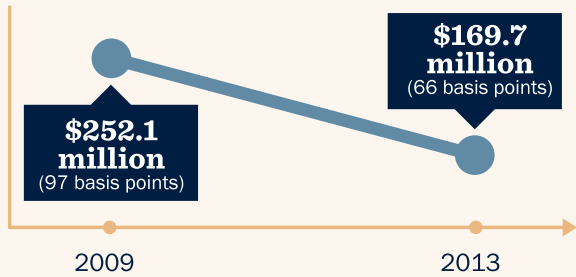


SERS decreased investment fees paid in each of the last 5 years



In 2013
SERS retired
5,390
members
and welcomed
8,747
new members

SERS paid
\$2.9 billion
in benefits in 2013

16% of SERS active employees belong to post-Act 120 classes of service

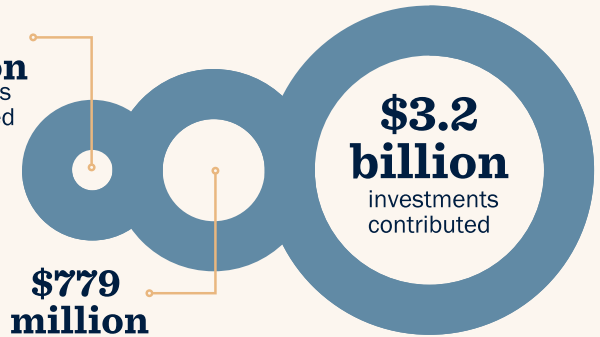
As of Dec 31, 2013 SERS had

107,002
active members

120,052
annuitants

2013 contributions to the SERS Fund

\$351 million
employees contributed



\$779 million
employers contributed

\$3.2 billion
investments contributed

Total FY 14/15 Spending Request



\$22.3 million

\$1.5 million

directed commissions

\$15.7 million
personnel

\$7.8 million
operations

Samples from operations =

real estate **\$1.8 million**

IT hardware/software **\$1.2 million**

postage **\$0.4 million**

legal services **\$0.3 million**

office equipment **\$0.07 million**

insurance **\$0.01 million**

SERS average active member

47 years old

12 years of service

SERS average retired member

72 years old

receives

\$25,839
per year

Global Public Equity
26.5%

Alternative Investments
10.1%

Liquidity Reserve
0.3%

Diversifying Assets
10.7%

In 2013 the SERS fund returned
12.6%
(estimated unaudited)

Real Assets
7.5%

Fixed Income
-2.2%

Data throughout is estimated/unaudited

SERS 2014 Supplemental Budget Book

February 6, 2014

The Honorable Jake Corman
Chairman, Appropriations Committee
Pennsylvania Senate
281 Main Capitol
Harrisburg, PA 17120

The Honorable Vincent Hughes
Minority Chairman, Appropriations Committee
Pennsylvania Senate
545 Main Capitol
Harrisburg, PA 17120

Gentlemen and Members of the Appropriations Committee,

On behalf of the State Employees' Retirement System, it is my pleasure to provide you with this detailed information about SERS' operations, investments and request for spending authority. I trust that it will be useful in your deliberations related to the commonwealth's FY 2014/15 budget.

Of particular note in this year's material are SERS' proposed \$22.3 million administrative budget for FY 2014/15 and our report of a preliminary, unaudited investment return of 12.6% for calendar year 2013. In fact, SERS' investments are estimated to have added more than \$3.2 billion to the fund—over \$1 billion more than would have been added using the system's return assumption.

Clearly, the strong 2013 investment return was crucial to setting SERS on a path toward restored financial health, but it was only one factor. Investment fees fell for the fifth straight year and, at 16%, employer contributions were closer to the actuarially required rate. Also helpful was the fact that, in 2013, the number of people who earned post-Act 120 retirement benefits grew to include approximately 16% of all active SERS members.

Among the tangible results of these factors is that SERS' estimated actuarially determined funded ratio rose slightly in 2013, to 59.1%, up from 58.8% the previous year. On a market basis, the ratio was 61.2%, up from 59.0%. These are very modest increases, to be sure, but they illustrate movement in the right direction.

You will find more detail about these and other SERS operational and investment matters in the following pages. In addition, SERS' Executive Director, David Durbin, and I look forward to answering any questions you may have at our February 18 appearance before your committee. If you have questions before then, please feel free to contact Mr. Durbin at (717) 787-9657 or DDurbin@pa.gov.

Sincerely,



Glenn E. Becker
Chairman

SERS 2014 SUPPLEMENTAL BUDGET INFORMATION

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pennsylvania

State Employees' Retirement System



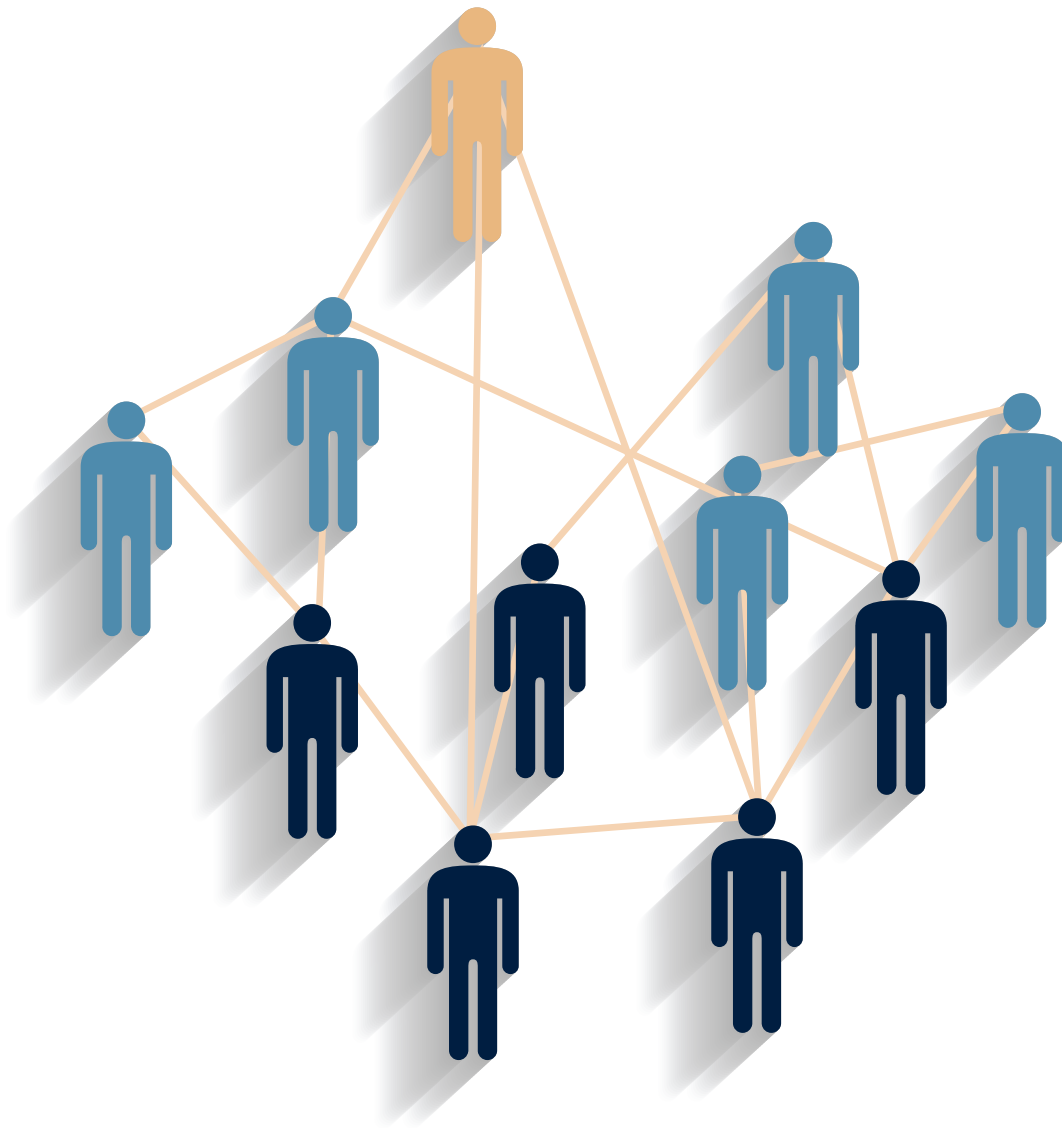
30 N. 3rd Street, Suite 150

Harrisburg, PA 17101

www.SERS.state.pa.us

1.800.633.5461

SERS Organization



SERS ORGANIZATION

Mission, Vision & Guiding Principles

Established in 1923, SERS is one of the nation's oldest and largest statewide retirement plans for public employees, with approximately 230,000 members. SERS is among the largest of public and corporate pension funds, with assets of approximately \$26.8 billion as of December 31, 2013.

SERS is responsible for administering the State Employees' Retirement Code in accordance with the expressed intent of the General Assembly and bears a fiduciary obligation to plan beneficiaries, including state employees and retirees.

State law provides that the administration of the SERS Fund and the fiduciary responsibility for its management be vested in an 11-member board. The management of SERS is the responsibility of the executive director who, with the approval of the board, contracts for professional services and employs the staff needed to operate the system.

Mission

The mission of SERS is 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.

Guiding Principles

- Demonstrate Integrity
- Develop and Empower Employees
- Focus On Customer Service
- Fulfill Fiduciary Obligations
- Lead Innovation and Improvement
- Learn From Mistakes
- Safeguard Information, Facilities and Staff
- Share Knowledge
- Think Strategically

SERS ORGANIZATION

Services & Operations

The nearly 200 professionals who work for the State Employees' Retirement System share a singular focus: serving SERS' members. Their duties vary but their focus is the same. Some SERS professionals serve members by investing and overseeing approximately \$26.8 billion. Other SERS professionals serve members by ensuring that every monthly payment is made correctly and on time. Still others audit and account for each penny, provide online information, or answer members' questions in person or over the phone.

Some work is behind-the-scenes, while other work touches members more directly. Examples of services offered to active and vested members include:

- Issuing annual statements of account.
- Offering individual and group educational sessions about retirement benefits.
- Helping with the purchase of service, change of beneficiaries, etc.
- Calculating retirement, disability and vesting estimates.
- Providing one-on-one counseling for those leaving state service.
- Walking members step-by-step through their retirement experience.

Examples of services offered to retired members include:

- Issuing annual statements of account and tax forms.
- Providing income tax withholding, direct deposit, address change and other forms, as requested, as well as assistance in filling out and submitting forms, as needed.
- Processing changes to retiree health coverage.
- Helping members understand implications of and, if necessary, effecting pension changes related to marriage, divorce or death.
- Tracking and reissuing payments, if necessary.
- Assisting spouses, children and other survivors upon the death of a SERS member.

SERS ORGANIZATION

Services & Operations

Approximately a quarter of SERS professionals are wholly dedicated to direct member services through a network of field offices statewide, including:

Bensalem Regional Counseling Center. Serving retired members who live and active members who work in Berks, Bucks, Chester, Delaware, Lancaster, Montgomery and Philadelphia counties.

Harrisburg Regional Counseling Center. Serving retired members who live and active members who work in Adams, Cumberland, Dauphin, Lebanon, Perry and York counties.

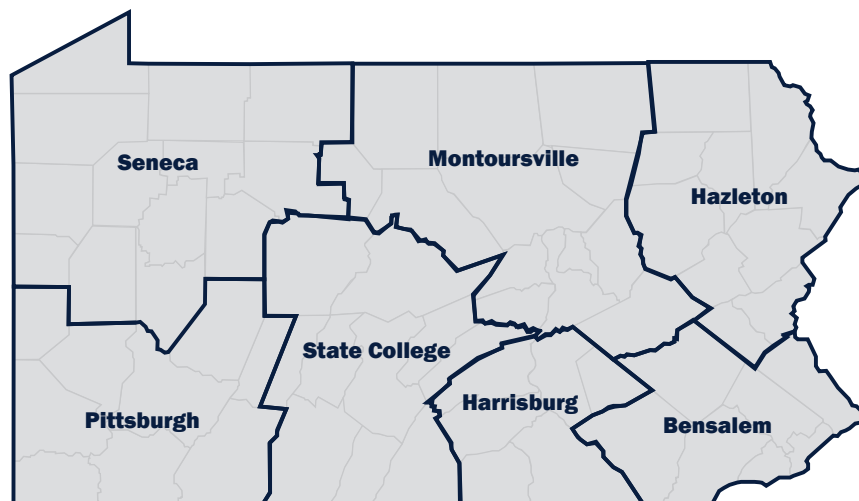
Hazleton Regional Counseling Center. Serving retired members who live and active members who work in Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Susquehanna, Wayne and Wyoming counties.

Montoursville Regional Counseling Center. Serving retired members who live and active members who work in Bradford, Cameron, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Schuylkill, Snyder, Sullivan, Tioga and Union counties.

Pittsburgh Regional Counseling Center. Serving retired members who live and active members who work in Allegheny, Beaver, Western Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland counties.

Seneca Regional Counseling Center. Serving retired members who live and active members who work in Armstrong, Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren counties.

State College Regional Counseling Center. Serving retired members who live and active members who work in Bedford, Blair, Eastern Cambria, Centre, Clearfield, Franklin, Fulton, Huntingdon, Juniata and Mifflin counties.



SERS ORGANIZATION

Services & Operations

To achieve its mission overall, SERS is organized into the following business units.

The **executive office** provides strategic leadership and administrative oversight of agency operations. It directly serves the State Employees' Retirement Board, including facilitating communications and managing meetings and documentation. The communications and policy office, a component of the executive office, works with the General Assembly on policy-related matters; administers the agency's right-to-know program; serves as liaison to the media; and offers an array of communications support to the agency.

The **office of member services** provides direct assistance to SERS' active, vested and retired members as well as their families. It conducts individual and group educational sessions statewide. The office also supports SERS' employers and processes member enrollments, retirements, status changes, payments and a host of other transactions.

