedules appearing in the Actuarial Section were derived from the December 31, 2013 actuarial valuation.

Based upon the valuation results, it is our opinion that, provided future employer contributions are made in accordance with current law, the Pennsylvania State Employees' Retirement System is in sound condition in accordance with generally accepted actuarial principles and procedures. The employer contribution has been below the GASB Statement No. 25 minimum since July 1, 2005 and will likely remain below the minimum through June 30, 2015. Thereafter, provided that employer contributions are made in accordance with current law, we expect employer contributions to exceed the GASB minimum.



Mr. David E. Durbin May 1, 2014 Page 3

It should be noted that, with the passage of Act 2010-120 (Act 120), significant changes to many key benefit provisions of SERS have been legislated. This was in response to the significant funding challenges SERS has been facing in recent years, and will continue to face in coming years. By reducing pensions for future Commonwealth employees and providing funding relief to SERS employers through the use of contribution collars, Act 120 addressed both SERS' long-term and short-term funding challenges.

As actuaries for SERS, Hay Group considers it important to note that the establishment of contribution collars results in employer funding for FY2014 and FY2015 (and likely beyond) at levels below the otherwise applicable actuarially required funding levels. This is not to say that required employer contributions will never be made; rather, Act 120 provides that they will be deferred and paid in future years. It is therefore essential to the long-term funding of the system that the Commonwealth adhere not only to the short-term collars provided by Act 120 but also to the long-term funding obligations that the statute established. We expect that the contribution collars will govern employer contribution levels for at least the next two years, and this will continue to be the case until such time as the actuarially determined annual employer funding requirement is below the collared contribution level. While Hay Group would prefer that SERS funding be based upon our actuarially determined funding level, we recognize, given the extraordinary funding challenges the Commonwealth of Pennsylvania is facing over coming years, that the contribution collars represent an important and necessary funding deferral mechanism for a temporary period, after which funding on an actuarial basis will resume.

The results shown in this section are reasonable actuarial results. However, a different set of results could also be considered reasonable actuarial results. The reason for this is that actuarial standards of practice describe a "best-estimate range" for each assumption, rather than a single best-estimate value. Thus, reasonable results differing from those presented in this section could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The actuaries certifying to this valuation are members of the Society of Actuaries or other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

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Mr. David E. Durbin May 1, 2014 Page 4

Respectfully submitted, Hay Group, Inc.

Brent M. Mowery, F.S.A.

Member American Academy of Actuaries Enrolled Actuary No. 14-3885

Craig R. Graby

Member American Academy of Actuaries Enrolled Actuary No. 14-7319 James J. McPhillips, F.S.A.

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Summary of Actuarial Assumptions and Methods

- The investment rate of return is 7.5% per year based on an underlying rate of inflation of 2.75% per year.
- SERS uses a five-year smoothed market approach to value plan assets for actuarial purposes.
- Actuarial methods are specified by statute. Actuarial assumptions are recommended by SERS' actuary and approved by the SERS Board of Trustees.
- For current and future non-disabled retirees, beneficiaries, and survivors, SERS uses the RP-2000 Healthy Annuitant Mortality Table projected to 2008 and updated to reflect actual SERS experience through 2010. For current and future disabled retirees, SERS uses the RP-2000 Disabled Retiree Annuitant Mortality Table projected to 2008 and updated to reflect actual SERS experience through 2010. For all pre-retirement active members, the mortality is based on actual SERS experience.
- The rates for probability of retirement and the probabilities of withdrawal from active service, including death, before age and service retirements are presented in the **Schedule of Active Member Valuation** Data
- The projected average salary increase is 6.1% with a range of 4.30% to 11.05%. This increase includes an underlying assumption of 2.75% for inflation. The annual rate of salary increase for promotions and longevity for members is presented in the Schedule of **Active Member Valuation Data.**
- SERS uses a variation of the entry-age normal actuarial cost method to determine the liabilities and costs related to SERS' benefits. The method is based on the benefits

- and contributions for new members rather than for all current members from their date of entry. This variation should produce approximately the same results as the typical method over the long run. SERS uses amortization periods of 10 years and 30 years as follows:
 - (1) PA Act 2010-120 established a Fresh Start amortization of the December 31, 2009 unfunded liability over a 30-year period beginning July 1, 2010 and ending June 30, 2040.
 - (2) The amortization of the change in liability due to PA Act 2010-120 over a 30-year period beginning July 1, 2011 and ending on June 30, 2041.
 - (3) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2009 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.
- SERS does not use an assumption for cost-of-living adjustments in the determination of actuarial valuations
- SERS periodically prepares a study using actual experience in order to develop assumptions to be used in its actuarial valuations. The latest study was completed January 12, 2011, for the period January 1, 2006, through December 31, 2010.
- The most recent valuation was based on members of SERS as of December 31, 2013. All census data was supplied by SERS and was subject to reasonable consistency checks. Asset data was also supplied by SERS.
- The actuarial computations were prepared by, or made under the supervision, of a Member of the American Academy of Actuaries (M.A.A.A.).

ACTUARIAL SECTION

Schedules of Active Member Valuation Data

As of December 31, 2013 (unaudited)

Table A^{1/} Withdrawal From Active Employment Before Age and Service Retirement

Annual Rate of Active Members Separating Within the Next Year

	Male Female											
Sample Age	Withd	rawal Y	ears of S	Service	Death	Disability	Withd	rawal Y	ears of S	Service	Death	Disability
	0	5	9	14+	_		0	5	9	14+	_	
20	20.70%	NA	NA	NA	0.04%	NA	22.40%	NA	NA	NA	0.02%	NA
25	16.20	0.80%	0.80%	NA	0.04	0.02%	20.50	2.70%	1.90%	NA	0.02	0.04%
30	13.90	0.80	0.60	0.60%	0.05	0.07	17.90	2.40	1.70	1.80%	0.02	0.09
35	13.60	0.70	0.40	0.40	0.06	0.12	12.80	1.90	1.20	1.30	0.03	0.16
40	13.00	0.50	0.40	0.40	0.08	0.19	10.00	1.90	0.70	0.50	0.04	0.21
45	12.10	0.50	0.20	0.20	0.12	0.33	9.80	1.80	0.70	0.50	0.06	0.33
50	11.30	0.50	0.20	0.20	0.22	0.46	9.80	1.80	0.40	0.50	0.09	0.50
55	11.30	0.60	0.60	0.60	0.27	0.60	9.80	1.50	1.20	1.20	0.14	0.63
60	NA	NA	NA	NA	0.32	NA	NA	NA	NA	NA	0.24	NA

Table B^{1/} **Annual Rate of Retirement**

_	Full Benefits					
Sample						
Age	Male	Female				
53	25.0%	23.0%				
54	26.0	23.0				
55	27.0	23.0				
56	28.0	23.0				
57-59	30.0	23.0				
60	25.0	25.0				
61	20.0	20.0				
62	25.0	25.0				
63-64	20.0	20.0				
65	25.0	25.0				
66-79	20.0	20.0				
80	100.0	100.0				

¹/The assumptions presented in Table A and Table B were based on a review of SERS' experience from 2006 through 2010. The rates are the probabilities that an event will occur in the year after the valuation. For instance, the male retirement rate of 25% at age 62 means that 250 of every 1,000 male employees age 62 and eligible for full benefits are expected to retire before they reach age 63.

