

PENNSYLVANIA

PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

BUDGET REPORT

FISCAL YEAR 2013-2014



HOUSE APPROPRIATIONS COMMITTEE

COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT BOARD



MELVA S. VOGLER
Chairman

SALLY J. TURLEY
Vice Chairman

February 15, 2013

Members of the House Appropriations Committee

Dear Members:

On behalf of the Public School Employees' Retirement System (PSERS), I am pleased to present the accompanying report on the financial, actuarial, and investment operations of PSERS and the budgetary recommendations for the 2013/14 fiscal year. In addition, PSERS Comprehensive Annual Financial Report for the fiscal year ended June 30, 2012 (FY2012) is available for download from PSERS website at www.pfers.state.pa.us. Hard copies and CDs are also available upon request.

PSERS is responsible for administering a defined benefit pension plan for over 597,000 active, retired, inactive and vested public school employees in the Commonwealth of Pennsylvania. PSERS also administers two post-employment health care programs, the Premium Assistance Program and the Health Options Program (HOP) for its annuitants. Some highlights of recent activities follow:

Financial Highlights

- For the fiscal year ended June 30, 2012 PSERS' investment portfolio generated a rate of return of 3.43%. PSERS outperformed more than 85% of the public pension plans in the Wilshire Compass All Public Funds Universe and added nearly \$1.1 billion in net investment income to the Fund.
- Since the FY2012 ended, the investment markets improved. As a result, PSERS estimated one year return for the year ended December 31, 2012 was 11.39%. PSERS also reported positive returns of 9.90% for the 3 year, and 8.45% for the 10 year period ended December 31, 2012. Looking longer-term PSERS reported returns of 8.91% for the 25 year and 9.49% for the 30 year period ended December 31, 2012. All of these returns exceeded PSERS' long-term investment earnings assumption of 7.50%.
- Income from the investment portfolio represents the major source of revenue to PSERS, accounting for nearly 71% of total revenues over the twenty-year period from FY1993 to FY2012. During FY2012, net investment income was \$1.1 billion. PSERS' total plan net assets as of June 30, 2012 were \$48.8 billion. As of December 31, 2012 PSERS total plan net assets increased to \$49.7 billion. For the year ended December 31, 2012, net investment income was \$5.4 billion. Since the calendar year 2012 return of 11.39% exceeded the 7.5% return assumption, over \$1.8 billion of excess earnings were generated during 2012.

- The Board continued to fulfill its mission to maintain the stability and long-term optimum value of the Fund. Of utmost importance to the Board is the assurance that the required reserves are available for payment of retirement benefits. PSERS' Board continues to closely monitor the overall risk of the Fund. Over the past few years PSERS' Board and investment staff made significant changes to the Fund's investment asset allocation, including further refining the Fund's investment strategy and increasing the diversification of the Fund's assets. In particular, PSERS actively reduced its risk profile by significantly reducing its equity exposure and by moving portions of the Fund's assets into asset classes that are less correlated to the equity markets.
- PSERS benefits from managing almost 25% of its assets internally including operating its own equity trading room. In FY2012 PSERS saved approximately \$8.3 million in management fees by utilizing PSERS in-house portfolio managers. The in-house investment professionals also added \$59.0 million in additional investment income to the fund. Collectively PSERS internal investment staffs' value added for the System totaled \$67.3 million.
- Pension administrative expenses decreased approximately \$3 million in FY2012 as PSERS continued to diligently control administrative expenses.
- Total member contributions decreased from \$1.24 billion in FY2011 to \$1.17 billion in FY2012 due to a decrease in active member payroll for pensions. This decrease is offset by a slight increase in the average member contribution rate and increased participation in the Health Options Program. The average member contribution rate for pensions increased from 7.34% to 7.37% in FY2012.
- Total employer contributions increased from \$747.8 million in FY2011 to \$1.1 billion in FY2012 due to the increase in the employer contribution rate from 5.64% in FY2011 to 8.65% in FY2012. The decrease in active member payroll partially offset the increase in the contribution rate. Active member payroll decreased 2.6% from FY2011 to FY2012. This was the first active member payroll decrease in over 20 years.
- PSERS total administrative budget request recommended by the Governor's Budget Office is \$41.4 million for FY2014 which is a decrease from the \$44.1 million available for FY2013.

Funded Status

- PSERS uses an actuarial reserve type of funding that is financed by member contributions, employer contributions, and earnings from invested assets. An independent actuarial valuation of PSERS' actuarial assets and liabilities is performed annually. As part of this valuation, the progress toward funding pension obligations of PSERS is measured by comparing the actuarial value of assets to the actuarial accrued liability. This measurement is referred to as the funded ratio or funded status. The most recent actuarial valuation reports that PSERS is 66.4% funded as of June 30, 2012. This represents a decrease from PSERS' 69.1% funded status as of June 30, 2011.

Investment and Pennsylvania Commitment

- PSERS has a continuing commitment to Pennsylvania companies by contracting with Pennsylvania-based investment advisor companies and by investing in Pennsylvania-based companies where investment characteristics, including yield, risk, and liquidity, are equivalent. Data on Pennsylvania investments is contained in Section 4 of the accompanying budget report.
- PSERS' total benefit expense increased by \$400 million from \$5.6 billion in FY2011 to \$6.0 billion in FY2012. This increase is attributable to the number of new retirements for the year, higher lump sum payments as well as an ongoing increase to the average monthly benefit.
- Since 91% was distributed to Commonwealth residents in calendar year 2012, a substantial portion of PSERS' \$5.7 billion annual pension disbursements remain in Pennsylvania, thus benefiting the economy of the Commonwealth (See PA map of Pension Disbursements by County in Tab 4.)
- The average annual pension benefit for PSERS total member population (annuitant, survivor/beneficiaries, and disabled annuitants) as of June 30, 2012 is \$24,122 and the average age is 69.8 years.

Update on Pension Funding Issue

- Proper funding remains a top concern for PSERS. While Act 120 of 2010 provided historic pension reform, including significant benefit reductions for new members, the pension funding issue continues to be a significant appropriations challenge for school employers and the Commonwealth.
- Per the June 30, 2012 actuarial valuation, PSERS had approximately 13,000 TE/TF (Act 120) members or approximately 5% of the active membership. The cost of pension benefits for Act 120 members is 2.24% of payroll.
- Benefit enhancements, investment losses, and underfunding of the System by school employers and the Commonwealth all contributed in the short-term to the pension funding issue. The largest cause, however, is the continued underfunding of the System by school employers and the Commonwealth (See pie chart in Tab 5 for a breakout of the numbers.)

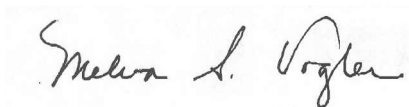
The underfunding of PSERS continues to this day as the rate caps in Act 120 of 2010 remain in effect and continue to suppress employer contributions into the System. The employer contribution rate for FY2014, set by the Board in December 2012, is 16.93%. The employer contribution rate would have been 24.75% if the rate caps in Act 120 of 2010 were not in place. This suppression of the employer contribution rate adds further debt to the System and the unfunded liability continues to grow and accrue interest at a rate of 7.5% per year. In FY2012 the interest charge alone was \$2.1 billion.

- On February 5, 2013 during his budget address, Governor Corbett unveiled his plan for additional pension reform. It is PSERS' understanding that this proposal would lower and reset the Act 120 rate caps on the employer contribution rate, close the current defined benefit pension plan to new members and put in place a defined contribution pension plan for new members. The proposal would also make changes to active member benefits prospectively, including reducing the pension multiplier, changing the calculation of final average salary, and making the withdrawal of contributions and interest cost neutral. These proposed changes would not take effect until July 1, 2015 and do not impact retired member benefits. The Governor's proposal is expected to be before the General Assembly during the current legislative session. At the time this budget document was created the cost data for the Governor's proposal was not available.
- As PSERS has explained over the years, there is no easy, simple solution to the pension funding issue. It will take time to pay off the unfunded liability. While the details of pension reform proposals may vary, there is one common fact. Any solution to the funding issue will require rising employer contribution rates. The employer rates must eventually rise to pay off the existing unfunded liability as they have been intentionally suppressed for many years.

In conclusion, over the past ten years, PSERS staff has and will continue to explain the complex pension funding issue to the Governor's office, the General Assembly and various constituent groups. While PSERS does not take a position on any legislation or support any specific policy on pension reform, PSERS takes its role in helping to resolve the pension funding issue very seriously. PSERS is a technical expert on pension funding issues and we will continue to cooperate and provide information so effective pension policy decisions can be made by all decision-makers.

PSERS looks forward to working with you on this critical issue during the current legislative session. Please contact Jeffrey B. Clay, PSERS Executive Director, if you have any questions or would like additional information.

Respectfully,



Melva S. Vogler
Chairman of the Board

Public School Employees' Retirement System

5 North 5th Street
Harrisburg, Pennsylvania 17101-1905

(A Component Unit of the Commonwealth of Pennsylvania)

FY2013/14 Budget Report House Appropriations Committee February 27, 2013

Melva S. Vogler
Chairman
Board of Trustees

Sally J. Turley
Vice Chairman
Board of Trustees

Jeffrey B. Clay
Executive Director

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Section 1 - PSERS Overview





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Overview

Established on July 18, 1917, with operations commencing in 1919, the Pennsylvania Public School Employees' Retirement System (PSERS or System) provides retirement benefits to public school employees of the Commonwealth of Pennsylvania.

As of June 30, 2012, the System had approximately 274,000 active members. The annuitant membership was comprised of approximately 202,000 retirees and beneficiaries who received average monthly pension benefit payments of over \$406 million including healthcare premium assistance. The average yearly pension benefit paid to annuitants was \$24,122. PSERS had 773 participating employers on June 30, 2012.

As reported in the latest Pension and Investments survey published February 4, 2013, PSERS is the 30th largest plan among United States corporate and public pension plans, and the 18th largest state-sponsored defined benefit public pension fund in the nation. PSERS' total plan net assets as of December 31, 2012 were approximately \$49.7 billion.

During the 2012 fiscal year the overall gross distribution of pension and postemployment healthcare benefits including monthly benefits, direct rollovers, survivor benefits and refunds totaled \$6.0 billion. Of this amount, 91% was distributed to Pennsylvania residents representing PSERS' significant impact on the Commonwealth's economy.

Mission Statement

The Board of Trustees and the employees of the Public School Employees' Retirement System serve the members and stakeholders of the System by:

- Providing timely and accurate payment of benefits,
- Maintaining a financially sound System,
- Prudently investing the assets of the System,
- Clearly communicating members' and employers' rights and responsibilities, and
- Effectively managing the resources of the System.





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PSERS Board of Trustees

Melva S. Vogler, Chairman

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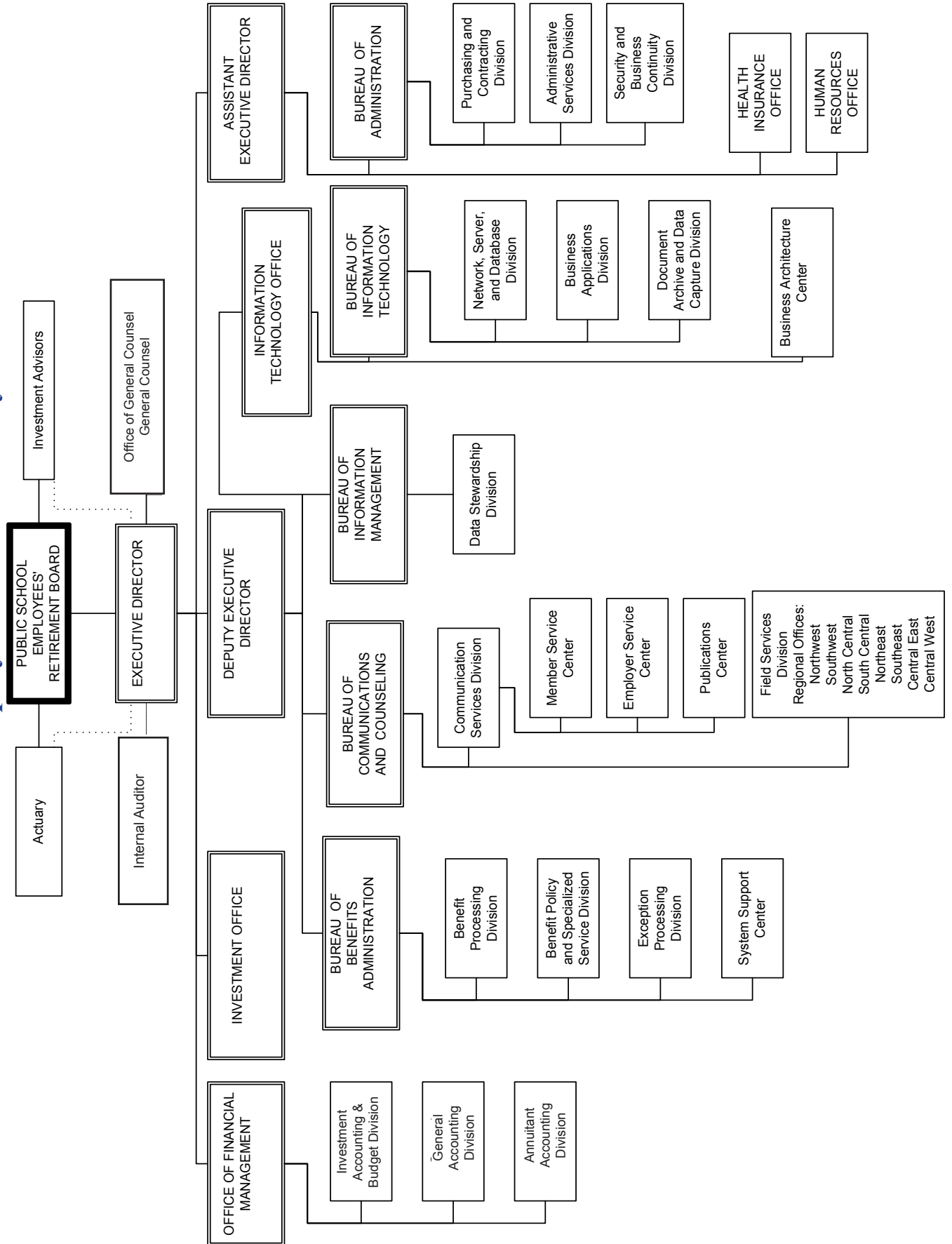
Ronald J. Tomalis
Secretary of Education

PSERS Board Members as of January 25, 2013



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Organizational Chart of the Public School Employees' Retirement System



Organizational Structure of the Public School Employees' Retirement System

Executive Office

This office is responsible for the overall management of the Public School Employees' Retirement System (PSERS) to achieve the primary objectives of the Fund as established by the Board of Trustees (Board). Reporting directly to the Executive Director are the Deputy Executive Director, Assistant Executive Director, Chief Investment Officer, Chief Financial Officer, Internal Auditor, Press Secretary, and Legislative Liaison. The Executive Director serves as chief executive officer responsible for the establishment, installation, and maintenance of modern management techniques to provide an efficient control of funds for and services to the active members and annuitants of the System.

The Executive Office monitors the operation of the investment portfolio and evaluates portfolio performance for consideration by the Board, certifies expenditures of the Fund, and measures performance of professional individuals or firms with whom the Board contracts for specialized services. The Executive Office also apprises the Board of any development that will in any way affect the System and its operation.

Investment Office

This office is responsible for the investment activities of the System. In compliance with the investment policy established by the Board, PSERS' investment assets are allocated to numerous outside professional investment advisors and internal investment professionals.

Chief Counsel's Office

This office provides legal services through a team of professional personnel under the Governor's Office of General Counsel. The Legal staff is responsible for representing PSERS in all administrative hearings and other litigation matters; drafting and negotiating PSERS' investment and administrative services contracts; and providing counsel on a wide variety of matters, including the interpretation of the Retirement Code and the Right-to-Know Law.

Internal Auditor's Office

This office performs systematic reviews of the various PSERS activities, testing for compliance with applicable laws, policies and procedures. The Internal Auditor makes recommendations on the improvement of PSERS' internal control system.

Office of Financial Management

This office is directed by the Chief Financial Officer and has responsibility for planning, organizing and directing a complete accounting and financial reporting system in conformance with accounting principles generally accepted in the United States of America. Oversight is provided for new accounting systems development and maintenance of existing systems, and ensuring appropriate accounting controls. The office is the liaison for other state and federal agencies, reporting units, financial consultants, actuaries, and investment advisors for all accounting, treasury operations, taxation, actuarial and budgetary matters. The office is organized into three divisions: General Accounting Division, Annuitant Accounting Division, and Investment Accounting and Budget Division.

Deputy Executive Director

The Deputy Executive Director directly oversees the benefit programs for all active and retired members of the System, the development and implementation of the member and employer communications programs and the member counseling programs, and the maintenance of agency policies, procedures, and benefit related data. Additionally, this position supervises a Chief Technology Officer who oversees business and information technology strategic planning, policy development, and implementation. The organizational units directly reporting to this position include the Bureau of Benefits Administration, the Bureau of Communications and Counseling, and the Bureau of Information Management. The position oversees the Bureau of Information Technology through the Chief Technology Officer.

Information Technology Office

This office oversees the Bureau of Information Technology and the Business Architecture Center. It is responsible for strategic information technology planning and policy development, ensuring that information technology plans and policies are aligned with, in support of, and prioritized according to agency needs and requirements, as well as those Commonwealth needs and requirements that are consistent with agency needs, and for communicating such to the agency's information technology staff. Large information technology contracts and projects are managed by this office. This office is responsible for understanding, analyzing, documenting, and improving PSERS' organization, business rules, processes, information systems, and the relationships among these components so that PSERS is able to: conduct its business consistently and according to established rules; understand each component, its relationship to each of the other components and to PSERS' mission, vision, values and goals; fully, yet quickly analyze and understand the impact of potential change to one or more of these components on the others; more effectively identify inefficient, duplicate, or suspect processes, and/or technologies; and account for its organizational business rules and processes, information systems and technologies.

Organizational Structure (continued)

Bureau of Information Technology

This bureau is responsible for planning, coordinating, administering, and implementing information technology resources in accordance with the agency’s strategic plans, goals, objectives, and priorities as communicated by PSERS’ Chief Technology Officer, and for providing operational support for those technologies and initiatives. The bureau is organized into three divisions: the Network, Server, and Database Division, the Business Applications Division, and the Document Archive and Data Capture Division.

Bureau of Information Management

This bureau is responsible for maintaining, documenting, and cleansing PSERS’ member and employer data, managing PSERS’ electronic data records, imaged records, paper and film/fiche records, understanding the meaning and knowing the location of its data. The bureau currently includes the Data Stewardship Division which houses PSERS’ records management program, and the Data Integrity and Member Accounting section.

Bureau of Benefits Administration

This bureau is responsible for administering a comprehensive pension benefits program for PSERS. The bureau provides professional and technical services to individuals who are employed full-time and part-time in one of Pennsylvania’s 773 public schools or institutions. They also provide services to retirees, their beneficiaries and persons legally authorized to act on their behalf. The bureau is organized into three divisions: the Benefit Processing Division, Benefit Policy and Specialized Service Division, and Exception Processing Division.

Bureau of Communications and Counseling

This bureau is responsible for professionally communicating accurate and timely information. The goal is to promote the understanding of PSERS’ benefits and processes to the members, the employers, the Legislature, the Governor’s Office, other government organizations, professional organizations, and the public. It is organized into two divisions: the Field Services Division and the Communications Services Division.

Assistant Executive Director

This position reports to the Executive Director and provides assistance to the Executive Director on agency-wide projects. The position administers the Health Options and Premium Assistance Programs in addition to the facilities, human resources, and procurement activities necessary to support, secure and optimize agency operations. Organizational units overseen by the Assistant Executive Director include the Bureau of Administration, the Human Resources Office, and the Health Insurance Office.

Bureau of Administration

This bureau is responsible for facilities, purchasing and contracting, documenting administrative policies and procedures, business continuity, automotive, mail, imaging, printing and other administrative services necessary to support agency functions. The bureau is organized into three divisions: the Purchasing and Contracting Division, the Administrative Services Division and the Security and Business Continuity Division.

Human Resources Office

This office is responsible for supporting management and staff to facilitate the accomplishment of the agency’s mission. It administers all human resources programs and ensures compliance with labor law and Commonwealth regulations. Programs include position classification, labor relations, recruitment and placement, employee benefits, employee compensation and pay, training and staff development, time and attendance, performance management, organizational development and support, employee transactions, Equal Employment Opportunities and other miscellaneous programs.

Health Insurance Office

This office is responsible for all aspects of the PSERS’ Health Options Program (HOP) and administering PSERS’ health insurance Premium Assistance benefits. The HOP is a voluntary program that provides group health insurance coverage for 83,000 (at January 1, 2013) school retirees, their spouses, and eligible dependents.



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Organizational Structure (continued)

PSERS' Regional Offices

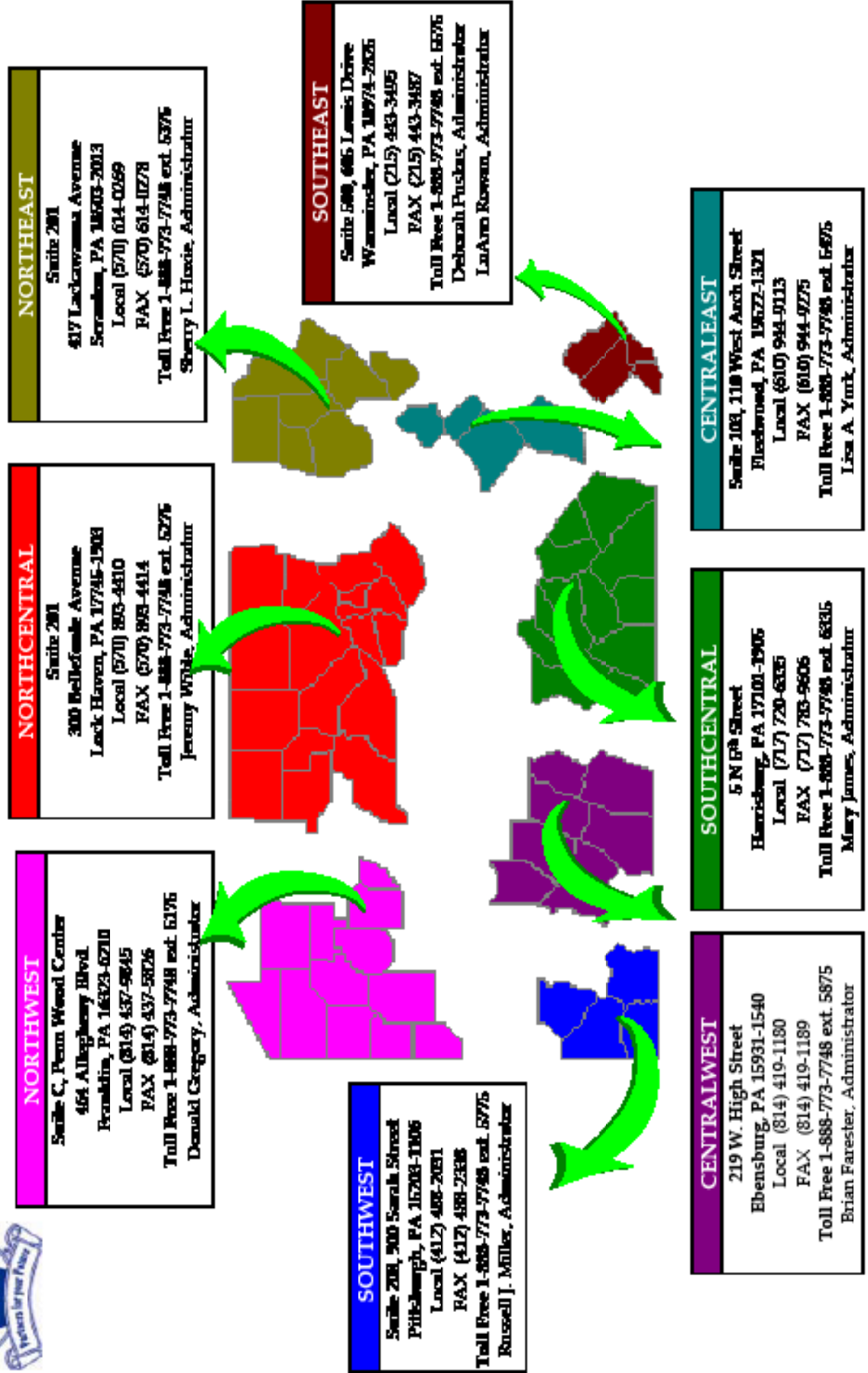
There are eight PSERS Regional Offices strategically located throughout the Commonwealth. These offices provide services to both active and retired PSERS members and 773 employers. Among these services are regularly scheduled retirement counseling meetings and other informational presentations on various topics relating to retirement benefits and programs. See map on next page.

Services provided to PSERS' Members (by the Bureau of Communications and Counseling)			
Fiscal Year	<u>2009/10</u>	<u>2010/11</u>	<u>2011/12</u>
Number of General Information Programs	209	206	201
Number of Members Attended	12,372	13,625	10,935
Number of Exit Counseling (small group) Sessions	909	1,084	880
Number of Members Attended	7,466	9,653	7,647
Individual Counseling Sessions	1,439	1,325	1,326
Telephone Calls Answered	233,452	243,024	241,036
Telephone Calls Out	55,200	56,576	43,583
E-Mail In	33,298	60,527	45,268
E-Mail Out	32,538	54,098	35,209

Services provided to PSERS' Members (by the Bureau of Benefits Administration)			
Calendar Year	<u>2010</u>	<u>2011</u>	<u>2012</u>
Purchase of Service Applications Processed	22,243	16,540	21,938
Retirements Processed			
• <i>Normal and Early</i>	9,863	13,206	10,682
• <i>Disability</i>	442	523	559

PSERS REGIONAL OFFICES

Public School Employees' Retirement System of Pennsylvania
PSERS FIELD SERVICES DIVISION
Serving You in the 21st Century





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Section 1 - PSERS Overview

PSERS' Member Demographics and Economic Information

Economic Impact of Pension Benefits

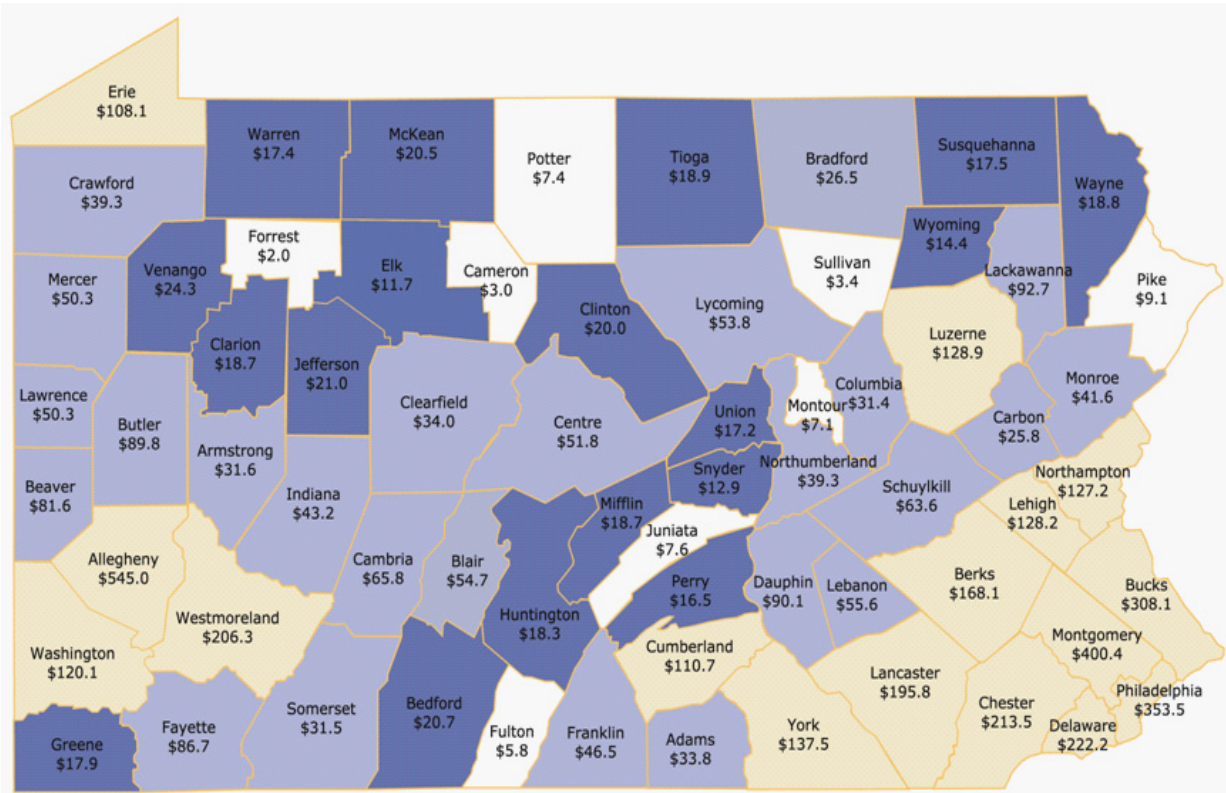
In calendar Year 2012, PSERS pension disbursements to retirees totaled nearly \$5.7 billion, of this amount, nearly 91%, or \$5.2 billion, went directly into state and local economies. Pension benefits received by retirees are spent in the local community, and support thousands of jobs.