The **investment office** works closely with the State Employees' Retirement Board to manage approximately \$26.8 billion SERS Fund. It establishes and implements investment policies; sets the strategic asset allocation; monitors fund cash flow, composition and performance; and researches, recommends and supervises investment managers, among other tasks. The office also maintains deep and current expertise related to the capital and global markets.

The **office of finance and administration** maintains accounting controls and oversees all SERS funds. It administers all transactions including, for example, member payments; member and employer contributions; investment purchases and sales; and operational expenses. The office also manages facilities and procurement, and oversees the deferred compensation program.

The **internal audit division** tests business processes and internal controls to confirm that they are adequate and operating properly to ensure vigilant stewardship of SERS funds. It performs on-site audits of investment consultants and managers, as deemed necessary. The division also coordinates independent, external audits of SERS on an annual basis.

The **legal office** advises the State Employees' Retirement Board on matters related to member appeals and administrative hearings. It aids in the negotiation, development and execution of investment and other contracts. The office also provides support related to member transactions, public policy development, legislative drafting and right-to-know administration.

SERS ORGANIZATION

Services & Operations

The **office of information technology** administers the agency's computing infrastructure. It ensures the performance and security of complex databases which contain sensitive personal and financial information and are relied upon to track investments, process payments and account for funds. The office also links the regional field offices, develops applications to provide members with online access to SERS information and provides user support.

The **human resources division** recruits, hires, trains, supports and assesses the performance of SERS professionals. It offers workforce planning, professional development programs and labor relations services. The division also facilitates annual financial disclosure and ethics processes for SERS Board members and staff.

SERS ORGANIZATION

Services & Operations



SERS ORGANIZATION

Proposed FY 2014-2015 Administrative Budget

	Rebudget 2010-2011	Rebudget 2011-2012	Rebudget 2012-2013	Rebudget 2013-2014	Budget Request
Personnel Services	\$16,142,000	\$16,218,000	\$16,820,129	\$14,368,800*	\$15,741,533*
Operational					
Travel	224,600	141,800	183,600	36,000*	49,050*
Training	164,900	97,400	90,500	66,600*	135,800*
Communication Services	385,800	299,900	378,500	353,500	428,200
Consultants - Non EDP	4,874,000	4,799,000	396,500*	367,600*	385,600*
Legal Services/Fees	188,000	100,500	175,500	423,800	300,000
Specialized Services	677,400	620,100	421,700	304,200	404,100
Advertising	5,000	10,000	20,000	10,000	20,000
IT Consulting	1,385,000	1,728,500	947,500	1,138,200	1,164,600
Contracted Maintenance & Repairs-Non-EDP	70,700	43,100	52,800	44,800	39,300
Hardware/Software and Maintenance	765,000	356,600	1,084,800	1,325,400	1,234,900
Real Estate	1,690,000	1,725,000	1,770,800	1,886,000	1,792,000
Vehicles	32,900	34,100	44,900	27,000	31,700
Office Equipment	95,900	90,000	68,000	75,500	68,100
Other Rentals/Leases	135,500	65,000	18,600	2,700	3,600
Office Supplies	87,300	80,000	84,900	86,900	86,800
Educational Supplies	1,000	2,400	1,700	5,800	500
Other Computer Equipment	400,000	0	0	0	0
Motorized Equipment Maintenance	18,100	14,800	10,900	2,600	8,500
Postage	210,000	203,100	294,700	500,000	396,500
Freight	8,800	4,500	3,200	3,000	3,600
Printing	197,600	172,400	226,200	118,600	243,900
Subscriptions & Investment Licensing	637,500	430,800	115,000*	114,500*	65,250*
Membership Dues	70,400	61,200	59,500	15,100*	24,800*
Conference Expenses	12,800	8,300	7,400	0	9,700
Insurance, Surety, & Fidelity Bonds	12,000	13,500	13,000	13,000	13,000
Other Operational	1,082,800	1,200,000	1,449,191	1,062,200	901,400
Total Operational	13,433,000	12,302,000	7,919,391	7,983,000	7,810,900
Fixed Assets	0	0	120,000	150,000	250,000
Less Directed Commissions	1,500,000	1,200,000	1,200,000	1,500,000	1,500,000
Total Annual Budget	\$28,075,000	\$27,320,000	\$23,659,520	\$21,001,800	\$22,302,433

*Investment-related expenditures previously included in these line items are accounted for as non-appropriated expenditures and reported as investment expenditures.

SERS ORGANIZATION

Proposed FY 2014-2015 Administrative Budget

Directed Commission Revenue & Expense

	FY 2013-14 Budget	FY 2014-15 Budget
Beginning Balance	\$4,064,534	\$2,664,534
Directed Commission Revenue	100,000	100,000
Total Available	4,164,534	2,764,534
Directed Commission Expense	1,500,000	1,500,000
Ending Balance	\$2,664,534	\$1,264,534

Directed commissions are reimbursements to the system for a portion of the fee paid to a broker for executing a trade.

SERS ORGANIZATION

Legislation

No legislation that affected SERS' operations was enacted in 2013.

SERS Members



SERS MEMBERS

Demographics as of December 31

Total Active & Annuitant Members

Year Ending December 31	Total Members ^{1/}	Active Members	Annuitants & Beneficiaries
2013	227,054	107,002	120,052
2012	223,213	106,152	117,061
2011	222,363	107,021	115,342
2010	220,968	109,255	111,713
2009	220,097	110,458	109,639
2008	219,012	110,866	108,146
2007	216,740	109,610	107,130
2006	213,032	110,972	102,060
2005	211,160	109,981	101,179
2004	207,132	108,405	98,727

^{1/}Totals do not include inactive members.

Active Members: Age & Service

Average Age	46.8
Average Years of Service	12.3

Total Annuitants & Beneficiaries: By Category

	2010	2011	2012	2013
Superannuation Annuitants	54,659	56,722	57,439	59,020
Early Retirees	39,241	40,483	41,181	42,078
Disabled Annuitants	7,801	7,891	8,053	8,258
Beneficiary/Survivors	10,012	10,246	10,388	10,696

Annuitants & Beneficiaries: Average Age

	2010	2011	2012	2013
Superannuation Annuitants	72.7	72.4	72.5	72.4
Early Retirees	62.7	62.9	63.2	63.4
Disabled Annuitants	61.4	61.8	62.1	62.4
Beneficiary/Survivors	75.0	74.8	74.8	74.7

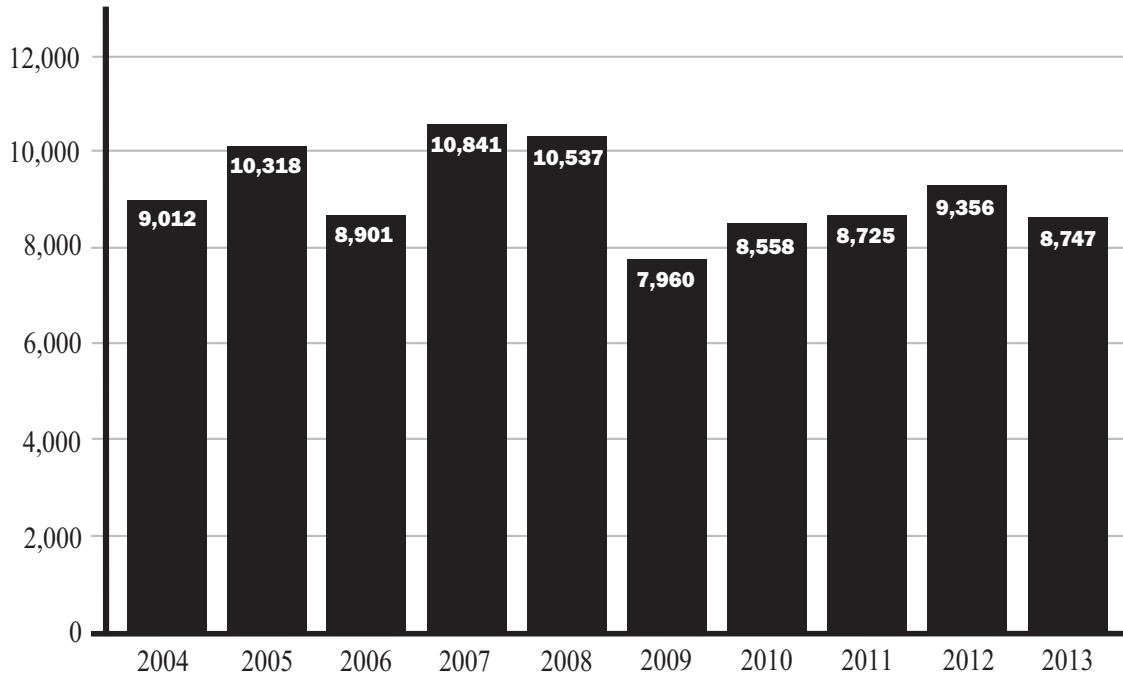
Annuitants & Beneficiaries: Average Annual Pension

	2010	2011	2012	2013
Superannuation Annuitants	\$23,491	\$24,448	\$25,083	\$25,839
Early Retirees	15,209	15,770	16,027	16,333
Disabled Annuitants	13,774	14,027	14,291	14,573
Beneficiary/Survivors	9,833	10,334	10,940	11,386

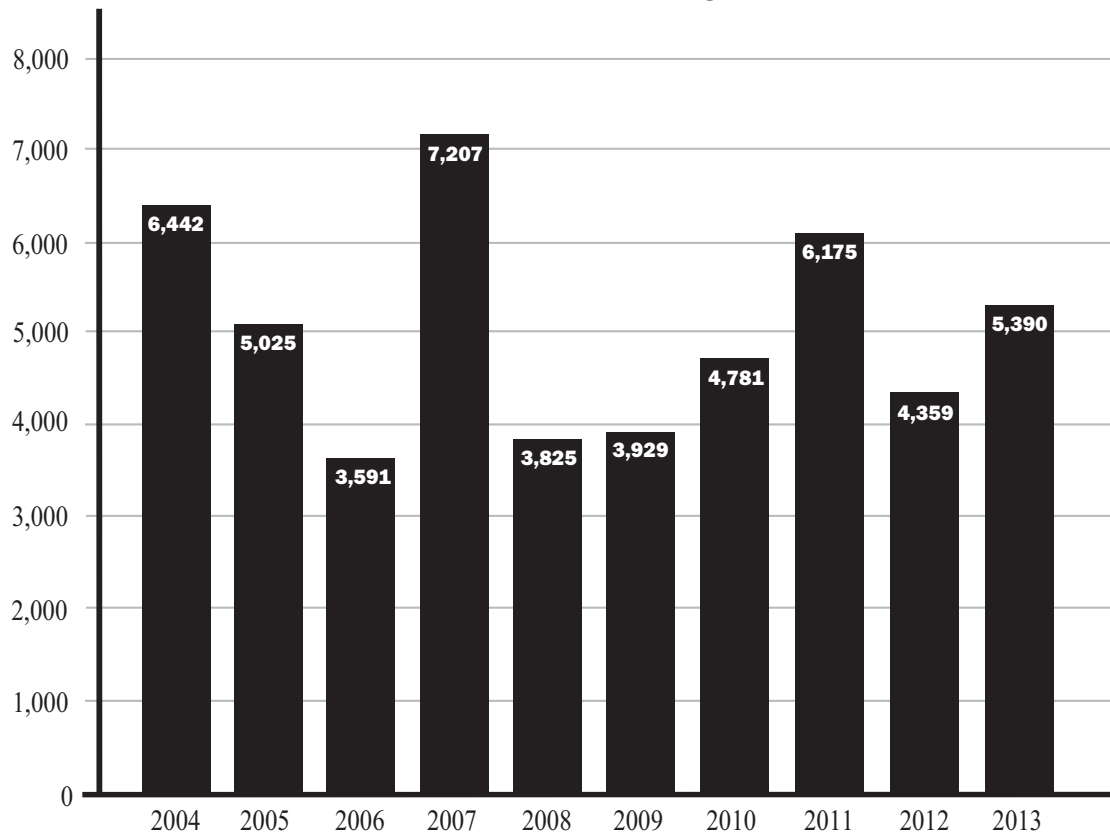
SERS MEMBERS

Demographics as of December 31

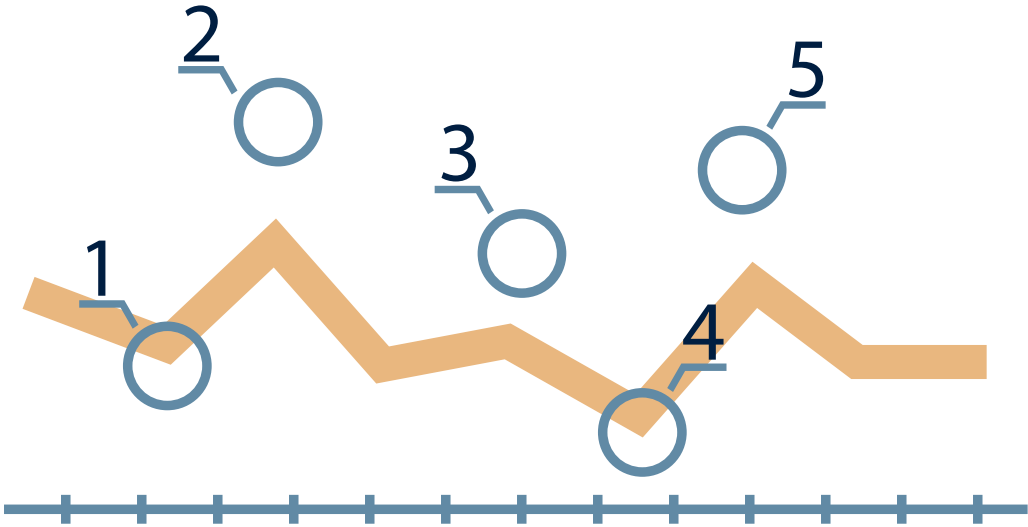
10-Year Trend: New Member Enrollments



10-Year Trend: Normal & Early Retirements



SERS Fund



SERS FUND

Funding Process

Defined Benefit Plan

The Pennsylvania State Employees' Retirement System administers two retirement plans to help safeguard the financial security of the commonwealth's public workforce in its retirement years. Most state employees are required to participate in Pennsylvania's defined benefit plan, which is frequently referred to simply as the "pension plan." Employees who are eligible to participate in the pension plan may choose to augment their retirement savings by also voluntarily participating in the deferred compensation program, often referred to as "deferred comp."