Schedules of Active Member Valuation Data

As of December 31, 2013 (unaudited)

Table C Annual Rate of Salary Increase

Completed Years of Service	Increase	Completed Years of Service	Increase
1	8.00%	16	2.50%
2	6.00	17	2.40
3	4.50	18	2.30
4	4.00	19	2.20
5	3.75	20	2.10
6	3.50	21	2.00
7	3.25	22	1.90
8	3.20	23	1.80
9	3.15	24	1.70
10	3.10	25	1.60
11	3.00	26	1.50
12	2.90	27	1.40
13	2.80	28	1.30
14	2.70	29	1.25
15	2.60	30+	1.25

Table D Reduced Benefits

	5 -	14	15 o	r More
	Years of	Service	Years of	of Service
Sample				
Age	Male	Female	Male	Female
25	1.0%	1.0%	NA	NA
30	1.5	1.5	NA	NA
35	1.5	1.5	1.5%	1.5%
40	1.0	1.0	1.5	1.5
45	1.0	1.0	1.5	1.5
50	1.0	1.0	2.0	2.0
55	1.0	1.0	5.5	5.5

ACTUARIAL SECTION

Schedules of Active Member Valuation Data

As of December 31, 2013 (unaudited)

Active Members by Age and Years of Service - Male

		_							
Age									Average
Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total	Salary
< 20	26	NA	NA	NA	NA	NA	NA	26	\$23,569
20 - 24	949	11	NA	NA	NA	NA	NA	960	31,296
25 - 29	3,208	823	12	NA	NA	NA	NA	4,043	41,338
30 - 34	2,384	2,670	589	7	NA	NA	NA	5,650	49,127
35 - 39	1,676	2,132	1,706	469	8	NA	NA	5,991	53,709
40 - 44	1,618	1,838	1,806	1,982	1,004	23	NA	8,271	60,542
45 - 49	1,480	1,512	1,528	1,665	2,477	814	19	9,495	63,554
50 - 54	1,373	1,418	1,348	1,174	1,558	1,634	700	9,205	60,389
55 - 59	1,294	1,383	1,326	1,049	1,207	1,236	1,301	8,796	59,517
60 - 64	863	991	992	782	671	513	644	5,456	60,311
65+	441	485	502	325	244	139	316	2,452	63,219
Total	15,312	13,263	9,809	7,453	7,169	4,359	2,980	60,345	\$57,416

Average Age: 46.63 Average Service: 12.19

Active Members by Age and Years of Service - Female

		_							
Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total	Average Salary
< 20	41	NA	NA	NA	NA	NA	NA	41	\$23,171
20 - 24	890	14	NA	NA	NA	NA	NA	904	28,356
25 - 29	2,101	630	15	NA	NA	NA	NA	2,746	35,817
30 - 34	1,763	1,802	489	20	NA	NA	NA	4,074	41,740
35 - 39	1,400	1,528	1,119	322	28	NA	NA	4,397	45,467
40 - 44	1,286	1,495	1,164	821	524	43	NA	5,333	47,631
45 - 49	1,367	1,453	1,101	786	963	627	55	6,352	49,420
50 - 54	1,351	1,520	1,224	855	984	969	875	7,778	50,530
55 - 59	1,146	1,407	1,224	901	1,065	856	1,140	7,739	51,339
60 - 64	537	897	783	614	482	362	464	4,139	51,208
65+	200	291	267	198	137	93	152	1,338	51,233
Total	12,082	11,037	7,386	4,517	4,183	2,950	2,686	44,841	\$47,583

Average Age: 46.92 Average Service: 11.64

ACTUARIAL SECTION

Schedules of Active Member Valuation Data

As of December 31, 2013 (unaudited)

Aggregate Active Member Valuation Data

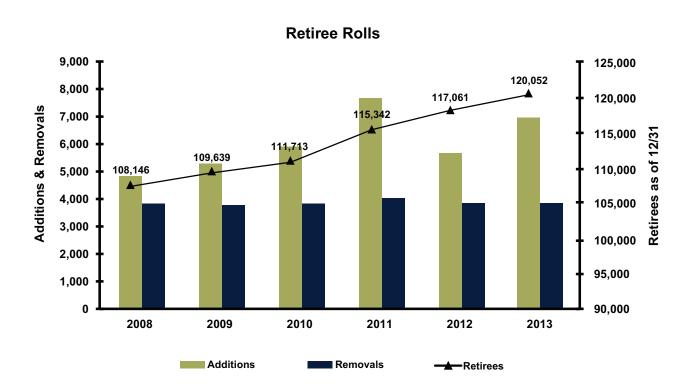
Valuation Vaca Ended	Numbau	Number		Annual	0/ Inaverse/(Deaverse)
Year Ended Dec 31	Number Employers	Active Members	Annual Payroll	Annual Average Pay	% Increase/(Decrease) in Average Pay
2013	104	105,186	\$5,598,000,000	\$53,224	1.9%
2012	105	106,048	5,539,000,000	52,230	0.1
2011	107	107,021	5,582,000,000	52,159	1.8
2010	106	109,255	5,597,000,000	51,228	0.8
2009	106	110,107	5,595,000,000	50,813	3.8
2008	108	110,866	5,428,000,000	48,957	1.3

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Six Years Ended December 31, 2013 (unaudited)

	Added to Rolls		Removed from Rolls		Rolls - End of Year		Percentage Change	
Year	No.	Allowances	No.	Allowances	No.	Allowances1/	No.	Allowances
2013	6,944	\$178,392,487	3,953	\$53,186,262	120,052	\$2,454,388,693	2.56%	5.36%
2012	5,572	138,363,766	3,853	50,453,118	117,061	2,329,489,208	1.49	3.92
2011	7,669	205,521,876	4,040	50,132,667	115,342	2,241,716,566	3.25	7.43
2010	5,906	148,169,231	3,832	48,182,212	111,713	2,086,701,831	1.89	5.01
2009	5,278	125,610,303	3,785	45,195,072	109,639	1,987,109,540	1.38	4.19
2008	4,841	105,374,596	3,825	45,068,366	108,146	1,907,133,859	0.95	3.22

^{1/} Calculated by multiplying monthly benefit for December 31 by 12.



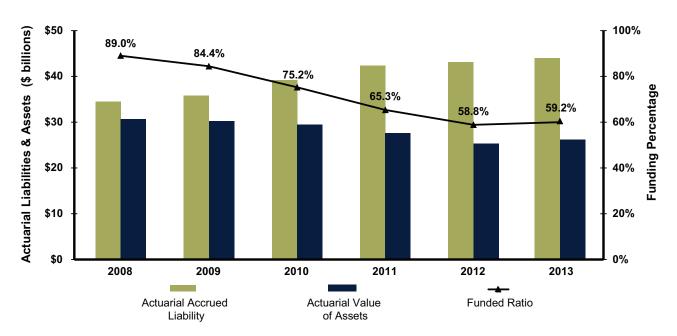
Solvency Test

Six Years Ended December 31, 2013 (\$ thousands) (unaudited)

Aggregate A	Accrued Liabil	ities For
(1)	(2)	(3)

Valuation Year Ended	Active Member	Retirees and	Active Members (Employer Financed	Total Actuarial Accrued Liability	Actuarial Value of		ion of Acc Liabilities by Report		Funded
Dec 31	Contributions	Beneficiaries	Portion)	(AAL)	Assets	(1)	(2)	(3)	Ratio
2013	\$4,636,219	\$23,046,717	\$16,191,644	\$43,874,580	\$25,975,185	100.0%	92.6%	0.0%	59.2%
2012	4,551,507	22,095,052	16,409,005	43,055,564	25,302,688	100.0	93.9	0.0	58.8
2011	4,406,306	21,222,075	16,653,481	42,281,862	27,618,461	100.0	100.0	11.9	65.3
2010	4,409,444	18,995,355	15,774,795	39,179,594	29,443,945	100.0	100.0	38.3	75.2
2009	4,280,680	17,962,741	13,553,596	35,797,017	30,204,693	100.0	100.0	58.7	84.4
2008	4,068,036	17,305,971	13,063,389	34,437,396	30,635,621	100.0	100.0	70.9	89.0