The map below shows PSERS pension benefit disbursements by county for calendar year 2012.

Top 10 Counties Based on Amount of Disbursements to Retirees from PSERS (Millions)	
Allegheny	\$545.0
Montgomery	\$400.4
Philadelphia	\$353.5
Bucks	\$308.1
Delaware	\$222.2
Chester	\$213.5
Westmoreland	\$206.3
Lancaster	\$195.8
Berks	\$168.1
York	\$137.5

- \$100 million+
- \$25 - \$99.9 million
- \$10 - \$24.9 million
- \$0 - \$9.9 million

**Public School Employees Retirement System
Total Pension Benefit Disbursements by County for CY 2012
(millions)**



Section 1 - PSERS Overview

PSERS' Member Demographics and Economic Information (continued)

Fiscal Year ended <u>June 30</u>	Members by Type					Total Inactive, Active & Survivor <u>Annuitants</u>
	<u>Active Members</u>	<u>Inactive Members</u>	<u>Annuitants, Beneficiaries, and Survivor Annuitants</u>	<u>Total Active/Retired Members</u>	<u>Ratio of Active/ Retired</u>	
2012	273,504	122,286	202,015	475,519	1.35 to 1	597,805
2011	279,152	115,102	194,622	473,774	1.43	588,846
2010	282,041	111,931	184,934	466,975	1.53	578,906
2009	279,701	103,805	177,963	457,664	1.57	561,469
2008	272,690	100,803	173,540	446,230	1.57	547,033
2007	264,023	109,186	168,026	432,049	1.57	541,235
2006	263,350	94,071	161,813	425,163	1.62	519,234
2005	255,465	58,720	156,519	411,984	1.63	470,704
2004	247,901	72,014	151,552	399,453	1.63	471,467
2003	246,700	65,453	145,693	392,393	1.69	457,846

Age and Service Profile of Active Members		
	<u>June 30, 2011</u>	<u>June 30, 2012</u>
Average Age	44.5 years	44.7 years
Average Years of PSERS Service	10.4 years	10.7 years
Average Annual Compensation	\$46,247	\$46,487

Profile of PSERS' Annuitants, Beneficiaries, and Survivor Annuitants				
Type of Member	Number of Members		Average Annual Benefit	
	<u>6/30/2011</u>	<u>6/30/2012</u>	<u>6/30/2011</u>	<u>6/30/2012</u>
Normal/Early Retirees	175,636	182,254	\$25,094	\$25,323
Survivor Annuitants	10,957	11,455	\$9,547	\$9,731
Disability Retirees	<u>8,029</u>	<u>8,306</u>	\$17,294	\$17,604
Total	194,622	202,015	\$23,897	\$24,122

Section 1 - PSERS Overview

PSERS' Member Demographics and Economic Information (continued)

PSERS Pension Plan Changes in Net Assets 10 Year Cumulative Summary (Dollar Amounts in Millions)		
		Cumulative 10 Year Total
		<u>January 1, 2003 - December 31, 2012</u>
Balance of Net Assets (01/01/03)		\$ 39,638
Member Contributions	\$ 8,972	
Employer Contributions	5,999	
Net Investment Income	39,732	
Total Deductions - Benefits & Expenses	(44,887)	
Net Increase		\$ 9,816
Balance of Net Assets (12/31/12)		\$ <u>49,454</u>

Cash Flow Fiscal Years Ended in June 30 (Dollar Amounts in Millions)			
	<u>2012</u>	<u>2013</u>	<u>2014</u>
Member Contributions	\$ 953	\$ 986	\$ 1,020
Employer Contributions	<u>1,005</u>	<u>1,500</u>	<u>2,200</u>
Total Contributions	\$ 1,958	\$ 2,486	\$ 3,220
Less:			
Pension Benefits	<u>5,655</u>	<u>6,000</u>	<u>6,400</u>
Negative Cash Flow	\$ -3,697	\$ -3,514	\$ -3,180
Beginning of Year Total Assets	\$ 51,200	\$ 48,534	\$ 48,706
Negative Cash Flow (NCF) % of Total Assets	-7.1%	-7.2%	-6.5%
Average NCF% of Total Assets (Public Funds)	-2.8%*		

*Based on the November 2012 Public Fund Survey prepared by the National Association of State Retirement Administrators (NASRA).

Negative Cash Flow

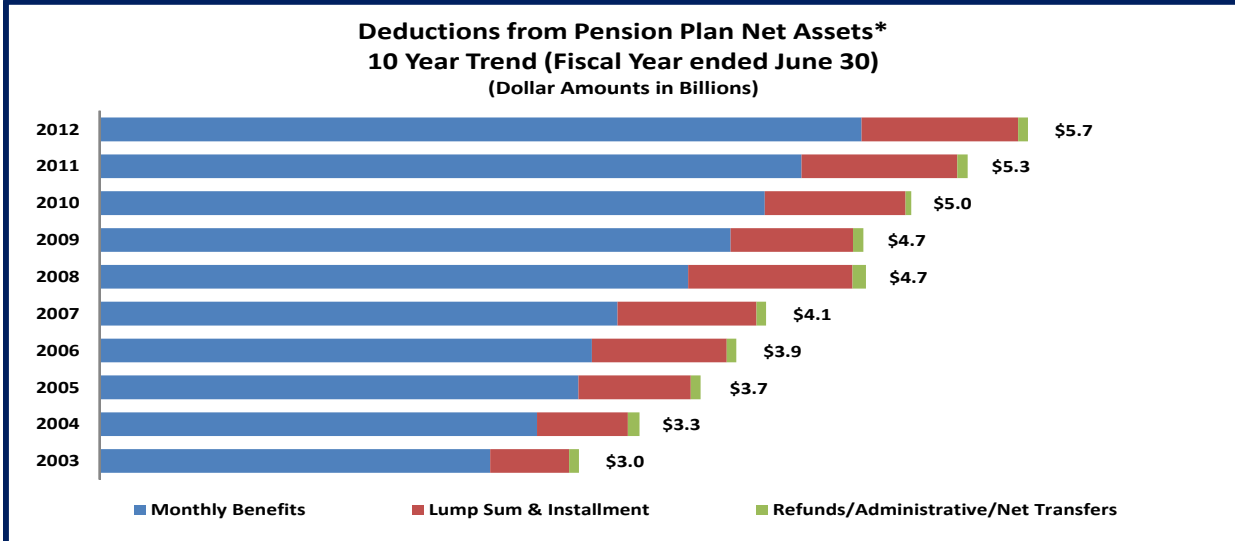
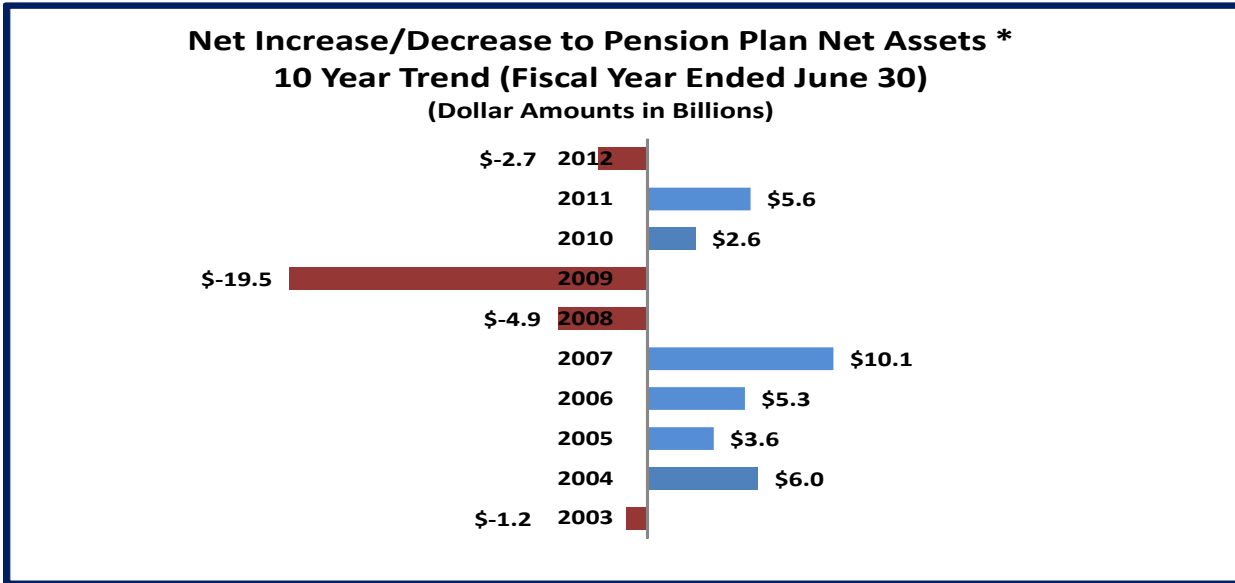
Using data from the table at the top of the page, the last 10 years of contributions and benefit payments resulted in a NCF of -\$29.9 billion during that time period. For the FY Ended June 2012, PSERS' NCF percentage is -7.1% which is twice the public fund average. Due to the projected increase in contributions through FY2013/2014, PSERS' projected NCF percentage declines to -6.5% but still remains over twice the -2.8% average of public funds*.

As a result of the large negative cash flow, PSERS has to sell a large portion of its investments each year to fund benefit payments. Consequently, even during years when

PSERS meets its investment return assumption, the Fund's assets will not grow until the employer contribution rates increase.

Section 1 - PSERS Overview

PSERS' Member Demographics and Economic Information (continued)



*Does not include PSERS Postemployment Healthcare Plan Net Assets.

The Actuarial Process and Pension Plan Funding

PSERS is a defined benefit plan, meaning benefits are based on members' service and salary history. The following information highlights the actuarial process and funding for PSERS.

Actuarial Process

The actuarial process presumes that there will be a systematic flow of contributions at a specified level to pay for plan benefits and that the flow of contributions, together with investment earnings, will be sufficient to meet all benefit and expense requirements of the plan. Actuarial cost methods for funding PSERS pension plan are defined in the Public School Employees' Retirement Code. The actuary for the pension plan reviews economic and demographic experience annually and over five-year periods. The actuary's periodic valuations test the validity of the underlying actuarial assumptions versus the actual experience of the plan. That experience is also used as a basis for formulating actuarial assumptions about what will occur in the future with respect to salary growth, investment returns, and demographic factors such as rates of retirement and death.

Effective with the June 30, 2011 actuarial valuation, PSERS adopted several new demographic and economic assumptions as a result of the Five-year Experience Study completed by PSERS' actuary. PSERS' investment rate of return assumption was changed from 8.00% to 7.50%, the Salary Growth Assumption was changed from 6.00% to 5.50%, and new mortality tables were adopted.

Funding

The plan is funded through three sources: (1) employer contributions; (2) member contributions; and, (3) investment earnings. As depicted in the chart at the bottom of the page, for the ten-year period ended June 30, 2012 investment earnings provided 70% of PSERS' funding followed by 18% from members. Employers contributed 12%, the smallest of the three sources.

Employer Contributions

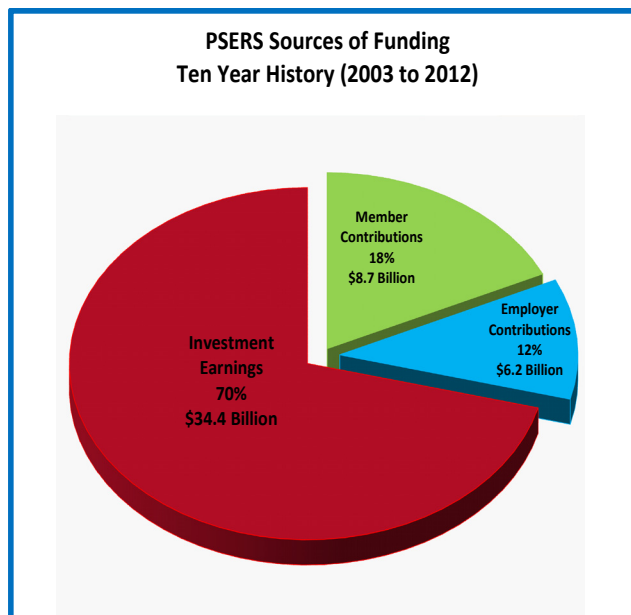
The Retirement Code vests the Board with the authority to establish the employer contribution rate (ECR). The Board, in consultation with the actuary, establishes the employer contribution rate annually, as part of the annual actuarial valuation. The employer contribution rate, which is expressed as a percentage of payroll, is composed of two items: (1) the pension contribution; and, (2) the contribution for health care premium assistance.

The total employer contribution rate for the fiscal year ended June 30, 2012 was 8.65%, including 0.65% for healthcare premium assistance. The total employer contribution rate for the year ending June 30, 2013 is 12.36%. This rate consists of an 11.50% pension rate (FY2011/12 pension rate of 8.00% plus the Act 120 3.50% collar) plus the healthcare premium assistance contribution of 0.86%. The FY2013/14 employer contribution rate is 16.93%. This rate consists of a 16.00% pension rate (FY2012/13 pension rate of 11.50% plus the Act 120 4.50% collar) plus the healthcare premium assistance contribution of 0.93%. The Board of Trustees certified this rate that was calculated in accordance with the provisions of Act 120 of 2010 at their December 2012 meeting. Without the Act 120 collar the employer contribution rate would be 24.75% in FY2013/14.

For the fiscal year ended June 30, 2012, PSERS' employer contributions totaled \$1.086 billion, which includes \$81 million for healthcare premium assistance. For the fiscal year ending June 30, 2013 the employer contribution estimate is \$1.646 billion, reflective of the 12.36% contribution rate. The contribution rate for the fiscal year ending June 30, 2014 is 16.93% which results in an employer contribution estimate of \$2.322 billion.

Member Contributions

Members of the Public School Employees' Retirement System who, prior to Act 9 of 2001, contributed to the Retirement Fund at the rate of 6.25% of their gross compensation, began contributing 7.50% in January of 2002, if they elected the higher retirement benefits. Members who contributed at the rate of 5.25% began contributing 6.50% if they elected the higher retirement benefits. The average contribution rate payable by the members for the current year (FY2012/13) is 7.40%.



The Actuarial Process and Pension Plan Funding (continued)

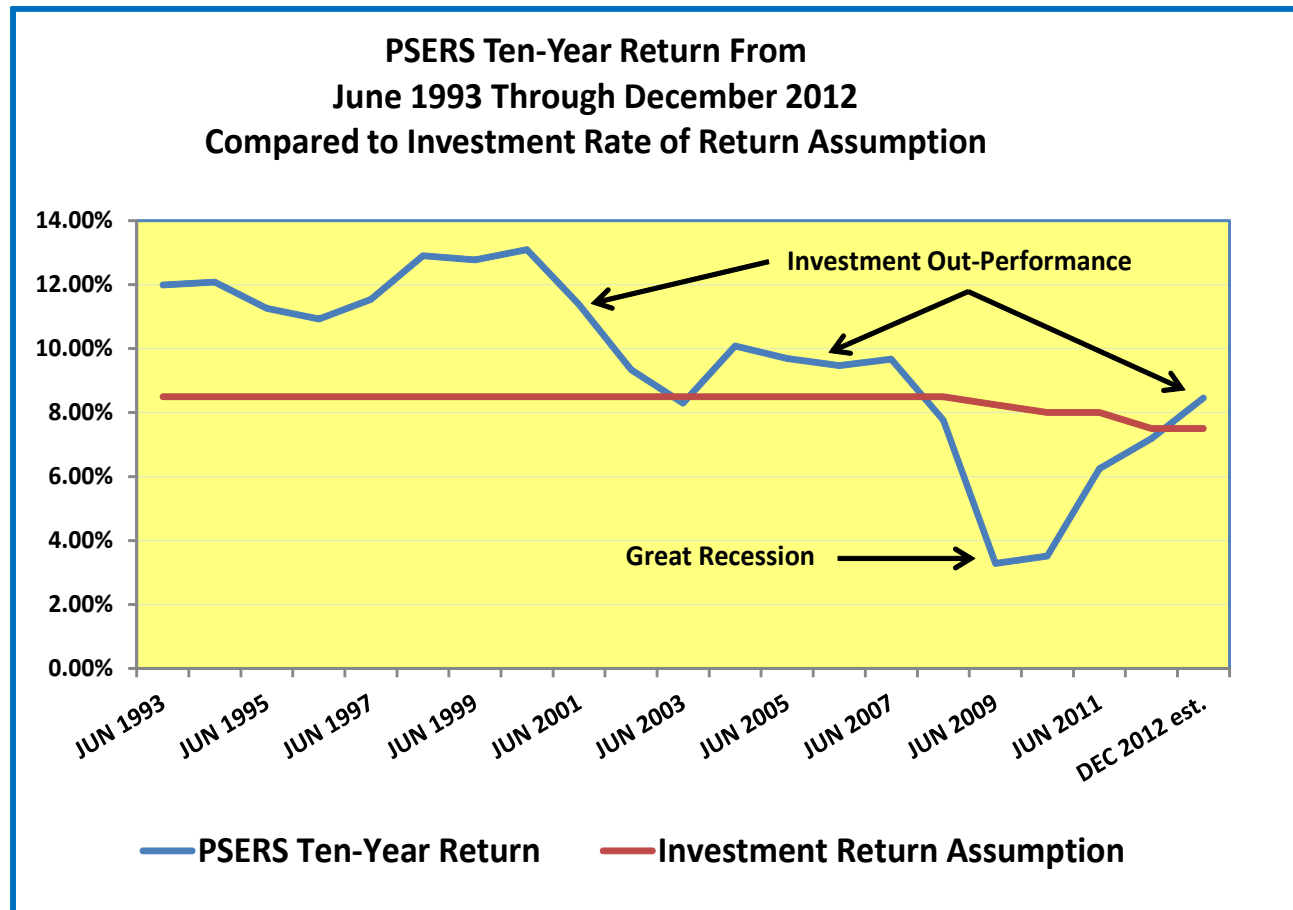
In accordance with Act 120 of 2010, any employee who becomes a member after June 30, 2011 is a Class T-E member or, alternatively, can elect to become a Class T-F member. The base contribution rate for Class T-E members is 7.50% of compensation. The base contribution rate for Class T-F members is 10.30% of compensation. Class T-E and Class T-F members are subject to a “shared risk” employee contribution rate. The member contribution rate will stay within the specified range allotted for Class T-E or Class T-F, but could increase or decrease every three years starting July 1, 2015 depending on investment performance. Members now share a portion of the investment risk of the Fund giving PSERS a defined contribution element.

PSERS members contributed \$953 million for pension contributions for FY2012. Total member contributions are estimated to be \$986 million for the year ending June 30, 2013 and \$1.020 billion for the fiscal year ending June 30, 2014.

The investment rate of return (net of fees) for the fiscal years ended June 30, 2012 and June 30, 2011 was 3.43% and 20.37%, respectively. The annualized rates of investment return for the three, five and ten-year periods ended June 30, 2012 were 12.57%, 0.37% and 7.19% respectively. The estimated investment rates of return for the one, three, five and ten-year periods ended December 31, 2012 were 11.39%, 9.90%, 0.90% and 8.45%, respectively. Over the past 25 years ended December 31, 2012 the Fund earned an estimated annualized rate of return of 8.91% which exceeded the Fund’s long term investment rate of return assumption during that time period.

PSERS’ ten-year return as shown in the chart at the bottom of the page has exceeded the actuarial investment rate of return for 15 of the last 20 years. Throughout much of the 1990s and 2000s PSERS investment performance exceeded its investment rate of return assumption. This outstanding investment performance resulted in declining employers contribution rates and/or contribution rates lower than the annual normal cost of benefits for most of those two decades. As a result of negative returns during the Great Recession, PSERS ten-year return dropped below the investment return assumption for several years. As a result of strong performance since the Great Recession, PSERS ten-year return once again exceeds its rate of return assumptions.

Investment Returns



The Actuarial Process and Pension Plan Funding (continued)

Funded Status

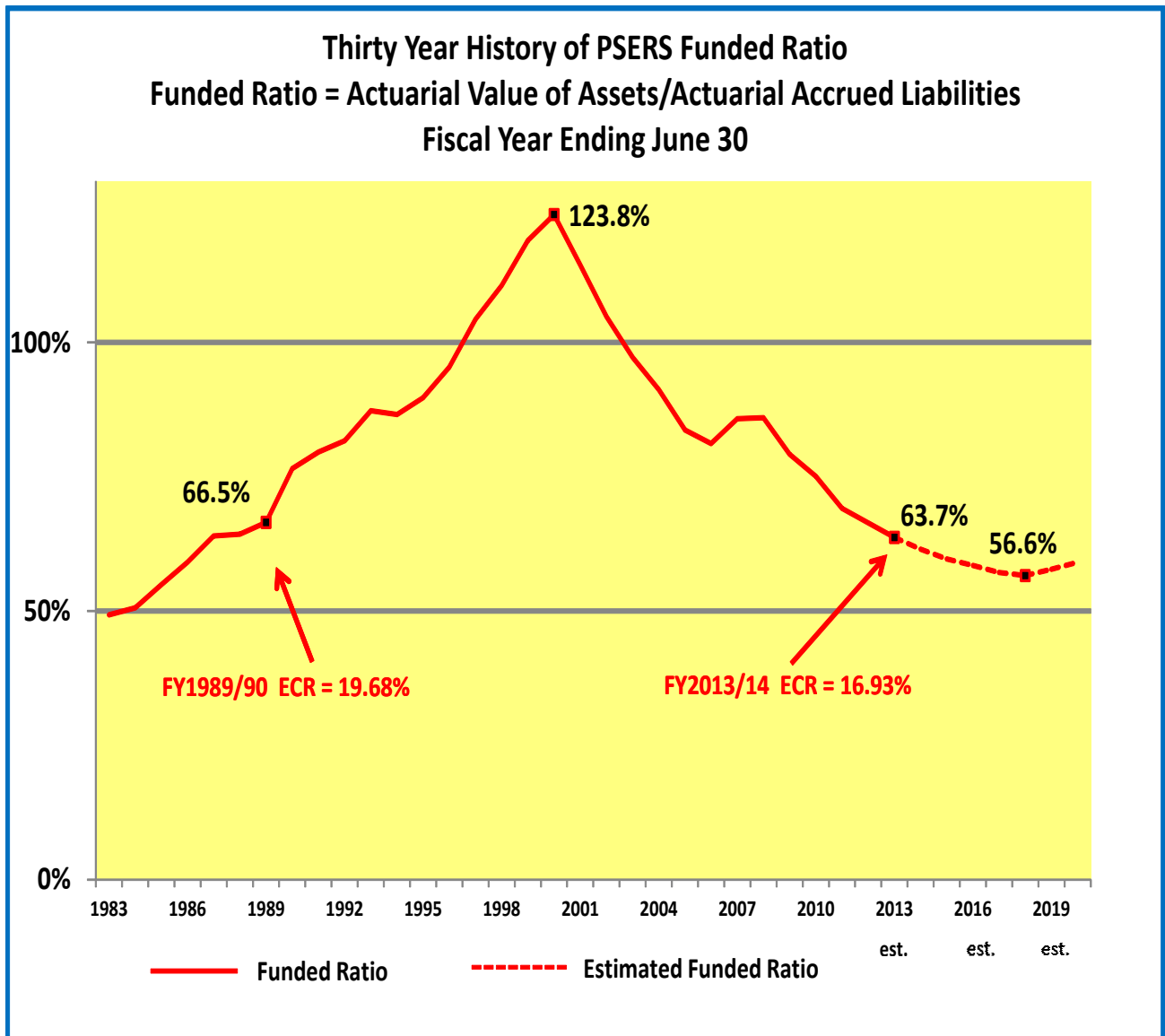
PSERS funded status is measured by comparing the actuarial value of assets with the accrued liability. The accrued liability is the present value of benefits accumulated to date for both active and retired members.

Key Facts

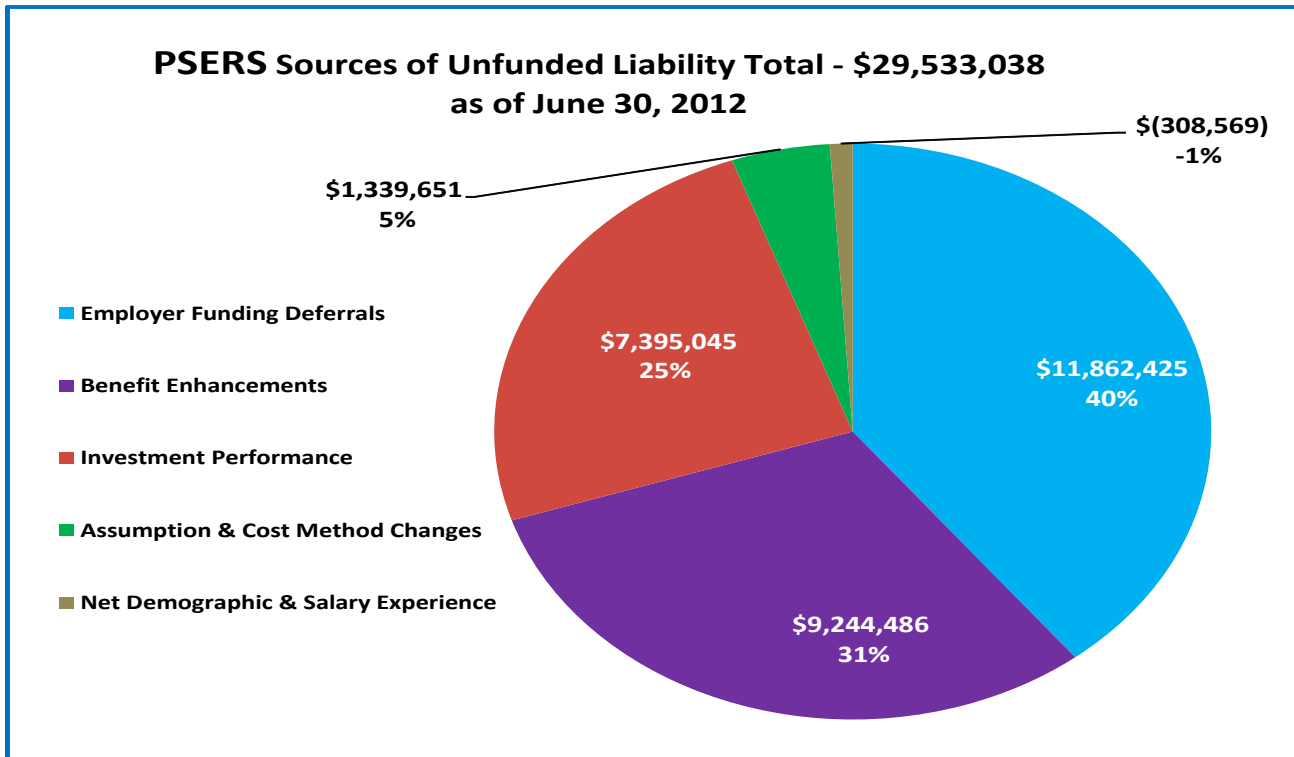
- Funded Status: 66.4% as of June 30, 2012
- Funded Status: 69.1% as of June 30, 2011
- The decrease in FY2012 is primarily due to the actuarial value of assets loss that occurred during the year as a result of the 10 year asset smoothing used for actuarial valuation purposes and the continued

underfunding of PSERS by its employers. As a result of Act 120 collars, employers under funded PSERS by \$1.5 billion in FY2012.