The economic engine of the defined benefit plan is the SERS Fund, which is reviewed in depth in this section. Details about the deferred compensation program are provided in the last section of this book.

In the defined benefit plan, both the employer and the employee pay a certain percentage of the employee's salary to the SERS Fund for as long as the employee works for the commonwealth. In FY 2013/14, employers generally are paying 16.0% and most employees are paying 6.25%. SERS aggregates and invests this money to achieve returns to help ensure sufficient funds are available to make payments to current and future retirees. In 2013, SERS earned an estimated 12.6% return on its investments.

When employees meet certain thresholds—working a specific number of years to achieve "vesting," for example—they become eligible to receive monthly retirement payments for the rest of their lives. The payment amount is based on a formula that includes the employee's length of service, age, compensation over a period of time and an "accrual rate" that is determined by the General Assembly.

In 2013, SERS made \$2.9 billion in benefit payments, \$2.6 billion of which stayed in Pennsylvania. The average annual pension paid to a retired state employee who worked to full retirement age was \$25,839.

Determining Adequate Funding for a Defined Benefit Plan

A defined benefit plan operates on a sound basis when the funds on hand, current and expected future contributions, and investment earnings are sufficient to cover the value of all promised benefits.

It is a standard feature that employee and employer contributions invested throughout an employee's working career provide sufficient funding to pay for that particular employee's expected lifetime retirement benefit. Defined benefit plans are long-term propositions. When underlying principles remain intact, defined benefit plans offer efficient, stable and sustainable models for growing assets and delivering benefits through complete economic cycles.

SERS FUND

Funding Process

Because a defined benefit plan guarantees a monthly payment to every retiree for life, it is impossible to develop precise, before-the-fact costs and cash flows for the plan. The number of people paying into the plan, the amount they earn, how long they work, the number of people retiring, the age at which each person retires and how long each retiree lives are among the myriad factors that vary from day-to-day, month-to-month and year-to-year.

Actuarial science is used to develop accurate predictions. Actuarial science applies available data to a number of interrelated mathematical and statistical methods and uses investment and financial practices to study uncertain future events.

SERS' actuarial firm conducts an in-depth investigation and analysis—known as an experience study—of real-world economic and demographic data every five years. Economic assumptions include rates of investment return and salary growth, for example, which are significantly impacted by inflation. Demographic assumptions include workforce, disability and mortality trends. SERS' last experience study was delivered in early 2011 and is available at www.SERS.state.pa.us in the "Publications" section, under "Actuarial Valuation Reports."

2014 Key Actuarial Assumptions

7.5%
long-term
investment return

6.2%
average salary growth

2.75%
rate of inflation

The selection of economic and demographic assumptions used is generally guided by the Actuarial Standards Board via the Actuarial Standard of Practice 35. In SERS' case, some very important assumptions—such as the length of time over which investment gains and losses are recognized—are set by Pennsylvania law.

Each year, SERS' actuarial firm uses the most recent employee and retiree demographic data to determine total expected future obligations. The actuary then compares those obligations to the expected value of the fund's assets, based on current audited financial statements and future economic assumptions.

This calculation is factored in with the statutorily set employee contribution rate and the assumed investment rate of return as the basis for calculating how much employers need to contribute in order to fully fund their employees' retirement benefits.

What is an unfunded liability?

An unfunded liability—also commonly called an unfunded actuarial liability or UAL—is the degree to which the current and projected liabilities exceed the current and projected assets of a pension plan.

In other words, it is the difference between what the commonwealth's pension plan is legally obligated to pay and what assets have been set aside to make those payments.

SERS FUND

Funding Process

Funding Sources & Trends

Defined benefit plans are designed to remain stable by receiving three regular funding streams—employee contributions, investment earnings and employer contributions.

Employee Contributions

Active employees pay a certain percentage of their pay toward their retirement benefit. While different classes of employees pay different rates, most employees currently pay 6.25% of their pay. Employees' contributions are withheld from their paychecks and sent directly from their employer to SERS. The percentage is set by statute and the rate doesn't change from year to year. In 2013, employee contributions to SERS totaled \$351 million.

In the past, courts have ruled that public retirement benefits may not be retroactively changed in any way that may be a “net detriment” to employees. “Net detriment” has been interpreted as a reduction in already earned benefits and/or as an increase in employee contributions required to maintain such benefits.

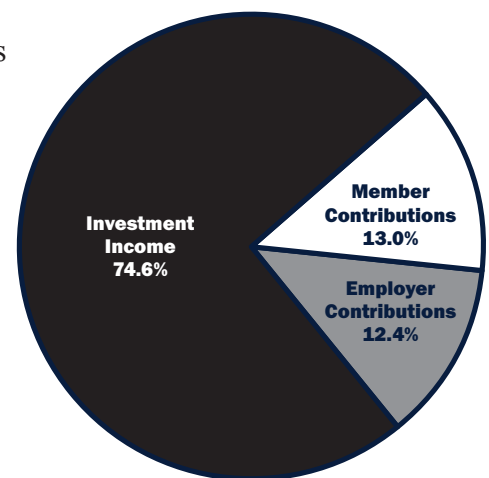
There are some instances, however, in which employee contributions can increase. For example, Pennsylvania's Act 2010-120 introduced a “risk sharing” provision that allows for an increase in contributions of employees generally hired on or after January 1, 2011, if there is a multi-year period of investment returns below the assumed rate and if employers have met their contribution obligations to the pension system. An increased employee “shared risk contribution” can be established every three years beginning in 2014. The additional contribution cannot increase by more than 0.5% in any three-year period and cannot exceed 2% in total.

Investment Earnings

SERS' overall investment objective is to assure adequate fund reserves at the least cost to commonwealth citizens and to protect against the erosion of principal by inflation. SERS seeks to provide investment earnings that meet, or preferably exceed, the assumed rate of return over complete economic cycles. SERS strives to meet this objective by applying acceptable risk parameters and allocations to investments that are diversified by type, industry, quality and geography.

Investment earnings can vary widely from year to year; the SERS Fund, for example, produced a nearly 25% return in 2003 and experienced more than a 28% loss in 2008's worldwide downturn. In order to minimize volatility, Pennsylvania law requires that the differences between actual performance and the assumed rate of return be recognized over a five-year period at a rate of 20% per year—a concept often referred to as “smoothing.” Thus, 2008's losses continued to negatively impact SERS' unfunded liability through 2012 but have now been fully recognized.

SERS Funding
(10-Year History)



SERS FUND

Funding Process

SERS examines and sets its assumed rate of return each year based on global market dynamics, investment performance and other considerations. For example, in 2009, SERS reduced its assumed rate of return from 8.5% to 8%, largely as a result of 2008’s global economic collapse.

As a result of SERS’ 90+ years of operation and the generally increasing trend of individual longevity, the system now has more retired members than active members. In 2014, SERS is projected to pay out approximately \$125 million more each month than it takes in through employee and employer contributions.

As a normal consequence of SERS’ greater maturity, the liquidity needs of the fund increase and require an ongoing rebalancing of assets. In recognition of this fact and in acknowledgement of continuing economic challenges, SERS again reduced its assumed rate of return in 2012; this time, from 8% to 7.5%. This change has significant implications for the employer contribution rate, as discussed below.

Public Pension Fund Assumed Rates of Return

(National Association of State Retirement Administrators, 2013)

Rate	# of Plans Using Rate
6.75%	4
7.00%	4
7.01% - 7.49%	37 (SERS)
7.50% - 7.99%	32
8.00%	45
8.01% - 8.49%	2
8.50%	2

In 2013, SERS achieved an estimated return of 12.6% and earned more than \$3.2 billion—which is over \$1 billion more than anticipated based on the 7.5% return assumption. As of December 31, 2013, the market value of the SERS Fund was \$26.8 billion, more than \$1 billion larger than it was a year earlier. Moreover, the 2013 excess return reduced the projected growth of SERS’ unfunded liability by an estimated \$300 million.

For 13 of the last 18 years, SERS has exceeded its assumed rate of return. Moreover, even factoring in the unprecedented market volatility, the fund has achieved a 20-year rate of return of 8.4% and a 30-year return of 9.7%. SERS reports its returns net of fees.

The “shared risk” provision of Act 2010-120, previously discussed, is designed to moderate the need for future employer rate increases that may be prompted by investment underperformance, should it occur. The first potential shared-risk increase would occur in 2014.

SERS FUND

Funding Process

Employer Contributions

The “employer normal cost” is expressed as a percentage of payroll and is the amount employers would contribute if all actuarial assumptions were precisely correct, including the fund earning exactly its assumed rate of return. The normal cost of benefits as of the 2012 actuarial valuation was 5.01%.

Because it is highly unlikely that every assumption could be correct, the Pennsylvania State Employees’ Retirement Code requires SERS to adjust the employer contribution rate each year based on actual experience and investment performance.

The employer contribution rate is calculated by an independent actuary, taking into account employee contributions, demographic activity, investment earnings and future liabilities.

Based on the actuary’s recommendation, the SERS Board annually certifies an employer contribution rate. The rate has fluctuated dramatically over the years: in 1981 the rate was approximately 18% but from 2001-03 it was 0%. A rate can only be certified at 0% when fund assets and investment earnings are predicted to more than cover the normal cost of benefits earned in any given year. When the contribution rate is less than the normal cost or as low as 0% of payroll, employers can redirect money to other purposes.

As one would expect, the total dollars contributed by employers has varied from year to year. In 1983, employer contributions totaled \$414 million, in 2013 that figure was \$779 million.

According to the Budget Office, SERS employers under the Governor’s jurisdiction paid less than half of the employers’ total—about 43%—from general funds. About 21% came from special funds; about 16% came from federal funds; and about 20% came from other sources.

The employer contribution rate has two parts: the cost of the benefit for new SERS members in the current year (as applied to all active members) and a contribution toward the unfunded liability. When SERS reduced its assumed rate of return from 8.0% to 7.5% in 2011, the change increased the unfunded liability by approximately \$2.1 billion.

Long-Term Snapshot

	1983	2013
Employer Rate	18.09%	16.05%
Employer Contributions	\$414 million	\$779 million
Employee Rate	5.00%	6.25%
Employee Contributions	\$136 million	\$351 million
Active Employees	116,000	107,000
Annuitants	59,000	120,000

SERS FUND

Funding Process

The fiscal year 2014/15 employer contribution is currently legislated to be 20.5% of payroll with increases capped at 4.5% each year until no longer needed. If the contribution were not legislatively capped, the total rate would be 30.9%— about 5.01% to fund the benefits of new SERS members in the current year normal cost and about 25.9% to pay toward the unfunded liability.

To translate the 4.5% increase into dollars, some projections suggest that increases in employer contributions will range from about \$300 million to \$335 million per year for the next three years. Looking at the relative sizes of the current-year and unfunded liability components discussed above, it's clear to see that the unfunded liability is driving employer contribution rate increases. And, because the employer rate will remain below the actuarially required rate until at least 2015, SERS' unfunded liability will continue to grow in the near term. The rate of growth will slow, however, as the annual employer rate rises.

SERS FUND

Funding Process

Projected Employer Contributions, Payout & Funding Status

Assuming entry-age funding method, level-dollar amortization, 5-year smoothing of assets, Act 120 collars, 6.2% salary growth, 2.75% inflation, estimated 12.6% investment return in CY 2013 with 7.5% return thereafter, 6.25% employee contribution.

Fiscal Year	Expected FY Payroll (\$ millions)	FY Employer Contribution		Calendar Year	CY Payout	CY Funding Status ^{1/}	
		Employer Contribution Rate	Expected FY Contribution (\$ millions)		Benefits & Expenses (\$ billions)	Funded Ratio	Unfunded Liability (\$ billions)
2014/15	\$6,014.4	20.50%	\$1,233.0	2013	\$2.9	59.1%	\$17.90
2015/16	6,197.9	25.00	1,549.5	2014	2.9	59.1	18.32
2016/17	6,386.9	29.50	1,884.1	2015	3.1	59.4	18.58
2017/18	6,581.7	29.91	1,968.5	2016	3.2	61.1	18.17
2018/19	6,782.4	28.93	1,962.3	2017	3.3	62.9	17.70
2019/20	6,989.3	28.24	1,973.9	2018	3.4	64.1	17.42
2020/21	7,202.5	27.59	1,987.0	2019	3.6	65.3	17.13
2021/22	7,422.1	26.97	2,001.5	2020	3.7	66.5	16.83
2022/23	7,648.5	26.38	2,017.5	2021	3.8	67.6	16.52
2023/24	7,881.8	25.81	2,034.4	2022	3.9	68.8	16.19
2024/25	8,122.2	25.26	2,052.0	2023	4.0	69.9	15.83
2025/26	8,369.9	24.73	2,070.2	2024	4.1	71.0	15.44
2026/27	8,625.2	24.22	2,089.1	2025	4.2	72.2	15.02
2027/28	8,888.3	23.72	2,108.5	2026	4.3	73.3	14.56
2028/29	9,159.4	23.24	2,128.6	2027	4.4	74.5	14.07
2029/30	9,438.7	22.77	2,149.2	2028	4.5	75.7	13.53
2030/31	9,726.6	22.32	2,170.6	2029	4.6	77.0	12.95
2031/32	10,023.3	21.87	2,192.6	2030	4.7	78.3	12.32
2032/33	10,329.0	21.45	2,215.2	2031	4.9	79.7	11.64
2033/34	10,644.0	21.03	2,238.6	2032	5.0	81.1	10.91
2034/35	10,968.6	20.63	2,262.7	2033	5.1	82.6	10.12
2035/36	11,303.2	20.24	2,287.6	2034	5.2	84.2	9.26
2036/37	11,647.9	19.86	2,313.3	2035	5.3	85.9	8.33
2037/38	12,003.2	19.49	2,339.8	2036	5.4	87.7	7.33
2038/39	12,369.3	19.14	2,367.0	2037	5.5	89.5	6.24
2039/40	12,746.6	18.79	2,395.2	2038	5.6	91.5	5.07
2040/41	13,135.3	14.84	1,949.9	2039	5.7	93.7	3.81
2041/42	13,536.0	12.00	1,624.5	2040	5.8	95.2	2.92
2042/43	13,948.8	8.82	1,230.5	2041	5.9	96.2	2.31
2043/44	14,374.2	6.87	987.7	2042	6.0	96.6	2.08

^{1/} Figures are based on previous calendar year's actuarial valuation.