Fund Solvency



ACTUARIAL SECTION

Analysis of Financial Experience

Gains and Losses in Accrued Liabilities

Resulting from Differences Between Assumed Experience and Actual Experience Four Years Ended December 31, 2013 (\$ thousands) (unaudited)

Type of Activity	2013	2012	2011	2010
Gain/(loss) from investment earnings ^{1/}	\$559,502	\$(2,541,098)	\$(2,113,087)	\$(1,251,332)
Changes in demographics of new entrants	(6,131)	(54,250)	12,149	(64,191)
Pay increases different than assumptions	248,583	383,003	5,916	421,224
Retirement different than expected and other demographic changes	(160,323)	(90,631)	(296,743)	(98,384)
Gain/(loss) during year from financial experience	641,631	(2,302,976)	(2,391,765)	(992,683)
Non recurring items				
Changes in economic assumptions	-	-	$(2,148,326)^{2/}$	235,7343/
Benefit changes under PA Act 2010-120	-	-	-	$(2,694,535)^{4/}$
Underfunding due to retroactive fresh start and other changes	-	-	-	$(741,207)^{5/}$
Loss due to collar restrictions	$(985,902)^{6/}$	$(941,267)^{6/}$	$(477,988)^{6/}$	-
Composite (loss)	\$(344,271)	\$(3,244,243)	\$(5,018,079)	\$(4,192,691)

^{1/} Net gains and losses from returns different than the assumed rate of return that are amortized over a five-year period.

^{2/} Adoption of a 7.5% annual investment return assumption effective 12/31/11 (versus 8.0% assumed in prior years) resulted in this increase in accrued liability.

^{3/} Revised annual inflation rate of 2.75% and salary growth of 3.05% due to 17th Investigation of Actuarial Experience.

⁴/ Act 2010-120 reduce benefits for most new members effective 1/1/11 and new legislators effective 12/1/10.

^{5/} Act 2010-120 re-amortize SERS' existing liabilities over 30 years through an actuarial fresh start.

^{6/} Act 2010-120 capped the growth of employer contributions to 3% for commonwealth FY 11/12, 3.5% for commonwealth FY 12/13, and 4.5% for each subsequent year until no longer needed.

History and Projection of Contribution Rates and Funded Ratios¹

(\$ thousands) (unaudited)

Contribution Rates for FY Beginning July 1 Following Valuation Year^{2/}

	Valuation		Member	Employer	Unfunded	Preliminary Employer	Final Employer	
_	Year Ended Dec 31	Covered Payroll	Contribution Rate ^{3/}	Normal Cost Rate	Liability Rate ^{4/}	Contribution Rate ^{5/}	Contribution Rate	Funded Ratio
	20046/	\$5,093,573	6.25%	8.25%	(7.29)%	0.96%	3.00%	96.1%
	$2005^{6/}$	5,138,377	6.25	8.39	(6.32)	2.07	4.00	92.9
	20067/	5,661,675	6.25	8.21	(6.30)	1.91	4.00	92.7
	2007	5,529,069	6.25	8.42	(9.57)	(1.15)	4.00	97.1
	2008	5,660,319	6.25	9.51	(5.88)	3.63	4.00	89.0
	$2009^{8/}$	5,935,988	6.25	9.53	(3.89)	5.64	5.00	84.4
	$2010^{9/}$	5,851,704	6.25	4.08	14.85	18.93	8.00	75.2
	2011	5,890,704	6.25	5.10	21.29	26.39	11.50	65.3
	2012	5,836,402	6.25	5.01	26.21	31.22	16.00	58.8
	2013	5,897,627	6.25	5.00	26.41	31.41	20.50	59.2
	$2014^{10/}$	6,077,505	6.25	5.00	26.34	31.34	25.00	59.4
	2015	6,262,869	6.25	5.00	26.07	31.07	29.50	60.0
	$2016^{11/}$	6,453,886	6.25	5.00	24.92	29.92	29.92	61.9
	2017	6,650,730	6.25	5.00	23.76	28.76	28.76	64.0
	2018	6,853,577	6.25	5.00	23.05	28.05	28.05	65.3
	2019	7,062,611	6.25	5.00	22.38	27.38	27.38	66.5
	2020	7,278,021	6.25	5.00	21.76	26.76	26.76	67.6
	2021	7,500,000	6.25	5.00	21.17	26.17	26.17	68.8
	2022	7,728,750	6.25	5.00	20.61	25.61	25.61	69.9
	2023	7,964,477	6.25	5.00	20.07	25.07	25.07	71.0
	2024	8,207,394	6.25	5.00	19.55	24.55	24.55	72.1

¹/The projection of contribution rates is based on the assumption that there are no changes in SERS' statutory funding methodology, no changes in demographics or economic assumptions, no changes in benefit provisions, and no actuarial gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the fair value of assets.

²/ Rates and values are for the fiscal year beginning July 1 following the valuation year and do not include Benefit Completion Plan contribution.

³/ Member contribution rate is for Class AA employees, as they comprise most of SERS membership.

^{4/} Act 2003-40 imposed a split amortization that recognized COLAs and certain large gains over 10 years, while recognizing other gains and losses over 30 years. The effect was to suppress the unfunded liability rate for 10 years ending in 2011.

^{5/} Actuarial rate before floor and collar.

^{6/} Act 2003-40 amended the Retirement Code to place a floor of 3.00% and 4.00% for fiscal years beginning July 1, 2005 and 2006, respectively, for the employer contribution rate.

⁷/ Act 2007-8 amended the Retirement Code to place a permanent floor of 4.00% on the employer contribution rate.

^{8/} Act 2010-46 amended the Retirement Code to set the employer contribution rate at 5.00% for fiscal year beginning 7/1/10.

^{9/} Act 2010-120 amended the Retirement Code to collar increases to employer contribution rate of 3.00% and 3.50% for fiscal years beginning July 1, 2011 and 2012, respectively. The employer contribution rate is collared at 4.50% for fiscal year beginning 7/1/13 and thereafter until collar becomes unnecessary.

¹⁰/ Numbers are projected from 2014 to 2024 based on 2013 actuarial valuation.

^{11/} Act 2010-120 amended the Retirement Code to place a permanent floor at employer normal cost after collars expire.

ACTUARIAL SECTION

Summary of Plan Provisions

Benefit and Contribution Provisions

As of December 31, 2013

SERS makes provision for retirement, disability, and death benefits for all state employees, except for those specifically excluded under section 5301 of the State Employees' Retirement Code, and certain other eligible groups. The major provisions may be summarized as follows:

Eligible Employees

Class A

All regular state employees, employees of certain Commissions and Authorities, employees of state-owned educational institutions, and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System (PSERS), TIAA-CREF, or Alternative Retirement Program (ARP) hired before July 1, 2001, who did not elect into the class AA membership as of December 31, 2001. This excludes Judges and Magisterial District Judges who have elected class E-1 or class E-2

Class AA

All regular state employees who are hired after June 30, 2001 and before January 1, 2011, and former class A state employees hired before July 1, 2001, who elected into class AA as of December 31, 2001. This includes employees of certain Commissions and Authorities, employees of state-owned educational institutions, and the Pennsylvania State University (unless such employees have joined PSERS, TIAA-CREF, or ARP), but excludes State Police Troopers, Judges, Magisterial District Judges, and Legislators with class D-4.