- The decrease in the funded status since 2000 is the result of several factors including: the unfavorable investment markets from FY2001 to FY2003 and FY2008 to FY2009; funding changes enacted in Act 38 of 2002 and Act 40 of 2003 which resulted in employers underfunding PSERS; the adoption of new demographic and economics assumptions in FY2008, FY2009 and FY2011; funding collars in Act 120 of 2010 which have continued the employer underfunding of the system; and, actuarial liability losses.
- A thirty-year history and seven year projection of PSERS' funded status is shown below.



**The Actuarial Process and Pension
Plan Funding
(continued)**



Sources of Unfunded Liability

The system's total funded ratio (for Pensions and Health Insurance combined) is 66.4% as of June 30, 2012. This funded ratio is based on an actuarial value of assets of \$58.4 billion and an accrued liability of \$87.9 billion which equates to a \$29.5 billion unfunded liability. The chart above depicts the sources of the unfunded liability. The largest sources of unfunded liability in order of magnitude are employer funding deferrals (40%), benefit enhancements (31%), which include Act 9, cost of living increases and early retirement incentives, and investment performance (25%). As a result of the Act 120 contribution rate collars, employer funding deferrals will continue to increase the unfunded liability for several years.

For many years PSERS' outstanding investment performance, which exceeded the investment return assumption, compensated for unfunded benefit enhancements and employer funding deferrals. The Great Recession eliminated the previous investment out-performance and reduced PSERS long-term investment performance which, as of December 31, 2012, is now close to its return assumption. Without the investment out-performance to compensate, the employer funding deferrals and benefit enhancements have significantly increased PSERS unfunded liability. Over 71% of PSERS June 30, 2012 unfunded liability is due to employer funding deferrals and benefit enhancements.

Section 1 - PSERS Overview

GASB Pension Accounting and Financial Reporting Project (Pension Project)

In June 2012, the Governmental Accounting Standards Board (GASB) approved a pair of related Statements that reflect substantial changes to the accounting and financial reporting of pensions by state and local governments and pension plans. Statement No. 67, *Financial Reporting for Pension Plans*, addresses financial reporting for state and local government pension plans. Statement No. 68, *Accounting and Financial Reporting for Pensions*, establishes new accounting and financial reporting requirements for governments that provide their employees with pensions.

Statement No. 67 replaces the requirements of Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, for most public employee pension plans. Statement No. 68 replaces the requirements of Statement No. 27, *Accounting for Pensions by State and Local Governmental Employers*, for most government employers. The new Statements also replace the requirements of Statement No. 50, *Pension Disclosures*, for those governments and pension plans.

Statement No. 67 provides public employee pension plans such as PSERS guidance for financial reporting. Statement No. 67 will significantly change related financial reporting through note disclosures and new required supplementary information (RSI) schedules. These changes are necessary for government employers to comply with Statement No. 68.

Statement No. 68 will require cost-sharing governments (employers) to report a net pension liability, pension expense, and pension-related deferred inflows and outflows of resources based on their proportionate share of the collective amounts for all the employers in the plan. Additionally, all government employers participating in the plan will be required to include plan information in their note disclosures and RSI schedules.

Statement No. 67 will take effect for pension plans in fiscal years beginning after June 15, 2013. Statement No. 68 will take effect for employers and governmental nonemployer contributing entities in fiscal years beginning after June 15, 2014. Statements Nos. 67 and 68 are available for download at no cost from the GASB website, www.gasb.org.



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Employer Contribution Rate

PSERS undergoes an annual independent actuarial valuation to calculate the actuarial assets and liabilities of the pension fund. Based on the actuarial valuation process, the actuary develops the recommended Employer Contribution Rate (ECR) that determines the employer contributions to the pension plan and healthcare premium assistance. The valuation process also measures the progress of the pension system towards funding pensions for its active and retired members.

Employer Contribution Rate Statistics

- Highest historical ECR (FY1985/86) 20.04%
- Lowest historical ECR (FY2001/02) 1.09%
- Ten yr. avg. ECR (2003/04 to 2012/13) 6.25%
- Twenty yr. avg. ECR (1993/94 to 2012/13) 6.63%
- Thirty yr. avg. ECR (1983/84 to 2012/13) 10.25%
- Adopted ECR (FY2013/14) 16.93%

PSERS' average member rate, employer contribution rate and normal cost for thirty years is presented in the graph on the bottom of the page.

Act 120 of 2010

Progress on Funding Issue

PSERS is in the 2nd year of a multi-year phase in of Act 120 of 2010. Act 120 provided historic pension reform and made dramatic progress toward addressing funding issues

at PSERS. The legislation included actuarial and funding changes to PSERS and benefit reductions for individuals who become new members of PSERS on or after July 1, 2011.

Impact of Benefit Cuts for New Members on or after July 1, 2011

For school employees who become new members of PSERS on or after July 1, 2011, there are two new classes; Class T-E and T-F.

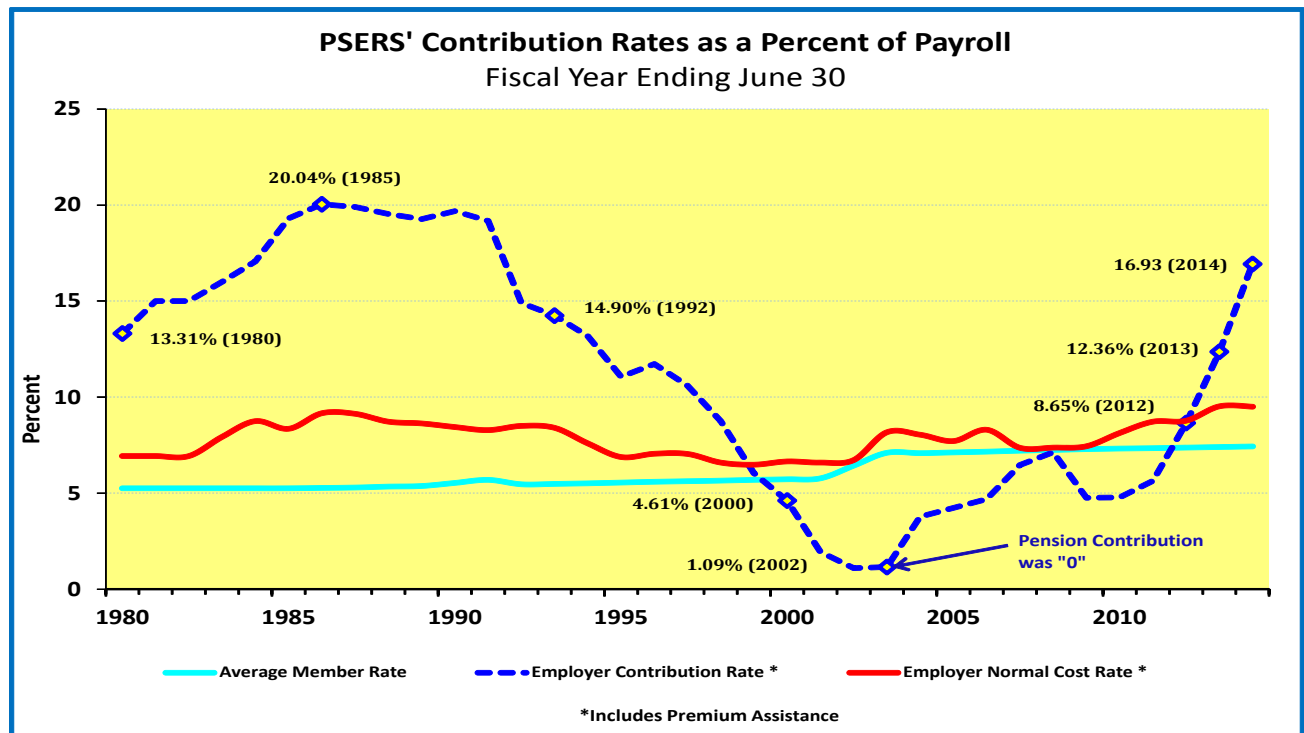
Class T-E

- Pension multiplier is 2%
- Effective July 1, 2011 employee contribution base rate is 7.5% (base rate) with "shared risk" contribution levels between 7.5% and 9.5%

Class T-F

- Pension multiplier is 2.5%
- Effective July 1, 2011 employee contribution base rate is 10.3% (base rate) with "shared risk" contribution levels between 10.3% and 12.3%

As of December 31, 2012, 2,349 or 13.4% of new members elected class T-F and 15,223 or 86.6% of new members remained in class T-E. As indicated above, Class T-F members maintain the higher 2.5% pension multiplier but contribute at a higher member contribution rate than Class T-E members.



Section 1 - PSERS Overview

Employer Contribution Rate

(continued)

Funding/Actuarial Changes Summary

Funding Changes - Employer Contributions

The legislation also suppressed the employer contribution rate by using rate caps in future years to keep the rate from rising too high, too fast for budgetary purposes.

The rate caps limit the amount the pension component of the employer contribution rate can increase over the prior year's rate as follows:

- FY2011/12 - not more than 3.0% plus the premium assistance contribution rate
- FY2012/13 - not more than 3.5% plus the premium assistance contribution rate
- FY2013/14 and thereafter - not more than 4.5% plus the premium assistance contribution rate

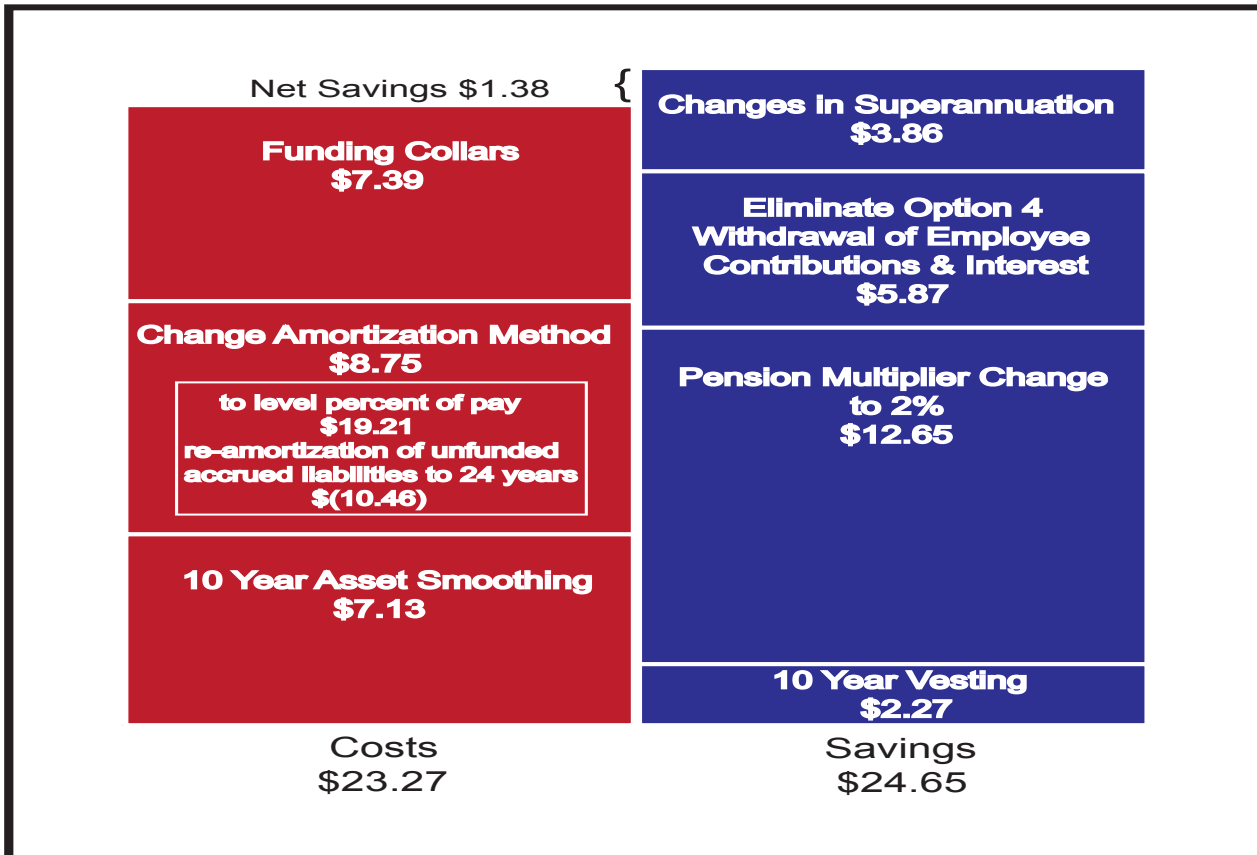
The rate cap remains at 4.5% until the rate cap no longer applies, i.e. the rise in the employer contribution rate is less than the rate cap in effect at that time.

After that, the rate is what is calculated by PSERS actuary and approved by the PSERS Board, subject to a new rate floor or minimum employer contribution rate that is the employer normal cost (currently about 8%), plus the premium assistance contribution rate. The "employer normal cost" is the amount needed from the school employers to fund the benefits earned by the active members for that year.

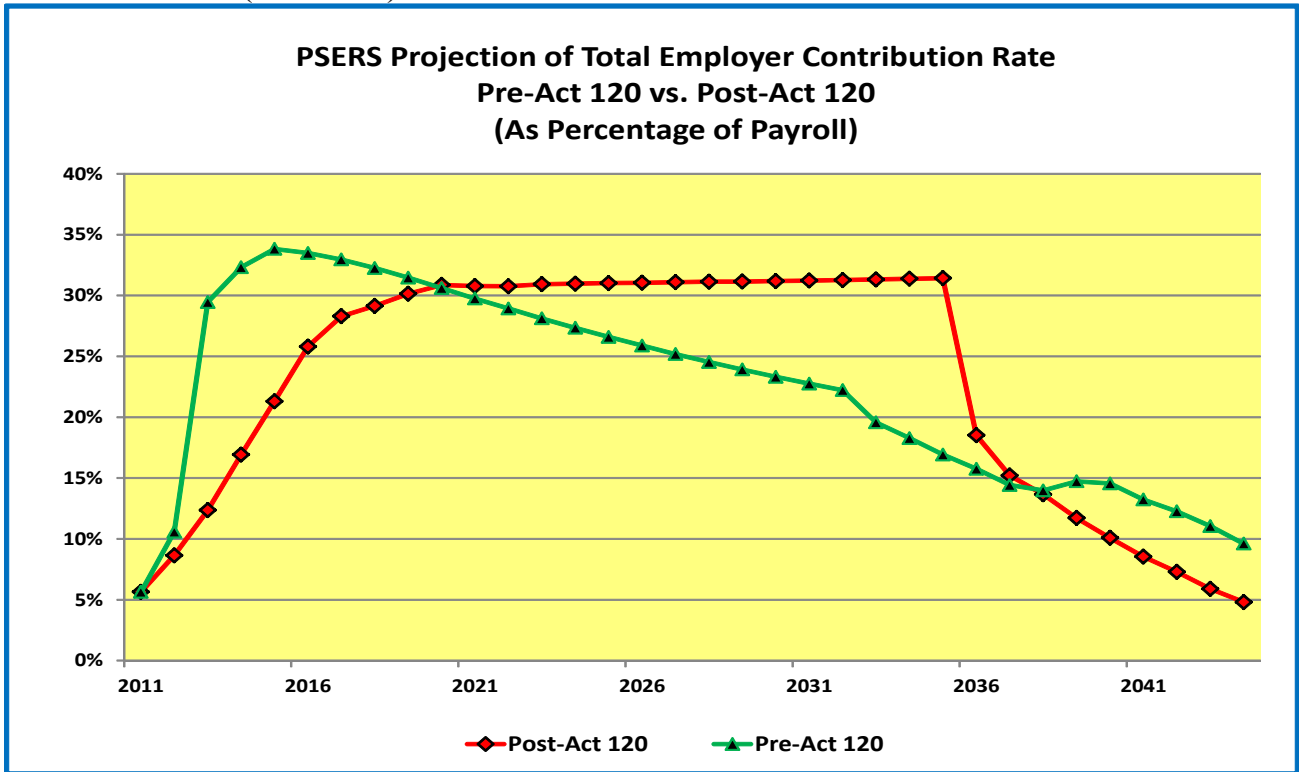
Act 120 Costs and Savings

As depicted by the chart below, Act 120 has a projected net savings of \$1.38 billion over 30 years. Act 120 benefit reductions are projected to save \$24.65 billion through FY2043/44. The cost savings from benefit reductions are offset by Act 120 funding and actuarial changes. Those changes defer contributions for budgetary purposes and are projected to cost \$23.27 billion through FY2043/44.

Act 120 of 2010 Costs and Savings Compared to Prior Law Projected to FY 2043/2044 (*\$ in billions*)



**Employer Contribution Rate
(continued)**

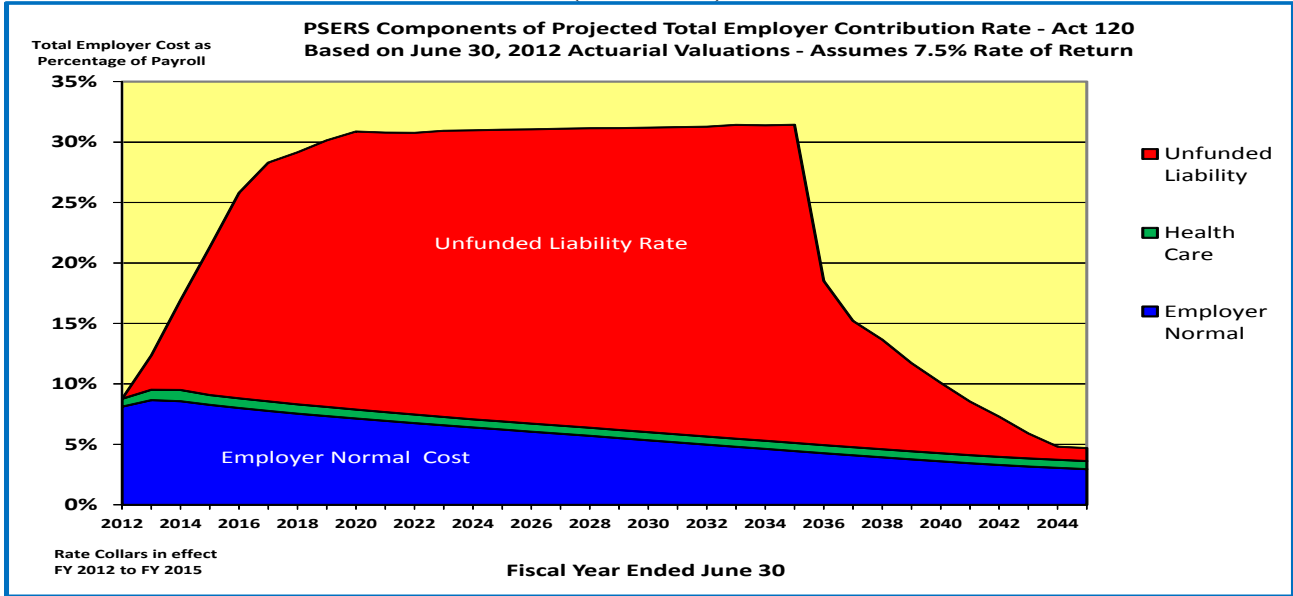


The chart above shows PSERS’ projections of total employer contribution rates under Act 120 compared to previous law (Pre-Act 120). As depicted in the chart, Act 120 smooths the rate spike under previous law over nine years. The rate spike under previous law was budgetarily prohibitive for the Commonwealth and school employers. Although the contribution levels are still significant, Act 120 gives the Commonwealth and school employers nine years to gradually absorb the necessary funding increases required to adequately fund PSERS.



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**Employer Contribution Rate
(continued)**



Act 120 Employer Costs

The cost structure of PSERS’ new members under Act 120 is low and the shared risk provisions shift a portion of the investment risk to active members giving PSERS a defined contribution element. The chart at the top of the page shows the components of the projected total employer contribution rate with unfunded liability, employer normal cost, and health care premium assistance. Essentially, Act 120 provides the members with a defined benefit plan, which is both adequate and secure, and provides the employers with a low cost employee pension benefit funded primarily by the members who have also assumed some of the investment risk. As the chart depicts, the employer normal cost decreases over time as Act 120 members replace retiring pre-Act 120 members. The projected employer normal cost of Act 120 members is approximately 2.24% of payroll which is over 70% less than the normal cost for pre-Act 120 members. This represents a significant cost reduction for the employers.

Regardless of the benefit structure going forward, as depicted in the chart at the top of this page, the unfunded liability accumulated for service already rendered by active members is significant and represents a much larger cost to employers than the projected normal cost for existing and Act 120 members over the next 25 years.



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Section 1 - PSERS Overview

Employer Contribution Rate (continued)

Comparison of Employer Retirement Contributions Pre-Act 120 Vs. Post Act 120								
Fiscal Year Ending June 30	(A) Appropriation Payroll (in thousands)	(B) Employer Contribution Rates	(C) Pre-Act 120 Employer Contributions (in thousands)	(D)=(A)*(B) Act 120 Employer Contributions (in thousands)	(E)=(C)-(D) Budgetary Amount Deferred (in thousands)	(E)*56% (56%) State Share of Deferral (in thousands)	(E)*44% (44%) School Share of Deferral (in thousands)	% of GASB's Annual Required Contributions (ARC)
2013	\$ 14,297,000	12.36%	\$ 4,239,061	\$ 1,767,109	\$ 2,471,951	\$ 1,384,293	\$ 1,087,659	46
2014	\$ 13,720,000	16.93%	\$ 4,434,304	\$ 2,322,796	\$ 2,111,508	\$ 1,182,444	\$ 929,064	58
2015	\$ 14,081,432	21.31%	\$ 4,763,748	\$ 3,000,754	\$ 1,762,995	\$ 987,277	\$ 775,718	71
2016	\$ 14,451,877	25.80%	\$ 4,839,934	\$ 3,728,585	\$ 1,111,349	\$ 622,356	\$ 488,994	84
2017	\$ 14,856,092	28.30%	\$ 4,896,568	\$ 4,204,275	\$ 692,294	\$ 387,685	\$ 304,610	90
2018	\$ 15,227,378	29.15%	\$ 4,928,482	\$ 4,453,356	\$ 475,126	\$ 266,071	\$ 209,056	91
Cumulative Total Deferral					\$ 8,625,224	\$ 4,830,126	\$ 3,795,100	

Schedule of Employer Contributions			
Year ended June 30	Annual Required Contributions (ARC)	Actual Employer Contributions	ARC Percentage Contributed
2012	\$ 2,629,244	\$ 1,001,140*	38%
2011	\$ 2,436,602	\$ 646,560*	27%
2010	\$ 1,928,278	\$ 527,212*	27%
2009	\$ 1,761,295	\$ 503,227*	29%
2008	\$ 1,852,238	\$ 753,532	41%
2007	\$ 1,708,821	\$ 659,545	39%
2006	\$ 1,328,373	\$ 456,878	34%

* Net of purchase of service contributions.

Act 120 Budgetary Deferral

As indicated previously, the funding and actuarial provisions of Act 120 have provided the Commonwealth and school employers a nine year period to appropriate funds for PSERS' unfunded liability. Act 120 is projected to defer \$8.6 billion in employer contributions in the next six years alone as seen in the table at the top of the page. If Act 120 was not in place, the employer contribution rate would have spiked to 32.32% in FY2013/14 under previous law. That is an approximately \$2.1 billion dollar difference between the 32.32% Pre-Act 120 employer rate and the 16.93% employer rate that will go into effect July 1, 2013. The current FY2012/13 employer contribution rate of 12.36% also resulted in a \$2.5 billion reduction in employer contributions over the Pre-Act 120 contribution rate of 29.65%

PSERS Annual Required Contributions

The schedule of employer contributions above shows historical trend information for the Annual Required Contribution (ARC) for pensions, and the percentage of the ARC contributed to the pension system. In addition, the Comparison of Employer Retirement Contributions table at the top of this page reflects projected ARC percentages through FY2017/18.

The national landscape has changed and the underfunding of state pension plans has proved costly to New Jersey, Illinois, Connecticut and other states that have experienced bond ratings decreases as result of pension funding levels. As the table above shows, the Commonwealth and school employers have not made the required annual payments to PSERS for the past seven years. Taxpayers, as a result, have benefited significantly from employer funding deferrals. Bond rating agencies have already reduced Pennsylvania's bond rating one time and pension funding was noted as one of the reasons for the decrease. Pennsylvania must continue to increase its contributions to PSERS as provided in Act 120.

PSERS Board certified an employer contribution rate of 16.93% for FY2013/14 in compliance with Act 120. As a result, PSERS' ARC percentage is projected to increase from 38% in the FY2011/12 to 58% in FY2013/14. PSERS projected ARC percentage of 46% for FY2012/13 is well below the average ARC percentage of 86% for public funds based on the November 2012 Public Fund Survey prepared by the National Association of State Retirement Administrators (NASRA).

Employer Contribution Rate (continued)

The FY2013/14 contribution rate of 16.93% includes a portion to fund the unfunded liability of the System. This will be the second consecutive year PSERS employer contribution rate includes a portion to pay for the unfunded liability. As depicted in the table at the top of the previous page, future projected contribution rate increases will raise PSERS' ARC percentage to nearly 84% in FY2015/16 which is close to the average ARC of 86 percent for major public plans according to the November 2012 Public Fund Survey prepared by the NASRA.

Next Steps

As noted, the Commonwealth and School employers have benefited over the past seven years and longer due to PSERS' very low ARC. Illinois, New Jersey, Connecticut and other states are currently dealing with the repercussions of underfunding their pension plans. Pennsylvania's bond rating was lowered one time last year and pension funding was one of the reasons for the decrease. Act 120 has significantly reduced the employer's normal cost for future new members via benefit reductions to new members, but a significant unfunded liability for service already rendered by active members still remains to be paid. As the chart on page 26 shows, even if PSERS only paid the unfunded liability, the employer contribution rate still peaks at over 20% of payroll and remains there for over a decade.