SERS FUND

Actuarial Status

Current Funded Position of SERS' Defined Benefit Plan

The “funded position” of a defined benefit plan is measured by its “funded ratio” which is the actuarially calculated value of assets divided by the actuarially calculated sum of retirement benefits earned by all existing SERS members—approximately 230,000 active, vested and retired employees.

In general, a funding ratio of 80% or better is considered “healthy” for a pension system. Pennsylvania is among 38 other states that are currently below the 80% threshold. At the close of 2013, SERS' estimated funded ratio was 59.1% (actuarial value) or 61.2% (market value).

SERS' funded ratio has varied significantly over time. In 1983 it dipped below 60%, as it is now. By 2001, however, it had climbed back to well over 100%. Recent funded ratios include:

SERS Funded Ratio

	Actuarial Value	Fair (Market) Value
1993	106.9%	112.2%
1998	112.6	131.4
2003	104.9	93.7
2008	89.0	66.2
2013 ^v	59.1	61.2

^v2013 values are projected.

The unfunded liability associated with the 2013 ratio is estimated to be \$17.9 billion. The liability will continue to grow in the near term, however, as employer contribution rates are suppressed by Pennsylvania law.

Factors influencing the unfunded liability have been building over time, including but not limited to:

- sustained periods of employer contributions below normal costs: 1992 through 2009, for example
- losses that neutralized past investment gains used to justify the low employer contributions: -10.9% in 2002 and -28.7% in 2008, for example
- benefit increases—including cost of living adjustments and increased “accrual rates,” for example—without providing sufficiently off-setting funding streams: Act 9 of 2001 and Act 38 of 2002, for example
- legislatively mandated actuarial changes that extended the time over which liabilities be paid or artificially suppressed employer contribution rates: Act 40 of 2003 and Act 120 of 2010, for example
- cumulative negative impact of the above on the overall size of the fund and its ability to realize investment returns in positive-earning years.

SERS FUND

Actuarial Status

10-Year Trend: Additions & Deductions to Plan Net Assets*

Calendar Years (\$ millions)

Year	Member Contributions	Investment Earnings	Employer Contributions	Benefits & Expenses	Fair (Market) Value
2004	\$310	\$3,568	\$107	\$(1,880)	\$26,641
2005	306	3,623	148	(1,966)	28,752
2006	318	4,730	196	(1,943)	32,053
2007	334	5,246	244	(2,361)	35,516
2008	337	(11,061)	235	(2,231)	22,796
2009	349	3,561	253	(2,297)	24,662
2010	349	3,076	273	(2,474)	25,886
2011	351	480	392	(2,732)	24,377
2012	348	2,794	566	(2,696)	25,389
2013 ^{1/}	351	3,201 ^{2/}	779	(2,881)	26,839
10-Year Total	\$3,353	\$19,218	\$3,193	\$(23,461)	

* 10-year net additions and deductions were \$2,303.

^{1/} 2013 figures are unaudited.

^{2/} Figure does not include 4th quarter earning for all Alternative Investments and the Private Energy, Non-Core Real Estate and Core Real Estate portions of Real Assets. Data not yet available.

SERS FUND

Actuarial Status

Restoring SERS' Defined Benefit Plan Funding

SERS' unfunded liability is growing more slowly than it otherwise would have been growing because of Act 2010-120 which saves approximately \$1.5 billion over 30 years 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 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.

It will, however, take considerable time to realize benefits from the lower costs. 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. In 2013, SERS retired 5,390 state employees and added 8,747 new members. So, currently, approximately 16% of SERS' active members belong to the post Act 120 classes of service.

Act 120 also recognized the need for greater rates of employer funding and does allow employer contributions to increase over time. To ensure predictability and to moderate overall budget impacts, the General Assembly set forth measured intervals for increased employer contribution rates.

Often referred to in shorthand as the "Act 120 collars," as previously discussed, the legislation limits future year-to-year increases in employer contributions to 4.5%. Again, to translate 4.5% into dollars, some projections suggest that increases in SERS employer contributions may well range from about \$300 million to \$335 million per year for the next three years.

Because the employer rate remains below actual cost for a number of years, SERS' unfunded liability will continue to grow in the near term. As the employer rate increases, however, its impact on paying down the liability is dramatic. Such funding is among the most crucial components of the overall, long-term stability of the pension system.

SERS FUND

Investment Program | Overview

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 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 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 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.

SERS FUND

Investment Program | Overview

Investment Objectives

As indicated in SERS' *Statement of Investment Policy*, the primary goal of the 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 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 fund in the board-approved strategic investment plan, with market risk (i.e., equity beta) that does not exceed that of the fund's composite benchmark.

SERS FUND

Investment Program | Overview

Asset Allocation Trend

Prudent Investor Investment Standards

The board's investment authority is governed by the "prudent investor" standard as set forth in Title 71, Pennsylvania Consolidated Statutes, Section 5931(a). Enactment of the "prudent investor" standard in Act 1994-29 and asset/liability studies completed by SERS' general investment consultants and the SERS investment staff are the foundation of SERS' investment strategy. With "prudent investor" investment authority, SERS is able to pursue a broader array of investment opportunities that enhance the ability to achieve reasonable rates of return while maintaining risk at acceptable levels. An asset/liability study demonstrated that the prudent application of this expanded authority should result in a more efficient portfolio that better serves the needs of SERS.

Total Fund Asset Allocation

SERS develops a biennial strategic investment plan which provides direction for the SERS' investment program. The *2012-2013 Strategic Investment Plan* will be implemented over a period of five to 10 years. The fund's asset allocation strategy will evolve over this timeframe until the long-term targets for each asset category are achieved by the end of the year 2023.

Investment Program Summary

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 as of December 31, 2013)

Asset Class	Market Exposure	% of Total Fund	Long-Term 10-Year Strategic Target
Alternative Investments	\$5,665.2	21.1%	13.0%
Global Public Equity	9,767.8	36.4	38.0
Real Assets	4,179.5	15.6	15.0
Diversifying Assets	1,887.0	7.0	12.0
Fixed Income	4,034.9	15.0	19.0
Liquidity Reserve	1,304.4	4.9	3.0
Total Fund	\$26,838.8	100.0%	100.0%

Numbers may not add due to rounding.

SERS FUND

Investment Program | Overview

Number of Investment Managers

Asset Class	Investment Managers
Alternative Investments	140
Global Public Equity	18
Real Assets	38
Diversifying Assets	15
Fixed Income	16
Liquidity Reserve	3
Total Managers	230

Number of Investment Portfolios

Asset Class	Investment Portfolios
Alternative Investments	337
Global Public Equity	19
Real Assets	80
Diversifying Assets	15
Fixed Income	19
Liquidity Reserve	4
Total Portfolios	474

SERS FUND

Investment Program | Overview

Minority/Woman-Owned Investment Managers

The following minority- or woman-owned firms were under contract with SERS to provide investment management services as of December 31, 2013.

Firm	Status	SERS Assets Under Management
Fairview Capital	Minority/Woman-Owned	\$20.0 million committed; \$19.9 million funded
GlobeFlex Capital, L.P.	Minority/Woman-Owned	\$78.0 million market value
Hawkeye Partners	Woman-Owned	\$105.0 million committed; \$75.0 million funded
New Century Advisors	Woman-Owned	\$101.5 million market value
Rock Creek (Penn Quarter, L.P.)	Minority/Woman-Owned	\$25.9 million market value
Taplin Canida & Habacht, Inc.	Minority/Woman-Owned	\$171.7 million market value
StoneRidge Investment Partners	Minority/Woman-Owned	\$115.3 million market value

Minority/Woman-Owned Brokers Brokerage Commissions

SERS's external investment managers utilized the following minority-owned brokerage firms during calendar year 2013.

Minority commissions totaled \$163,309 for the year. Non-US developed market equity managers had \$19,903 of commissions credited to minority brokers, the remainder is attributable to US equity managers. The SERS Board has a policy of targeting 5%-10% of US equity commissions to be done with minority brokers. It is estimated that this year SERS US equity managers directed approximately 10% of their trades through minority brokers.

In addition, although not included in the board mandate, other SERS managers are encouraged to trade through minority brokers. In 2013, Fixed Income and Liquidity Reserve managers traded a combined \$92.8 million of securities through minority brokers.

Firm	Commissions
Cabrera Capital Markets	\$9,166
C L King	13,353
East West	3,234
Greentree Brokerage	10,536
Loop Capital Management	1,744
M Ramsey King	5,409
Mischler Financial Group	6,939
Seslia Securities	11,497
Sturdivant & Company	63,443
Telsey	2,038
Valdez & Moreno	35,950
Total Commissions	\$163,309

SERS FUND

Investment Program | Performance

Estimated Calendar Year, Net-of-Fees Returns*

For the period ending December 31, 2013

Asset Class	1 Year Total Return	3 Years Total Return	5 Years Total Return	10 Years Total Return
Alternative Investments ^{1/, 4/}	10.1%	11.0%	7.8%	12.6%
<i>ThomsonOne Private Equity All Index ^{2/, 4/, 5/}</i>	-	-	-	-
<i>Russell 3000 Index + 3% ^{3/, 4/}</i>	25.3	20.3	13.9	11.4
Global Public Equity	26.5	11.4	16.7	7.2
<i>MSCI ACW Investable Market Index (Net)</i>	23.6	9.8	15.6	7.6
Real Assets ^{4/}	7.5	7.4	2.3	7.9
<i>Real Assets Custom Benchmark ^{4/}</i>	9.1	9.3	2.7	6.8
<i>CPI + 3%</i>	4.3	5.0	5.1	5.4
Diversifying Assets	10.7	5.7	7.4	N/A
<i>Diversifying Assets Custom Benchmark</i>	22.2	10.4	7.6	N/A
<i>HFRI FOF Comp Index</i>	8.7	2.4	4.8	N/A
Fixed Income	-2.2	4.5	11.0	6.0
<i>Barclays U.S. Aggregate Bond Index</i>	-2.0	3.3	4.4	4.5
Liquidity Reserve	0.3	0.3	0.3	2.0
<i>BofA ML 3 Month U.S. T-Bill Index</i>	0.1	0.1	0.1	1.7
Total Fund	12.6%	9.0%	9.6%	7.3%
<i>Total Fund Custom Benchmark</i>	<i>12.8%</i>	<i>9.2%</i>	<i>11.5%</i>	<i>8.3%</i>
<i>Total Fund Custom Public Market Equivalent Benchmark</i>	<i>15.5%</i>	<i>10.5%</i>	<i>12.2%</i>	<i>8.6%</i>

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

^{1/}Historical Alternative Investment performance includes Private Equity, Special Situations and Venture Capital.

^{2/}The ThomsonOne Private Equity All Index is intended to compare the program's performance to its peers.

^{3/}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.

^{4/}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.

^{5/}Benchmark returns were not available at the time of printing this document.

SERS FUND

Investment Program | Performance

Fiscal Year, Net-of-Fees Returns*

For the period ending June 30, 2013

Asset Class	1 Year Total Return	3 Years Total Return	5 Years Total Return	10 Years Total Return
Alternative Investments ^{1/, 4/}	7.7%	12.2%	5.1%	13.0%
<i>ThomsonOne Private Equity All Index</i> ^{2/, 4/}	12.7	9.6	3.7	9.7
<i>Russell 3000 Index + 3%</i> ^{3/, 4/}	18.0	16.4	9.5	12.4
Global Public Equity	19.3	13.8	1.4	7.5
<i>MSCI ACW Investable Market Index (Net)</i>	17.1	12.6	2.8	8.0
Real Assets ^{4/}	5.6	9.2	-3.0	8.1
<i>Real Assets Custom Benchmark</i> ^{4/}	8.8	11.9	-2.4	7.0
CPI + 3%	4.8	5.4	4.3	5.5
Diversifying Assets	11.7	5.9	2.8	N/A
<i>Diversifying Assets Custom Benchmark</i>	14.9	7.1	5.6	N/A
<i>HFRI FOF Comp Index</i>	7.3	3.0	-0.6	N/A
Fixed Income	2.0	6.6	6.8	6.4
<i>Barclays U.S. Aggregate Bond Index</i>	-0.7	3.5	5.2	4.5
Liquidity Reserve	0.3	0.3	0.6	2.0
<i>BofA ML 3 Month U.S. T-Bill Index</i>	0.1	0.1	0.3	1.7
Total Fund	10.3%	10.1%	1.5%	8.0%
<i>Total Fund Custom Benchmark</i>	9.9%	10.3%	4.1%	8.8%
<i>Total Fund Custom Public Market Equivalent Benchmark</i>	11.6%	11.2%	4.6%	9.0%

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

^{1/}Historical Alternative Investment performance includes Private Equity, Special Situations and Venture Capital.

^{2/}The ThomsonOne Private Equity All Index is intended to compare the program's performance to its peers.

^{3/}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.

^{4/}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.