Class A-3

All regular state employees who enter SERS membership for the first time on or after January 1, 2011 and all legislators who became members on

or after December 1, 2010; Capitol Police and Park Rangers who became members after July 1, 2011; and State Police Officers who became members after July 1, 2012, provided the member did not elect membership in the optional A-4 class within 45 days of becoming a member.

Class A-4

All members who would be class A-3 but elected A-4 within 45 days of becoming a member.

Class D-4

Legislators coming into service after June 30, 2001 and before December 1, 2010, who elect to be SERS members and legislators who elected class D-4 before July 1, 2001.

Class E-1

Judges who elect class E-1.

Class E-2

Magisterial District Judges who elect class E-2.

Age and Service Requirements for Superannuation

(Full Formula Benefit)

Class AA/A

Age 60 with three years of service; except for members of the General Assembly, enforcement officers, correction officers, psychiatric security aids, and officers of the Delaware River Port Authority for whom the requirement is age 50 with three years of service. Members of class AA/A with 35 years of credited service are entitled to full formula benefits regardless of age. State Police Officers can retire on full benefits after age 50 or with 20 years of service. Capitol Police and Park Rangers can retire on full benefits at age 50 with 20 years of Capitol Police or Park Ranger service.

Summary of Plan Provisions

Class A-3/A-4

Age 65 for most members and age 55 for members of the General Assembly, enforcement officers, correction officers, psychiatric security aides, Delaware River Port Authority police officers, officers of the Pennsylvania State Police, and for Capitol Police Officers and Park Rangers with 20 or more years of credited service in the classification. Members of class A-3/A-4 are eligible for full formula benefits with 35 years of credited service with a superannuation score of 92.

Class D-4

Age 50, with three years of service.

Class E-1

Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

Class E-2

Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

Formula for Superannuation Annuity

The standard single-life annuity for most members is 2% of the high three-year average salary of the member multiplied by years and fractions of credited service multiplied by the multiplier of the class of membership.

The annuity paid to a member shall not exceed the member's highest salary during any period of 12 consecutive months of creditable service

The multiplier for each of the major classes are as follows:

Multiplier for Major Classes

Class	Multiplier	
A	1.00	For state police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary; with more than 25 years of service the minimum annuity is 75% of highest annual salary.
AA	1.25	
A-3	1.00	
A-4	1.25	
D-4	1.50	
E-1	2.00	For each of the first 10 years of judicial service dropping to 1.5 for each subsequent year of judicial service.
E-2	1.50	For each year of judicial service.

NOTE: There are conditions under which long-service members or members retiring at advanced ages may receive somewhat larger benefits than those described above. Further, benefit limitations exist for most members of SERS.

Statistical Section

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Statistical Section Narrative

The Statistical Section of SERS' CAFR presents detailed information related to the financial statements, as well as highlights of actuarial valuations. The schedules in this section are classified into the following four categories: financial trends, revenue capacity, demographic and economic information, and operating information.

Financial Trends

The Schedule of Trend Data provides key financial, actuarial, and demographic data for 10 years ended December 31, 2013. This data includes items such as employer and member contribution rates; contributions received and benefits paid by SERS; fair value and actuarial value of assets; and the number of annuitants, beneficiaries, and active members.

The Schedule of Additions to Plan Net Position presents the member and employer contributions, as well as the net investment income/loss for the 10 years ended December 31, 2013. SERS' investment returns have the most significant impact on plan net position.

The Schedule of Deductions from Plan Net **Position** presents the benefits, refunds of contributions, and administrative expenses for the 10 years ended December 31, 2013. Of these three categories, SERS' benefit payments have the most significant impact on the total deductions from plan net position.

The Schedule of Benefit and Refund Deductions from Net Position by Type presents the amount of benefit payments and refunds by type for the 10 years ended December 31, 2013. Most benefit types are either superannuated or early, which is determined by the number of years of service and/or age at retirement.

The Schedule of Total Changes in Plan Net Position combines the additions to and deductions from plan net position from the Schedule of Additions to Plan Net Position and Schedule of Deductions from Plan Net Position to arrive at net increase/decrease of changes in plan net position for the 10 years ended December 31, 2013.

Revenue Capacity

The Schedule of Investment Income/Loss presents the details of the total net investment gain/loss for the 10 years ended December 31, 2013. SERS has two outside sources of revenue and one own-source (internal) of revenue. Employer contributions and member contributions, which information is provided for in the Schedule of Additions to Plan Net Position, are the two outside sources of revenue, and investment income is SERS' own-source revenue. Since investment income/loss has the greatest impact to SERS, this schedule provides more detail on the major components of the investment income/loss, which is also disclosed in total on the Schedule of Additions to Plan Net Position.

STATISTICAL SECTION

Statistical Section Narrative

Demographic and Economic Information

The Schedule of Active Member Statistics provides the total number of active members, as well as the average age, average service, and average salary by gender for the 10 years ended December 31, 2013.

Operating Information

The Schedule of Retired Members by Type of Benefit presents, for given benefit ranges, the total number of retirees, total monthly benefits and total number of retirees by retirement type as of December 31, 2013.

The Schedule of Retired Members by Option presents, for given benefit ranges, the total number of retirees, total monthly benefits and total number of retirees by retirement option as of December 31, 2013.

The Schedule of Average Monthly Benefit Payments presents, in five-year increments of credited service, the average monthly benefit, average final average salary and number of retired members for the 10 years ended December 31, 2013.

The Schedule of Average Annual Benefit Payments presents, in five-year age increments and by gender, the average annual benefit for each major retirement type as of December 31, 2013.

The Schedule of SERS Agency Participation provides the number of covered members and the corresponding percentage of participation for the 20 largest employers for the 10 years ended December 31, 2013, as well as a listing of additional employers participating with SERS as of December 31, 2013.

Sources: Unless otherwise noted, the information for these schedules is derived from the Financial Section and Actuarial Section of the Comprehensive Annual Financial Report for the relevant year.

Schedule of Trend Data $^{1/}$

10 Years Ended December 31, 2013 (unaudited)

	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Contribution Rates										
$\mathrm{Employer}^{2/3/}$	16.05%	11.59%	8.01%	5.01%7/	4.01%	4.04%	4.04%	4.02%5/	3.02%5/	2.03%5/
Member	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Contributions										
$\mathrm{Employer}^{2/}$	\$794,911	\$565,621	\$391,749	\$273,083	\$253,250	\$235,288	\$243,936	\$196,420	\$148,375	\$106,703
Member	\$351,968	\$347,937	\$350,852	\$349,049	\$348,805	\$336,833	\$333,818	\$317,790	\$305,624	\$309,923
Average Annual Compensation	\$53,224	\$52,230	\$52,159	\$51,228	\$50,813	\$48,957	\$48,345	\$46,118	\$44,815	\$45,382
Fair Value of Net Position	\$27,394,156	\$27,394,156 \$25,389,335	\$24,377,179	\$25,886,102	\$24,661,949	\$22,795,813	\$35,516,198	\$32,052,830	\$28,751,871	\$26,641,399
Actuarial Value of Assets	\$25,975,185	\$25,975,185 \$25,302,688	\$27,618,461	\$29,443,945	\$30,204,693	\$30,635,621	\$30,839,877	\$28,148,834	\$26,793,782	\$26,900,027
Accrued Actuarial Liability	\$43,874,580	\$43,874,580 \$43,055,564	\$42,281,862	\$39,179,594	\$35,797,017	\$34,437,396	\$31,753,971	\$30,364,997	\$28,851,716	\$27,999,026
Funded Ratio	59.2%	58.8%	65.3%	75.2%	84.4%	%0.68	97.1%	92.7%	92.9%	96.1%
Total Benefits and Refunds	\$2,844,285	\$2,674,133	\$2,705,263	\$2,449,253	\$2,273,372	\$2,204,579	\$2,336,368	\$1,919,426	\$1,943,643	\$1,859,255
Average Pension ^{4/}	\$25,839	\$25,083	\$24,448	\$23,491	\$22,695	\$21,965	\$21,326	\$20,025	\$19,372	\$18,414
Annuitants and Beneficiaries	120,052	117,061	115,342	111,713	109,639	108,146	107,130	102,060	101,179	98,727
Active Members	105,186	106,048	107,021	109,255	110,107	110,866	109,610	110,972	109,981	108,405

 $^{^{1/2}}$ All dollar amounts are in thousands, except Average Pension and Average Annual Compensation.