Act 120 has provided both the Commonwealth and the School employers with a nine year time horizon to gradually increase contributions to PSERS in a more budgetary feasible manner than the rate spike under previous law. The process is now an appropriation challenge to meet the gradual funding increases provided for in Act 120 and bring the ARC percentage to a healthy level and in line with other public pension funds.

On February 5, 2013 during his budget address, Governor Corbett unveiled his plan for additional pension reform. At the time this Budget document was prepared, cost data for the Governor's proposal was not available. It is PSERS' understanding that this proposal includes reducing the collars which would impact the projections in this document. As in the past, PSERS remains committed to providing all available assistance to the Governor, General Assembly and School employers to address the appropriation challenges.



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Section 1 - PSERS Overview

Consultants' Fees (\$50,000 and Over)

The following benefit, investment, information technology and financial professional service firms were under contract to provide services to PSERS during the fiscal year ended June 30, 2012.

<u>Firm</u>	<u>Services Provided</u>	<u>Consultant Fee</u>
CoreSource, Inc.	Postemployment healthcare benefits administration and claims adjudication	\$ 13,046,823 *
ViTech Systems Group, Inc.	Pension administration system services	\$ 5,422,005 *
Rx Solutions, Inc.	Administration of postemployment healthcare benefits' prescription drug plan	\$ 4,109,161 *
The Segal Company, Inc.	Actuarial services and consulting for the Health Options Program and prescription drug plan	\$ 2,631,905 *
Aksia LLC	Hedge fund investment consulting	\$ 975,000
Portfolio Advisors, LLC	Private market consulting	\$ 663,333
Financial Control Systems, Inc.	Investment accounting application service provider	\$ 648,417
Independent Pharmaceutical Consultants, Inc.	Pharmacy benefit consulting services	\$ 527,691 *
Wilshire Associates	General investment consulting	\$ 515,266
Buck Consultants LLC	Pension benefit actuarial services	\$ 389,471 *
Courtland Partners, Ltd.	Real estate investment consulting	\$ 255,000
Glass, Lewis & Co., LLC	Proxy voting	\$ 247,837
CliftonLarsonAllen LLP	Financial audit of pension system and postemployment healthcare programs	\$ 115,000 *

* Amounts as reported in PSERS' Comprehensive Annual Financial Report.



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Legislation Information

No legislation was enacted during the 2011-2012 Legislative Session affecting the operations or the membership of the Public School Employees' Retirement System.



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Section 2 - PSERS FY2013/14 Budget





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Section 2 - FY2013/14 Budget

Public School Employees' Retirement System Fiscal Year 2013/14 Budget

	<u>Actual</u> <u>2011/2012</u>	<u>Available</u> <u>2012/2013</u>	<u>Governor's</u> <u>Budget</u> <u>Recommendation</u> <u>2013/2014</u>
Total Personnel Expenses	\$ 24,840,027	\$ 27,335,000	\$ 23,752,000
<u>Operating Expenses</u>			
Travel	\$ 81,094	\$ 143,400	\$ 143,300
Training & Conference Registration	82,710	132,100	119,500
Telecomm - Recurring	516,313	545,000	397,000
Telecomm - Voice Hardware less than \$5,000	149,971	5,000	2,000
Electricity	44,392	60,000	44,000
Consultant Services - Non IT	529,221	848,000	785,000
Consulting Services - (vendor hosted SW)	2,098	30,000	10,000
Consulting - Maint & Support - (post implementation)	2,641	122,000	82,000
Consulting - Security (Outsourced Inf Sec Services)	10,288	12,000	12,000
Consulting - General (IT Support)	151,540	127,900	30,000
Consulting - Outsourced Infrastructure Svcs (DPH)	1,883,197	1,950,000	2,084,000
Legal Services/Fees	-52,664	36,000	58,000
Specialized Services	346,821	359,000	351,000
Other Specialized Services	75,106	112,000	210,000
Advertising	-	10,000	10,000
Medical, Mental, & Dental Services	3,972	5,000	4,000
Software Licensing - Maintenance	817,183	1,020,200	1,075,000
Hardware Server - Maintenance	448	1,000	1,000
Hardware Network - Maintenance	12,893	15,000	4,000
Hardware Desktop - Maintenance	27,687	19,000	21,000
Contracted Maintenance Non EDP	438,077	191,200	194,000
Telecom Data Services	107,651	120,000	48,000
Contracted Repairs - Non EDP	29,676	15,400	10,000
Real Estate Rental	1,919,426	1,950,000	1,783,000
Vehicle Rental	1,953	4,000	3,000
Office Equipment Rental	271,482	303,000	278,000
Other Rentals	20,058	30,000	26,000
Office Supplies	248,154	260,000	230,000
Educational Supplies (Books)	6,714	11,000	11,000
Medical Supplies	642	1,000	-
Software License non-recurring less than \$5,000	241,894	169,900	46,000
Hardware Desktop less than \$5,000	160,006	55,000	114,000
Furniture and Fixtures	106,915	46,000	23,300
Other Equipment	10,389	3,500	-
Motorized Equipment Supplies	26,146	41,000	22,000
Postage	992,584	1,200,000	1,145,600

Section 2 - FY2013/14 Budget

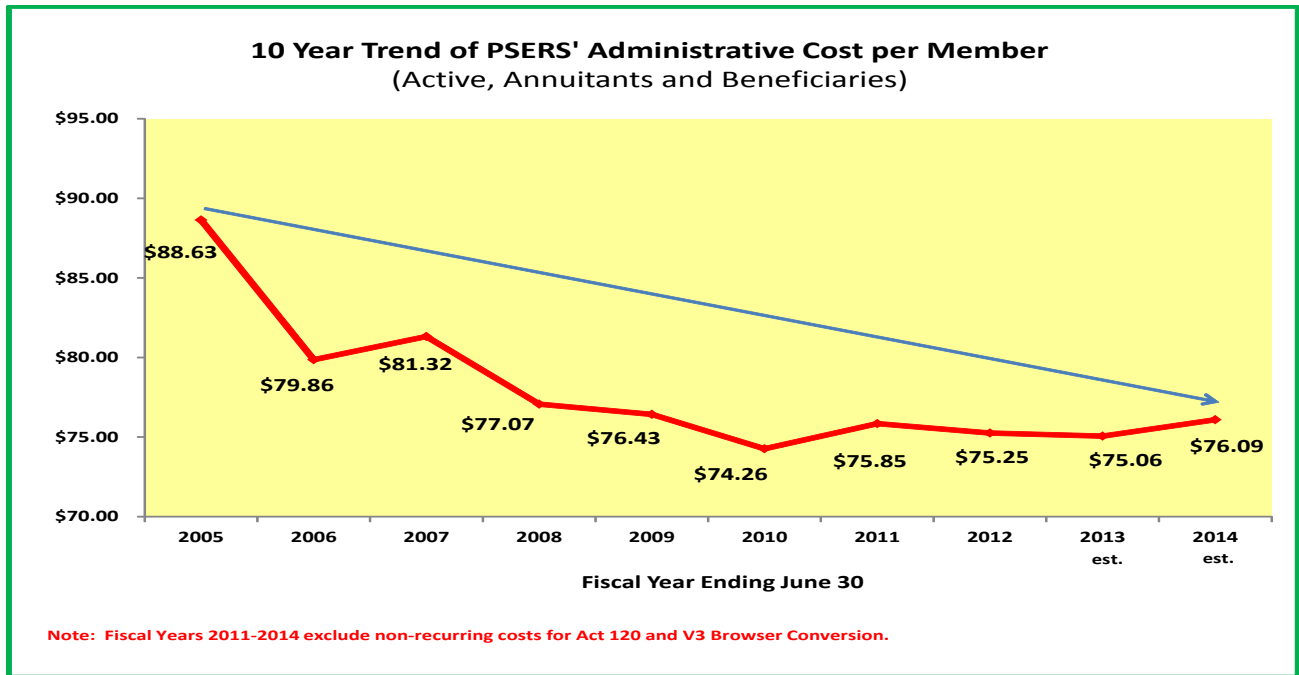
Public School Employees' Retirement System Fiscal Year 2013/14 Budget Request (continued)

	Actual <u>2011/2012</u>	Available <u>2012/2013</u>	Governor's Budget Recommendation <u>2013/2014</u>
Freight	6,062	10,000	7,000
Printing	305,254	412,000	315,000
Subscriptions	78,050	107,000	96,100
Membership Dues	31,874	45,000	32,200
Conference Expense	34,851	69,400	49,000
Insurance, Surety & Fidelity Bonds	20,118	24,000	24,000
Graphic Services	-	1,000	-
Other Operational Expenses	<u>1,778,651</u>	<u>1,987,000</u>	<u>1,657,000</u>
Total Operating Expenses	\$ 11,521,537	\$ 12,609,000	\$ 11,557,000
Fixed Assets			
Hardware Server greater than \$25,000	\$ -	\$ -	\$ -
Hardware Network greater than \$25,000	-	-	-
Telecomm -Voice Hardware greater than \$25,000	-	-	-
Telecomm - Data Hardware greater than \$25,000	-	-	-
Automobiles	61,996	-	-
Software License non-recurring greater than \$5,000	74,070	69,000	10,000
Software License recurring greater than \$5,000	5,885,615	4,125,000	6,046,000
Office Equipment	-	6,000	-
Telecommunications Equipment	<u>37,413</u>	-	-
Total Fixed Assets	\$ 6,059,094	\$ 4,200,000	\$ 6,056,000
Total Administrative Budget*	<u>\$ 42,420,657</u>	<u>\$ 44,144,000</u>	<u>\$ 41,365,000</u>

*Investment Related expenditures that were previously included in the Administrative Appropriation will be accounted for as non-budgeted appropriated expenditures and reported in the same manner as other investment expenditures beginning in FY2013/14.

Section 2 - FY2013/14 Budget

Public School Employees' Retirement System Fiscal Year 2013/14 Budget Request (continued)



Administrative Cost per Member

The chart above shows a ten-year trend of PSERS administrative cost per member. Expenses were higher in FY2004/05 due to the implementation of the new pension administration system. The downward trend in cost indicates that PSERS has achieved operational efficiencies while its membership has risen each year. The System has accomplished this without significantly increasing the size of its staff.

PSERS continues to be prudent in its use of funds and managing the annual budget. PSERS has annually underspent its approved budget, keeping more funds available to invest for PSERS' members.

Some of the cost savings initiatives include: processing significantly more retirements in a more efficient one-step process versus a two-step process used previously, implementation of a new pension administration system which has automated procedures done manually, combining bulk mailings to members where possible, limiting travel and using electronic means, when possible, to communicate with members and stakeholders. During FY2011/2012, the relocation of PSERS' Southcentral regional field office was completed. This relocation will provide substantial annual savings each year.

While PSERS staff worked tirelessly to develop and implement the requirements of Act 120, service levels for members and school employees were not negatively impacted.

The V3 Browser Conversion is a major technological enhancement that will provide new functionality, improve the ease-of-use, and streamline many of the existing core processes of the System.



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**Directed Commissions
Recapture Program
(unaudited)**

Directed Commissions Recapture is a program whereby a portion of commissions incurred by PSERS through investment trading activity is returned to PSERS. These funds, which are held in a restricted revenue account at Treasury, can be used for the administration of the Fund or can be reinvested back into the asset allocation through a transfer to the PSERS Retirement Account. Expenditures paid from the Directed Commissions Recapture Program Budget have the same approval process as any other expenditure made by the Fund.

**Directed Commissions Recapture Program -
Directed Commissions Apropriation #6012700000**

	<u>Actual Expenditures FY2011/12</u>	<u>Available FY2012/13</u>	<u>Governor's Budget Recommendation 2013/2014</u>
Budgetary Reserve	<u>0</u>	<u>\$2,000,000</u>	<u>\$2,000,000</u>
Total	<u>0</u>	<u>\$2,000,000</u>	<u>\$2,000,000</u>



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Section 3 - Investment Information





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Investment Policy

The Public School Employees' Retirement Board of Trustees (the Board) is responsible for, among other things, the formulation of an Investment Policy (the Policy) for the Public School Employees' Retirement System (the System). As articulated in the Public School Employees' Retirement Code 24 Pa. C.S. §8521(a), the Board and PSERS' Staff delegated with investment authority must act in a manner consistent with the Prudent Investor Standard, which requires "the exercise of that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the fund, considering the probable income to be derived therefrom as well as the probable safety of their capital." The Prudent Investor Standard recognizes modern portfolio theory and guides investment and management decisions respecting individual assets so that the trade-offs between risk and return for each asset are considered in the context of an overall investment strategy.

The System's Investment Policy Statement, Objectives, and Guidelines (the Policy), which is available at www.psers.state.pa.us, reflects the many implications of the Prudent Person Standard. The Board reviews the Policy at least annually, and may make more frequent changes as necessary. The Policy establishes clear criteria for the management of the assets by or on behalf of the Board. For example:

- The Board, PSERS' staff, investment consultants, and investment managers are assigned appropriate responsibilities and made to clearly understand the objectives and policies of the Board and the System;
- Allocation plans are prepared to guide the investment of the System's assets;
- Guidelines are established for each investment category so that asset quality, diversification, and return can be monitored;
- Investment managers are given guidance and limitations on the investment of the System's assets; and,
- The Board has created a meaningful basis for evaluating the investment performance of individual investment managers, as well as for evaluating overall success in meeting its objectives.

General Investment Objectives

The System seeks to provide benefits to its members through a carefully planned and well-executed investment program. The overall investment objective of the Board is to provide adequate funding for member benefits. Realization of this overall return objective would be sufficient to achieve funding adequacy (defined as when the actuarial market value of assets is at least equal to the System's projected benefit obligations) on an inflation-adjusted basis subject to the employee and employer fulfilling their ARC. The Policy also identifies the following general investment objectives and constraints:

Return Objectives

- The System has an overall return objective of meeting or exceeding the actuarial rate (currently 7.5%) over the long term;
- The assets of the System shall be invested to maximize the returns for the level of risk taken; and
- The System shall strive to achieve a return that exceeds the Policy Index.

Risk Objectives

- The assets of the System shall be diversified to minimize the risk of losses within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location; and
- The System's assets shall be invested so that the probability of investment losses (as measured by the Policy Index) in excess of 15% in any one year is no greater than 2.5% (or two standard deviations below the expected return).

Constraints

- The System shall maintain adequate liquidity to meet required benefit payments to the System's beneficiaries;
- The System's assets shall be invested in a manner that is consistent with the System's long-term investment horizon; and,
- As a tax-exempt investor, the System's assets may be invested without distinction between returns generated from income and returns generated from capital gains.

Section 3 - Investment Information

Investment Performance Net of Fees (for the period ended June 30, 2012) Annualized Total Returns(%)

Asset Class	One Year	Three Year	Five Year	Ten Year
<i>PSERS U.S. Equities</i>	3.62	17.60	-0.20	5.55
U.S. Equity Policy Index (1)	3.34	16.26	0.20	5.92
<i>PSERS Non-U.S. Equities</i>	-13.14	9.24	-2.62	8.26
Non-U.S. Equity Policy Index (2)	-14.79	7.36	-3.79	7.30
<i>PSERS U.S. Fixed Income</i>	10.64	14.44	9.84	7.96
U.S. Fixed Income Policy Index (3)	8.53	11.90	9.93	7.16
<i>PSERS Global Fixed Income</i>	1.27	9.85	8.05	7.60
Global Fixed Income Policy Index (4)	0.13	6.62	6.91	6.70
<i>PSERS Commodities</i>	-13.38	6.55	-2.19	N/A
Dow Jones - UBS Commodity Index	-14.32	3.49	-3.65	N/A
<i>PSERS Real Estate (5)</i>	7.96	4.99	-8.86	6.33
Blended Real Estate Index (6)	10.51	8.46	2.38	8.71
<i>PSERS Private Markets (5)</i>	9.35	16.65	6.59	12.96
Venture Economics Median Return, Vintage Year Weighted	5.97	10.07	3.58	5.10
<i>PSERS Absolute Return</i>	2.72	10.36	N/A	N/A
Absolute Return Policy Index (7)	7.50	7.83	N/A	N/A
<i>PSERS Cash</i>	0.27	0.30	N/A	N/A
Merrill Lynch U.S. Treasury Bill 0 - 3 Months Index	0.04	0.10	N/A	N/A
<i>Total Fund (8)</i>	3.43	12.57	0.37	7.19
Policy Index	1.98	9.94	0.59	6.12

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI All Country World (ACW) ex. USA Investable Market Index effective July 1, 2008; previously was the MSCI ACW ex. U.S. Index. The benchmark was 30% hedged to the U.S. dollar from July 1, 2006 to March 31, 2009; otherwise, the benchmark is unhedged.
3. Returns presented are a blend of the Barclays Capital U.S. Aggregate Index (32.3%), Barclays Capital U.S. TIPS Index (Series -L) (30.8%), and Barclays Capital U.S. High Yield Index (36.9%) effective January 1, 2012. The weights to these indexes have varied in previous quarters. Prior to January 1, 2012, the Barclays Capital U.S. Universal Index was used in place of the Barclays Capital U.S. Aggregate Index.
4. Returns presented are a blend of the Barclays Capital Global Aggregate GDP-weighted Developed Market ex-U.S. (Unhedged) Index (60%) and Barclays Capital EM Local Currency-Government-MV Weighted (Unhedged)-10% Country Cap Index (40%) effective January 1, 2012. Between April 1, 2010 and December 31, 2011, the Barclays Multiverse Index and the JP Morgan Global Bond Index Emerging Markets Global Diversified (USD Unhedged) Index was used.
5. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
6. NTFI Index effective July 1, 2010. The NTFI Index is reported on a one-quarter lag. Between April 1, 2010 and June 30, 2010, the NCREIF Index was used. Previously, returns presented were a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index.
7. Absolute Return started April 1, 2009. The assumed actuarial rate of return for the fund was 8.0% from July 1, 2009 through June 30, 2011. The rate changed to 7.5% beginning July 1, 2011.
8. Over the past 25 years ended June 30, 2012, the Fund earned an annualized rate of return of 8.42 percent which remained above the Fund's assumed actuarial rate of return during that time period.

Section 3 - Investment Information

Estimated Investment Performance

Net of Fees

(for the period ended December 31, 2012)

Annualized Total Returns(%)

Asset Class	One Year	Three Year	Five Year	Ten Year
<i>PSERS U.S. Equities</i>	15.65	11.64	1.75	7.54
U.S. Equity Policy Index (1)	15.62	10.68	1.76	7.71
<i>PSERS Non-U.S. Equities</i>	18.66	6.05	-0.45	11.27
Non-U.S. Equity Policy Index (2)	17.03	4.18	-1.76	10.31
<i>PSERS U.S. Fixed Income</i>	11.51	12.29	9.85	7.94
U.S. Fixed Income Policy Index (3)	9.28	9.40	9.48	6.97
<i>Non-U.S. Developed Markets Fixed Income</i>	7.16	6.51	6.94	6.94
Barclays Global Aggregate GDP Weighted Index	6.69	5.67	5.75	6.26
<i>Emerging Markets Fixed Income</i>	16.81	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Barclays Emerging Markets 10% Country Cap Index	16.01	N/A	N/A	N/A
<i>PSERS Commodities</i>	2.46	2.89	-3.48	<i>N/A</i>
Dow Jones - UBS Commodity Index	-1.05	0.07	-5.17	N/A
<i>PSERS Real Estate (4)</i>	9.94	8.81	-8.70	6.72
Blended Real Estate Index (5)	9.48	11.54	2.54	9.11
<i>PSERS Private Markets (4)</i>	13.27	12.91	4.71	13.68
Venture Economics Median Return, Vintage Year Weighted	7.74	8.49	2.84	5.72
<i>PSERS Absolute Return</i>	3.44	8.82	<i>N/A</i>	<i>N/A</i>
Absolute Return Policy Index (6)	7.50	7.75	N/A	N/A
<i>Master Limited Partnerships (7)</i>	12.77	23.30	<i>N/A</i>	<i>N/A</i>
S&P MLP Index	4.78	17.46	N/A	N/A
<i>Risk Parity (8)</i>	19.34	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Risk Parity Policy Index (9)	9.92	N/A	N/A	N/A
<i>PSERS Cash</i>	2.06	1.44	<i>N/A</i>	<i>N/A</i>
Merrill Lynch U.S. Treasury Bill 0 - 3 Months Index	0.07	0.09	N/A	N/A
<i>Total Fund (10)</i>	11.39	9.90	0.90	8.45
Policy Index	9.31	7.65	0.96	7.19

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI All Country World (ACW) ex. USA Investable Market Index effective July 1, 2008; previously was the MSCI ACW ex. U.S. Index. The benchmark was 30% hedged to the U.S. dollar from July 1, 2006 to March 31, 2009; otherwise, the benchmark is unhedged.
3. Returns presented are a blend of the Barclays Capital U.S. Aggregate Index (32.3%), Barclays Capital U.S. TIPS Index (Series -L) (30.8%), and Barclays Capital U.S. High Yield Index (36.9%) effective January 1, 2012. The weights to these indexes have varied in previous quarters. Prior to January 1, 2012, the Barclays Capital U.S. Universal Index was used in place of the Barclays Capital U.S. Aggregate Index.
4. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
5. NTFI Index effective July 1, 2010. The NTFI Index is reported on a one-quarter lag. Between April 1, 2010 and June 30, 2010, the NCREIF Index was used. Previously, returns presented were a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index.
6. Absolute Return started April 1, 2009. The assumed actuarial rate of return for the fund was 8.0% from July 1, 2009 through June 30, 2011. The rate changed to 7.5% beginning July 1, 2011.
7. Returns for this asset class were included in U.S. Equities for the period ended June 30, 2012.
8. Returns for this asset class were not available as a separate category for the period ended June 30, 2012.
9. Returns presented are a blend of the MSCI ACWI (\$Net) (35%); Barclays Capital U.S. Treasury Index (75%); Barclays Capital World Inflation Linked Bond Index Hedged (120%); Dow Jones-UBS Commodity Index (Total Return) (15%); Dow Jones-UBS Gold Index (5%); and 3-Month LIBOR (-150%).
10. Over the past 25 years ended December 31, 2012, the Fund earned an estimated annualized rate of return of 8.91 percent which remained above the Fund's assumed actuarial rate of return during that time period.



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Section 3 - Investment Information

Asset Allocation (as of December 31, 2012)

tion it deems appropriate in formulating this allocation. The purpose of the asset allocation is to meet the long-term financial needs and investment objectives of the System.

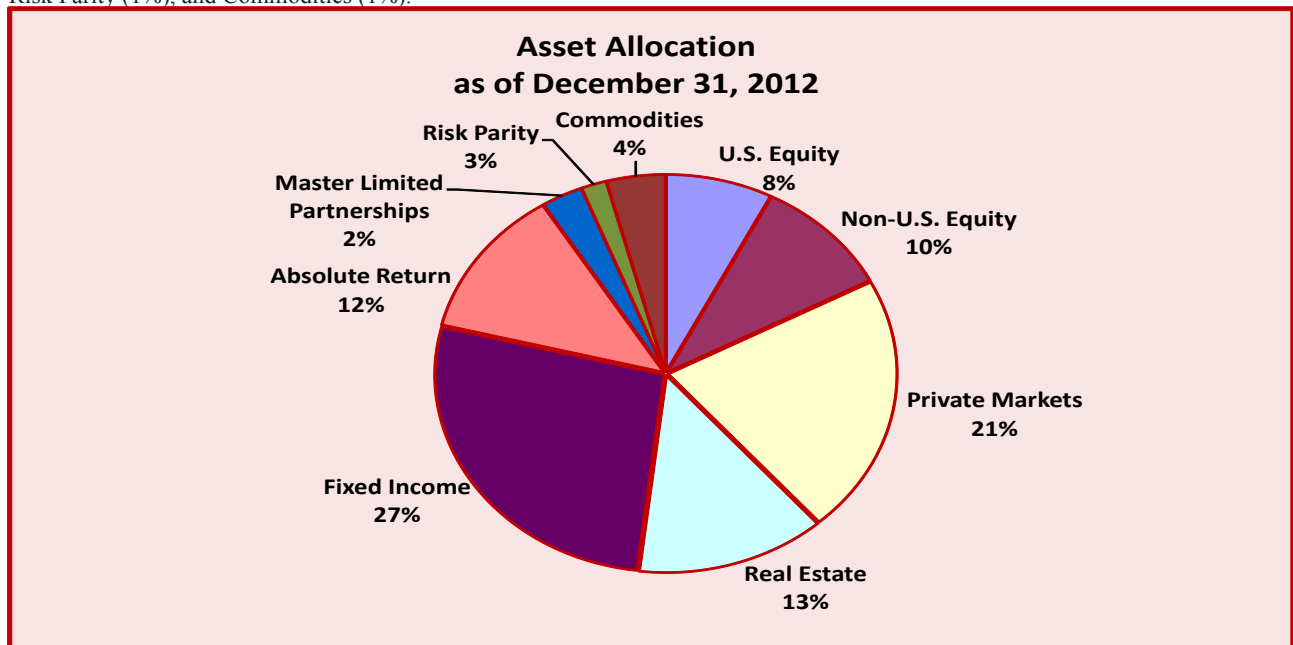
The Board reviews the long-term asset allocation targets of the System at least annually. In establishing the asset allocation plan, the Board will consult with its actuary, consultants, investment staff, and other sources of informa-

The following represents PSERS' asset allocation as of December 31, 2012 (unaudited):

<u>Asset Class</u>	<u>Market Value (in millions)</u>	<u>Percentage of Total</u>	<u>Target Allocation %</u>	<u>Target Allocation Range</u>
Global:				
U.S. Equity	\$ 3,688.4	7.5%	7.3%	± 5%
Non-U.S. Equity	4,786.2	9.8	8.2	± 5
Private Markets	10,417.0	21.2	22.0	-
Real Estate	6,545.1	13.4	12.5	-
Fixed Income**	13,230.6 *	27.0	27.0	± 10
Absolute Return	6,000.1	12.2	12.0	± 4
Risk Parity**	1,442.9	2.9	4.0	± 4
Master Limited Partnerships	875.1	1.8	2.0	± 2
Commodities**	2,036.6	4.2	5.0	± 4
Totals	\$ 49,022.0	100.0%	100.0%	

* Cash is included in the Fixed Income asset class. Cash represents the total short-term investment fund (STIF) managed by PSERS in the PSERS Proprietary Fund. Cash is unitized and the managers in the various asset classes are allocated units of STIF. For purposes of this schedule, units of STIF are not included in the various asset classes. For example, a U.S. Equity manager may manage \$200 million, but if that manager has \$10 million in STIF, \$190 million would be included in U.S. Equity and \$10 million would be included in Cash.

**PSERS uses financing to achieve increased economic exposure to diversifying asset classes to manage the overall portfolio risk while maintaining an allocation designed to achieve the long-term return goals of the System. Increased economic exposure is generally achieved through the use of either derivative positions or higher volatility funds. As of December 31, 2012, PSERS had increased economic exposure of \$2.1 billion related to the following asset classes: Fixed Income (\$1.2 billion); Risk Parity (\$0.5 billion); and Commodities (\$0.4 billion). The target allocation to financing was netted against the following target allocations: Fixed Income (7%), Risk Parity (1%), and Commodities (1%).