SERS FUND

Investment Program | Performance

30-Year Trend: Fund Value & Annual Return

Year End	SERS Fund Fair Value (\$ millions)	Annual Total Fund Rate of Return
1984	\$4,922	9.4%
1985	6,157	23.1
1986	7,120	15.2
1987	7,367	3.3
1988	8,312	12.8
1989	9,785	17.8
1990	9,886	1.0
1991	11,940	22.6
1992	12,453	7.4
1993	13,701	13.2
1994	13,330	- 1.1
1995	16,343	25.2
1996	18,492	15.4
1997	21,312	18.5
1998	24,123	16.3
1999	28,093	19.9
2000	27,880	2.2
2001	24,706	-7.9
2002	20,880	-10.9
2003	24,536	24.3
2004	26,641	15.1
2005	28,752	14.5
2006	32,053	16.4
2007	35,516	17.2
2008	22,796	-28.7
2009	24,662	9.1
2010	25,886	11.9
2011	24,377	2.7
2012	25,389	12.0
2013 ^{1/}	26,839	12.6

^{1/} 2013 values are estimated and unaudited. Fund fair values for all Alternative Investment sub-asset classes and the Private Energy, Non-Core Real Estate, and Core Real Estate sub-asset classes of Real Assets are reported on a quarter lagged basis.

SERS FUND

Investment Program | Expenses & Fees

Investment-Related Expenses^{1/}

Type	Expenses
Alternative Investments	\$11,016,580
Investment personnel expenses ^{2/}	1,639,909
Real Estate	1,552,044
Investment administrative expenses	508,269
Custodial	93,934
Fixed Income and Global Public Equity	34,419
Investment operating expenses ^{2/}	25,749

^{1/}Excludes investment consultant fees and investment manager fees reported below.

^{2/}Prior to 7/1/13, these expenditures were accounted for as administrative expenses. Currently, they are being treated as non-appropriated expenditures and are accounted for as investment-related expenses.

Consultant Fees

Firm	Service Type	Fees
StepStone Group	Alternative investments	\$1,975,000
R.V. Kuhns & Associates	General investment	523,519
Albourne America	Direct hedge funds	389,247
The Hay Group	Actuary	376,311
The Townsend Group	Real estate	332,736
GCM Customized Investment Group, L.P.	Portfolio management	217,909

Manager Fees

Asset Class	Fees	Fees ^{3/} (in basis points)
Alternative Investments	\$82,378,472	138.3
Global Public Equity	20,552,179	22.2
Real Assets	41,688,424	99.7
Diversifying Assets	14,800,733	79.8
Fixed Income	9,882,817	25.9
Liquidity Reserve	353,708	4.4
Total Manager Fees	\$169,656,333	66.1

^{3/}The fees were divided by SERS' total fund and asset class quarterly average values during calendar year 2013 to arrive at the basis point calculations.

5-Year Trend: Manager Fees & Average Basis Points

Calendar Year	Fees (\$ millions)	Basis Points
2009	\$252.1	97.0
2010	231.0	94.0
2011	191.3	75.0
2012	171.9	69.4
2013	169.7	66.1

SERS FUND

Investment Program | Expenses & Fees

SERS employs outside investment managers for their investment expertise. The managers of the SERS' investment portfolio are paid through non-budget appropriation. Their fees are treated as a reduction of the investment revenue of the fund, rather than as a direct administrative expense. Thus, when investment performance is reported, numbers are reported net-of-fees — that is, performance after all management fees have been paid.

2013 Fees to Managers

Manager	City	State/Country	Fees
Alternative Investments			
Abingworth Bioventures IV	London	United Kingdom	\$352,603
Abingworth Bioventures V	London	United Kingdom	394,843
ABRY Advanced Securities Fund	Boston	MA	501,186
ABRY Mezzanine Partners	Boston	MA	10,273
ABRY Partners IV	Boston	MA	65,485
ABRY Partners V	Boston	MA	165,147
ABRY Partners VI	Boston	MA	388,003
ABRY Partners VII	Boston	MA	396,224
ABRY Senior Equity II	Boston	MA	149,467
ABS Capital Partners IV	Baltimore	MD	1,855
ABS Capital Partners V	Baltimore	MD	136,427
ABS Capital Partners VI	Baltimore	MD	696,362
Accel Europe	London	United Kingdom	221,432
Adams Capital Management III	Sewickley	PA	69,707
Advanced Technology Ventures VI	Waltham	MA	5,142
Advanced Technology Ventures VII	Waltham	MA	25,493
Advent International GPE VI-A	Boston	MA	282,233
Advent International GPE VII-B	Boston	MA	247,980
Advent Latin American Private Equity Fund IV	Boston	MA	358,240
Advent Latin American Private Equity Fund V	Boston	MA	272,272
AG Capital Recovery Partners V	New York	NY	63,675
Alloy Ventures 2000	Palo Alto	CA	180,633
Alloy Ventures 2002	Palo Alto	CA	413,092
Alpha Private Equity Fund 4	Paris	France	13,458
Alpha Private Equity Fund 5	Paris	France	732,880
APAX Europe VI	London	United Kingdom	338,097
APAX Europe VII	London	United Kingdom	535,507
APAX Excelsior VI	New York	NY	18,653
Artiman Ventures II	Palo Alto	CA	694,869
Artiman Ventures III	Palo Alto	CA	479,426
Asia Alternatives Capital Partners	San Francisco	CA	113,072
Asia Alternatives Capital Partners II	San Francisco	CA	102,692
Asia Alternatives Capital Partners III	San Francisco	CA	528,838

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Audax Private Equity Fund II	Boston	MA	\$15,891
Audax Private Equity Fund III	Boston	MA	476,835
Austin Ventures IX	Austin	TX	388,288
Austin Ventures VIII	Austin	TX	72,114
Avenue Asia Special Situations IV	New York	NY	237,601
Avenue Special Situations Fund VI	New York	NY	229,011
AXA Secondary Fund III	Paris	France	27,258
AXA Secondary Fund III-2	Paris	France	15,306
AXA Secondary Fund IV	Paris	France	497,727
AXA Secondary Fund V B	Paris	France	375,000
Bain Capital Asia Fund	Boston	MA	271,049
Bain Capital Europe III	Boston	MA	1,729,076
Bain Capital Fund IX	Boston	MA	1,411,160
Bain Capital Fund VIII-E	Boston	MA	128,805
Bain Capital Fund X	Boston	MA	1,472,577
Bain Capital IX Coinvestment Fund	Boston	MA	259,291
Bain Capital X Coinvestment Fund	Boston	MA	24,172
Baring India Private Equity Fund III Limited	Port Lewis	Mauritius	155,027
Baring Vostok Private Equity Fund IV	Guernsey	Channel Islands	357,977
Battery Ventures VIII	Waltham	MA	609,985
Battery Ventures VIII Side Car Fund	Waltham	MA	138,627
BC European Capital IX	London	United Kingdom	358,942
BC European Capital VIII	London	United Kingdom	569,009
Berkshire Fund VI	Boston	MA	131,238
Berkshire Fund VII	Boston	MA	421,193
Berkshire Fund VIII	Boston	MA	739,394
Birchmere Ventures III	Pittsburgh	PA	99,317
Blackstone Capital Partners V	New York	NY	354,474
Brait IV	Grand Cayman	Cayman Islands	245,789
Brynwood Partners V	Greenwich	CT	46,876
Brynwood Partners VI	Greenwich	CT	189,544
Care Capital Investments III	Princeton	NJ	144,679
Centerbridge Capital Partners I	New York	NY	293,082
Cerberus Institutional Partners Series Four	New York	NY	384,903
Cerberus Institutional Partners Series Three	New York	NY	115,107
Cerberus Institutional Partners Series Two	New York	NY	16,439
Charterhouse Capital Partners IX	London	United Kingdom	967,463
Charterhouse Capital Partners VII	London	United Kingdom	68,605
Charterhouse Capital Partners VIII	London	United Kingdom	660,585
Chequers Capital XV	Paris	France	347,780
CID Greater China Venture Capital Fund II	Taipei	Taiwan	362,553
Clayton Dubilier & Rice V	New York	NY	43,755

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Clayton Dubilier & Rice VI	New York	NY	\$9,412
Clearstone Venture Partners III-A	Santa Monica	CA	3,063,635
Clessidra Capital Partners II	Milan	Italy	322,320
Cognetas Fund II	London	United Kingdom	334,588
Cross Atlantic Technology Fund II	Radnor	PA	40,935
CVI Global Value Fund	Grand Cayman	Cayman Islands	371,679
Devon Park Bioventures	Wayne	PA	85,605
DLJ Merchant Banking Fund III	New York	NY	69,373
Dover Street VII	Boston	MA	392,635
Draper Fisher Jurvetson Fund VI	Menlo Park	CA	8,305
Draper Fisher Jurvetson Fund VII	Menlo Park	CA	60,181
Draper Triangle Ventures	Pittsburgh	PA	85,073
Draper Triangle Ventures II	Pittsburgh	PA	120,000
Elevation Partners	Menlo Park	CA	111,584
Eureka II	Yardley	PA	114,169
Excelsior Capital Asia Partners III	Hong Kong	China	289,685
Francisco Partners II	San Francisco	CA	166,317
Francisco Partners III	San Francisco	CA	186,834
Frazier Healthcare V	Seattle	WA	207,625
Great Hill Equity Partners III	Boston	MA	532,813
Great Hill Equity Partners IV	Boston	MA	390,218
Gryphon Partners III	San Francisco	CA	34,257
GTCR IX	Chicago	IL	306,751
GTCR VIII	Chicago	IL	144,655
Guggenheim Technology Ventures I	King of Prussia	PA	24,820
H.I.G. Bayside Loan Opportunity Fund III	London	England	992,980
H.I.G. Bayside Debt & LBO Fund II	London	England	600,000
Halpern Denny Fund III	Boston	MA	77,056
HarbourVest IPEP IV	Boston	MA	262,440
HarbourVest IPEP III	Boston	MA	675
HarbourVest Partners VI	Boston	MA	1,121,930
HarbourVest Partners VII	Boston	MA	608,802
HarbourVest Partners VIII	Boston	MA	1,000,000
HarbourVest V-Asia Pacific & Rest of World	Boston	MA	300,000
Healthcare Ventures VII	Princeton	NJ	131
Healthcare Ventures VIII	Princeton	NJ	627,570
Hellman & Friedman Capital Partners VI	San Francisco	CA	310,189
Highland Capital Partners VI	Lexington	MA	249,445
Highland Capital Partners VII	Lexington	MA	842,361
Highland Consumer Fund I	Lexington	MA	575,685
Incline Equity Partners III	Pittsburgh	PA	170,974
Insight Venture Partners VI	New York	NY	450,934

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Insight Venture Partners VII	New York	NY	\$364,456
Insight Venture Partners VIII	New York	NY	438,026
InterMedia Partners VII	New York	NY	161,818
InterWest Partners IX	Menlo Park	CA	321,638
InterWest Partners X	Menlo Park	CA	747,808
Invemed Catalyst Fund	New York	NY	11,647
IP II	Bellevue	WA	21,823
IP III	Bellevue	WA	68,185
IP IV	Bellevue	WA	149,786
J.H. Whitney VI	Stamford	CT	144,625
J.H. Whitney VII	Stamford	CT	639,233
J.W. Childs Equity Partners III	Boston	MA	134,898
JMI Equity Fund V	Baltimore	MD	276,965
JMI Equity Fund VI	Baltimore	MD	607,617
JMI Equity Fund VII	Baltimore	MD	262,577
JP Morgan US Corp Finance Investors II	New York	NY	300,421
JP Morgan Venture Capital Investors	New York	NY	508,630
JP Morgan Venture Capital Investors II	New York	NY	626,242
JP Morgan Venture Capital Investors III	New York	NY	1,063,162
Kelso VII	New York	NY	228,008
Kelso VIII	New York	NY	2,250,000
Knightsbridge Venture Capital VI	Bartlesville	OK	140,000
LBC Credit Partners III	Philadelphia	PA	620,584
Leeds Equity Partners IV	New York	NY	273,207
Lexington Capital Partners V	New York	NY	140,440
Lexington Capital Partners VI	New York	NY	324,484
Lightspeed Venture Partners VII	Menlo Park	CA	377,761
Lightspeed Venture Partners VIII	Menlo Park	CA	370,696
LLR Equity Partners II	Philadelphia	PA	211,845
LLR Equity Partners III	Philadelphia	PA	870,145
LLR Equity Partners IV	Philadelphia	PA	864,062
Madison Dearborn Capital Partners V	Chicago	IL	354,371
Madison Dearborn Capital Partners VI	Chicago	IL	532,372
Meridian Venture Partners II	Radnor	PA	492,855
Meritech Capital Partners III	Palo Alto	CA	574,088
Meritech Capital Partners IV	Palo Alto	CA	450,000
Morgenthaler Partners IX	Menlo Park	CA	416,038
Morgenthaler Partners VII	Menlo Park	CA	25,175
Morgenthaler Partners VIII	Menlo Park	CA	391,626
New Enterprise Associates 11	Baltimore	MD	318,946
New Enterprise Associates 12	Baltimore	MD	522,737

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
New Enterprise Associates IX	Baltimore	MD	\$9
New Enterprise Associates X	Baltimore	MD	64,373
New York Life Capital Partners III	New York	NY	182,799
New York Life Capital Partners IV	New York	NY	328,412
Newbridge Asia IV	San Francisco	CA	176,520
NewSpring Growth Capital II	King of Prussia	PA	200,000
NewSpring Growth Capital III	King of Prussia	PA	380,596
Nordic Capital VI	Stockholm	Sweden	108,840
Nordic Capital VII	Stockholm	Sweden	1,007,248
Novitas Capital III	King of Prussia	PA	52,770
Oak Investment Partners XI	Westport	CT	471,662
Oak Investment Partners XII	Westport	CT	899,609
Oaktree Capital Management Opportunities Fund VIII	Los Angeles	CA	178,356
Oaktree Capital Opportunities Fund VIIIb	Los Angeles	CA	182,202
Oaktree Opportunities Fund IX	Los Angeles	CA	54,370
OCM Opportunities Fund V	Los Angeles	CA	96,781
OCM Opportunities Fund VI	Los Angeles	CA	233,989
OCM Opportunities Fund VII	Los Angeles	CA	189,069
OCM Opportunities Fund VIIIb	Los Angeles	CA	97,972
OCM Principal Opportunities Fund IV	Los Angeles	CA	183,570
Palamon European Equity II	London	United Kingdom	342,867
Patriot Financial Partners	Philadelphia	PA	476,413
Permira European Equity III	London	United Kingdom	510,627
Permira IV	London	United Kingdom	478,056
Pitango Venture Capital Fund IV	Herzliya	Israel	238,056
Pitango Venture Capital Fund V	Herzliya	Israel	675,045
Polaris Venture Partners IV	Waltham	MA	229,546
Polaris Venture Partners V	Waltham	MA	1,046,250
Providence Equity Partners V	Providence	RI	201,027
Providence Equity Partners VI	Providence	RI	140,360
Quaker BioVentures	Philadelphia	PA	400,000
Quaker BioVentures II	Philadelphia	PA	536,184
Sankaty Credit Opportunities III	Boston	MA	731,678
Sankaty Credit Opportunities IV	Boston	MA	940,594
SCP Private Equity Partners II	Wayne	PA	100,326
Segulah IV	Jersey	Channel Islands	331,374
ShoreView Capital Partners	Minneapolis	MN	138,204
ShoreView Capital Partners II	Minneapolis	MN	465,930
Siguler Guff BRIC Opportunities Fund	New York	NY	61,377
Siguler Guff BRIC Opportunities Fund II	New York	NY	201,641
Sofinnova Venture Partners VII	San Francisco	CA	403,216