^{2/} Includes Benefits Completion Plan contribution.

 $^{^{3\}prime}$ Employer rate represents total contributions as a percent of covered payroll as of December 31.

^{4/} Average pension amount represents average annual pension only for members who have reached superannuation through age or service credits.

^{5/} Act 2003-40 established a minimum employer contribution rate of 3% and 4% effective July 1, 2005 and 2006 respectively.

^{6/} Act 2007-8 established a permanent minimum employer contribution rate floor of 4%.

 $^{^{7/}}$ Act 2010-46 set the employer contribution rate at 5% effective 7/1/10.

^{8/} Act 2010-120 set collars on the increase of the employer contribution rate at 3% effective 7/1/11, 3.5% for 7/1/12, and 4.5% every year thereafter until no longer needed.

Source: State Employees' Retirement System

Schedule of Additions to Plan Net Position

10 Years Ended December 31, 2013 (\$ thousands) (unaudited)

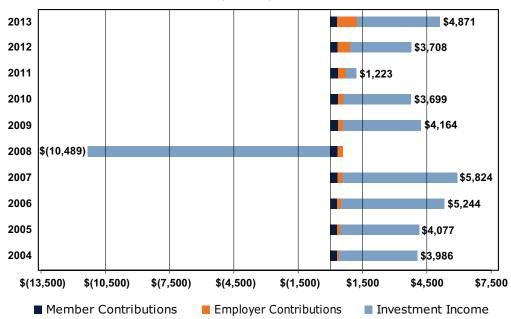
Employer Contributions

		Employer	Contributions		
Year Ending	Member Contributions	Dollar Amount	% of Annual Payroll ^{1/}	Net Investment Gain / (Loss)	Total
2013	\$351,968	\$794,911	14.2%	\$3,724,038	\$4,870,917
2012	347,937	565,621	10.2	2,794,940	3,708,498
2011	350,852	391,749	7.0	480,445	1,223,046
2010	349,049	273,083	4.9	3,076,410	3,698,542
2009	348,805	253,250	4.5	3,561,526	4,163,581
2008	336,833	235,288	4.3	(11,061,207)	(10,489,086)
2007	333,818	243,936	4.6	5,246,730	5,824,484
2006	317,790	196,420	3.8	4,730,043	5,244,253
2005	305,624	148,375	3.0	3,622,820	4,076,819
2004	309,923	106,703	2.2	3,569,323	3,985,949

^{1/} Calculated by dividing employer contributions by total annualized compensation provided by actuary.

Additions to Plan Net Position

(\$ millions)



Schedule of Deductions from Plan Net Position

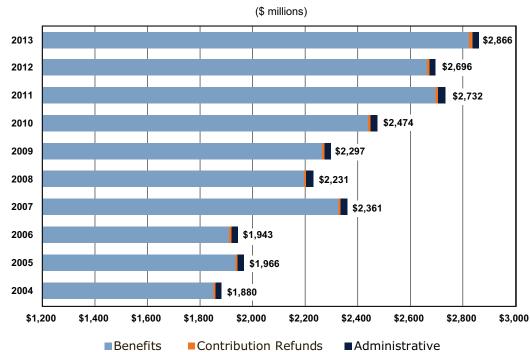
10 Years Ended December 31, 2013 (\$ thousands) (unaudited)

Refund of

Year	Benefits	Contributions	Administrative	Total
2013	\$2,833,676	\$10,609	\$21,811	\$2,866,096
2012	2,664,242	9,891	22,209	2,696,342
2011	2,695,732	9,531	26,706	2,731,969
2010	2,440,246	9,007	25,136	2,474,389
2009	2,265,404	7,968	24,073	2,297,445
2008	2,195,206	9,373	26,720	2,231,299
2007	$2,328,185^{1/}$	8,183	24,748	2,361,116
2006	1,911,330	8,096	23,868	1,943,294
2005	1,936,428	7,215	22,704	1,966,347
2004	1,853,117	6,138	21,244	1,880,499

^{1/} 22% increase from prior year is due to large number of employees retiring as a result of changes in health care benefits.

Deductions from Plan Net Position



Schedule of Benefit and Refund Deductions from Plan Net Position by Type

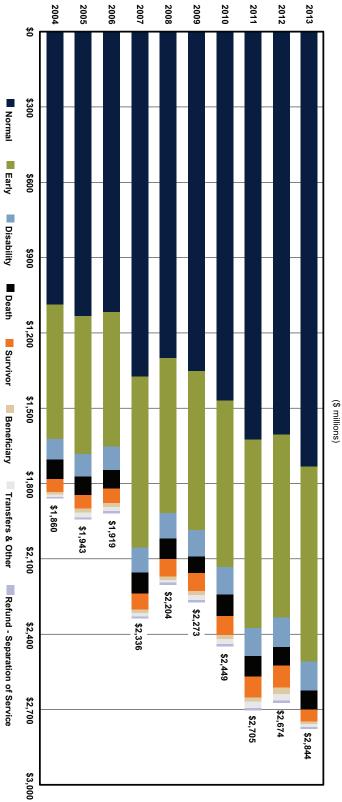
10 Years Ended December 31, 2013 (\$ thousands)

(unaudited)

			í							4	
							Transfers	Total Benefit	Separation		Total
Year	Normal	Early	Disability	Death	Survivor	Beneficiary and Other	and Other	Deductions	of Service	Death	Refunds
2013	\$1,737,107	7 \$769,385	\$121,640	\$71,216	\$93,919	\$17,271	\$23,138	\$2,833,676	\$10,318 \$291	\$291	\$10,609
2012	1,604,985	728,719	116,914	75,254	88,055	26,497	23,818		9,673	218	9,891
2011	1,626,233	749,180	112,575	82,123	82,467	15,093	28,061	2,695,732	9,271	260	9,531
2010	1,470,101	663,004	109,506	84,878	77,384	14,039	21,334		8,693	314	9,007
2009	1,351,710	633,880	105,207	65,873	72,466	14,143	22,125		7,824	144	7,968
2008	1,300,312	618,027	102,250	81,728	67,623	14,209	11,057		9,222	151	9,373
2007	1,372,909	683,467	98,605	83,687	62,726	13,949	12,842		8,007	176	8,183
2006	1,117,801	535,156	93,358	73,885	58,038	14,988	18,104	1,911,330	7,971	125	8,096
2005	_	550,437	88,250	74,312	53,873	14,650	21,212	1,936,428	7,086	129	7,215
2004	1,088,129	534,674	82,515	76,216	51,946	10,818	8,819	1,853,117	6,013	125	6,138

 $^{^{1/2}}$ For most who retired after 7/1/07, members must contribute to medical insurance premiums as a result of 7/1/07 AFSCME agreement.