Section 3 - Investment Information

Asset Allocation (as of December 31, 2012) (continued)

Number of Investment Managers and Portfolios

Public Market Asset Classes (ex. Real Estate)

PSERS public market asset classes, excluding Real Estate, used 71 external investment managers who were responsible for 84 portfolios, and 7 internal portfolio managers who were responsible for 10 portfolios. There were 5 external public market investment managers with portfolios in multiple asset classes. A further breakdown of the external and internal portfolio managers is shown in the table below.

Private Markets and Real Estate

PSERS private markets and real estate (public and private markets) asset classes used 117 active external general partners to invest in 255 limited partnership interests of various private market real estate, private debt, private equity, and venture capital funds. Additionally, PSERS internal staff manages a portfolio of privately-placed co-investment and secondary investments consisting of both private equity and real estate. PSERS has 2 internal real estate investment managers who are responsible for 1 public market real estate portfolio. Finally, PSERS had 5 external and 2 internal real estate asset managers who oversee the direct management of 6 separate real estate accounts.

Public Market Asset Classes (excluding Public Market Real Estate)

	Portfolio Managers	Portfolios/Accounts
<i>U.S. Equity Investments:</i>		
External*	6	6
Internal	2	3
<i>Non-U.S. Equity Investments:</i>		
External*	13	14
Internal	2	2
<i>Fixed Income Investments:</i>		
External*	24	33
Internal**	2	3
<i>Commodities:</i>		
External	5	5
Internal	1	1
<i>Master Limited Partnerships:</i>		
External	3	3
<i>Risk Parity:</i>		
External	2	2
<i>Absolute Return:</i>		
External*	17	19
<i>Cash:</i>		
Internal**	1	1
<i>Securities Lending:</i>		
External	1	2
<i>Total</i>	80	94
<i>Total External*</i>	71	84
<i>Total Internal</i>	8***	10

*The Public Market Emerging Investment Manager Program consisted of 10 portfolio managers each managing a single portfolio. There were 4 U.S. Equity, 3 Non-U.S. Equity, 2 Fixed Income portfolios, and 1 Absolute Return portfolio in the Program.

**PSERS managed \$211.2 million for the System's healthcare account.

***PSERS had one internal manager responsible for a Commodity and Cash portfolio.

**Summary of PSERS’
Equity Investments
(as of December 31, 2012)**

Public Market Global Equity Exposure is one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS’ investment plan diversifies equity investments and balances equity management styles. PSERS contracts with external investment managers and hires internal portfolio managers to manage equity portfolios.

Policy

Equities are utilized by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Public Market Global Equity Exposure asset class is to be managed on a total return basis.

Equity investments shall consist almost entirely of publicly-traded securities listed on major world-wide stock exchanges or derivatives such as swaps or listed futures that replicate the performance of equity indexes such as the S&P 500 Index. Swaps and futures are employed by PSERS to equitize cash and portable alpha portfolios.

PSERS’ Asset Allocation targets an eventual allocation of 15.5% of assets to Public Market Global Equity Exposure.

Market Value as of December 31, 2012:

- U.S.: \$3,688.4 million, or 7.5% of the Fund’s total market value.
- Non-U.S.: \$4,786.2 million, or 9.8% of the Fund’s total market value.
- Total: \$8,474.6 million, or 17.3% of the Fund’s total market value.

Number of External Investment Managers: PSERS had contracts with six external investment managers responsible for various U.S. Equity portfolios (including four Public Market Emerging Manager Program managers), and contracts with 13 external investment managers responsible for various Non-U.S. Equity portfolios (including three Public Market Emerging Investment Manager Program managers).

Number of Internal Portfolio Managers:

- U.S.: PSERS had two employees managing various U.S. Equity portfolios.
- Non-U.S.: PSERS had two employees managing two Non-U.S. Equity portfolios.

Types of Investment Portfolios at December 31, 2012:

- U.S.: 91.3% large capitalization stock strategies, 7.5% medium/small capitalization stock strategies, and 1.2% in micro capitalization stock strategies.
- 90.1% passively-managed portfolios and 9.9% actively-managed stock selection portfolios.
- 90.1% was managed by internal portfolio managers and 9.9% is managed by external investment managers.
- Non-U.S.: 76.0% large capitalization stock strategies, 12.5% small capitalization strategies, and 11.5% emerging market stock strategies.
- 49.5% passively-managed portfolios (managed internally) and 50.5% actively-managed portfolios (managed externally).

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Summary of PSERS' U.S. Equity Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of U. S. Equities	% of Total Fund
<i>Passively Managed Portfolios</i>			
PSERS S&P 400 Index Fund	\$ 175.0	4.7%	0.4%
PSERS S&P 500 Index Fund	2,973.4	80.6%	6.1%
PSERS S&P 600 Index Fund	<u>176.3</u>	<u>4.8%</u>	<u>0.4%</u>
Total Passively Managed U.S. Equity	\$ <u>3,324.7</u>	<u>90.1%</u>	<u>6.8%</u>
<i>Actively Managed Large Cap Portfolios</i>			
Hellman Jordan	\$ 37.8	1.0%	0.1%
Other	<u>6.5</u>	<u>0.2%</u>	<u>0.0%</u>
Total Actively Managed Large Cap U.S. Equity	\$ <u>44.3</u>	<u>1.2%</u>	<u>0.1%</u>
<i>Actively Managed Mid and Small Cap Portfolios</i>			
A.H. Lisanti Capital Growth, LLC	\$ 45.5	1.2%	0.1%
Conestoga Capital Advisors	48.6	1.3%	0.1%
First Pacific Advisors, Inc.	134.5	3.6%	0.3%
Opus Capital Management	<u>48.1</u>	<u>1.3%</u>	<u>0.1%</u>
Total Actively Managed Mid and Small Cap U.S. Equity	\$ <u>276.7</u>	<u>7.5%</u>	<u>0.6%</u>
<i>Actively Managed MicroCap Portfolio</i>			
NorthPointe Capital, LLC	\$ <u>42.7</u>	<u>1.2%</u>	<u>0.1%</u>
Total U.S. Equity	\$ <u>3,688.4</u>	<u>100.0%</u>	<u>7.5%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Non-U.S. Equity Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of Non-U. S. Equities	% of Total Fund
<i>Passively Managed Portfolios</i>			
PSERS ACWI x-US Index Fund	\$ 2,159.8	45.1%	4.4%
PSERS Emerging Markets Equity Index	208.5	4.4%	0.4%
Total Passively Managed Non-U.S. Equity	\$ 2,368.3	49.5%	4.8%
<i>Actively Managed Developed Large Cap Portfolios</i>			
Baillie Gifford Overseas Ltd.	\$ 478.3	10.0%	1.0%
BlackRock Financial Management, Inc.	438.8	9.2%	0.9%
John Hsu Capital Group, Inc.	56.9	1.2%	0.1%
Marathon Asset Management Limited	468.4	9.8%	1.0%
Shah Capital Management	34.6	0.7%	0.1%
Pareto Investment Management, Ltd.	3.1 a	0.1%	0.0%
Total Actively Managed Developed Large Cap Non-U.S. Equity	\$ 1,480.1	30.9%	3.0%
<i>Actively Managed Emerging Market Portfolios</i>			
Glovista Investments	\$ 30.9	0.6%	0.1%
Wasatch Advisors, Inc.	234.0	4.9%	0.5%
Westwood Global Investments	74.5	1.6%	0.2%
Total Actively Managed Emerging Market Non-U.S. Equity	\$ 339.4	7.1%	0.7%
<i>Actively Managed Developed Small Cap Portfolios</i>			
Acadian Asset Management	\$ 153.2	3.2%	0.3%
Batterymarch Financial Mgmt., Inc.	60.7	1.3%	0.1%
Oberweis Asset Management, Inc.	91.4	1.9%	0.2%
Pyramis Global Advisors	117.2	2.4%	0.2%
Wasatch Advisors, Inc.	175.9	3.7%	0.4%
Total Actively Managed Developed Small Cap Non-U.S. Equity	\$ 598.4	12.5%	1.2%
Total Non-U.S. Equity	\$ 4,786.2	100.0%	9.8%

a - The Market Value represents the cumulative net gain on unsettled foreign exchange contracts.

Numbers may not add due to rounding.

Summary of PSERS' Private Market Investments (as of December 31, 2012)

Private Market investments represent one of nine asset classes that PSERS uses to diversify the investments of the Fund. The primary vehicle used to invest funds in this asset class is the limited partnership. Individual management groups selected by PSERS form these partnerships for the purpose of investing in and managing private equity and unlisted-subordinated debt positions on behalf of PSERS and other limited partners. PSERS' Asset Allocation currently targets an allocation of 22.0% to Private Market investments. Private Market Investment sub-asset class explanations are as follows:

Private Equity involves investments in private companies which normally do not have technology risk associated with traditional venture capital investments. It has evolved to include the financing of more mature, profitable companies that do not have access to, or qualify for, public equity and debt funding. Private Equity strategies include:

- **Buyouts** - Investment strategy is to acquire the assets of a publicly or privately held company. A subset of this category is the leveraged buyout, where financing enables companies to be acquired through the use of borrowed funds. Typically, the assets of target companies serve as collateral for loans originated in the transaction.
- **Secondary Partnerships** - An investment strategy to acquire interests in established limited partnerships. Secondary investing can often be lucrative due to the fact that the partnerships are purchased at significant discounts to net asset value and the timing of the purchase frequently occurs as the acquired partnerships begin to realize profits.

Venture Capital is considered the financing of young, relatively small, rapidly growing companies. In traditional venture capital investments, companies have a 5-10 year investment horizon and develop technology for a particular market, such as pharmaceuticals, software, medical products, etc. Venture capital strategies are typically classified as follows:

- **Seed** - An investment strategy that involves companies that are still in the conceptual stage of growth. Seed stage investing involves product viability risk.

- **Early Stage** - An investment strategy involving financing portfolio companies for product development and initial marketing, manufacturing and sales activities. Typically, early stage companies have been formed, but revenues have not been realized. Early stage investment involves risks associated with defining competitive markets, developing production and marketing channels.
- **Later Stage** - An investment strategy involving financing portfolio companies for rapid expansion. Risk at this stage revolves around capturing market share while increasing production and delivery capabilities and building sales volume.
- **Balanced** - An investment strategy including a variety of portfolio company development stages (Seed, Early, Later, etc.).

Private Debt involves investments in the secured and/or unsecured debt obligations of private and/or public companies. This debt is typically acquired through directly negotiated or competitively bid transactions. Owners of these debt instruments typically take either an active or passive role in the management of the firm. Private Debt strategies are typically classified as follows:

- **Mezzanine** - Investments in unsecured or junior debt securities with equity enhancements such as warrants or nominally priced equity.
- **Distressed Debt** - Investments in the debt obligations of under-performing companies that are in need of operating or financial restructuring, and are either in or out of bankruptcy.
- **Structured Products** - Investments in the debt tranche of a security that is generally leveraged and backed by a diversified pool of assets. Assets include bank debt, investment grade debt, non-investment grade debt, or mortgages.

Policy

For the Private Market investments program, PSERS' long-term investment objective is to achieve a risk-adjusted total return, net of fees, that exceeds market returns for similar investments, or benchmark returns furnished by Venture Economics on a vintage year weighted basis.

Section 3 - Investment Information

Summary of PSERS' Private Market Investments (as of December 31, 2012) (continued)

Market Value as of December 31, 2012: \$10,417.0 million, or 21.2% of the Fund's total market value. Sub-asset class market values (unaudited) and fund percentages were as follows:

	Total Commitment (in millions)	Market Value (in millions)	Percent Allocation to Total Fund
Private Equity	\$ 16,293.8	\$ 8,048.0	16.4%
Venture Capital	2,346.3	861.5	1.7
Private Debt	<u>4,108.9</u>	<u>1,507.5</u>	<u>3.1</u>
Totals	\$ <u>22,749.0</u>	\$ <u>10,417.0</u>	<u>21.2%</u>

An objective of PSERS' Private Market Investments Program is to maintain investment diversification by industry, geographic location, and investment strategy. Diversification levels as of December 31, 2012 are as follows:

Industry Diversification

(by number of companies in each industry)

Secondary Funds	34.8%
Services	12.0%
Industrial	11.2%
Financial	8.0%
Computer	8.0%
Medical	7.0%
Communication	5.9%
Consumer	4.3%
Transportation	3.0%
Energy	3.0%
Real Estate	2.1%
Other	0.7%

Geographical Diversity

(by percentage of companies located in each state)

International	29.6%
New York	17.7%
California	12.3%
Texas	4.8%
Massachusetts	4.3%
Pennsylvania	3.3%
Illinois	2.7%
Connecticut	2.6%
New Jersey	2.2%
Florida	2.0%
North Carolina	1.6%
Virginia	1.6%
Maryland	1.5%
Michigan	1.4%
Other	12.4%

Number of External Investment Managers: PSERS' Private Equity program has committed a total of \$16.3 billion to 104 partnerships through December 31, 2012. Eight of these partnerships are located in Pennsylvania. 26 of the 31 international investment partnerships are included within the private equity sector. The international investments serve to increase the diversification of this asset class while providing the opportunity of increasing total returns.

PSERS' Venture Capital program consists of 37 partnerships with committed capital totaling \$2.3 billion through December 31, 2012. A significant number of the venture capital partnerships, 16 out of 37, are located in Pennsylvania. One of the 31 international partnerships is included within the venture capital sector.

PSERS Private Debt program has committed \$4.1 billion to 26 partnerships through December 31, 2012. The Private Debt program was initiated in 2000 by re-allocating \$1.0 billion from the Fixed Income allocation to take advantage of the attractive market conditions within the mezzanine and distressed debt sectors. Three partnerships are located in Pennsylvania, and four of the 31 international partnerships are included within the private debt sector.

Number of Internal Portfolio Managers: PSERS had three employees managing Private Market portfolios.

Section 3 - Investment Information

Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012)

Partnership Name Private Equity:	Vintage Year	Capital Committed	Capital Drawn	Distributions*
ABS Capital Partners II	1996	\$ 40,000,000	\$ 39,291,287	\$ 45,555,324
Actis Emerging Markets 3, L.P.	2007	200,000,000	191,560,545	22,565,566
Actis Global 4, L.P.	2012	100,000,000	3,397,028	-
Allegheny New Mountain Partners, L.P.	2004	100,000,000	83,635,449	111,638,257
Apax Europe VII, L.P.	2007	263,940,000	264,666,022	50,110,506
Bain Capital Asia Fund II, L.P.	2011	100,000,000	18,750,000	-
Baring Asia Private Equity Fund III, L.P.	2005	122,500,000	139,026,360	244,720,302
Baring Asia Private Equity Fund IV, L.P.	2007	300,000,000	291,337,270	120,174,628
Baring Asia Private Equity Fund V, L.P.	2011	200,000,000	73,026,700	-
Blue Point Capital Partners (B), L.P.	2001	103,750,000	91,059,964	116,869,919
Blue Point Capital Partners II (B), L.P.	2007	100,000,000	83,379,280	66,405,103
Bridgepoint Capital II (Secondary)	1998	84,714,906	81,276,972	165,495,935
Bridgepoint Europe I	1998	79,622,624	75,089,014	134,601,685
Bridgepoint Europe II	2001	395,910,000	313,734,469	605,119,344
Bridgepoint Europe III A, L.P.	2005	263,940,000	249,204,188	68,923,994
Bridgepoint Europe IV, L.P.	2008	395,910,000	258,375,949	-
Capital International Private Equity Fund V, L.P.	2007	200,000,000	195,172,076	92,207,327
Capital International Private Equity Fund VI, L.P.	2011	100,000,000	20,996,654	69,262
Catterton Growth Partners, L.P.	2008	75,000,000	73,189,474	20,803,573
Catterton Partners V, L.P.	2004	100,000,000	101,386,111	74,400,352
Catterton Partners VI, L.P.	2006	130,000,000	137,480,694	44,235,613
Cinven Fund (Fifth), L.P.	2011	131,970,000	7,038,708	-
Cinven Fund (Fourth), L.P.	2006	197,955,000	200,746,500	73,239,913
Clarity Partners L.P.	2000	203,590,000	204,759,024	113,660,697
Clarity PSERS II, L.P.	2008	17,386,250	12,065,126	562,500
Coller International Partners VI, L.P.	2011	100,000,000	23,108,664	444,000
Credit Suisse Equity Partners, L.P.	1998	137,172,500	114,692,730	27,777,502
Credit Suisse Int'l Equity Partners, L.P.	1997	83,000,000	76,663,758	95,804,666
Crestview Partners II (PF) LP	2008	200,000,000	167,478,784	34,706,533
Crestview Partners, L.P.	2005	150,000,000	150,417,901	53,821,280
CS Strategic Partners IV, L.P.	2008	100,000,000	89,109,822	54,499,164
CS Strategic Partners V, L.P.	2011	150,000,000	66,995,629	10,663,909
CSFB Strategic Partners II, L.P.	2003	300,000,000	262,523,198	448,640,959
CSFB Strategic Partners III-B, L.P.	2005	200,000,000	215,447,104	137,263,559
CVC Capital Partners Asia Pacific III, L.P.	2008	300,000,000	237,237,651	47,278,574
CVC European Equity Partners V (A), L.P.	2008	395,910,000	298,208,217	106,769,654
Denham Commodity Partners VI, L.P.	2012	75,000,000	11,224,215	-
DLJ Merchant Banking Partners III, L.P.	2000	300,000,000	308,586,902	589,328,620
DLJ Strategic Partners	2001	200,000,000	192,515,953	292,420,397
Dubin Clark Fund II, L.P.	2000	24,083,333	23,706,041	15,338,534

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Section 3 - Investment Information

Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

Partnership Name Private Equity (continued):	Vintage Year	Capital Committed	Capital Drawn	Distributions*
Edgewater Growth Capital Partners, L.P.	2001	\$ 59,196,500	\$ 58,604,535	\$ 67,517,908
Edgewater Private Equity Fund III, L.P.	1998	39,000,000	39,000,000	20,395,808
Evergreen Pacific Partners II, L.P.	2008	80,954,545	30,071,385	8,812,875
Evergreen Pacific Partners, L.P.	2004	50,000,000	33,011,702	4,491,788
First Reserve Fund XI, L.P.	2006	200,000,000	211,166,491	64,333,447
First Reserve Fund XII, L.P.	2008	250,000,000	214,616,600	23,855,608
Furman Selz Investors III L.P.	2000	100,000,000	95,025,051	202,950,790
Graham Partners	1999	56,671,214	60,759,456	50,995,698
Green Equity Investors II	1994	25,000,000	24,151,005	50,916,127
Greenpark International Investors III L.P.	2007	131,970,000	131,068,174	47,667,211
Greenwich Street Capital Partners II	1998	200,000,000	214,878,512	209,037,608
Halifax Capital Partners	1999	50,000,000	39,967,488	60,277,718
Headland Private Equity Fund 6 L.P., The	2008	200,000,000	142,635,855	25,895,836
Incline Equity Partners III (PSERS), L.P.	2011	43,283,333	6,710,043	-
Irving Place Capital Partners II L.P.	2000	300,000,000	282,383,236	422,368,601
Irving Place Capital Partners III L.P.	2006	150,000,000	121,442,580	16,925,133
Jefferies Capital Partners IV, L.P.	2005	100,000,000	93,981,695	43,499,897
KKR 2006 Fund L.P.	2006	300,000,000	285,626,931	149,631,266
KRG Capital Fund II (PA) L.P.	2001	100,000,000	79,576,721	115,210,103
KRG Capital Fund III, (PA) L.P.	2005	88,000,000	82,321,841	34,703,229
KRG Capital Fund IV L.P.	2007	300,000,000	252,575,303	104,723,231
Landmark Equity Partners III, L.P.	1993	27,085,010	27,085,010	76,288,593
Landmark Equity Partners IV, L.P.	1994	10,533,687	10,254,032	15,353,655
Landmark Equity Partners XIII, L.P.	2006	100,000,000	92,925,371	57,896,668
Landmark Equity Partners XIV, L.P.	2008	150,000,000	90,145,815	27,481,210
Landmark Mezzanine Partners	1995	75,000,000	59,171,340	106,589,453
Lexington Capital Partners I, L.P.	1996	50,000,000	49,613,120	62,882,209
Lindsay Goldberg & Bessemer L.P.	2002	300,000,000	310,990,957	673,395,795
Milestone Partners II, L.P.	2004	29,890,000	27,844,247	40,340,828
Milestone Partners III, L.P.	2008	60,000,000	51,126,300	1,814,905
Milestone Partners IV, L.P.	2011	29,025,862	18,327,017	-
Morgan Stanley Dean Witter Cap Ptrs IV, L.P.	1998	300,000,000	236,925,618	463,493,652
Navis Asia Fund V, L.P.	2007	100,000,000	114,190,688	31,302,002
New Mountain Partners III L.P.	2007	300,000,000	274,908,584	66,145,642
New Mountain Partners. L.P.	2000	192,509,033	161,036,343	224,742,581
New York Life Capital Partners I, L.P.	1999	200,000,000	204,806,900	220,803,538
New York Life Capital Partners II, L.P.	2001	200,000,000	194,403,235	490,092,888
New York Life Capital Partners III-A, L.P.	2005	200,000,000	203,406,522	57,740,062
New York Life Capital Partners IV-A. L.P.	2008	100,000,000	100,748,500	35,394,645

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Section 3 - Investment Information

Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

Partnership Name Private Equity (continued):	Vintage Year	Capital Committed	Capital Drawn	Distributions*
NGP Natural Resources X, L.P.	2012	\$ 100,000,000	\$ 22,752,250	\$ -
Nordic Capital VII Beta L.P.	2008	197,955,000	166,895,919	3,789,342
Orchid Asia V, L.P.	2011	40,000,000	11,946,966	-
PAI Europe III, L.P.	2001	395,910,000	334,978,803	1,086,236,022
PAI Europe IV-B2, L.P.	2005	131,970,000	129,843,351	139,306,421
PAI Europe V, L.P.	2007	131,970,000	105,051,619	-
Palladium Equity Partners II-A, L.P.	2000	57,750,000	62,205,262	72,421,840
Partners Group Secondary 2008, L.P.	2007	197,955,000	178,083,194	41,273,071
Partners Group Secondary 2011 (USD), L.P. Inc.	2011	100,000,000	11,521,018	-
Permira IV, L.P.	2006	164,962,500	157,625,230	56,754,539
Platinum Equity Capital Partners-A II, L.P.	2007	300,000,000	278,364,974	155,001,029
Platinum Equity Capital Partners-A III, L.P.	2012	200,000,000	82,976,592	1,727,021
Platinum Equity Capital Partners-A, L.P.	2004	125,000,000	97,387,205	228,619,924
PNC Equity Partners II, L.P.	2006	68,065,386	58,386,244	18,936,056
PNC Equity Partners, L.P.	2001	43,154,458	39,343,996	71,050,264
Providence Equity Partners VI, L.P.	2006	300,000,000	304,027,468	79,916,712
Quadrangle Capital Partners II, L.P.	2005	250,000,000	218,831,314	125,844,557
Quadrangle Capital Partners, L.P.	2001	270,422,415	224,285,192	322,880,173
Sterling Capital Partners, L.P.	2002	75,000,000	84,218,317	145,571,890
TPG Partners V, L.P.	2006	250,000,000	257,308,374	83,028,974
TPG Partners VI, L.P.	2008	360,000,000	271,393,010	55,984,062
Trilantic Capital Partners IV L.P.	2007	76,752,676	72,749,339	56,444,362
Trilantic Capital Partners V (North America), L.P.	2012	100,000,000	1,917,637	-
U.S. Equity Partners II	2001	300,000,000	221,217,580	204,823,492
Wicks Communications and Media Partners, L.P.	1999	<u>87,500,000</u>	<u>88,962,098</u>	<u>105,140,303</u>
Total Private Equity		\$16,293,841,232	\$13,657,318,589	\$11,516,835,410

Partnership Name Venture Capital:	Vintage Year	Capital Committed	Capital Drawn	Distributions*
Adams Capital Management, L.P.	1997	\$ 12,500,000	\$ 12,500,000	\$ 22,671,838
Aisling Capital II L.P.	2006	50,000,000	49,271,718	16,108,148
Aisling Capital III, L.P.	2008	50,000,000	26,598,328	1,684,266
Co-Investment 2000 Fund, L.P.	2000	135,000,000	135,000,000	158,577,936
Co-Investment Fund II, L.P.	2006	135,000,000	120,825,000	5,984,565
Cross Atlantic Technology Fund II	2001	21,119,734	21,119,734	12,114,382
Cross Atlantic Technology Fund, L.P.	1999	30,141,666	30,357,584	33,701,670
CS Strategic Partners IV VC, L.P.	2008	50,000,000	54,117,347	24,066,930
CSFB Strategic Partners III-VC, L.P.	2005	50,000,000	54,714,481	40,555,874

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

Partnership Name Venture Capital:	Vintage Year	Capital Committed	Capital Drawn	Distributions*
Franklin Capital Partners III	1995	\$ 15,000,000	\$ 15,000,000	\$ 13,492,638
Jefferson Partners Fund IV (PA) L.P.	2003	29,326,173	24,583,511	200,204
KBL Partnership, L.P.	1999	13,743,333	13,711,864	6,563,009
Landmark Equity Partners II, L.P.	1992	25,000,000	25,000,000	39,039,687
Landmark Equity Partners V, L.P.	1995	49,060,283	48,481,948	58,703,795
LLR Equity Partners II, L.P.	2004	75,000,000	74,986,212	65,227,344
LLR Equity Partners III, L.P.	2008	187,500,000	151,445,481	77,892,552
LLR Equity Partners IV, L.P.	2012	200,000,000	-	-
LLR Equity Partners, L.P.	1999	62,500,000	61,278,857	130,766,555
NEPA Venture Fund II	1992	5,000,000	5,000,000	23,252,576
Novitas Capital, L.P.	1998	30,000,000	29,937,000	33,887,349
Novitas Capital II, L.P.	2000	75,000,000	74,775,000	15,910,651
P/A Fund	1993	30,000,000	30,000,000	66,835,233
Perseus-Soros BioPharmaceutical Fund	2001	112,206,666	124,190,158	188,756,357
Psilos Group Partners III, L.P.	2007	62,500,000	53,369,925	30,420,581
Quaker Bio-Ventures II, L.P.	2007	100,000,000	73,153,932	17,134,686
Quaker Bio-Ventures, L.P.	2003	69,350,000	69,458,692	13,821,323
SCP Private Equity Partners I, L.P.	1996	62,500,000	63,285,918	42,866,260
SCP Private Equity Partners II, L.P.	2000	125,000,000	129,614,995	27,862,005
StarVest Partners, L.P.	1999	67,500,000	65,659,367	70,140,174
StarVest Partners II (Parallel), L.P.	2007	50,000,000	32,232,763	-
Sterling Venture Partners, L.P.	2000	33,986,000	36,115,022	31,203,448
Summit Partners Growth Equity Fund VIII, L.P.	2011	100,000,000	7,000,000	-
Summit Partners Venture Capital Fund III, L.P.	2011	25,000,000	3,250,000	-
TDH III, L.P.	1993	7,350,750	7,350,750	4,780,305
Tenaya Capital IV-P, L.P.	2003	75,000,000	72,679,657	58,098,130
Tenaya Capital VI, L.P.	2012	50,000,000	5,123,816	-
Tenaya Capital V-P, L.P.	2007	75,000,000	63,330,404	30,387,043
Total Venture Capital		\$ 2,346,284,605	\$ 1,864,519,464	\$ 1,362,707,514

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

Partnership Name Private Debt:	Vintage Year	Capital Committed	Capital Drawn	Distributions*
Avenue Asia Special Situations Fund II, L.P.	2001	\$ 220,000,000	\$ 220,000,000	\$ 403,784,872
Avenue Asia Special Situations Fund III, L.P.	2003	100,000,000	76,344,737	112,166,632
Avenue Asia Special Situations Fund IV, LP	2006	300,000,000	225,056,480	118,764,277
Avenue Europe Special Situations Fund, L.P.	2008	263,940,000	259,698,044	327,048,709
Avenue Special Situations Fund IV, L.P.	2005	115,000,000	144,782,669	182,653,179
Avenue Special Situations Fund V, L.P.	2007	300,000,000	301,095,120	378,630,640
Avenue Special Situations Fund VI, L.P.	2010	75,000,000	69,924,376	-
Cerberus Institutional Partners V, L.P.	2012	200,000,000	92,396,179	-
Cerberus Institutional Partners, L.P. (Series 2)	2001	200,000,000	173,047,901	442,985,275
Cerberus Institutional Partners, L.P. (Series 3)	2003	100,000,000	81,055,777	96,496,889
Cerberus Institutional Partners, L.P. (Series 4)	2006	400,000,000	369,661,873	119,331,026
Gleacher Mezzanine Fund II, L.P.	2006	100,000,000	88,138,597	50,616,806
Gleacher Mezzanine Fund, L.P.	2001	75,000,000	63,450,304	95,899,411
Gold Hill Venture Lending 03-A, L.P.	2004	50,000,000	50,000,000	63,524,378
GSC Partners CDO Investors IV, L.P.	2003	80,000,000	80,000,000	80,000,000
GSC Recovery II, L.P.	2000	280,000,000	279,170,771	366,857,421
GSC Recovery III (Parallel Fund), L.P.	2005	200,000,000	199,461,456	144,736,891
NYLIM Mezzanine Partners (Parallel Fund) L.P.	2003	75,000,000	67,768,404	83,395,878
NYLIM Mezzanine Partners II (Parallel Fund) LP	2006	150,000,000	162,086,852	136,703,660
OCM Opportunities Fund VII L.P.	2007	75,000,000	75,000,000	70,718,229
OCM Opportunities Fund VII-b L.P.	2008	225,000,000	202,500,000	253,648,799
Versa Capital Fund I, L.P.	2005	75,000,000	85,545,177	61,332,007
Versa Capital Fund II, L.P.	2008	150,000,000	90,033,012	7,644,767
Versa Capital Fund III, L.P.	2012	150,000,000	-	-
Windjammer Senior Equity Fund III, L.P.	2006	50,000,000	45,146,206	34,448,773
Windjammer Senior Equity Fund IV, L.P.	2012	<u>100,000,000</u>	<u>1,664,510</u>	<u>-</u>
Total Private Debt		\$ 4,108,940,000	\$ 3,503,028,445	\$ 3,631,388,520
Grand Total		<u>\$22,749,065,838</u>	<u>\$19,024,866,498</u>	<u>\$16,510,931,443</u>

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Summary of PSERS' Real Estate Investments (as of December 31, 2012)

Private Real Estate Exposure is one of nine asset classes that PSERS uses to diversify the investments of the Fund. The primary objective of the real estate program is to invest in real property directly or indirectly through global publicly-traded real estate securities (PTRES), direct investments, commingled fund investments, limited partnerships, and direct private placements. This is done in a prudent manner to create a diversified real estate portfolio of high quality investments which will enhance PSERS' overall long-term investment performance, diversify the asset base, and reduce the volatility of returns of the total investment portfolio.