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Sterling Capital Partners I	Northbrook	IL	\$98,578
Sterling Capital Partners II	Northbrook	IL	330,496
Sterling Capital Partners III	Northbrook	IL	400,516
Summit Partners Private Equity Fund VII	Boston	MA	1,605,794
Summit Partners Venture Capital Fund II	Boston	MA	259,583
T. Rowe Price Stock Distribution Account	Baltimore	MD	862,482
TA X	Boston	MA	1,526,325
Templeton Strategic Emerging Markets Fund III	Fort Lauderdale	FL	1,263,274
Thomas H. Lee Equity Fund V	Boston	MA	29,706
Thomas H. Lee Equity Fund VI	Boston	MA	179,801
Three Arch Capital	Portola Valley	CA	14,959
Three Arch Partners IV	Portola Valley	CA	324,639
TL Ventures IV	Wayne	PA	56,404
TL Ventures V	Wayne	PA	196,741
TPG Asia V	Fort Worth	TX	78,616
TPG Partners IV	Fort Worth	TX	29,738
TPG Partners V	Fort Worth	TX	311,945
TPG Partners VI	Fort Worth	TX	393,299
Versa Capital Partners	Philadelphia	PA	309,861
Vestar Capital Partners V	New York	NY	372,612
W Capital Partners II	New York	NY	762,721
Weathergage Venture Capital	Redwood City	CA	250,000
Weathergage Venture Capital II	Redwood City	CA	250,000
Weston Presidio V	Boston	MA	719,426
Worldview Technology Partners IV	San Mateo	CA	19,005
Yucaipa American Alliance Fund II	Los Angeles	CA	321,625

Global Public Equity

Artisan Partners - Global ex US	Milwaukee	WI	2,441,434
Ashmore Emerging Markets Small Cap	Arlington	VA	469,080
BlackRock/Emerging Markets Index Non-Lendable Fund	San Francisco	CA	454,957
Cornerstone Growth	Edina	MN	1,059,059
Delaware Emerging Markets	Philadelphia	PA	703,831
Diamond Hill Concentrated	Columbus	OH	676,977
Emerald Advisers - PA Companies	Lancaster	PA	1,860,973
Epoch Value	New York	NY	1,096,356
Globeflex Emerging Markets Small Cap	San Diego	CA	160,864
Harris Associates	Chicago	IL	3,275,101
Iridian Asset Management	Westport	CT	1,570,095
Mellon Capital Management Corp - PA Companies	Pittsburgh	PA	299,042
Mellon Capital Management MSCI World ex US Index	Pittsburgh	PA	277,523
Mellon Capital Management Russell 1000 Index	Pittsburgh	PA	245,064

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Morgan Stanley Investment Management Limited-developed ex US	London	United Kingdom	\$1,603,487
Templeton Investment Counsel - Global ex US	Fort Lauderdale	FL	1,948,083
Walter Scott & Partners Limited	Edinburgh	United Kingdom	2,410,253

Real Assets

AG Asia Realty Fund	New York	NY	116,108
BAAM Commodities	New York	NY	4,216,092
Berwind Investment Partnership IX	Yardley	PA	245,699
Berwind Investment Partnership V	Yardley	PA	72,393
Berwind Investment Partnership VI	Yardley	PA	84,632
Berwind Investment Partnership VII	Yardley	PA	199,543
Berwind Investment Partnership VIII	Yardley	PA	204,897
Blackstone Real Estate Partners V	New York	NY	551,762
Blackstone Real Estate Partners VI	New York	NY	879,319
Blackstone Real Estate Partners VII	New York	NY	1,116,913
Carlyle Energy Mezz Opp Fund	New York	NY	750,000
CBRE Clarion Real Estate	Radnor	PA	1,094,689
Clerestory Small Cap Fund I	New York	NY	129,193
Colony Investors VIII	Los Angeles	CA	221,753
Denham Commodity VI	Boston	MA	731,400
Energy Spectrum Partners IV	Dallas	TX	88,477
Energy Spectrum Partners V	Dallas	TX	143,157
Fidelity Real Estate Opportunistic Income Fund	Smithfield	RI	400,298
Fillmore East Fund	San Francisco	CA	109,484
Fillmore West Fund	San Francisco	CA	198,685
First Reserve Fund X	Greenwich	CT	31,189
First Reserve Fund XI	Greenwich	CT	437,402
First Reserve Fund XII	Greenwich	CT	766,156
Forest I.M.A.	Atlanta	GA	1,064,825
GRIP I	Philadelphia	PA	176,695
Harvest Fund Advisors	Wayne	PA	691,765
Hawkeye Scout Fund I	Dallas	TX	446,810
Heitman American Real Estate Trust	Chicago	IL	509,090
Heitman I.M.A.	Chicago	IL	1,448,507
Kayne Anderson Capital Advisors	Los Angeles	CA	979,548
LaSalle I.M.A.	Baltimore	MD	2,794,172
LEM Real Estate High-Yield Debt Fund III	Philadelphia	PA	566,104
Lime Rock Partners III	Westport	CT	289,319
Lime Rock Partners IV	Westport	CT	315,088
Lime Rock Partners V	Westport	CT	845,629
Lime Rock Resources	Westport	CT	2,096
Lowe GTO	Los Angeles	CA	4,996,487

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Lowe I.M.A.	Los Angeles	CA	\$3,431,595
Lubert Adler Fund IV	Philadelphia	PA	20,406
Lubert Adler Fund V	Philadelphia	PA	98,866
Lubert Adler Fund VI	Philadelphia	PA	92,748
Oaktree Power Opportunities Fund III	Los Angeles	CA	397,655
OCM/GFI Power Opportunities Fund II	Los Angeles	CA	9,903
Oxford GSA Fund	Pittsburgh	PA	107,398
Prudential Latin America Residential Fund III	Parsippany	NJ	407,693
Prudential Latin America Retail Fund I	Parsippany	NJ	370,883
Prudential Senior Housing III	Parsippany	NJ	357,043
Prudential Senior Housing IV	Parsippany	NJ	103,133
Rockpoint Finance Fund I	Dallas	TX	15,829
Rockpoint Real Estate Fund I	Dallas	TX	25,118
Rockpoint Real Estate Fund II	Dallas	TX	176,980
Rockpoint Real Estate Fund III	Dallas	TX	294,958
Sentinel Real Estate Fund	New York	NY	175,430
SFC Energy Partners I	Denver	CO	81,817
SFC Energy Partners II	Denver	CO	496,250
Starwood Fund VII	Greenwich	CT	387,940
Starwood Fund VIII	Greenwich	CT	490,029
UBS Trumbull Property Fund	Hartford	CT	747,030
UBS Trumbull Property Income Fund	Hartford	CT	553,624
Urdang Real Estate Securities	Plymouth Meeting	PA	283,939
Wellington DIH	Boston	MA	3,203,893
Westbrook Fund V	Dallas	TX	15,840
Westbrook Fund VI	Dallas	TX	270,340
Westbrook Fund VII	Dallas	TX	515,023
Westbrook Fund VIII	Dallas	TX	641,685

Diversifying Assets

Arden	New York	NY	114,243
Arden Keystone	New York	NY	220,159
Blackstone Keystone	New York	NY	7,150,367
Blackstone Stable Alpha	New York	NY	1,125,421
Entrust Keystone	New York	NY	1,828,910
Hoplite Partners	New York	NY	297,500
Mesirow Financial	Chicago	IL	3,286,775
PAAMCO	Irvine	CA	284,400
Pine River Fund	Minnetonka	MN	94,915
Rock Creek	Washington	DC	398,043

SERS FUND

Investment Program | Expenses & Fees

Manager	City	State/Country	Fees
Fixed Income			
Berwind - PA Capital Fund	Philadelphia	PA	\$69,932
BNY Mellon Cash Investment Strategies	Pittsburgh	PA	165,452
Brandywine Global	Philadelphia	PA	711,854
Brown Brothers Harriman	New York	NY	254,024
MacKay Shields Core	New York	NY	256,015
New Century Advisors	Chevy Chase	MD	256,620
NISA Investment Advisors	St. Louis	MO	461,399
PIMCO Core	Newport Beach	CA	399,084
PIMCO US Treasuries	Newport Beach	CA	247,749
Pyramis Global Advisors	Smithfield	RI	1,741,541
SEI Structured Credit Fund	Oaks	PA	1,864,823
Stone Harbor Emerging Market Debt	New York	NY	608,126
Stone Harbor High Yield	New York	NY	656,381
Taplin Canida Habacht (TCH)	Miami	FL	446,371
UBS Core Bond	Chicago	IL	126,657
W.R. Huff	Morristown	NJ	2,530
Waterfall Asset Management	New York	NY	1,367,742
Wellington US Treasuries	Boston	MA	246,517
Liquidity Reserve			
PNC Short Duration	Pittsburgh	PA	207,269
Stoneridge Short Duration	Malvern	PA	146,439
Total Fees to Managers			\$169,656,333

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

Asset Class Description

Alternative Investments (AI) include 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 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 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		By Geography ^{2/}		By Industry ^{2/}	
US Private Equity	39.1%	United States	67.4%	Consumer Discretionary	27.3%
Non-US ^{1/}	23.9	United Kingdom	6.9	Financials	20.5
US Venture Capital	19.7	Germany	2.1	Information Technology	16.3
Distressed/Oppportunistic	12.6	China	2.0	Health Care	12.6
Pennsylvania-Related	4.7	Italy	1.8	Industrials	9.2
		France	1.6	Consumer Staples	4.7
		Canada	1.5	Materials	3.4
		Rest of World	16.7	Energy	2.4
				Telecommunication Svcs	2.0
				Other	1.6

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

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

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

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 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

Alternative Investments

Sub-Asset Class	Unfunded Commitments (\$ millions)	Fair Value (\$ millions)	Percent of Total Fund
Private Equity	\$926.5	\$3,508.2	13.1%
Special Situations	305.0	886.3	3.3
Venture Capital	179.8	1,270.7	4.7
Total Alternative Investments	\$1,411.3	\$5,665.2	21.1%

Numbers may not add due to rounding.

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

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

SERS Private Equity Investments

Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	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 & 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

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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

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Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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 & 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 & Rest of World	Fund of Funds	05/09/2006	30,000,000	27,045,316	11,094,829
36. Hellman & Friedman Capital Partners V	Large	12/20/2004	80,000,000	71,678,792	156,529,830
Hellman & 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

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	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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

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Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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

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	Active Private Equity Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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.

*Not funded as of 9/30/13.

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

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

Inactive Private Equity Funds

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

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

SERS Special Situations Investments

Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	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 & 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)
10. JP Morgan US Corp Finance Investors II	Distressed/Restructuring	01/14/2003	50,000,000	51,971,443	52,067,893

Data in this publication is unaudited.

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	Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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 VIIIb	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

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	Active Special Situations Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	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.

*Not funded as of 9/30/13.

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

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

Inactive Special Situations Funds

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

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

SERS Venture Capital Investments

Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	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 Juvetson Fund VI	Early Stage	08/13/1999	8,000,000	8,000,000	3,961,765
Draper Fisher Juvetson 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

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	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

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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

SERS FUND

Investment Program | Portfolio Snapshot | Alternative Investments

	Active Venture Capital Funds Limited Partnership	Strategy/Stage	SERS Initial Funding	Capital Committed ^{1/}	Capital Drawn	Distributions ^{2/}
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
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.

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

^{2/} Distributions include stock distributions. Distributions may include 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.

Inactive Venture Capital Funds

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

SERS FUND

Investment Program | Portfolio Snapshot | Global Public Equity

Asset Class Description

Global Public Equity (GPE) comprises 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 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 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.

SERS FUND

Investment Program | Portfolio Snapshot | Global Public Equity

SERS Global Public Equity Investments

	Manager	Investment Style	Market Exposure as of 12/31/13 ^{1/} (\$ millions)
Global Mandates			
1.	Walter Scott & Partners Limited	Growth	\$637.0
Total Global Mandates			637.0
US 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-US Developed Markets Equity			
8.	Artisan Partners - Global ex US	Global ex-US growth	434.1
9.	Harris Associates	Small-cap intrinsic value	526.2
	Mellon Capital Management MSCI World ex US Index	MSCI World ex-US Index	1,511.1
10.	Morgan Stanley Investment Management Limited-developed ex US	EAFE value	435.4
11.	Pictet Asset Management Limited	Small-cap value	0.2
12.	Templeton Investment Counsel - Global ex US	Global ex-US value	648.4
Total Non-U.S. Developed Markets Equity			3,555.4
Emerging Markets Equity			
13.	Ashmore EMM	Small-cap value	131.2
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	249.6
Total Emerging Markets Equity			877.3
Transition Assets			
18.	Northern Trust Public Equity	Transition Assets	0.1
Total Transition Assets			0.1
Total Global Public Equity			\$9,767.8

Numbers may not add due to rounding.