Benefit and Refund Deductions from Plan Net Position by Type



Schedule of Total Changes in Plan Net Position

10 Years Ended December 31, 2013

(\$ thousands)

(unaudited)

	Ad	Additions to Plan Net Position	n Net Positio	uc	De	eductions from	Deductions from Plan Net Position	uc	
			Net						
Year	Member	Employer	Investment	Total		Refund of		Total	Net Increase/
Ending		Contributions Contributions	Income	Additions	Benefits	Contributions	Administrative	Deductions	(Decrease)
2013	\$351,968	\$794,911	\$3,724,038	\$4,870,917	\$2,833,676	\$10,609	\$21,811	\$2,866,096	\$2,004,821
2012	347,937	565,621	2,794,940	3,708,498	2,664,242	9,891	22,209	2,696,342	1,012,156
2011	350,852	391,749	480,445	1,223,046	2,695,732	9,531	26,706	2,731,969	(1,508,923)
2010	349,049	273,083	3,076,410	3,698,542	2,440,246	6,007	25,136	2,474,389	1,224,153
2009	348,805	253,250	3,561,526	4,163,581	2,265,404	7,968	24,073	2,297,445	1,866,136
2008	336,833	235,288	(11,061,207)	(10,489,086)	2,195,206	9,373	26,720	2,231,299	(12,720,385)
2007	333,818	243,936	5,246,730	5,824,484	2,328,185	8,183	24,748	2,361,116	3,463,368
2006	317,790	196,420	4,730,043	5,244,253	1,911,330	8,096	23,868	1,943,294	3,300,959
2005	305,624	148,375	3,622,820	4,076,819	1,936,428	7,215	22,704	1,966,347	2,110,472
2004	309,923	106,703	3,569,323	3,985,949	1,853,117	6,138	21,244	1,880,499	2,105,450

Schedule of Investment Income

10 Years ended December 31, 2013 (\$ thousands) (unaudited)

	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Investment gain/(loss)										
Net appreciation/(depreciation) in fair value of investments	\$3,554,227	\$2,268,730	\$614,117	\$614,117 \$2,211,065 \$2,456,209	\$2,456,209	\$(9,979,685)	\$4,164,231	\$3,723,160	\$2,811,470 \$2,807,290	\$2,807,290
Collective trust fund appreciation/ (depreciation) and income	(77,878)	275,103	(267,177)	810,147	1,063,673	(1,377,568)	798,941	641,718	420,888	391,248
Interest	120,815	144,431	165,082	146,995	149,040	342,163	347,507	350,783	368,610	280,221
Dividends	204,214	190,733	78,823	61,964	69,400	154,779	149,488	152,690	128,480	124,099
Real estate	99,314	97,641	82,707	73,355	73,561	109,523	112,148	145,871	112,057	148,133
Miscellaneous	668	4,583	2,316	6,471	3,499	5,969	6,149	3,519	3,537	6,722
	3,901,360	2,981,221	675,868	3,309,997	3,815,382	(10,744,819)	5,578,464	5,017,741	3,845,042	3,757,713
Investment expenses	(181,042)	(189,722)	(197,505)	(235,826)	(260,376)	(310,454)	(344,707)	(298,204)	(234,760)	(196,859)
Net gain/(loss) from investing activities	3,720,318	2,791,499	478,363	478,363 3,074,171 3,555,006	3,555,006	(11,055,273)	5,233,757	4,719,537	3,610,282 3,560,854	3,560,854
From securities lending activities										
Securities lending income	4,326	3,953	2,376	2,511	7,092	41,319	155,067	170,675	116,477	40,854
Securities lending expenses	(606)	(512)	(294)	(272)	(572)	(47,253)	(142,094)	(160,169)	(103,939)	(32,385)
Net income from securities lending activities	3,720	3,441	2,082	2,239	6,520	(5,934)	12,973	10,506	12,538	8,469
Total net investment gain/(loss)	000 100	07.07.07.0						21 2 2 2 1 2	2000	

Schedule of Active Member Statistics

10 Years Ended December 31, 2013 (unaudited)

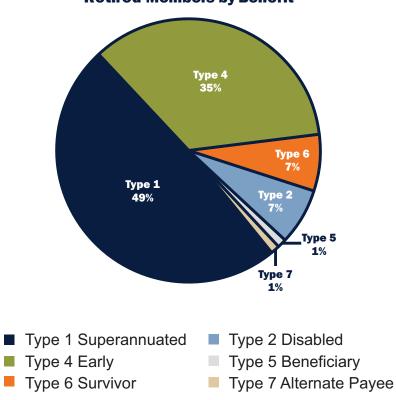
		Male			Female		Total
	Average Age	Average Service	Average Salary	Average Age	Average Service	Average Salary	Number of Active Members
2013	46.63	12.19	\$57,416	46.92	11.64	\$47,583	105,186
2012	46.64	12.23	56,118	46.90	11.79	46,981	106,048
2011	46.55	12.17	56,008	46.70	11.70	46,992	107,021
2010	46.58	12.36	54,983	46.71	11.91	46,206	109,255
2009	46.50	12.35	54,414	46.52	12.00	45,987	110,107
2008	46.23	12.21	52,536	46.18	11.79	44,176	110,866
2007	46.11	12.22	51,663	45.95	11.76	43,888	109,610
2006	46.39	12.80	49,455	46.20	12.49	41,616	110,972
2005	46.12	12.71	48,129	45.91	12.46	40,331	109,981
2004	46.14	13.03	48,801	46.01	12.88	40,716	108,405

Schedule of Retired Members by Type of Benefit

As of December 31, 2013 (unaudited)

Amount of		Total			Type of	Benefit		
Monthly Benefit	Total Monthly Benefits	Number of Retirees	1	2	4	5	6	7
≤ \$500	\$6,836,480	27,893	6,353	595	16,650	478	3,419	398
> 500 to 1,000	16,597,497	22,370	10,642	3,662	5,092	307	2,343	324
> 1,000 to 1,500	20,990,861	16,990	9,138	1,913	4,368	119	1,247	205
> 1,500 to 2,000	22,666,195	13,006	6,949	973	4,326	63	615	80
> 2,000 to 2,500	23,704,100	10,578	5,977	524	3,634	43	378	22
> 2,500 to 3,000	22,006,764	8,033	4,859	303	2,634	25	205	7
> 3,000	91,730,494	21,182	15,102	286	5,376	56	353	9
Totals	\$204,532,391	120,052	59,020	8,256	42,080	1,091	8,560	1,045

Retired Members by Benefit

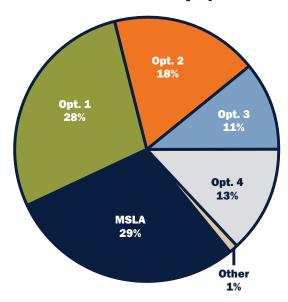


Schedule of Retired Members by Option

As of December 31, 2013 (unaudited)

					Option S	Selected		
Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	MSLA	1	2	3	4	Other
≤\$500	\$6,836,480	27,893	6,412	11,326	6,125	1,923	1,597	510
> 500 to 1,000	16,597,497	22,370	7,553	6,008	4,373	2,154	1,936	346
> 1,000 to 1,500	20,990,861	16,990	5,082	4,451	3,356	1,829	2,130	142
> 1,500 to 2,000	22,666,195	13,006	3,921	3,279	2,232	1,575	1,920	79
> 2,000 to 2,500	23,704,100	10,578	3,097	2,523	1,743	1,350	1,816	49
> 2,500 to 3,000	22,006,764	8,033	2,392	1,848	1,244	1,051	1,466	32
> 3,000	91,730,494	21,182	7,017	4,198	2,616	2,951	4,339	61
Totals	\$204,532,391	120,052	35,474	33,633	21,689	12,833	15,204	1,219