	Total Commitment (Millions)	Market Value (Millions)	Percent Allocation to Total Fund
Separate Accounts	\$ 539.9	\$ 240.5	0.5%
PTRES	202.4	192.6	0.4%
Core Real Estate	500.0	311.1	0.6%
Opportunistic Real Estate	8,964.7	4,175.5	8.6%
Value Added Real Estate	<u>3,511.4</u>	<u>1,625.4</u>	<u>3.3%</u>
Totals	<u>\$ 13,718.4</u>	<u>\$ 6,545.1</u>	<u>13.4%</u>

Policy

The real estate program is designed to create the highest possible risk-adjusted returns in a controlled, coordinated, and comprehensive manner. Recognizing that real estate market conditions and PSERS' objectives for real estate may change over time, the program is reviewed periodically and updated as needed. The existing target allocation is 12.5% of total assets.

Investments are made through global PTRES, direct investments, commingled fund investments, limited partnerships, and direct private placements. It is PSERS' intent to liquidate any investment at the point in time when its value has been maximized. PSERS seeks to diversify its real estate portfolio by investing in a mix of Opportunistic (25%), Value Added (50%) and Core (25%) real estate investments.

Opportunistic real estate investing is the financing, acquisition or investment in real estate assets, real estate companies, portfolios of real estate assets, private and public REIT's that do not have access to traditional public equity or debt financing. Opportunistic real estate

consists of investment strategies that seek to exploit market inefficiencies with an emphasis on total return. Opportunistic investments require specialized expertise and the flexibility to respond quickly to market imbalances or changing market conditions. Investments may include non-traditional property types and/or assets that involve development, re-development, or leasing risks.

Value Added real estate investing typically focuses on both income growth and appreciation potential, where opportunities created by dislocations and inefficiencies between and within segments of the real estate capital markets are capitalized upon to enhance returns. Investments can include high-yield equity and debt investments and undervalued or impaired properties in need of repositioning, re-development or leasing.

Core real estate investing is the financing, acquisition or investment in real estate assets, real estate companies, portfolios of real estate assets, and private REITs that are broadly diversified by property type and location, focused primarily on completed, well-leased properties with modest levels of leasing risk, using relatively low leverage, and investing mainly in institutional property types and qualities allowing for relative ease of resale.

Market Value as of December 31, 2012: \$6,545.1 million or 13.4% of the Fund's total market value. This market value represents the combination of December 31, 2012 and September 30, 2012 market values adjusted for cash flows that occurred during the fourth quarter of 2012.

Number of External Investment Managers: PSERS had contracts with five external directly managed real estate asset managers and 40 external general partners to manage the real estate separate account, public securities, and pool fund portfolios.

Number of Internal Portfolio Managers: PSERS had two employees managing real estate portfolios.

Types of Investment Portfolios at December 31, 2012:

- 3.7% Separate Account Portfolios
- 2.9% Public Securities Portfolios
- 4.8% Core Real Estate Portfolios
- 63.8% Opportunistic Real Estate Portfolios
- 24.8% Value Added Real Estate Portfolios

Section 3 - Investment Information

Summary of PSERS' Real Estate Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012)

<u>Investment</u>	<u>Vintage Year</u>	<u>Capital Committed</u>	<u>Capital Drawn*</u>	<u>Distributions</u>
Separate Accounts:				
Charter Oak Advisors, Inc.	1993	\$ 133,179,000	\$ 134,640,223	\$ -
GF Management, Inc.	1987	131,991,000	132,187,035	46,015,941
Grosvenor Fund Management U.S., Inc.	1986	9,980,000	10,000,423	-
L&B Realty Advisors, LLP	1993	150,403,000	151,746,926	85,044,962
Prudential Agriculture Group	n/a	31,723,000	32,014,433	7,950,000
PSERS	1993	<u>82,653,000</u>	<u>82,746,393</u>	<u>45,000</u>
Total Separate Accounts		\$ 539,929,000	\$ 543,335,433	\$ 139,055,903
Public Securities:				
Security Capital Research & Management, Inc. - Preferred Growth	1997	\$ 202,393,803	\$ 202,393,803	\$ 66,746,008
Core Real Estate:				
JPMCB Strategic Property Fund	2007	\$ 100,000,000	\$ 25,000,000	\$ 3,066,344
PRISA	2006	100,000,000	100,000,000	23,322,868
ProLogis North American Industrial Fund, L.P.	2006	200,000,000	196,687,767	41,645,683
UBS (US) Trumbull Property Fund, L.P.	2006	<u>100,000,000</u>	<u>75,000,000</u>	<u>13,511,981</u>
Total Core Real Estate		\$ 500,000,000	\$ 396,687,767	\$ 81,546,876
Opportunistic Real Estate:				
Apollo European Real Estate Fund III, L.P.	2007	\$ 131,970,000	\$ 135,540,052	\$ 22,133,166
Avenue Real Estate Fund (Parallel) L.P.	2006	100,000,000	94,193,695	-
Blackstone Real Estate Partners Europe III, L.P.	2009	263,940,000	177,713,616	3,494,808
Blackstone Real Estate Partners V, L.P.	2006	200,000,000	211,459,708	77,806,199
Blackstone Real Estate Partners VI, L.P.	2007	400,000,000	414,218,499	83,389,010
Blackstone Real Estate Partners VII, L.P.	2011	300,000,000	130,571,201	9,314,854
Brookfield Strategic Real Estate Partners, L.P.	2012	200,000,000	24,825,942	-
CS Strategic Partners IV RE, L.P.	2008	75,000,000	74,313,298	11,762,788
CSFB Strategic Partners II RE, L.P.	2003	75,000,000	67,433,018	92,161,397
CSFB Strategic Partners III RE, L.P.	2005	75,000,000	78,852,932	5,112,056
Carlyle Europe Real Estate Partners III, L.P.	2007	263,940,000	236,666,356	16,783,232
Carlyle Realty Partners III, L.P.	2000	141,016,667	114,651,209	225,101,535
Carlyle Realty Partners IV, L.P.	2005	130,000,000	180,518,340	61,315,789
Carlyle Realty Partners V, L.P.	2007	300,000,000	344,080,306	226,124,116
Carlyle Realty Partners VI, L.P.	2011	200,000,000	59,024,458	2,066,635
DLJ Real Estate Capital Partners III, L.P.	2005	150,000,000	162,823,525	62,340,603
DLJ Real Estate Capital Partners IV, L.P.	2007	250,000,000	254,860,032	59,177,573
DLJ Real Estate Partners II, L.P.	1999	200,000,000	185,220,263	285,670,479
Fortress Investment Fund IV LP	2006	100,000,000	100,976,805	13,509,945

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Real Estate Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

<u>Investment</u>	<u>Vintage Year</u>	<u>Capital Committed</u>	<u>Capital Drawn*</u>	<u>Distributions</u>
Opportunistic Real Estate (continued):				
Fortress Investment Fund LLC	2000	\$ 200,000,000	\$ 195,446,950	\$ 521,446,992
Fortress Investment Fund V (Fund A) L.P.	2007	200,000,000	195,531,972	8,372
LF Strategic Realty Investors II, L.P.	1997	150,000,000	149,999,997	177,137,916
LF Strategic Realty Investors, L.P.	1996	150,000,000	150,000,000	266,939,860
Lubert-Adler Real Estate Fund II	1998	50,000,000	50,389,205	74,591,477
Lubert-Adler Real Estate Fund III	2000	150,000,000	150,018,382	223,493,386
Lubert-Adler Real Estate Fund IV	2004	100,000,000	106,021,148	38,490,566
Lubert-Adler Real Estate Fund V	2006	100,000,000	102,117,852	6,565,948
Lubert-Adler Real Estate Fund VI	2007	150,000,000	124,247,911	14,376,981
MGPA Asia Fund III, L.P.	2007	200,000,000	130,216,472	-
MGPA Europe Fund III, L.P.	2007	131,970,000	115,660,214	1,013,035
Morgan Stanley Real Estate Fund II	1995	150,000,000	156,162,032	358,909,948
Morgan Stanley Real Estate Fund IV Special Dom.	2002	100,000,000	113,771,665	118,465,924
Morgan Stanley Real Estate Fund IV Special Int'l.	2001	200,000,000	214,982,729	445,040,579
Morgan Stanley Real Estate Fund V Special Int'l.	2005	200,000,000	230,138,176	200,679,171
Morgan Stanley Real Estate Fund V U.S.	2006	150,000,000	189,606,119	28,042,961
Morgan Stanley Real Estate Fund VI Special Int'l.	2006	400,000,000	461,609,742	16,442,689
Morgan Stanley Real Estate Fund VII Global, L.P.	2007	309,636,000	211,626,686	23,628,414
O'Connor North American Property Partners II L.P.	2007	132,142,857	130,794,605	26,034,828
O'Connor North American Property Partners, L.P.	2004	100,000,000	110,585,501	18,159,952
Paladin Realty Latin America Investors III, L.P.	2008	113,583,333	65,330,867	17,531,683
Peabody Global Real Estate Partners	1998	100,000,000	89,031,934	157,153,927
Silverpeak Legacy Pension Partners II, L.P.	2005	200,000,000	205,815,770	108,483,417
Silverpeak Legacy Pension Partners III, L.P.	2007	300,000,000	135,590,747	3,566,972
Silverpeak Legacy/PSERS, L.P.	2000	300,000,000	139,442,773	278,447,171
Stockbridge Real Estate Fund II - Senior Note	2010	20,312,500	17,420,000	-
Stockbridge Real Estate Fund II, LP	2005	162,500,000	162,500,000	-
Stockbridge Real Estate Fund III, LP	2007	180,000,000	167,711,642	-
Stockbridge Real Estate Fund, L.P.	2000	408,465,517	481,663,399	576,573,475
Westbrook Real Estate Fund I	1995	63,500,000	69,295,047	149,276,101
Whitehall Street V & VI	1994	60,000,000	57,668,246	135,597,011
Whitehall Street VII & VIII	1996	100,000,000	96,092,963	154,492,457
William E. Simon & Sons	2001	76,662,500	74,788,678	59,042,379
Total Opportunistic Real Estate		\$ 8,964,639,374	\$ 8,099,222,679	\$ 5,456,897,778

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Real Estate Investments Committed, Drawn, and Distributed (unaudited) (as of December 31, 2012) (continued)

<u>Investment</u>	<u>Vintage Year</u>	<u>Capital Committed</u>	<u>Capital Drawn*</u>	<u>Distributions</u>
Value Added Real Estate:				
AG Core Plus Realty Fund III, L.P.	2011	\$ 75,000,000	\$ 31,593,473	\$ -
AREFIN Co-Invest Corporation	2008	83,000,000	69,192,000	52,600,901
Almanac Realty Securities V, L.P.	2007	100,000,000	88,414,831	13,113,744
Almanac Realty Securities VI, L.P.	2012	100,000,000	21,802,989	-
Apollo Real Estate Finance Corp.	2006	150,000,000	150,183,055	65,558,781
Apollo Value Enhancement Fund VII, L.P.	2008	150,000,000	147,720,926	30,204,184
AvalonBay Value Added Fund II, L.P.	2009	100,000,000	89,100,000	2,750,000
AvalonBay Value Added Fund, L.P.	2004	75,000,000	75,000,000	43,318,181
BPG Investment Partnership V, L.P.	1999	50,000,000	47,145,383	67,653,340
BPG Investment Partnership VI, L.P.	2002	87,500,000	84,327,558	100,886,718
BPG/PSERS Co-Investment Fund	2001	100,000,000	65,703,742	158,608,434
Beacon Capital Strategic Partners V, L.P.	2007	200,000,000	164,000,000	17,970,297
Bell Institutional Fund IV, LLC	2011	75,000,000	37,117,856	168,729
Broadway Partners Real Estate Fund II, L.P.	2006	125,000,000	124,057,276	500,000
Broadway Partners Real Estate Fund III, L.P.	2007	166,182,500	167,153,228	2,222,002
Cabot Industrial Value Fund III, L.P.	2008	100,000,000	72,842,500	4,560,261
Centerline High Yield CMBS III - Loan/Stock	2008	90,000,000	90,000,000	40,521,848
DRA Growth and Income Fund VI, L.P.	2007	148,200,000	93,577,720	18,809,373
DRA Growth and Income Fund VII, L.P.	2011	100,000,000	47,410,000	1,097,162
Exeter Industrial Value Fund II, L.P.	2011	75,000,000	41,450,941	365,854
Fillmore West Fund, L.P.	2008	100,000,000	97,807,786	13,346,141
Hines U.S. Office Value Added Fund, L.P.	2004	100,000,000	104,108,632	145,566,961
LCCG Diversified Risk CMBS Fund II, LLC	2004	90,000,000	90,000,000	71,490,855
LCCG RE Special Situations Mortgage Fund	2006	133,875,000	133,627,886	25,329,463
LEM Real Estate Mezzanine Fund II, L.P.	2006	75,000,000	60,000,000	34,264,329
Latitude Management Real Estate Capital III, Inc.	2013	75,000,000	-	-
Legg Mason Real Estate Capital	2002	57,640,625	56,945,022	53,445,788
Legg Mason Real Estate Capital II	2005	100,000,000	98,191,159	29,247,456
Madison Marquette Retail Enhancement Fund LP	2007	100,000,000	88,058,094	1,781,226
RCG Longview Debt Fund IV, L.P.	2007	175,000,000	200,079,500	63,272,466
RCG Longview Debt Fund V, L.P.	2012	75,000,000	-	-
RCG Longview Equity Fund, L.P.	2006	125,000,000	90,617,145	29,580,799
Senior Housing Partnership Fund IV, L.P.	2011	100,000,000	32,732,718	180,918
Strategic Partners Value Enhancement Fund LP	2005	55,000,000	54,978,609	2,970,000
Total Value Added Real Estate		\$ 3,511,398,125	\$ 2,814,940,027	\$ 1,091,386,211
Grand Total		<u>\$ 13,718,360,302</u>	<u>\$ 12,056,579,710</u>	<u>\$ 6,835,632,776</u>

*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitments.

Numbers may not add due to rounding.

Summary of PSERS' Fixed Income Investments (as of December 31, 2012)

Fixed Income Exposure is one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies Fixed Income investments and balances Fixed Income management styles. PSERS contracts with external investment managers and hires internal portfolio managers to manage portfolios.

Policy

Fixed Income investments are utilized by the Fund to help diversify the overall Fund and for a variety of purposes as follows:

- Nominal bonds are used for their ability to serve as a hedge against disinflation and/or deflation, their general ability to produce current income in the form of periodic interest payments, and their ability to provide sufficient liquidity to meet the Fund's obligations to pay member benefits and support other investment commitments;
- Inflation-linked bonds are used for their ability to serve as a hedge against inflation, their general ability to produce current income in the form of periodic interest payments, and their ability to provide sufficient liquidity to meet the Fund's obligations to pay member benefits and support other investment commitments; and

- High yield securities and emerging market bonds are used for their ability to generate high current income in the form of periodic interest payments as well as offering greater total return opportunities than high grade debt.

PSERS' Asset Allocation targets an eventual allocation of 27.0% of assets to Fixed Income, 8.0% of which is designated to Global Fixed Income (includes Core/Core Plus and Global strategies), 2.0% of which is designated to U.S. Long Treasuries, 6.0% of which is designated to TIPS strategies, 8.0% of which is designated to High Yield strategies, and 3.0% designated to Cash.

Market Value as of December 31, 2012: \$13,230.6 million, or 27.0% of the Fund's total market value.

Number of External Investment Managers: PSERS had contracts with 24 external investment managers responsible for various Fixed Income portfolios (including two Public Market Emerging Investment Manager Program managers).

Number of Internal Portfolio Managers: PSERS had three employees managing various Fixed Income portfolios.

Types of Investment Portfolios at December 31, 2012:

- 10.6% Global strategy portfolios
- 18.3% Core/Core Plus strategies portfolios, 23.4% TIPS strategies portfolios, 26.4% High Yield strategies portfolios, 1.1% U.S. Long Treasuries, and Cash 20.2%.
- 19.2% was managed by internal portfolio managers and 80.8% was managed by external investment managers



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Section 3 - Investment Information

Summary of PSERS' Fixed Income Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of Total Fixed Income	% of Total Fund
<u>Actively Managed U.S. Core/Core Plus Fixed</u>			
<u>Income Portfolios</u>			
BlackRock U.S. Extended Core Global Alpha Fund	\$ 614.7	4.6%	1.3%
Pacific Investment Mgmt. Co. (PIMCO)	227.5	1.7%	0.5%
Piedmont Investment Advisors	52.3	0.4%	0.1%
PSERS Active Aggregate	1,179.0	8.9%	2.4%
Pugh Capital Management, Inc.	90.0	0.7%	0.2%
Western Asset Management Co.	246.3	1.9%	0.5%
Other	<u>1.6</u>	<u>0.0%</u>	<u>0.0%</u>
Total Actively Managed U.S. Core/Core Plus			
Fixed Income	\$ <u>2,411.4</u>	<u>18.2%</u>	<u>4.9%</u>
<u>Actively Managed Treasury Inflation-Protected</u>			
<u>Securities (TIPS) Portfolios</u>			
Black River Asset Management, LLC	\$ 75.1	0.6%	0.2%
Bridgewater Associates, Inc.	1,656.2	12.5%	3.4%
PSERS TIPS Portfolio	<u>1,364.6</u>	<u>10.3%</u>	<u>2.8%</u>
Total Actively Managed Treasury Inflation- Protected Securities (TIPS)			
	\$ <u>3,095.9</u>	<u>23.4%</u>	<u>6.3%</u>
<u>Actively Managed U.S. Long Treasury Portfolios</u>			
PSERS U.S. Long Treasuries	\$ 6.5	0.0%	0.0%
Pacific Investment Mgmt. Co. (PIMCO)	<u>140.0</u>	<u>1.1%</u>	<u>0.3%</u>
Total Actively Managed U.S. Long Treasury			
Portfolios	\$ <u>146.5</u>	<u>1.1%</u>	<u>0.3%</u>
<u>Actively Managed High Yield Fixed Income Portfolio</u>			
MacKay-Shields Financial Corporation	\$ <u>412.4</u>	<u>3.1%</u>	<u>0.8%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Fixed Income Portfolios (unaudited) (as of December 31, 2012) (continued)

	Market Value (in millions)	% of Total Fixed Income	% of Total Fund
<u>Actively Managed Credit Opportunity Portfolios</u>			
Apollo European Principal Finance Fund II, LP	\$ 15.5	0.1%	0.0%
BlackRock Mortgage (Offshore) Investors	466.3	3.5%	1.0%
Brevan Howard CMBS Fund	225.7	1.7%	0.5%
Brigade Distressed Value Offshore Fund	111.0	0.8%	0.2%
Carlyle Energy Mezzanine Opportunity Fund, LP	31.8	0.2%	0.1%
Cerberus Levered Loan Opportunities Fund, LP	171.9	1.3%	0.4%
Cerberus Levered Loan Opportunities Fund II, LP	175.5	1.3%	0.4%
ICG Europe Fund V, LP	35.5	0.3%	0.1%
LBC Credit Partners II, LP	250.4	1.9%	0.5%
Mariner Investment Group	221.9	1.7%	0.5%
Oaktree Loan Fund	72.5	0.5%	0.1%
Pacific Investment Mgmt. Co. (PIMCO)	367.5	2.8%	0.7%
Sankaty Advisors LLC - Bank Loans	369.7	2.8%	0.8%
Sankaty Credit Opportunities Fund IV, LP	305.1	2.3%	0.6%
Sankaty Credit Opportunities Fund V-A, LP	35.7	0.3%	0.1%
Sankaty Middle Market Opportunities Fund	156.3	1.2%	0.3%
TOP NPL (A), LP	38.4	0.3%	0.1%
TPG Opportunities Partners II, LP	<u>36.9</u>	<u>0.3%</u>	<u>0.1%</u>
Total Actively Managed Credit Opportunity			
Fixed Income	\$ <u>3,087.6</u>	<u>23.3%</u>	<u>6.3%</u>
Total Actively Managed U.S.			
Fixed Income	\$ <u>9,153.8</u>	<u>69.2%</u>	<u>18.7%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Fixed Income Portfolios (unaudited) (as of December 31, 2012) (continued)

	Market Value (in millions)	% of Total Fixed Income	% of Total Fund
<i>Actively Managed Non-U.S. Developed Markets</i>			
<i>Fixed Income Portfolios</i>			
Alliance Bernstein	\$ 308.9	2.3%	0.6%
Pacific Investment Mgmt. Co. (PIMCO)	43.8	0.3%	0.1%
Strategic Fixed Income	<u>149.1</u>	<u>1.1%</u>	<u>0.3%</u>
Total Actively Managed Non-U.S. Developed Markets			
Fixed Income	\$ <u>501.8</u>	<u>3.8%</u>	<u>1.0%</u>
<i>Actively Managed Global Emerging Markets Fixed</i>			
<i>Income Portfolios</i>			
Franklin Templeton	\$ 408.2	3.1%	0.8%
Pacific Investment Mgmt. Co. (PIMCO)	96.3	0.7%	0.2%
Stone Harbor Investment Partners	<u>396.8</u>	<u>3.0%</u>	<u>0.8%</u>
Total Actively Managed Global Emerging Markets			
Fixed Income	\$ <u>901.3</u>	<u>6.8%</u>	<u>1.8%</u>
<i>Internally Managed Cash Portfolio</i>			
PSERS Proprietary Fund	\$ <u>2,673.7</u>	<u>20.2%</u>	<u>5.5%</u>
Total Fixed Income	\$ <u>13,230.6</u>	<u>100.0%</u>	<u>27.0%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Absolute Return Investments (as of December 31, 2012)

Absolute Return Exposure is one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS contracts with external investment managers to manage absolute return portfolios.

Policy

Absolute Return investments are utilized by the Fund primarily to generate returns that are uncorrelated with other asset classes or investments and help diversify the overall Fund. The benchmark for PSERS' Absolute Return investments is an absolute return of 7.5% annualized with risk of 7.5% or lower at the program level over a full market cycle.

Absolute Return investments shall be in a variety of unique, non-directional investment strategies, including equity and fixed income long/short, global macro, currency, option, capital structure arbitrage, reinsurance, volatility and other strategies. The Fund shall diversify this program by manager and style.

PSERS' Asset Allocation currently targets an allocation of 12.0% of assets in Absolute Return investments.

Market Value as of December 31, 2012: \$6,000.1 million, or 12.2% of the Fund's total market value.

Number of External Investment Managers: PSERS had contracts with 17 external investment managers responsible for the various Absolute Return portfolios (including one Public Market Emerging Manager Program manager).

Number of Internal Investment Managers: None.

Summary of PSERS' Absolute Return Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of Total Absolute Return	% of Total Fund
<u>Actively Managed Absolute Return Portfolios</u>			
AQR Capital Management	\$ 419.7	7.0%	0.9%
Aeolus Capital Management Ltd.	210.9	3.5%	0.4%
Black River Asset Management, LLC	268.3	4.5%	0.5%
BlackRock Capital Structure Investments Fund	258.7	4.3%	0.5%
BlackRock Global Ascent Fund	500.0	8.3%	1.0%
BlueCrest Capital Management LLP	245.5	4.1%	0.5%
Brevan Howard Fund, Ltd.	403.8	6.7%	0.8%
Bridgewater Associates, Inc.	857.5	14.3%	1.7%
Brigade Capital Management	712.0	11.9%	1.5%
Capula Global Relative Value Fund	214.3	3.6%	0.4%
Capula Tail Risk Fund	352.8	5.9%	0.7%
Caspian Capital Advisors, LLC	212.5	3.5%	0.4%
Denali Advisors, LLC	35.1	0.6%	0.1%
FX Concepts, Inc.	34.6 a	0.6%	0.1%
Lazard Asset Management	127.3	2.1%	0.3%
Nephila Capital, Ltd.	280.7	4.7%	0.6%
Pacific Investment Mgmt. Co. (PIMCO)	672.7	11.2%	1.4%
Pareto Investment Management, Ltd.	(4.2) a	(0.1)%	0.0%
Robeco Investment Management, Inc.	196.0	3.3%	0.4%
Other	1.9	0.0%	0.0%
Total Absolute Return	\$ 6,000.1	100.0%	12.2%

a -The Market Value represents the cumulative net gain/(loss) on unsettled foreign exchange contracts.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Risk Parity Portfolios (as of December 31, 2012)

Risk Parity Exposure represents one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies Risk Parity investments and balances Risk Parity investment philosophies. PSERS contracts with external investment managers to manage Risk Parity portfolios.