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

SERS FUND

Investment Program | Portfolio Snapshot | Real Assets

Asset Class Description

Real Assets (RA) include the 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.

SERS FUND

Investment Program | Portfolio Snapshot | Real Assets

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 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 fund due to its relatively low correlation to economic-sensitive assets such as stocks and bonds.

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

SERS FUND

Investment Program | Portfolio Snapshot | Real Assets

SERS Real Assets Investments

Manager	Vintage Year	Asset Type	Investment Structure	Fair Value (\$ millions)
Private Energy^{1/}				
1. Carlyle Energy Mezz Opp Fund	2012	Energy	Limited Partnership	\$23.4
2. Denham Commodity VI	2012	Energy	Limited Partnership	11.8
3. Energy Spectrum Partners IV	2004	Energy	Limited Partnership	0.6
Energy Spectrum Partners V	2007	Energy	Limited Partnership	5.9
4. First Reserve Fund X	2004	Energy	Limited Partnership	3.1
First Reserve Fund XI	2006	Energy	Limited Partnership	43.6
First Reserve Fund XII	2008	Energy	Limited Partnership	43.5
5. Lime Rock Partners III	2004	Energy	Limited Partnership	6.9
Lime Rock Partners IV	2006	Energy	Limited Partnership	29.6
Lime Rock Partners V	2008	Energy	Limited Partnership	36.4
Lime Rock Resources	2005	Energy	Limited Partnership	3.7
6. Oaktree Power Opportunities Fund III	2010	Energy	Limited Partnership	11.8
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				236.0
Non-Core Real Estate^{2/}				
8. AG Asia Realty Fund	2007	Diversified	Limited Partnership	10.3
9. Apollo Real Estate Fund III	1998	Diversified	Limited Partnership	1.0
10. Berwind Investment Partnership V	1999	Diversified	Limited Partnership	6.5
Berwind Investment Partnership VI	2002	Diversified	Limited Partnership	9.5
Berwind Investment Partnership VII	2005	Diversified	Limited Partnership	13.7
Berwind Investment Partnership VIII	2007	Diversified	Limited Partnership	11.8
Berwind Investment Partnership IX	2012	Diversified	Limited Partnership	11.6
11. Blackstone Real Estate Partners III	1999	Diversified	Limited Partnership	0.5
Blackstone Real Estate Partners IV	2003	Diversified	Limited Partnership	14.4
Blackstone Real Estate Partners V	2006	Diversified	Limited Partnership	53.4
Blackstone Real Estate Partners VI	2007	Diversified	Limited Partnership	91.5
Blackstone Real Estate Partners VII	2011	Diversified	Limited Partnership	50.4
12. Clerestory Small Cap Fund I	2007	Diversified	Limited Partnership	11.6
13. Colony Investors VIII	2007	Diversified	Limited Partnership	6.7
14. Fillmore East Fund	2005	Debt	Limited Partnership	4.6
Fillmore West Fund	2008	Debt	Limited Partnership	15.2
15. Goldman Sachs Whitehall V & VI	1994	Diversified	Limited Partnership	0.0
Goldman Sachs Whitehall VII & VIII	1996	Diversified	Limited Partnership	0.1

SERS FUND

Investment Program | Portfolio Snapshot | Real Assets

	Manager	Vintage Year	Asset Type	Investment Structure	Fair Value (\$ millions)
16.	Grosvenor Residential Investment Partners I	2007	Residential	Limited Partnership	\$5.8
17.	Hawkeye Scout Fund I	2006	Diversified	Limited Partnership	36.9
18.	LEM Real Estate High-Yield Debt Fund III	2012	Debt	Limited Partnership	6.0
19.	Lubert Adler Fund III	2000	Diversified	Limited Partnership	0.2
	Lubert Adler Fund IV	2004	Diversified	Limited Partnership	3.1
	Lubert Adler Fund V	2006	Diversified	Limited Partnership	8.6
	Lubert Adler Fund VI	2008	Diversified	Limited Partnership	13.6
20.	OCM Real Estate Opp Fund A	1996	Diversified	Limited Partnership	0.2
	OCM Real Estate Opp Fund II	1998	Diversified	Limited Partnership	0.0
	OCM Real Estate Opp Fund III	2003	Diversified	Limited Partnership	3.1
21.	Oxford GSA Fund	2006	Diversified	Limited Partnership	11.8
22.	Prudential Latin America Residential Fund III	2007	Residential	Limited Partnership	26.6
	Prudential Latin America Retail Fund I	2006	Retail	Limited Partnership	27.3
	Prudential Senior Housing Fund III	2006	Senior housing	Limited Partnership	30.6
	Prudential Senior Housing Fund IV	2011	Senior housing	Limited Partnership	10.1
23.	Rockpoint Finance Fund I	2006	Diversified	Limited Partnership	1.1
	Rockpoint Real Estate Fund I	2004	Diversified	Limited Partnership	3.3
	Rockpoint Real Estate Fund II	2005	Diversified	Limited Partnership	12.2
	Rockpoint Real Estate Fund III	2007	Diversified	Limited Partnership	13.4
24.	Starwood Fund IV	1997	Diversified	Limited Partnership	0.2
	Starwood Fund V	1999	Diversified	Limited Partnership	0.0
	Starwood Fund VI	2001	Diversified	Limited Partnership	19.3
	Starwood Fund VII	2005	Diversified	Limited Partnership	24.7
	Starwood Fund VIII	2007	Diversified	Limited Partnership	52.2
25.	Westbrook Fund II	1997	Diversified	Limited Partnership	0.0
	Westbrook Fund III	1998	Diversified	Limited Partnership	0.1
	Westbrook Fund IV	2000	Diversified	Limited Partnership	0.2
	Westbrook Fund V	2004	Diversified	Limited Partnership	1.3
	Westbrook Fund VI	2005	Diversified	Limited Partnership	12.6
	Westbrook Fund VII	2006	Diversified	Limited Partnership	23.9
	Westbrook Fund VIII	2009	Diversified	Limited Partnership	41.6
Total Non-Core Real Estate					702.8

SERS FUND

Investment Program | Portfolio Snapshot | Real Assets

	Manager	Vintage Year	Asset Type	Investment Structure	Fair Value (\$ millions)
Core Real Estate^{2/}					
26.	Fidelity Real Estate Opportunistic Income Fund	2007	Debt	Limited Partnership	\$52.9
27.	Forest I.M.A.	1992	Timber	Separate Account	170.3
28.	Heitman America Real Estate Trust	2007	Diversified	Limited Partnership	135.5
	Heitman I.M.A.	1988	Diversified	Separate Account	144.3
29.	LaSalle I.M.A.	1994	Diversified	Separate Account	291.4
30.	Lowe I.M.A.	1994	Diversified	Separate Account	414.6
	Lowe GTO	2012	Diversified	Separate Account	408.3
31.	Sentinel Real Estate Fund	1986	Residential	Open-Ended Fund	0.1
32.	UBS Trumbull Property Fund	1988	Diversified	Open-Ended Fund	57.8
	UBS Trumbull Property Income Fund	1988	Diversified	Open-Ended Fund	52.0
Total Core Real Estate					1,727.2
REITs^{3/}					
33.	CBRE Clarion Real Estate Securities	1996	REITs	Separate Account	262.0
34.	Urdang Real Estate Securities	2002	REITs	Separate Account	47.9
Total REITs					309.9
Commodities & Infrastructure^{3/}					
35.	BAAM Commodities	2007	Commodities	Open-Ended Fund	513.1
36.	Harvest Fund MLP	2013	MLPs	Separate Account	163.0
37.	Kayne Anderson MLP	2013	MLPs	Separate Account	160.3
38.	Wellington DIH	2004	Commodities	Open-Ended Fund	367.2
Total Commodities & Infrastructure					1,203.6
Total Real Assets					\$4,179.5

Numbers may not add due to rounding.

^{1/} Market Values for 93% of Private Energy represent 9/30/13 values with the remaining 7% based on 6/30/13 values. All of these values have been updated for cash flows.

^{2/} Market Values for 73% of Non-Core Real Estate and Core Real Estate represent 9/30/13 values with the remaining 27% based on 6/30/13 values. All of these values have been updated for cash flows.

^{3/} Market exposure as of 12/31/13. Includes securities and cash which the manager had available for investments.

SERS FUND

Investment Program | Portfolio Snapshot | Diversifying Assets

Asset Class Description

Diversifying Assets (DA) replaces SERS' absolute return strategies program, which included fund-of-hedge funds structured with a low-risk, low-return benchmark of LIBOR plus 300 basis points (3-4% annual total return). These funds were structured to serve as collateral for equity exposure derivatives to implement a "portable alpha" strategy. Extreme volatility in 2008-2009 prompted SERS to wind down its portable alpha program, leaving legacy assets in strategies with return objectives materially below the fund's target rate of return.

The assets that comprise the DA portfolio include:

- **Absolute Return Strategies** (Fund-of-Hedge Fund) which include customized separate accounts and commingled funds that invests 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 that will be built as cash-flows and staff resources allow.

Role in the SERS Fund

DA seeks to generate a return equal to or greater than the 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 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.

SERS FUND

Investment Program | Portfolio Snapshot | Diversifying Assets

SERS Diversifying Assets Investments

Manager	Investment Style	Market Exposure as of 12/31/13 ^{1/} (\$ millions)
Absolute Return Strategies		
1. Arden	Fund-of-Hedge Fund	\$36.6
2. Blackstone - Stable Alpha	Fund-of-Hedge Fund	98.2
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	32.8
6. Robeco Investment	Fund-of-Hedge Fund	0.9
7. Rock Creek	Fund-of-Hedge Fund	25.9
Total Absolute Return Strategies		268.9
Hedged Strategies		
8. Arden Keystone	Fund-of-One	124.3
9. Blackstone Keystone	Fund-of-One	905.1
10. Entrust Keystone	Fund-of-One	296.2
11. Tiger Keystone	Fund-of-One	216.5
Total Hedged Strategies		1,542.1
Direct Investments		
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		\$1,887.0

Numbers may not add due to rounding.

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

SERS FUND

Investment Program | Portfolio Snapshot | Fixed Income

Asset Class Description

Fixed Income (FI) includes the 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 fund 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 fund against inflation and deflation. When market conditions are favorable, the program also seeks to enhance the total return of the 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 fund against inflation and deflation; and
- contribute excess total return to the 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 US T-Bill Index

SERS FUND

Investment Program | Portfolio Snapshot | Fixed Income

SERS Fixed Income Investments

Manager	Investment Style	Market Exposure as of 12/31/13 ^{1/} (\$ millions)
Core Plus Fixed Income		
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	288.1
5. SEI Structured Credit Fund	High Yield Bank Loans	222.6
6. Stone Harbor	Emerging Market Debt	156.2
Stone Harbor	Global High Yield	173.6
7. Waterfall Asset Management	Asset-Backed Securities	168.2
8. W.R. Huff	High Yield (liquidating)	15.4
Total Core Plus Fixed Income		1,216.3
Core Fixed Income		
9. BNY Mellon Cash Investment Strategies	Barclays Agreggate	899.6
10. MacKay Shields Core	Barclays Agreggate	194.0
PIMCO Core	Barclays Agreggate ex. Treasuries	240.0
11. Taplin, Canida & Habacht (TCH)	US Credit	171.7
12. UBS Core Bond	Barclays Agreggate	99.2
Total Core Fixed Income		1,604.5
Global Treasury Inflation Protected Securities (TIPS)		
13. Brown Brothers Harriman	Global TIPS	195.4
14. New Century Advisors	Global TIPS	101.5
15. NISA Investment Advisors	US TIPS	441.9
Total Treasury Inflation Protected Securities (TIPS)		738.8
Nominal US Treasuries		
PIMCO US Treasuries	Domestic Treasuries	238.9
16. Wellington US Treasuries	Domestic Treasuries	236.4
Total Nominal US Treasuries		475.3
Total Fixed Income Investments		\$4,034.9

Numbers may not add due to rounding.

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

SERS FUND

Investment Program | Portfolio Snapshot | Fixed Income

SERS 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 investments.

SERS FUND

Investment Program | Pennsylvania Investments Snapshot

Pennsylvania Investments Summary

The board, employees of SERS and agents of the board stand in a fiduciary relationship to the members and beneficiaries of the system regarding the investments and disbursements of the fund. Subject to “prudent investor” investment responsibilities contained in the Retirement Code and the Fiscal Code, the board has exclusive control and management of the fund and full power to invest the assets of the fund.

The board adopted a formal *Statement of Investment Policy* in 1979, which was last revised effective April 2009. Where investment characteristics including yield, risk and liquidity are equivalent, the board’s policy favors investments that have a positive impact on the economy of Pennsylvania.

Although the board’s fiduciary duty is to SERS’ members and beneficiaries, investments in Pennsylvania provide an ancillary and subordinate benefit to the state’s economy. The investment policy acknowledges that such benefit, derived from investments in Pennsylvania-based companies or firms employing Pennsylvanians, should be considered after other primary fiduciary investment characteristics are satisfied.

Fair value of Pennsylvania investments as December 31, 2013 was approximately \$1.2 billion, or 4.5% of the SERS Fund.

SERS Pennsylvania Investments by Asset Class

(\$ millions)

Asset Class	Total PA Fair Value
Alternative Investments	\$264.9
Global Public Equity	753.6
Real Assets	177.7
Fixed Income & Liquidity Reserve	31.0
Total Pennsylvania Investments	\$1,227.2

SERS FUND

Investment Program | Pennsylvania Investments Snapshot

SERS investment portfolios have historically held investments in Pennsylvania firms, as some large national firms are headquartered in Pennsylvania, including Comcast Corporation (Philadelphia-Communications), PNC Financial Services (Pittsburgh-Financial), Air Products & Chemicals, Inc. (Allentown-Basic Materials), and PPG Industries Inc. (Pittsburgh-Basic Materials). In addition, SERS has invested in portfolios that are designed to give emphasis to investments in Pennsylvania while meeting fiduciary standards.