Retired Members by Option



- MSLA Maximum Single Life Annuity
- Opt. 1 Annuity for life with beneficiary receiving remainder of present value when member dies
- Opt. 2 Annuity for life with beneficiary receiving same annuity when member dies
- Opt. 3 Annuity for life with beneficiary receiving one half the member's annuity when member dies
- Opt. 4 Member designs a different plan approved by SERS not covered under the above option
- Other Death benefit or domestic relations order

Schedule of Average Monthly Benefit Payments^{1/}

10 Years Ended December 31, 2013 (unaudited)

Years Credited Service

			icais (Truittu Sti	VICC		
Retirement Effective Dates	< 5	5-9	10-14	15-19	20-24	25-29	30+
Period 1/1/2013 to 12/31/2013							
Average monthly benefit	\$262	\$399	\$845	\$1,466	\$2,178	\$3,408	\$4,036
Average final average salary	\$40,035	\$42,368	\$47,413	\$55,071	\$61,526	\$74,649	\$69,812
Number of retired members	68	947	779	496	814	1,049	1,451
Period 1/1/2012 to 12/31/2012							
Average monthly benefit	\$261	\$406	\$823	\$1,495	\$2,101	\$3,464	\$4,073
Average final average salary	\$38,197	\$42,106	\$46,477	\$54,120	\$58,807	\$74,455	\$70,238
Number of retired members	94	899	724	535	680	908	1,184
Period 1/1/2011 to 12/31/2011							
Average monthly benefit	\$263	\$445	\$843	\$1,430	\$2,095	\$2,994	\$3,829
Average final average salary	\$36,895	\$44,808	\$46,588	\$52,687	\$58,928	\$67,793	\$66,989
Number of retired members	103	851	716	769	856	1,134	2,276
Period 1/1/2010 to 12/31/2010							
Average monthly benefit	\$254	\$398	\$788	\$1,332	\$2,109	\$2,938	\$3,818
Average final average salary	\$39,114	\$41,128	\$44,562	\$50,607	\$57,784	\$66,053	\$65,579
Number of retired members	75	755	505	646	712	846	1,662
Period 1/1/2009 to 12/31/2009							
Average monthly benefit	\$209	\$374	\$740	\$1,337	\$1,936	\$2,919	\$3,767
Average final average salary	\$32,925	\$38,184	\$43,520	\$50,161	\$55,113	\$65,193	\$64,685
Number of retired members	60	543	448	545	539	710	1,287
Period 1/1/2008 to 12/31/2008							
Average monthly benefit	\$198	\$340	\$729	\$1,266	\$1,903	\$2,968	\$3,782
Average final average salary	\$30,280	\$39,066	\$45,753	\$48,823	\$55,471	\$65,893	\$65,569
Number of retired members	64	646	484	788	586	705	938
Period 1/1/2007 to 12/31/2007							
Average monthly benefit	\$219	\$322	\$674	\$1,214	\$1,883	\$2,538	\$3,464
Average final average salary	\$31,359	\$37,629	\$42,759	\$45,817	\$53,241	\$58,974	\$60,726
Number of retired members	53	637	476	1,057	759	1,258	3,384
Period 1/1/2006 to 12/31/2006							
Average monthly benefit	\$174	\$316	\$690	\$1,171	\$1,878	\$2,487	\$3,489
Average final average salary	\$27,898	\$35,283	\$42,358	\$45,225	\$53,513	\$58,031	\$60,582
Number of retired members	51	584	491	667	471	627	1,205
Period 1/1/2005 to 12/31/2005							
Average monthly benefit	\$197	\$335	\$695	\$1,161	\$1,844	\$2,409	\$3,464
Average final average salary	\$31,822	\$34,767	\$40,577	\$45,052	\$51,985	\$55,391	\$60,758
Number of retired members	57	579	544	785	588	885	2,034
Period 1/1/2004 to 12/31/2004							
Average monthly benefit	\$170	\$355	\$674	\$1,171	\$1,820	\$2,255	\$3,230
Average final average salary	\$26,332	\$34,645	\$39,343	\$44,095	\$49,960	\$53,306	\$56,940
Number of retired members	53	550	558	878	686	1,130	3,100
	- 55	330	330	070	-000	1,150	5,100

^{1/} Includes normal retirement, early retirement, and disability benefits for new retirees in the years listed.

Schedule of Average Annual Benefit Payments

As of December 31, 2013 (unaudited)

	Supera	nnuation	Early Ro	etirement	Disa	bility	Beneficiary and Survivor		
Age	Male	Female	Male	Female	Male	Female	Male	Female	
Under 25	NA	NA	\$536	NA	NA	NA	\$10,244	\$6,729	
25-29	NA	NA	833	\$639	NA	\$9,939	7,809	6,000	
30-34	NA	NA	1,101	875	\$12,086	12,352	15,016	7,697	
35-39	NA	NA	1,648	1,327	13,658	12,372	13,257	9,853	
40-44	NA	NA	4,603	2,295	15,098	12,360	15,810	7,744	
45-49	NA	NA	20,813	4,397	17,082	14,686	7,014	11,098	
50-54	\$39,639	\$35,055	22,926	9,472	18,384	16,250	5,740	10,251	
55-59	39,605	39,892	20,403	14,922	18,760	16,378	7,924	12,202	
60-64	34,630	32,230	22,395	16,911	16,571	15,729	10,861	13,563	
65-69	31,484	25,616	23,252	15,982	14,348	13,588	11,621	14,261	
70-74	30,270	21,486	18,516	12,550	11,162	10,272	9,810	16,217	
75-79	25,615	17,080	14,850	9,736	8,959	8,948	9,503	12,079	
80-84	21,993	12,809	15,005	9,208	9,450	7,502	9,055	10,605	
85-89	18,648	10,828	13,659	7,843	9,334	7,308	9,362	9,060	
90 and over	15,853	8,894	13,408	7,839	8,709	7,057	7,766	7,234	
Total Average	\$29,022	\$21,485	\$19,621	\$12,823	\$15,383	\$13,827	\$9,850	\$11,573	

	Superannuation	Early Retirement	Disability	Beneficiary and Survivor
Average Pension	\$25,839	\$16,339	\$14,573	\$11,386
Average Age	72.4	63.4	62.3	74.6