Policy

Risk Parity investments benefit the System due to their focus on the allocation of risk rather than the allocation of capital. Inclusion of this asset class is expected to reduce the portfolio's overall risk exposure over long-time horizons because it is designed to be more resistant to market downturns than traditional investment strategies, and further enhances the System's diversification due to the wide range of assets typically employed.

The Fund benchmarks its Risk Parity investments to a custom benchmark: 15% MSCI EAFE Index Hedged; 10% DJ/UBS Commodity Index; 5% S&P GSCI Precious Metal Index; 10% Barclays Capital World Inflation Linked Bond Index Hedged; 10% MSCI Emerging Markets Large Index(Net); 15% S&P 500 Index; 35% Barclays Capital Global Aggregate Hedged Index.

PSERS' Asset Allocation currently targets an allocation of 4.0% of assets to Risk Parity investments. The Risk Parity investments are targeted to be 100.0% actively managed.

Market Value of December 31, 2012: \$1,442.9 million, or 2.9% of the Fund's total market value.

Number of External Investment Managers: PSERS had contracts with two external investment managers to manage Risk Parity portfolios.

Number of Internal Investment Managers: None.

Summary of PSERS' Risk Parity Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of Total Risk Parity	% of Total Fund
<u>Risk Parity Portfolios</u>			
AQR GRP EL 20 Offshore Fund, Ltd.	\$ 326.5	22.6%	0.7%
Bridgewater All Weather @ 15% Fund	<u>1,116.4</u>	<u>77.4%</u>	<u>2.3%</u>
Total Risk Parity	\$ <u>1,442.9</u>	<u>100.0%</u>	<u>2.9%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Master Limited Partnerships (as of December 31, 2012)

Master Limited Partnership Exposure (MLPs) represents one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies MLP investments and balances MLP management styles. PSERS contracts with external investment managers to manage MLP portfolios.

Policy

MLP securities, which are publicly traded on a securities exchange, avoid federal and state income taxes by meeting specific qualifications of the IRS related to the production, processing or transportation of oil, natural gas, and coal. MLP securities are utilized by the System due to their attractively low funding costs and low correlation to stock and bond returns, attractive growth characteristics, and their ability to produce current income in the form of periodic distributions.

The Fund benchmarks its MLP investments to the S&P MLP Total Return Index.

PSERS' Asset Allocation currently targets an allocation of 2.0% of assets to MLP investments and are targeted to be 100.0% actively managed.

Market Value of December 31, 2012: \$875.1 million, or 1.8% of the Fund's total market value.

Number of External Investment Managers: PSERS had contracts with three external investment managers to manage MLP portfolios.

Number of Internal Investment Managers: None.

	Market Value (in millions)	% of Total MLPs	% of Total Fund
<i>Master Limited Partnership Portfolios</i>			
Atlantic Trust Private Wealth Management	\$ 241.5	27.6%	0.5%
Harvest MLP II	379.4	43.4%	0.8%
Salient Capital	<u>254.2</u>	<u>29.0%</u>	<u>0.5%</u>
Total Master Limited Partnerships	\$ <u>875.1</u>	<u>100.0%</u>	<u>1.8%</u>

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of PSERS' Commodity Investments (as of December 31, 2012)

Commodity Exposure represents one of nine asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies Commodity investments and balances Commodity management styles. PSERS contracts with external investment managers to manage commodity portfolios.

Policy

Commodity investments are utilized by the Fund for diversification within the portfolio and to act as a hedge against unanticipated inflation. The prices of commodities are determined primarily by near-term events in global supply and demand conditions and are positively related with both the level of inflation and the changes in the rate of inflation. However, stock and bond valuations are based on longer-term expectations and react negatively to inflation. Therefore, commodity returns have had a historically

negative correlation to stock and bond returns. As such, commodities, when combined with stocks and bonds, lower the risk of a portfolio.

The Fund benchmarks its Commodity investments to the Dow Jones-UBS Commodity Index (DJ UBS). The DJ UBS is a broadly diversified basket of 20 commodities from 4 sectors (energy, industrial metals, precious metals, and agriculture).

PSERS' Asset Allocation currently targets an allocation of 5.0% of assets to Commodity investments and are targeted to be 100.0% actively managed.

Market Value of December 31, 2012: \$2,036.6 million, or 4.2% of the Fund's total market value.

Number of External Investment Managers: PSERS had contracts with five external investment managers to manage Commodity portfolios.

Number of Internal Investment Managers: PSERS had one employee managing a commodity portfolio.

Summary of PSERS' Commodity Portfolios (unaudited) (as of December 31, 2012)

	Market Value (in millions)	% of Total Commodities	% of Total Fund
<u>Full Discretion Commodity Portfolios</u>			
Deutsche Asset Management	\$ 202.9	10.0%	0.4%
Wellington Management Company, LLP	579.4	28.4%	1.2%
Total Full Discretion Commodities	\$ 782.3	38.4%	1.6%
<u>Core/Enhanced Commodity Portfolios</u>			
Credit Suisse Asset Management	\$ 300.4	14.8%	0.6%
Gresham, LLC	490.5	24.1%	1.0%
PSERS Gold Swap	(5.8) a	(0.3)%	0.0%
Schroders Investment Management	469.2	23.0%	1.0%
Total Core/Enhanced Commodities	\$ 1,254.3	61.6%	2.6%
Total Commodities	\$ 2,036.6	100.0%	4.2%

a - The Market Value represents the net payable on swap contracts.

Numbers may not add due to rounding.

Section 3 - Investment Information

Summary of Investment Advisory Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands)

	<u>Fees</u>	<u>Basis Points</u>
External Management		
U.S. Equity	\$ 2,869	50
Non - U.S. Equity	22,225	51
Fixed Income	64,644	81
Real Estate	74,758	86
Alternative Investments	140,914	101
Absolute Return	138,992	177
Commodities	19,517	83
Master Limited Partnerships	810	65
Risk Parity	2,466	36
Total External Management	467,195	100
Total Internal Management	<u>10,040</u>	7
Total Investment Management	\$ 477,235	79
Custodian Fees	604	
Consultant and Legal Fees	<u>3,447</u>	
Total Investment Expenses	\$ <u>481,286</u>	80

Investment Advisory Fees Fiscal Years Ended June 30, 2007 - 2011 (Dollar Amounts in Thousands)

<u>Fiscal Year</u>	<u>Fees</u>	<u>Basis Points</u>
2007	313,758	41
2008	399,136	47
2009	477,565	70
2010	522,315	82
2011	514,695	83

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands)

External Management fees are treated as a reduction of the investment revenue of the Fund rather than as a budgeted administrative expense.

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>U.S. Equity</u>			
AH Lisanti Capital Growth, LLC	New York	NY	\$ 235
Ativo Capital Management, LLC	Chicago	IL	50
Conestoga Capital Advisors, Inc.	Radnor	PA	273
EDMP, Inc.	Tampa	FL	85
First Pacific Advisors, Inc.	Los Angeles	CA	1,200
Hellman, Jordan Management Company, Inc.	Boston	MA	126
NorthPointe Capital, LLC	Troy	MI	660
Opus Capital Management, Inc.	Cincinnati	OH	240
Total - U.S. Equity			2,869
<u>Non - U.S. Equity</u>			
Acadian Asset Management	Boston	MA	706
Baillie Gifford Overseas Ltd.	Edinburgh	UK	3,334
Batterymarch Financial Management, Inc.	Boston	MA	1,128
BlackRock Financial Management, Inc.	San Francisco	CA	7,253
Glovista Investments LLC	Jersey City	NJ	125
John Hsu Capital Group, Inc.	New York	NY	276
Marathon Asset Management Limited	London	UK	1,461
Oberweis Asset Management, Inc.	North Aurora	IL	803
Pareto Investment Management, Ltd.	New York	NY	1,620
Pyramis Global Advisors	Boston	MA	865
Shah Capital Management, Inc.	Raleigh	NC	422
Wasatch Advisors, Inc.	Salt Lake City	UT	2,888
Wellington Management Company, L.L.P.	Boston	MA	767
Westwood Global Investments, LLC	Boston	MA	577
Total - Non - U.S. Equity			22,225
<u>Fixed Income</u>			
Aberdeen Asset Management, Inc.	Philadelphia	PA	94
AllianceBernstein L.P.	White Plains	NY	533
BlackRock Financial Management, Inc.	New York	NY	5,282
BlackRock Mortgage (Offshore) Investors, L.P.	New York	NY	4,995
Brevan Howard US LLC	New York	NY	1,630
Bridgewater Associates, Inc.	Westport	CT	15,718
Brigade Capital Management, LLC	New York	NY	969

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Fixed Income (continued)</u>			
Brookfield Asset Management, Inc.	New York	NY	\$ 631
Cerberus Levered Loan Opportunities Fund I, L.P.	New York	NY	2,334
Fischer Francis Trees & Watts, Inc.	New York	NY	117
Franklin Templeton Investments	Nassau	Bahamas	2,272
LBC Credit Partners II, L.P.	Philadelphia	PA	4,875
MacKay-Shields Financial Corporation	New York	NY	1,306
Mariner Investment Group	Harrison	NY	3,494
Oaktree Loan Fund, L.P.	Los Angeles	CA	1,179
Pacific Investment Management Company (PIMCO)	Newport Beach	CA	1,634
Piedmont Investment Advisors	Durham	NC	124
Pugh Capital Management, Inc.	Seattle	WA	156
Rogge Global Partners	London	UK	431
Sankaty Advisors LLC Bank Loans	Wilmington	DE	2,763
Sankaty Credit Opportunities IV, L.P.	Wilmington	DE	10,202
Stone Harbor Investment Partners, L.P.	New York	NY	2,624
TOP NPL (A), L.P.	Fort Worth	TX	16
TPG Opportunities Partners II (A), L.P.	Fort Worth	TX	765
Western Asset Management Company	Pasadena	CA	500
Total - Fixed Income			64,644
<u>Real Estate-Direct Ownership</u>			
Charter Oak Advisors, Inc.	King of Prussia	PA	897
GF Management, Inc.	Philadelphia	PA	131
Grosvenor Investment Management U.S., Inc.	Philadelphia	PA	20
L & B Realty Advisors, L.L.P.	Dallas	TX	56
Subtotal - Real Estate-Direct Ownership			1,104

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
Real Estate-Partnerships/Funds			
AG Core Plus Realty Fund III, L.P.	New York	NY	\$ 390
Almanac Realty Securities V, L.P.	New York	NY	681
Almanac Realty Securities VI, L.P.	New York	NY	533
Apollo European Real Estate Fund III, L.P.	Purchase	NY	1,434
Apollo Real Estate Finance Corporation	New York	NY	1,376
Apollo Value Enhancement Fund VII, L.P.	Purchase	NY	1,706
AREFIN Co-Invest Corporation	New York	NY	324
AvalonBay Value Added Fund, L.P.	Alexandria	VA	846
AvalonBay Value Added Fund II, L.P.	Alexandria	VA	885
Avenue Real Estate Fund Parallel, L.P.	New York	NY	1,250
Beacon Capital Strategic Partners V, L.P.	Boston	MA	1,160
Blackstone Real Estate Partners Europe III, L.P.	New York	NY	3,241
Blackstone Real Estate Partners V.TE.1, L.P.	New York	NY	2,073
Blackstone Real Estate Partners VI.TE.1, L.P.	New York	NY	4,377
Blackstone Real Estate Partners VII.TE.1, L.P.	New York	NY	1,899
BPG Co-Investment Partnership, L.P.	Philadelphia	PA	188
BPG Investment Partnership V, L.P.	Philadelphia	PA	176
BPG Investment Partnership VI, L.P.	Philadelphia	PA	319
Broadway Partners Parallel Fund P II, L.P.	New York	NY	612
Broadway Partners Parallel Fund P III, L.P.	New York	NY	375
Cabot Industrial Value Fund III, L.P.	Boston	MA	1,500
Carlyle Europe Real Estate Partners III-A, L.P.	Washington	DC	1,509
Carlyle Realty Partners III, L.P.	Washington	DC	161
Carlyle Realty Partners IV, L.P.	Washington	DC	1,102
Carlyle Realty Partners V, L.P.	Washington	DC	2,294
Carlyle Realty Partners VI, L.P.	Washington	DC	892
Cornerstone Patriot Fund, L.P.	Hartford	CT	339
CS Strategic Partners IV RE, L.P.	New York	NY	404
CSFB Strategic Partners II RE, L.P.	New York	NY	140
CSFB Strategic Partners III RE, L.P.	New York	NY	269
DLJ Real Estate Capital Partners II, L.P.	New York	NY	155
DLJ Real Estate Capital Partners III, L.P.	New York	NY	1,034
DLJ Real Estate Capital Partners IV, L.P.	New York	NY	2,212
DRA Growth and Income Fund VI, L.P.	New York	NY	1,752
DRA Growth and Income Fund VII, L.P.	New York	NY	97

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Real Estate-Partnerships/Funds (continued)</u>			
Exeter Industrial Value Fund II, L.P.	Plymouth Meeting	PA	\$ 963
Fillmore West Fund, L.P.	San Francisco	CA	710
Fortress Investment Fund IV, L.P.	New York	NY	762
Fortress Investment Fund V (Fund A), L.P.	New York	NY	1,288
Hines U.S. Office Value Added Fund, L.P.	Houston	TX	435
JPMCB Strategic Property Fund	New York	NY	196
LCCG High Yield CMBS Fund III, LLC	Irving	TX	125
LCCG RE Special Situations Mortgage Fund, LLC	Irving	TX	1,162
Legg Mason Real Estate Capital, Inc.	Los Angeles	CA	82
Legg Mason Real Estate Capital II, Inc.	Los Angeles	CA	1,256
LEM Real Estate Mezzanine Fund II, L.P.	Philadelphia	PA	693
LF Strategic Realty Investors II, LLC	New York	NY	448
Lubert-Adler Real Estate Fund II, L.P.	Philadelphia	PA	9
Lubert-Adler Real Estate Fund IV, L.P.	Philadelphia	PA	139
Lubert-Adler Real Estate Fund V, L.P.	Philadelphia	PA	350
Lubert-Adler Real Estate Fund VI, L.P.	Philadelphia	PA	1,961
Madison Marquette Retail Enhancement Fund, L.P.	Washington	DC	896
MGPA Asia Fund III, L.P.	Hamilton	Bermuda	1,008
MGPA Europe Fund III, L.P.	London	UK	1,294
Morgan Stanley Real Estate Fund IV Special Dom., L.P.	New York	NY	121
Morgan Stanley Real Estate Fund IV Special Int'l, L.P.	New York	NY	216
Morgan Stanley Real Estate Fund V Special Int'l, L.P.	New York	NY	766
Morgan Stanley Real Estate Fund V Special U.S., L.P.	New York	NY	207
Morgan Stanley Real Estate Fund VI Special Int'l, L.P.	New York	NY	848
Morgan Stanley Real Estate Fund VII Global, L.P.	New York	NY	856
O' Connor North American Property Partners, L.P.	New York	NY	1,057
O' Connor North American Property Partners II, L.P.	New York	NY	1,101
Paladin Realty Latin America Investors III, L.P.	Los Angeles	CA	1,612
Peabody Global Real Estate Partners, L.P.	New York	NY	26
Prime Property Fund, LLC	New York	NY	290
PRISA	Parsippany	NJ	692
ProLogis North American Industrial Fund, L.P.	Denver	CO	1,686
RCG Longview Debt Fund IV, L.P.	New York	NY	2,062
RCG Longview Equity Fund, L.P.	New York	NY	619
RREEF America REIT II, Inc.	Chicago	IL	2

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Real Estate-Partnerships/Funds (continued)</u>			
Senior Housing Partnership Fund IV, L.P.	Parsippany	NJ	\$ 148
Silverpeak Legacy Pension Partners II, L.P.	New York	NY	1,327
Silverpeak Legacy Pension Partners III, L.P.	New York	NY	1,203
Silverpeak/PSERS Real Estate, L.P.	New York	NY	259
Stockbridge Real Estate Fund, L.P.	New York	NY	2,267
Stockbridge Real Estate Fund II, L.P.	New York	NY	1,044
Stockbridge Real Estate Fund III, L.P.	New York	NY	2,083
Strategic Partners Value Enhancement Fund, L.P.	Los Angeles	CA	694
UBS (US) Trumbull Property Fund, L.P.	Hartford	CT	738
Whitehall Street Real Estate L.P. VII & VIII	New York	NY	10
William E. Simon & Sons Realty Partners, L.P.	Los Angeles	CA	42
Subtotal - Real Estate-Partnerships/Funds			73,458
<u>Real Estate-Farmland</u>			
Prudential Agricultural Group	Lisle	IL	196
Subtotal - Real Estate-Farmland			196
Total Real Estate			74,758
<u>Private Equity</u>			
ABS Capital Partners II, L.P.	Baltimore	MD	3
Actis Emerging Markets 3, L.P.	London	UK	3,795
Actis Global 4 L.P.	London	UK	582
Allegheny New Mountain Partners, L.P.	New York	NY	129
Apax Europe VII-B, L.P.	St. Peter Port	Guernsey	1,391
Baring Asia Private Equity Fund III, L.P.	Hong Kong	China	1,280
Baring Asia Private Equity Fund IV, L.P.	Hong Kong	China	6,000
Baring Asia Private Equity Fund V, L.P.	Hong Kong	China	4,000
Blue Point Capital Partners II (B), L.P.	Cleveland	OH	684
Bridgepoint Europe II-A, L.P.	London	UK	1,077
Bridgepoint Europe III-A, L.P.	London	UK	1,870
Bridgepoint Europe IV, L.P.	London	UK	4,396
Capital International Private Equity Fund V, L.P.	San Francisco	CA	1,626
Capital International Private Equity Fund VI, L.P.	San Francisco	CA	1,625
Catterton Growth Partners, L.P.	Greenwich	CT	1,202
Catterton Partners V, L.P.	Greenwich	CT	763

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
Private Equity (continued)			
Catterton Partners VI, L.P.	Greenwich	CT	\$ 1,948
Cinven Fund (Fourth), L.P. (The)	London	UK	2,592
Clarity Partners, L.P.	Beverly Hills	CA	1,211
Clarity Partners II, L.P.	Beverly Hills	CA	292
Coller International Partners VI, L.P.	London	UK	1,821
Credit Suisse First Boston Equity Partners, L.P.	New York	NY	1
Crestview Capital Partners, L.P.	New York	NY	1,759
Crestview Partners II (PF), L.P.	New York	NY	1,943
CS Strategic Partners IV, L.P.	New York	NY	727
CS Strategic Partners V, L.P.	New York	NY	1,125
CSFB Strategic Partners II, L.P.	New York	NY	601
CSFB Strategic Partners III-B, L.P.	New York	NY	500
CVC Capital Partners Asia III Pacific, L.P.	George Town	Cayman Islands	3,665
CVC European Equity Partners V (A), L.P.	George Town	Cayman Islands	3,713
Denham Commodity Partners Fund VI, L.P.	Boston	MA	764
DLJ Merchant Banking Partners III, L.P.	New York	NY	342
DLJ Strategic Partners, L.P.	New York	NY	500
Edgewater Growth Capital Partners, L.P.	Chicago	IL	124
Edgewater Private Equity Fund III, L.P.	Chicago	IL	144
Evergreen Pacific Partners, L.P.	Seattle	WA	163
Evergreen Pacific Partners II, L.P.	Seattle	WA	1,102
First Reserve Fund XI, L.P.	Greenwich	CT	1,254
First Reserve Fund XII, L.P.	Greenwich	CT	2,780
Graham Partners Investments (B), L.P.	Newtown Square	PA	112
Greenpark International Investors III, L.P.	London	UK	1,131
Greenwich Street Capital Partners II, L.P.	New York	NY	42
Headland Private Equity Fund 6, L.P.	George Town	Cayman Islands	3,331
Incline Equity Partners III, L.P.	Pittsburgh	PA	406
Irving Place Capital Partners III, L.P.	New York	NY	1,722
Jefferies Capital Partners IV, L.P.	New York	NY	803
KKR 2006 Fund, L.P.	New York	NY	1,595
KRG Capital Fund II (PA), L.P.	Denver	CO	30
Landmark Equity Partners XIII, L.P.	Simsbury	CT	1,000
Landmark Equity Partners XIV, L.P.	Simsbury	CT	1,500
Landmark Mezzanine Partners, L.P.	Simsbury	CT	9
Lindsay Goldberg & Bessemer, L.P.	New York	NY	496

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Private Equity (continued)</u>			
Milestone Partners III, L.P.	Rosemont	PA	\$ 656
Milestone Partners IV, L.P.	Rosemont	PA	116
Morgan Stanley Dean Witter Capital Partners IV, L.P.	New York	NY	87
Navis Asia Fund V, L.P.	Kuala Lumpur	Malaysia	1,587
New Mountain Partners III, L.P.	New York	NY	3,417
New York Life Capital Partners, L.P.	New York	NY	91
New York Life Capital Partners II, L.P.	New York	NY	321
New York Life Capital Partners III, L.P.	New York	NY	994
New York Life Capital Partners IV, L.P.	New York	NY	1,000
NGP Natural Resources X, L.P.	Irving	TX	684
Nordic Capital VII Beta, L.P.	St. Helier	Guernsey	2,947
Orchid Asia V, L.P.	Grand Cayman	Cayman Islands	790
PAI Europe III, L.P.	Paris	France	436
PAI Europe IV, L.P.	Paris	France	968
PAI Europe V, L.P.	St. Peter Port	Guernsey	1,397
Palladium Equity Partners II-A, LLC	New York	NY	203
Partners Group Secondary 2008, L.P.	St. Peter Port	Guernsey	2,456
Partners Group Secondary 2011, L.P.	St. Peter Port	Guernsey	1,063
Permira IV, L.P.	London	UK	1,983
PNC Equity Partners, L.P.	Pittsburgh	PA	30
PNC Equity Partners II, L.P.	Pittsburgh	PA	264
Providence Equity Partners VI, L.P.	Providence	RI	1,723
Quadrangle Capital Partners, L.P.	New York	NY	453
Quadrangle Capital Partners II, L.P.	New York	NY	1,844
Sterling Capital Partners, L.P.	Northbrook	IL	497
TPG Partners V, L.P.	Fort Worth	TX	725
TPG Partners VI, L.P.	Fort Worth	TX	3,062
Trilantic Capital Partners IV, L.P.	New York	NY	1,077
US Equity Partners II, L.P.	New York	NY	286
Subtotal - Private Equity			102,828

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Private Debt</u>			
Avenue Asia Special Situations Fund III, L.P.	New York	NY	\$ 55
Avenue Asia Special Situations Fund IV, L.P.	New York	NY	2,005
Avenue Europe Special Situations Fund, L.P.	New York	NY	1,622
Avenue Special Situations Fund VI, L.P.	New York	NY	757
Cerberus Institutional Partners, L.P. (Series Two)	New York	NY	274
Cerberus Institutional Partners, L.P. (Series Three)	New York	NY	544
Cerberus Institutional Partners, L.P. (Series Four)	New York	NY	5,049
Cerberus Institutional Partners V, L.P.	New York	NY	697
Gleacher Mezzanine Fund II, L.P.	New York	NY	1,215
Gold Hill Venture Lending 03-A, L.P.	Santa Clara	CA	107
GSC Partners CDO Investors IV, L.P.	New York	NY	988
GSC Recovery III, L.P.	New York	NY	839
NYLIM Mezzanine Partners Parallel Fund, L.P.	New York	NY	155
NYLIM Mezzanine Partners Parallel Fund II, L.P.	New York	NY	1,040
OCM Opportunities Fund VII, L.P.	Los Angeles	CA	855
OCM Opportunities Fund VII-B, L.P.	Los Angeles	CA	2,631
Versa Capital Fund, L.P.	Philadelphia	PA	777
Versa Capital Fund II, L.P.	Philadelphia	PA	822
Windjammer Senior Equity Fund III, L.P.	Newport Beach	CA	219
Windjammer Senior Equity Fund IV, L.P.	Newport Beach	CA	543
Subtotal - Private Debt			21,194
<u>Venture Capital</u>			
Aisling Capital II, L.P.	New York	NY	546
Aisling Capital III, L.P.	New York	NY	901
Co-Investment 2000 Fund, L.P. (The)	Radnor	PA	96
Co-Investment Fund II, L.P. (The)	Radnor	PA	1,206
Cross Atlantic Technology Fund, L.P.	Radnor	PA	19
Cross Atlantic Technology Fund II, L.P.	Radnor	PA	69
CS Strategic Partners IV VC, L.P.	New York	NY	357
CSFB Strategic Partners III-VC, L.P.	New York	NY	319
Franklin Capital Associates III, L.P.	Franklin	TN	109
Jefferson Partners Fund IV, L.P.	Toronto	Canada	402
KBL Partnership, L.P.	New York	NY	161
LLR Equity Partners, L.P.	Philadelphia	PA	152
LLR Equity Partners II, L.P.	Philadelphia	PA	756

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Venture Capital (continued)</u>			
LLR Equity Partners III, L.P.	Philadelphia	PA	\$ 3,281
Novitas Capital, L.P.	Wayne	PA	25
Novitas Capital II, L.P.	Wayne	PA	63
Perseus-Soros BioPharmaceutical Fund, L.P.	New York	NY	336
Psilos Group Partners III, L.P.	New York	NY	890
Quaker BioVentures, L.P.	Philadelphia	PA	1,384
Quaker BioVentures II, L.P.	Philadelphia	PA	1,982
SCP Private Equity Partners II, L.P.	Wayne	PA	494
Starvest Partners, L.P.	New York	NY	165
Starvest Partners II, L.P.	New York	NY	1,000
Sterling Venture Partners, L.P.	Baltimore	MD	243
Tenaya Capital IV-P, L.P.	New York	NY	623
Tenaya Capital V-P, LP	New York	NY	<u>1,313</u>
Subtotal - Venture Capital			16,892
Total Alternative Investments			140,914
<u>Absolute Return</u>			
Aeolus Capital Management Ltd.	Hamilton	Bermuda	223
AQR Capital Management, LLC	Greenwich	CT	12,187
Black River Asset Management, LLC	Hopkins	MN	4,435
BlackRock Financial Management, Inc.	San Francisco	CA	10,021
BlueCrest Capital Management LLP	New York	NY	395
Boston Company Asset Management, LLC	Boston	MA	2,190
Brevan Howard Fund, Ltd.	Geneva	Switzerland	15,038
Bridgewater Associates, Inc.	Westport	CT	21,649
Brigade Capital Management, LLC	New York	NY	11,627
Capula Global Relative Value Fund	London	UK	6,146
Capula Special Opportunities Fund	London	UK	1,716
Capula Tail Risk Fund	London	UK	14,211
Caspian Select Credit International Fund	New York	NY	1,432
Denali Advisors, LLC	San Diego	CA	299
FX Concepts, Inc.	New York	NY	4,000
Lazard Asset Management	New York	NY	146
Nephila Capital Ltd.	Hamilton	Bermuda	3,060

Section 3 - Investment Information

Investment Managers' Fees Fiscal Year Ended June 30, 2012 (Dollar Amounts in Thousands) (continued)

<u>Manager</u>	<u>Location</u>		<u>Amount</u>
<u>Absolute Return (continued)</u>			
Pacific Investment Management Company (PIMCO)	Newport Beach	CA	\$ 21,865
Pareto Investment Management, Ltd.	London	UK	3,200
Robeco Investment Management	New York	NY	<u>5,152</u>
Total - Absolute Return			138,992
<u>Commodities</u>			
Credit Suisse Asset Management, LLC	New York	NY	601
Deutsche Asset Management Americas, Inc.	New York	NY	3,332
Gresham Investment Management LLC	New York	NY	679
Neuberger Berman Alternative Fund Mgmt., LLC	New York	NY	5,654
Schroder Investment Management North America, Inc.	New York	NY	3,710
Wellington Management Company, LLP	Boston	MA	<u>5,541</u>
Total - Commodities			19,517
<u>Master Limited Partnerships</u>			
Harvest Fund Advisors LLC	Wayne	PA	810
<u>Risk Parity</u>			
Bridgewater All Weather Fund	Westport	CT	2,466
Total External Management			467,195
Total Internal Management			<u>10,040</u> *
Total Investment Management			\$ <u>477,235</u>

*Internal Management fees include salaries and fringe benefits of \$4,844 and operating expenses of \$5,196.