Alternative Investments

SERS' Alternative Investment program dates back to 1985. Initially, the program targeted a 1% allocation to venture capital with a focus to invest with managers located in Pennsylvania or with managers whom had Pennsylvania investment mandates. Over its life, the program has grown to include national and international based private equity, special situations, and venture capital managers. Since inception, SERS' Alternative Investment program has made commitments of over \$1.1 billion to 63 limited partnerships based in Pennsylvania. In addition, the number of non-Pennsylvania-based managers investing in companies that impact the state comprises a meaningful portion of the program.

As of December 31, 2013, SERS' active Alternative Investment managers held investments in 141 Pennsylvania-based companies. SERS pro-rata investment value in these companies is approximately \$264.9 million. This equates to 4.7% of the Alternative Investment program fair value and does not include investments headquartered outside of Pennsylvania that may have impactful operations within the state.

Global Public Equity

Emerald Advisors of Lancaster and Mellon Capital Management Corporation actively manage portfolios principally derived from the mid/small cap stocks in SERS' Pennsylvania stock universe. These two portfolios, plus the Pennsylvania stocks held in SERS' other stock portfolios, invested \$753.6 million in Pennsylvania stocks.

SERS' Pennsylvania stock universe is comprised of 371 publicly traded corporations which:

- name their headquarters as Pennsylvania and have Pennsylvania employees or operations; or
- have Pennsylvania-based employment exceeding 25% of total corporate employment.

The following page lists some of the top performing Pennsylvania stocks for the 2013 calendar year.

SERS FUND

Investment Program | Pennsylvania Investments Snapshot

Top-Performing Pennsylvania Stocks

Company	Location	Return for 2013
GEOSPATIAL HOLDINGS INC Geospatial Holdings, Inc. provides solutions of proprietary technologies that permit mapping of underground infrastructures, such as pipelines. The company's technologies permit its clients to collect, store, and retrieve mapping coordinates of pipeline centerline to create three-dimensional Geographic Information System databases.	Sarver	929%
PROTALEX INC Protalex, Inc. develops and markets organic chemical molecules called bioregulators. The company's molecules are for use in the treatment of rheumatoid arthritis and other forms of arthritis.	New Hope	648%
LANNETT CO INC Lannett Company, Inc. manufactures and distributes pharmaceutical products under its own trade name and under generic names. The company also distributes competitive pharmaceutical products manufactured by other companies. The principal products include antifungals, antacids, dermatological preparations, and analgesic sedatives.	Philadelphia	567%
INOVIO PHARMACEUTICALS INC Inovio Pharmaceuticals, Inc. researches and develops pharmaceuticals. The company develops cancer DNA and infectious DNA vaccines, anti-inflammatory drugs, and animal health products.	Blue Bell	481%
XANADOO CO Xanadoo Company offers wireless Internet access to residential and business customers.	Bala Cynwyd	348%
RITE AID CORP Rite Aid Corporation operates a retail drugstore chain in various states and the District of Columbia. The company's stores sell prescription drugs, as well as other products such as nonprescription medications, health and beauty aids, and cosmetics.	Camp Hill	272%
MASTECH HOLDINGS INC Mastech Holdings, Inc. provides information technology staffing services and consulting services. The company also offers a range of services within business intelligence/data warehousing, service oriented architecture, web services, enterprise resource planning, customer resource management and eBusiness solutions segments.	Pittsburgh	257%
BIOTELEMETRY INC Biotelemetry, Inc. provides ambulatory outpatient management solutions for monitoring clinical information regarding an individual's health. The company's initial efforts are focused on the diagnosis and monitoring of cardiac arrhythmias, or heart rhythm disorders.	Conshohocken	248%
ALLIQUA INC Alliqua, Inc. operates as a biomedical company. The company focuses on the development, manufacturing, and distribution of transdermal wound care and drug delivery technologies, including its technology platform for producing hydrogels. Alliqua offers its products to the healthcare industry, including wound healing, medical diagnostics, and cosmeceuticals.	Langhorne	225%
FIRST NATL COMMUNITY BNCRP First National Community Bancorp, Inc. is the holding company for First National Community Bank. The bank attracts deposits and offers a variety of real estate mortgage, consumer, and commercial loans, as well as other financial services. First National operates in Lackawanna and Luzerne counties, Pennsylvania.	Dunmore	187%

SERS FUND

Investment Program | Pennsylvania Investments Snapshot

Real Assets

In 1987, SERS began investing directly in the Pennsylvania commercial real estate market and subsequently established two separate account real estate portfolios managed by Heitman Capital Management and Grosvenor Investment Management, formerly Legg Mason Real Estate Services, with a Pennsylvania focus. The Heitman separate account originally had a requirement to invest on a best-efforts basis 50% of its initial allocation within the commonwealth while the Grosvenor account is focused primarily on investing within the state.

As of December 31, 2013, the SERS real estate portfolio contained 42 Pennsylvania investments totaling 4.3 million square feet of office, retail, and warehouse space as well as 4,069 apartment, hotel and senior housing units.

The gross fair value of the Pennsylvania real estate portfolio investments totaled \$1.1 billion, of which SERS' ownership share was \$177.7 million.

SERS FUND

Investment Program | Pennsylvania Investments Snapshot

Fixed Income & Liquidity Reserve

SERS had approximately \$31.1 million invested, as of December 31, 2013, in corporate securities issued by Pennsylvania-based companies. These securities are held in SERS' various externally managed bond portfolios.

In 1998, the SERS Board approved the funding for the Pennsylvania Capital Fund with a \$50 million allocation to the program. The program commenced in March 1999 and was managed by Berwind Financial Group (Berwind) and PNC Equity Management (PNC). Each manager was awarded a commitment of \$25 million to be invested over four years. Both entities matched SERS' investment. The program provided debt financing to support the expansion and growth of Pennsylvania small business.

The fund's objective was to lend to established, profitable companies in good financial condition with annual revenues ranging from \$10 - \$100 million. The majority of the fund's investments had a maturity of between five and 10 years. Loan amounts usually ranged from \$2 million to \$15 million. As of December 31, 2013, SERS' portion of both the Berwind and PNC investments had matured and all capital was returned to SERS.

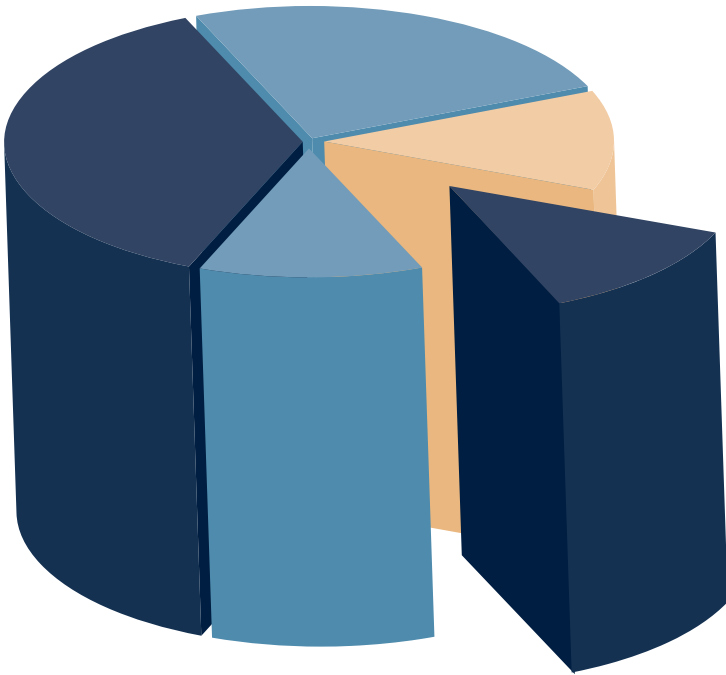
SERS is one of the largest investors in the Pennsylvania Treasury Department's short-term investment pool. The fund also has Pennsylvania exposure with various other asset managers.

SERS Pennsylvania Investments - Fixed Income & Liquidity Reserve

(\$ millions)

Manager	Fair Value
Stone Harbor	\$8.1
Pyramis Global Advisors	7.5
Taplin Canida Habacht (TCH)	5.1
BNY Mellon Cash Investment Strategies	4.1
PIMCO Core	3.2
PNC Short Duration	1.2
MacKay Shields Core	1.1
UBS Core Bond	0.7
Total Pennsylvania Fixed Income Investments	\$31.0

Deferred Compensation Program



DEFERRED COMPENSATION PROGRAM

History, Growth & Highlights

As indicated earlier in this book, the Pennsylvania State Employees' Retirement System administers two retirement plans to help safeguard the financial security of the commonwealth's public workforce in its retirement years. Most state employees are required to participate in Pennsylvania's defined benefit plan, which is frequently referred to simply as the "pension plan." Employees who are eligible to participate in the pension plan may choose to augment their retirement savings by also voluntarily participating in the deferred compensation program, often referred to as "deferred comp."

The economic engine of the defined benefit plan is the SERS Fund, which is reviewed in-depth in the previous section. Details about the deferred compensation program are provided here.

Program History

Act 1987-81 charged the SERS Board with establishing and managing a deferred compensation program for the commonwealth's employees and officers. The program allows employees to voluntarily build retirement savings and achieve certain tax advantages by deferring a portion of their salaries to selected investment options.

The program was established as a trust and is administered in accordance with Internal Revenue Code Section 457(b). The array of investment options from which participants may choose is examined, selected, and overseen by the SERS Board.

SERS uses a competitive request-for-proposals process to retain a third-party administrator for the program. Responsibilities of the third-party administrator include, but are not limited to, marketing the program, maintaining participant records, and counseling participants with regard to the benefit offered. The most recent competitive process was conducted and a contract was awarded in 2013 to Great-West Financial, which has retained this role since 2003.

The cost of administering the program is extremely low and is borne solely by participants, using no commonwealth funds.

In 2009, the program added a managed account option to offer personalized portfolios from among the program's investment options to participants who seek professional assistance with their investing.

In 2012, the program began accepting deferrals into designated Roth accounts. Participants pay federal income tax on the amount of their Roth deferrals at the time of investment and then qualified distributions from their Roth accounts are tax-free in retirement.

DEFERRED COMPENSATION PROGRAM

History, Growth & Highlights

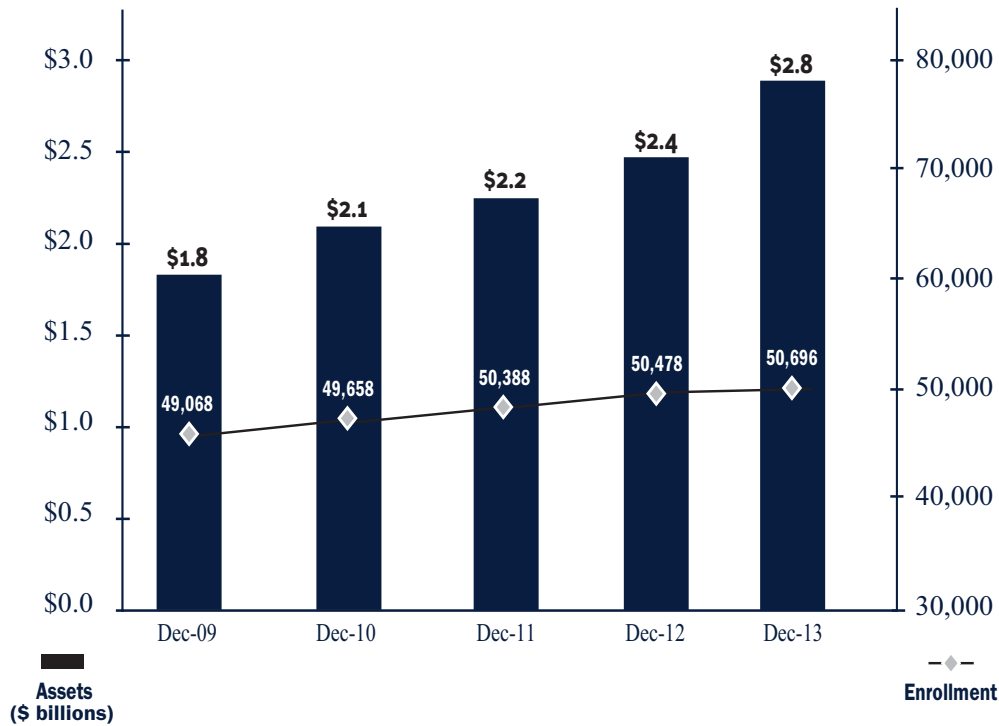
Growth of the Program

In 2013, more than 50,000 participants had saved approximately \$2.8 billion in the deferred comp program.

As of December 31, there were 31,338 active and 19,358 inactive participants in the program. From 2009 to 2013, annual deferrals have ranged from \$122 million to \$136 million per year and total fund value grew from \$1.8 billion to approximately \$2.8 billion.

When employees leave state service, they gain access to the amount they've saved, including the earnings and/or losses on their investments. Benefit payments have grown from \$40 million in 2009 to \$68 million in 2013.

5-Year Activity: Deferred Comp Assets & Enrollment



DEFERRED COMPENSATION PROGRAM

History, Growth & Highlights

Program Highlights

In deferred comp, employees may elect to have any sum they choose—as little as \$5 biweekly up to IRS limits—withheld from their pay to save for retirement and achieve certain tax advantages. They may change the amount of their deferrals at any time and it is up to each program participant to allocate their investments from among the options provided. Once money is invested in deferred comp, it must remain until an employee leaves state service or an emergency situation exists that is within code parameters.

To assist program participants, Great-West Financial offers individual and group counseling sessions at worksites statewide as well as in their downtown Harrisburg walk-in office.

Counselors are also available via a toll-free telephone service. In addition to providing personal assistance, the toll-free line offers a host of automated selections including providing account balances and allowing participants to transfer funds among investment options.

Great-West Financial manages a website that allows participants to view their investment position, change their deferral amounts, transfer money among investment options, change their future allocation, update their beneficiaries and more. Free educational videos are also available on financial, investment, and retirement topics.

5-Year Activity: Deferred Comp Deferrals by Year
(\$ millions)