Schedule of Agency Participation - 20 Largest Employers

10 Years Ended December 31, 2013 (unaudited)

% - Percentage of Total Active Members

- Number of Active Members

Total number of active members	Active members for 20 largest employers	Dept of General Services	Dept of Health	Board of Probation and Parole	House of Representatives	Executive Offices	Dept of Revenue	Administrative Office of PA Courts	Dept of Conservation and Natural Resources	PA Turnpike Commission	Dept of Military and Veterans Affairs	Dept of Environmental Protection	PA Higher Education Assistance Agency	Liquor Control Board	State System of Higher Education	Dept of Labor and Industry	Pennsylvania State Police	Pennsylvania State University	Dept of Transportation	Dept of Corrections	Dept of Public Welfare	Employer Name	
105,186	94,462 89.80	955 0.91	1,142 1.09	1,176 1.12	1,676 1.59	1,739 1.65	1,962 1.87	1,967 1.87	2,063 1.96	2,108 2.00	2,487 2.36	2,571 2.44	2,983 2.84	4,264 4.05	5,109 4.86	5,113 4.86	6,084 5.78	6,210 5.90	12,656 12.03	15,529 14.76	16,668 15.85	# %	2013
106,048	95,086 89.66	961 0.91	1,262 1.19	1,161 1.09	1,590 1.50	1,851 1.75	1,994 1.88	2,018 1.90	2,037 1.92	2,126 2.00	2,385 2.25	2,632 2.48	2,776 2.62	4,141 3.90	5,123 4.83	5,474 5.16	6,012 5.67	6,368 6.00	12,729 12.00	15,682 14.79	16,764 15.81	# %	2012
107,021	96,043 89.74	1,022 0.95	1,333 1.25	1,096 1.02	1,792 1.67	1,949 1.82	2,059 1.92	1,977 1.85	1,909 1.78	2,104 1.97	2,471 2.31	2,643 2.47	2,460 2.30	4,080 3.81	5,138 4.80	5,768 5.39	6,033 5.64	6,532 6.10	12,826 11.98	15,764 14.73	17,087 15.97	# %	2011
109,255	97,887 89.59	1,108 1.01	1,335 1.22	1,100 1.01	1,825 1.67	2,006 1.84	2,166 1.98	2,025 1.85	1,913 1.75	2,132 1.95	2,505 2.29	2,623 2.40	2,265 2.07	4,286 3.92	5,375 4.92	5,919 5.42	6,084 5.57	6,653 6.09	12,427 11.37	16,133 14.77	18,007 16.48	# %	2010
110,107	98,612 89.56	1,208 1.10	1,409 1.28	1,108 1.01	1,779 1.62	2,155 1.96	2,170 1.97	1,992 1.81	2,031 1.84	2,164 1.97	2,478 2.25	2,677 2.43	2,230 2.03	4,303 3.91	5,556 5.05	5,719 5.19	6,102 5.54	6,608 6.00	12,548 11.40	16,174 14.69	18,201 16.53	# %	2009
110,866	98,758 89.08	1,270 1.15	1,473 1.33	1,098 0.99	1,736 1.57	2,257 2.04	2,366 2.13	2,015 1.82	2,111 1.90	2,254 2.03	2,568 2.32	2,802 2.53	2,135 1.93	4,097 3.70	5,521 4.98	5,178 4.67	6,222 5.61	6,468 5.83	12,494 11.27	16,075 14.50	18,618 16.79	# %	2008
109,610	97,606 89.05	1,267 1.16	1,433 1.31	1,009 0.92	1,758 1.60	2,201 2.01	2,289 2.09	1,988 1.81	2,080 1.90	2,232 2.04	2,545 2.32	2,767 2.52	2,494 2.28	3,969 3.62	5,316 4.85	5,234 4.78	6,266 5.72	6,210 5.67	12,264 11.19	15,523 14.16	18,761 17.12	# %	2007
110,972	98,968 89.18	1,340 1.21	1,479 1.33	974 0.88	1,701 1.53	2,247 2.02	2,319 2.09	1,989 1.79	2,093 1.89	2,276 2.05	2,540 2.29	2,921 2.63	2,524 2.27	4,102 3.70	5,344 4.82	5,692 5.13	6,172 5.56	6,265 5.65	12,484 11.25	15,151 13.65	19,355 17.44	# %	2006
109,981	98,356 89.43	1,306 1.19	1,435 1.30	1,010 0.92	1,706 1.55	2,246 2.04	2,322 2.11	1,953 1.78	1,971 1.79	2,227 2.02	2,492 2.27	2,836 2.58	2,378 2.16	3,994 3.63	5,240 4.76	5,608 5.10	6,127 5.57	6,210 5.65	12,388 11.26	15,126 13.75	19,781 17.99	# %	2005
108,405	96,913 89.40	1,230 1.13	1,386 1.28	998 0.92	1,662 1.53	2,237 2.06	2,238 2.06	1,957 1.81	1,927 1.78	2,282 2.11	2,402 2.22	2,854 2.63	1,968 1.82	3,840 3.54	5,248 4.84	5,648 5.21	5,885 5.43	6,085 5.61	12,428 11.46	14,463 13.34	20,175 18.61	# %	2004

Numbers may not add due to rounding.

STATISTICAL SECTION

Schedule of Agency Participation

As of December 31, 2013

Remaining SERS Employers

Bloomsburg University Community Activities

Bucks County Community College Bucks County Health Department

California University Student Association

Capitol Preservation Committee Center for Rural Pennsylvania

Central Susquehanna Intermediate Unit Chester County Health Department

Civil Service Commission

Clarion University Student Association Community College of Allegheny County Community College of Philadelphia Delaware County Community College Delaware River Joint Toll Bridge

Delaware Valley Regional Planning Commission

Department of Aging Department of Agriculture

Delaware River Port Authority

Department of the Auditor General

Department of Banking

Department of Community and Economic Development

Department of Drug and Alcohol Programs

Department of Education Department of State

East Stroudsburg University Student Association

Edinboro University Services Inc. **Environmental Hearing Board** Erie County Health Department Fish and Boat Commission

Game Commission Governor's Office

Harrisburg Area Community College Historical and Museum Commission House Appropriations Committee (D) House Appropriations Committee (R)

Independent Fiscal Office

Independent Regulatory Review Commission

Indiana University Student Co-op

Insurance Department

Intergovernmental Cooperation Authority Joint Legislative Conservation Committee Joint State Government Commission

Kutztown University Student Services Lancaster-Lebanon Intermediate Unit

Legislative Budget and Finance Committee

Legislative Data Processing Center Legislative Reference Bureau

Lehigh Carbon Community College

Lieutenant Governor's Office **Local Government Commission** Luzerne County Community College Mansfield University Community Services

Milk Marketing Board Millersville Student Services

Montgomery County Community College

Northampton Community College

Office of Attorney General Office of Liquidations

Pennsylvania College of Technology Pennsylvania Convention Center Authority Pennsylvania E-Health Partnership Authority Pennsylvania Emergency Management Agency

Pennsylvania Gaming Control Board

Pennsylvania Health Care Cost Containment Council

Pennsylvania Highlands Community College Pennsylvania Housing Finance Agency

Pennsylvania Infrastructure Investment Authority Pennsylvania Municipal Retirement System

Pennsylvania Port Authority

Port Authority Transit Corporation

Public School Employees' Retirement System

Public Utility Commission

Reading Area Community College

Senate of Pennsylvania

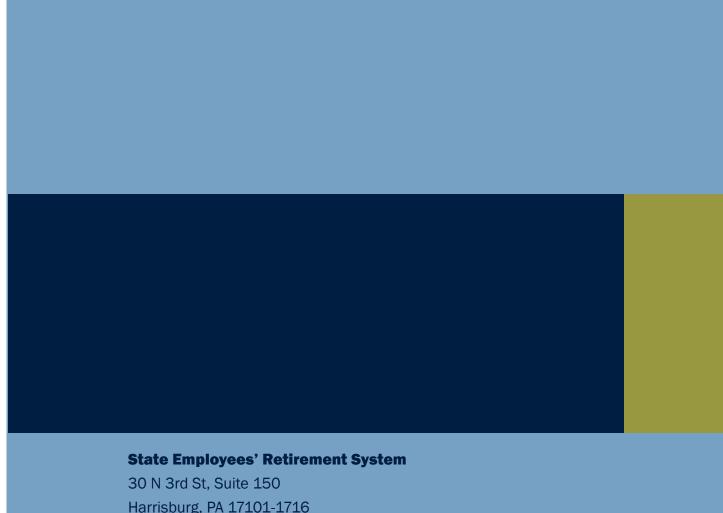
Shippensburg University Student Services Slippery Rock Student Government State Employees' Retirement System

State Ethics Commission

State Public School Building Authority Susquehanna River Basin Commission Thaddeus Stevens College of Technology

Treasury Department

West Chester University Student Services Westmoreland County Community College



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