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Internal Equity Trading Desk

One of the benefits of managing a significant amount of assets internally is that PSERS can have its own trading desk. A majority of the U.S. equity trades for the Fund are executed by PSERS' internal trading desk. The internal U.S. equity managers as well as a number of the external U.S. equity managers utilize the trading desk to execute trades. The objectives of PSERS' internal trading desk include:

- to obtain best execution;
- to pay the lowest possible commissions consistent with obtaining best execution; and
- to provide market information/data to portfolio managers

The trading desk provides PSERS with access to information on the markets from sell-side brokers and by monitoring business news services which helps in the management of

the investments of the Fund. The trading desk also provides portfolio transition management services to PSERS. When equity portfolio managers are terminated, the trading desk handles the liquidation of the portfolio or the transition from one portfolio manager to another, minimizing the costs of those transitions.

The order flow generated by the trading desk provides PSERS with access to initial public offerings (IPOs). This can be a source of incremental returns since most IPOs generally trade higher after being issued. This IPO access generated \$984,016 in profits for PSERS during the calendar year ending December 31, 2012.

PSERS' trading desk executed approximately 17,000 U.S. and Non-U.S. orders for the purchase and sale of stock, currency, futures, and options during the fiscal year ended June 30, 2012. The total dollar amount of U.S. and Non-U.S. orders traded during the fiscal year ended June 30, 2012, was approximately \$21 billion.



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**PSERS' Public Market
Emerging Investment Manager
(PMEIM) Program
(as of December 31, 2012)**

The Public Market Emerging Investment Manager (PMEIM) Program is a sub-section of PSERS' U.S. Equity, Non-U.S. Equity, Absolute Return, and Fixed Income asset classes.

Policy

Consistent with its fiduciary responsibilities, the Board has established the PMEIM Program to:

1. locate and fund managers with successful histories of generating positive alpha with risk commensurate with the alpha generated (positive risk adjusted returns);
2. provide a source of potential managers for the main fund; and
3. assist public market emerging investment management firms grow through the use of the System's name in the managers' marketing efforts.

The Board has allocated up to \$1 billion to the PMEIM Program. Funding for each investment manager will come from assets allocated within the main fund similar to or most closely related to the investment manager's mandate. The maximum number of investment managers in the program at any one time shall not exceed 25. The program may run with less than 25 investment managers.

Investment managers desiring to participate in the program must meet the following required criteria:

- Firms must be registered under the Investment Advisors Act of 1940 or be exempt therefrom (and will maintain such registration or exemption);
- Firms must provide transparency of positions and transactions;
- Firms must provide at least monthly liquidity;
- Firms, the portfolio manager, or any combination thereof must have a three-year historical performance record verified by at least one consultant or accounting firm in accordance with the Global Investment Performance Standards (GIPS);

- Firms considered to provide Equity, Commodity or Absolute Value exposure must have no more than \$1.5 billion of total assets under management when hired (existing investment managers will be terminated within a reasonable period of time from the PMEIM Program when the total assets under management exceeds \$3.0 billion);
- Firms considered to provide Fixed Income exposure must have no more than \$3.0 billion of total assets under management when hired (existing investment managers will be terminated within a reasonable period of time from the PMEIM Program when the total assets under management exceeds \$6.0 billion); and
- For performance based fee accounts, the managers must have a hurdle rate and they must exceed this rate to earn the performance-based fee.

Preference will be given to investment managers deemed as able to meet the objectives, goals, and required criteria noted above plus having one or more of the following characteristics:

- Pennsylvania investment management firms headquartered or incorporated within the Commonwealth; and/or
- Minority and/or women-owned investment management firms approved by the Office of Minority and Women Business Enterprise in accordance with the criteria established by Executive Order No. 1987-18 and 4 Pennsylvania Code, Section 68.204.

Market Value as of December 31, 2012: \$479.8 million or 1.1% of the total market value of the Fund.

Number of External Investment Managers: PSERS had contracts with 10 external investment managers in the PMEIM Program.

Section 3 - Investment Information

PSERS' PMEIM Investment Managers (Market Value in Millions) (unaudited, as of December 31, 2012)

<u>External Manager</u>	<u>PA-Based</u>	<u>Women-owned</u>	<u>Minority-owned</u>	<u>Other</u>	<u>Total</u>
<u>U.S. Equity Large Cap</u>					
Hellman, Jordan Management Co., Inc.				\$ 37.8	\$ 37.8
<u>U.S. Equity Mid and Small Cap</u>					
A.H. Lisanti Capital Growth, LLC		\$ 45.5			45.5
Conestoga Capital Advisors, Inc.	\$ 48.6				48.6
Opus Capital Management, Inc.			\$ 48.1		48.1
<u>Non-U.S. Equity Large Cap</u>					
John Hsu Capital Group, Inc.			56.9		56.9
Shah Capital Management, Inc.			34.6		34.6
<u>Non-U.S. Equity Emerging Markets</u>					
Glovista Investments			30.9		30.9
<u>U.S. Core Plus Fixed Income</u>					
Piedmont Investment Advisors			52.3		52.3
Pugh Capital Management, Inc.			90.0		90.0
<u>Absolute Return</u>					
Denali Advisors, LLC			35.1		35.1
Total PSERS' PMEIM Portfolios	<u>\$ 48.6</u>	<u>\$ 45.5</u>	<u>\$ 347.9</u>	<u>\$ 37.8</u>	<u>\$ 479.8</u>
Percentage by category	<u>10.1%</u>	<u>9.5%</u>	<u>72.5%</u>	<u>7.9%</u>	

Section 4 - Commitment to Pennsylvania





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Section 4 - Commitment to Pennsylvania

Commitment to Pennsylvania-Based Investment Managers (as of December 31, 2012)

The members of the Board and Staff are fiduciaries and must act in the interests of the members of the System and for the exclusive benefit of the System's members. In creating the investment program, the Board hires both external investment managers and internal investment managers. The Board has determined that it is in the best interest of the System to manage assets internally when (1) the System's staff has the proven ability to internally manage portfolios at least as well as the external investment managers, and (2) the cost of investing those assets is no greater than the cost that would have been incurred to have those assets externally managed. The Board will also consider the diversification benefits that may be achieved by allocating assets to external portfolio managers even when conditions (1) and (2) are met.

The Board evaluates external managers based on a variety of factors, including, (1) their expected future performance; (2) their investment philosophy and style; (3) their investment process; (4) their personnel; (5) cost; and (6) how their philosophy and style fits in with the existing investment structure. In selecting external managers, PSERS will show preference to Pennsylvania-based potential managers that demonstrate similar strengths to alternative managers without a Pennsylvania nexus.

PSERS has shown a tremendous commitment to Pennsylvania's financial services industry by having assets managed by firms based in Pennsylvania or by firms with offices in Pennsylvania. In FY 2012, investment manager fees paid to external firms managing PSERS' assets from offices located in Pennsylvania amounted to \$ 23.9 million, or 5.1% of the total external investment manager fees. The following is a list of assets either managed internally by PSERS or by external managers with headquarters or offices located in Pennsylvania, as of December 31, 2012:

<i>Pennsylvania-Based Manager</i>	<i>Market Value (in millions)</i>	<i>Percentage of the Fund</i>
Internal Management		
US. Equity:		
S&P 500 Index	\$ 2,973.4	6.1%
S&P 400 Index	175.0	0.4%
S&P 600 Index	176.3	0.4%
Non-U.S. Equity:		
ACW ex-U.S. Index	2,159.8	4.4%
Emerging Markets Equity	208.5	0.4%
Fixed Income:		
PSERS TIPS	1,364.6	2.8%
PSERS Active Aggregate	1,179.0	2.4%
PSERS U.S. Long Treasuries	324.5	0.7%
Cash & Cash Equivalents:		
STIF	2,673.7	5.5%
Commodities:		
PSERS Gold Swap	(5.8) ^a	0.0%
Private Markets:		
Internal Program	36.5	0.1%
Total Internal Management	11,265.5	23.0%
External Management		
U.S. Equity:		
Conestoga Capital Advisors	48.6	0.1%
Fixed Income:		
LBC Credit Partners II, LP	250.4	0.5%

a - The Market Value represents the net payable on swap contracts.

Section 4 - Commitment to Pennsylvania

Commitment to Pennsylvania-Based Investment Managers (as of December 31, 2012) (continued)

<i>Pennsylvania-Based Manager</i>	<i>Market Value (in millions) (1)</i>	<i>Percentage of the Fund</i>
Real Estate:		
BPG Investment Partnership V, L.P.		
BPG Investment Partnership VI, L.P.		
BPG Co-Investment Fund		
Charter Oak Advisors, Inc.		
Exeter Industrial Value Fund II, L.P.		
GF Management, Inc.		
Grosvenor Fund Management U.S., Inc.		
LEM Real Estate Mezzanine Fund II, L.P.		
Lubert-Adler Real Estate Fund III		
Lubert-Adler Real Estate Fund IV		
Lubert-Adler Real Estate Fund V		
Lubert-Adler Real Estate Fund VI		
Subtotal Real Estate:	\$ 451.9	0.9%
Private Equity and Debt:		
Graham Partners, LP		
Incline Equity Fund III, L.P.		
PNC Equity Partners II, L.P.		
PNC Equity Partners, L.P.		
Milestone Partners II, L.P.		
Milestone Partners III, L.P.		
Milestone Partners IV, L.P.		
Versa Capital Fund I, L.P.		
Versa Capital Fund II, L.P.		
Subtotal Private Equity and Debt:	\$ 380.5	0.8%

(1) Market values for individual Real Estate and Private Market investments are not being disclosed at this time.



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Section 4 - Commitment to Pennsylvania

**Commitment to Pennsylvania-Based Investment Managers
(as of December 31, 2012)
(continued)**

<i>Pennsylvania-Based Manager</i>	<i>Market Value (in millions) (1)</i>	<i>Percentage of the Fund</i>
Venture Capital:		
Adams Capital Management, LP		
Co-Investment 2000 Fund, L.P.		
Co-Investment Fund II, L.P.		
Cross Atlantic Technology Fund II		
Cross Atlantic Technology Fund, L.P.		
LLR Equity Partners II, L.P.		
LLR Equity Partners III, L.P.		
LLR Equity Partners, L.P.		
NEPA Venture Fund II		
Novitas Capital , L.P.		
Novitas Capital II, L.P.		
Quaker BioVentures II, L.P.		
Quaker Bio-Ventures, L.P.		
SCP Private Equity Partners I, L.P.		
SCP Private Equity Partners II, L.P.		
TDH III, L.P.		
Subtotal Venture Capital:	\$ 485.4	1.0%
Total External Management	1,616.8	3.3%
Total Investment Portfolios Managed in PA	\$ <u>12,882.3</u>	26.3%

(1) Market values for individual Real Estate and Private Market investments are not being disclosed at this time.



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**Summary of Investments in Pennsylvania
(as of December 31, 2012)**

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. The Board, in managing the investment portfolio, will also be cognizant of concentration risk to any one region, including Pennsylvania. The Fund will continue to seek investments in Pennsylvania-based companies when the investment characteristics are equivalent to other favorable investments, subject to diversification considerations.

The following is a table of Pennsylvania-based investments and other statistics at December 31, 2012 (\$’s in millions):

<i>Asset Class</i>	<i>Total PA Market Value (PSERS' Portion)</i>	<i>Total PA Market Value (Total Invested)</i>	<i># of People Employed</i>	<i>Payroll</i>
U.S. Equities	\$ 83.7	\$ 83.7	*	\$ *
Fixed Income	27.0	27.0	*	*
Private Real Estate	128.0	2,559.0	1,530	48.4
Private Markets:				
Venture Capital	182.5	636.6	4,270	125.0
Private Equity	977.1	18,548.9	37,632	1,095.3
Private Debt	86.1	614.8	4,798	125.6
Total	\$ <u>1,484.4</u>	\$ <u>22,470.0</u>	<u>48,230</u>	\$ <u>1,394.3</u>

* Statistics for publicly traded companies not included due to the difficulty in obtaining the information.

U.S. Equities

PSERS invests in the stock of Pennsylvania-based companies through the various U.S. Equity portfolios managed by external and internal portfolio managers. PSERS has always had substantial investments in large national firms located in Pennsylvania, a list of which is included later in this section.

Fixed Income Securities

PSERS invests in the debt of Pennsylvania-based companies through the various Fixed Income portfolios managed by external and internal portfolio managers. PSERS has always had substantial investments in large national firms located in Pennsylvania, a list of which is included later in this section.

Private Real Estate

PSERS has investments in limited partnerships that have invested in Pennsylvania real estate properties. PSERS has committed \$207.5 million in three funds (Fund V, Fund VI,

and a Co-Investment Fund) managed by BPG Properties, Ltd., located in Philadelphia. PSERS has committed \$550 million in five funds (Lubert-Adler Funds II, III, IV, V and VI) managed by Lubert-Adler, and a \$75 million commitment in one fund (LEM Real Estate Mezzanine Fund II) managed by LEM Mezzanine Partners, both located in Philadelphia. . Finally, PSERS has committed \$75 million in one fund (Exeter Industrial Value Fund II) managed by Exeter Property Group, located in Plymouth Meeting.

As of December 31, 2012, PSERS’ Pennsylvania real estate portfolio contained 64.1 million square feet of office, retail, and warehouse space and 37,991 apartment, hotel and condominium units. The gross market value of the Pennsylvania real estate portfolio investments totaled \$2.6 billion, of which PSERS’ ownership share was \$128.0 million. The portfolio contains numerous notable Pennsylvania real estate investments, including:

- 5 North Fifth Street - PSERS owns a 100% interest in this major downtown Harrisburg, PA office building that contains 70,693 square feet of office space. The building is PSERS’ headquarters and is fully occupied by PSERS.
- Brixmor - Blackstone Real Estate Partners VI made an investment in a nationwide portfolio of neighborhood shopping centers, comprising over 90 million square feet of gross leasable area in 39 states. There are approximately 40 centers comprising over 6.75 million square feet of this portfolio located in Pennsylvania.
- The National at Old City – This condominium complex is located in Philadelphia, PA. The National at Old City consists of 153 units and contains 208,919 square feet of condominium space. This investment was made by SilverPeak Legacy Partners II.
- Kenmawr – This investment is a part of a long-term joint venture relationship between Lubert-Adler

Summary of Investments in Pennsylvania
(as of December 31, 2012)
(continued)

and Philadelphia Management and Companies (PMC) that specializes in adaptive re-use of vacant buildings into stable, high quality rental apartments within and outside of Pennsylvania. The Kenmawr investment is located in Pittsburgh, PA and consists of 206 apartment units and 44 commercial units. The Kenmawr investment was made in Lubert-Adler Real Estate Funds V and VI.

- Brandywine Office Portfolio – The Brandywine Office Portfolio consists of 29 properties totaling 1.6 million square feet and is located in the Lehigh Valley. This investment was made by DRA Growth and Income Fund VI.
- The Franklin – The Franklin is an 18-story, mixed-use property with 125,788 square feet of medical office and retail space, in addition to 412 residential units. This investment is located in Philadelphia, PA and was made by AG Core Plus Realty Fund III.

Venture Capital

PSERS’ Venture Capital program has committed \$2.6 billion to 54 partnerships since the inception of the program. In addition to the current international scope of venture capital investments, a historical objective of this program has been to target partnerships that demonstrate an ability to invest in Pennsylvania-based companies. Selected partnerships offer diversification according to geographic region and financing stage within Pennsylvania. From the inception of this program to December 31, 2012, 27 of the 54 venture capital partnerships were headquartered in Pennsylvania.

PSERS is generally the lead investor in many of the venture capital funds in which PSERS invests. As a lead investor, PSERS provides Pennsylvania with capital from numerous out-of-state investors. As of December 31, 2012, PSERS’ Venture Capital partnerships invested in 156 Pennsylvania locations employing 4,270 employees with a combined payroll of \$125.0 million. The market value of these investments was \$636.6 million, of which PSERS’ share was \$182.5 million.

A key objective of PSERS’ venture capital program is to attract both national and regional funds into the Pennsylvania small business community. Venture capital investments serve to accelerate economic growth in both the business sector and the community due to an increase in employment and revenues within the Commonwealth. Following are a sample of Pennsylvania companies invested in by PSERS through the Venture Capital program:

- E-Duction, Inc., Blue Bell, PA - E-Duction was launched to capitalize on a growing trend that has emerged in payment technology - payroll deduction. In 2002, E-Duction introduced the first payroll deduction card that gives employees interest-free purchasing power, 365 days per year. Employees purchase goods and services, at no interest, everywhere credit cards are accepted. Payments are deducted over a series of paychecks. E-Duction earns income from annual card member fees, interchange fees from every transaction, and preferred merchant promotional fees. Novitas Capital made this investment.
- Garnet BioTherapeutics, Inc. (formerly Neuronyx, Inc.), Malvern, PA - Garnet is a clinical state biotechnology company focused on applications with stem cells derived from adult bone marrow. Garnet uses genetically modified cells for specific applications in the development of neuroprotective agents for use in the treatment of major diseases. Garnet has developed a proprietary process for isolating and expanding adult bone marrow stem cells to provide extremely large, homogeneous populations with desirable therapeutic characteristics. Novitas Capital made this investment.
- Pet360 Inc. (formerly PetFood Direct), Montgomeryville, PA – Pet360 is one of the largest online retailers of pet food and related products. With over 11,000 products and 400 brands, the Company meets the needs of pet owners by offering selection, discount prices and convenient delivery. The Company also provides value-added services for its customers, including an auto-ship program and information on pet healthcare and nutrition. LLR Equity Partners II made this investment.
- Strategic Distribution, Inc., Bristol, PA. - Strategic Distribution, Inc. provides outsourced maintenance, repair and operations supply chain management services. Strategic Distribution, Inc. manages the procurement and inventory management of more than 2.0 million maintenance, repair and operations SKUs through the combination of customer integrated technology, on-site professional staff and centralized, supplier-agnostic sourcing and operations departments. LLR Equity Partners III made this investment.

Private Equity

PSERS’ Private Equity program has committed \$17.1 billion to 119 partnerships since the inception of the program. PSERS is the lead investor in many of the private equity funds in which it invests. As a lead investor, PSERS provides Pennsylvania with capital from numerous out-of-state investors. As of December 31, 2012, PSERS’

Summary of Investments in Pennsylvania
(as of December 31, 2012)
(continued)

Private Equity partnerships invested in 1,194 Pennsylvania locations employing 37,632 employees with a combined payroll of \$1,095.3 million. The market value of these investments was \$18.5 billion, of which PSERS' share was \$977.1 million. From the inception of this program to December 31, 2012, 8 of the 119 partnerships were headquartered in Pennsylvania. The following companies are a sample of Pennsylvania investments funded through PSERS' private equity partnerships:

- AirClic, Philadelphia, PA – AirClic is a global provider of mobile software products that improve the performance of an organization's supply chain, logistics and field services operations. The company has more than 500 global customers across multiple vertical markets. Using AirClic-enabled wireless devices, managers and workers can easily and economically capture, exchange, and access critical data that represent people, assets and activity. AirClic is driving new levels of accountability and improved customer service for many of the world's leading companies. Edgewater Private Equity Fund III made this investment.
- CODi, Inc., Harrisburg, PA – CODi, Inc. is a provider of lightweight, high-quality laptop computer cases and information technology accessories to Fortune 500 companies. CODi's accumulated knowledge dealing with the "corporate road warrior" allows the company to uniquely service corporate and consumer needs with precision. CODi uses a direct sales force to its competitive advantage, allowing a one-stop solution for customers in a market where distributors and value-added resellers are the norm. This one-stop approach allows high profitability as it captures up to three levels of contributions margins. The investment was brought about through Milestone Partners II.
- Gorell Enterprises, Indiana, PA - Gorell Enterprises is a manufacturer of specially engineered, custom-manufactured vinyl windows for replacement and new-construction applications, patio doors, aluminum storm windows and doors, sunrooms, and conservatories. Gorell is well known in the industry for placing strong emphasis on designing and manufacturing strong, durable high-quality products. Gorell was the national winner of the 2006 ENERGY STAR® "Sustained Excellence" Award, given for their new window models to make homes more energy efficient as well as secure. PNC Equity Partners made this investment.

- Interface Solutions, Inc., Lancaster, PA - Interface Solutions Inc. (ISI) is a leading manufacturer of fiber-based flooring felt and intermediate gasket materials and a fabricator of finished fiber, graphite and metal gaskets. Acquisitions, expansions, and capital investments in research facilities empower ISI to offer both OEM and aftermarket customers unmatched technical and design support and application testing. ISI has an extraordinary depth of experience and engineering knowledge, with roots to predecessor companies dating back over 90 years. ISI was created as an independent, private corporation in 1999, formed from the organization previously known as Armstrong Industrial Specialties Inc. (AISI). PNC Equity Partners L.P. made this investment.

Private Debt

PSERS' Private Debt program has committed \$4.5 billion to 29 partnerships since the inception of the program. PSERS is the lead investor in many of the private debt funds in which PSERS invests. PSERS has committed \$375 million to the three Pennsylvania-based Versa Capital Partners funds (formerly known as Chrysalis Capital Partners) managed by Versa Capital Management, located in Wayne, Pennsylvania. As of December 31, 2012, PSERS' private debt partnerships invested in 179 Pennsylvania locations employing 4,798 employees with a combined payroll of \$125.6 million. The market value of these investments was \$614.8 million, of which PSERS' share was \$86.1 million. From the inception of this program to December 31, 2012, 3 of the 29 private debt partnerships were headquartered in Pennsylvania.

The following companies are a sample of a Pennsylvania investments made through PSERS' Private Debt Program:

- David's Bridal, Ardmore, PA - David's Bridal is the leading bridal gown and bridal accessory retailer in the United States operating through the David's Bridal and Priscilla's of Boston divisions. The David's Bridal division is a value-oriented provider while Priscilla's of Boston is a luxury brand that caters to the more affluent segments of the market. This investment was made through New York Life Investment Management Mezzanine Partners II.
- DynaVox, Pittsburgh, PA - DynaVox, a former division of Sunrise Medical spun-out in May 2004, is the market leader in the alternative and augmentative communication industry, developing and selling devices and software for individuals affected by speech disabilities resulting from traumatic, congenital or degenerative conditions. This investment was made through New York Life Investment Management Mezzanine Partners I.

**Summary of Investments in
Pennsylvania
(as of December 31, 2012)
(continued)**

- Simplexity (Adeptio INPC Holdings, LLC), Wayne, PA – Simplexity is the leading independent online seller of wireless services, representing all major wireless carriers and selling primarily through proprietary websites (principally its flagship site, www.wirefly.com) and partner websites (e.g. Radioshack.com, Staples.com, Overstock.com). This investment was made through Versa Capital Fund I.
- Keane & Sons Drilling Corp., Lewis Run, PA – Keane & Sons Drilling provides oilfield services in the Appalachian Basin, including top hole drilling and hydraulic fracturing services to major operators in the Marcellus Shale basin and across the U.S. This investment was made through Cerberus Institutional Partners, L.P. – Series Four.



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Section 4 - Commitment to Pennsylvania

Pennsylvania-Based Publicly Traded Stocks (as of December 31, 2012)

<i>Security</i>	<i>Shares Outstanding</i>	<i>Market Value</i>
Air Products & Chemicals, Inc.	50,306	\$ 4,226,710
Airgas, Inc.	14,204	1,296,683
Alcoa, Inc.	215,649	1,871,833
Allegheny Technologies, Inc.	38,085	1,156,261
Amerigas Partners	14,200	550,108
Amerisourcebergen Corp.	47,582	2,054,591
Comcast Corp. Class A	543,585	19,891,270
Consolidated Energy, Inc.	222,653	7,147,161
Crown Holdings, Inc.	53,506	1,969,556
Dentsply International, Inc.	28,680	1,136,015
Endo Pharmaceuticals Holdings, Inc.	35,665	935,497
EQT Corp.	59,607	3,515,621
Federated Investors, Inc. Class B	100,206	2,027,167
FMC Corp.	27,763	1,624,691
Five Below, Inc.	13,285	425,651
H.J. Heinz Company	64,795	3,737,376
Hershey Company	30,219	2,182,416
Interdigital, Inc.	177,538	7,295,036
Kulicke and Soffa Industries, Inc.	48,000	575,520
Matthews International Corp.	3,910	125,511
Mine Safety Appliances Company	4,415	188,565
Mylan Labs, Inc.	82,349	2,260,480
PNC Financial Services Group, Inc.	106,867	6,231,415
PPG Industries, Inc.	39,303	5,319,661
PPL Corp.	117,545	3,365,313
Triumph Group, Inc.	15,387	1,004,771
United States Steel Corp.	29,155	695,347
Urban Outfitters, Inc.	22,113	<u>870,368</u>
Total		\$ <u>83,680,594</u>

Section 4 - Commitment to Pennsylvania

Pennsylvania-Based Bonds (as of December 31, 2012)

<i>Security</i>	<i>Interest Rate (%)</i>	<i>Maturity Date</i>	<i>Par Value</i>	<i>Market Value</i>
Airgas, Inc.	7.125	10/01/2018	1,920,000	\$ 2,049,658
Alcoa, Inc.	5.400	04/15/2021	430,000	447,548
Allegheny Ludlum Corp.	6.950	12/15/2025	300,000	353,817
Allegheny Technologies, Inc.	5.950	01/15/2021	690,000	764,361
Allegheny Technologies, Inc.	9.375	06/01/2019	885,000	1,125,968
Allentown PA Taxable	0.000	10/01/2024	505,000	274,806
Allentown PA Taxable	0.000	10/01/2025	3,660,000	1,860,890
Amerigas Partners	6.250	08/20/2019	1,245,000	1,332,150
Comcast Corp.	6.400	03/01/2040	302,000	391,187
Comcast Corp.	6.450	03/15/2037	180,000	230,974
Comcast Corp.	5.875	02/15/2018	200,000	241,010
Comcast Corp.	5.650	06/15/2035	40,000	46,933
Comcast Corp.	6.950	08/15/2037	30,000	40,682
Consolidated Energy, Inc.	8.000	04/01/2017	2,170,000	2,349,025
Endo Pharmaceuticals Holdings, Inc.	7.000	07/15/2019	530,000	565,113
H.J. Heinz Company	5.350	07/15/2013	2,340,000	2,399,647
Hershey Company	5.000	04/01/2013	250,000	252,818
Kennametal, Inc.	2.650	11/01/2019	1,500,000	1,502,205
Koppers, Inc.	7.875	12/01/2019	1,245,000	1,369,500
Mylan, Inc.	7.625	07/15/2017	1,175,000	1,320,547
Mylan, Inc.	7.875	07/15/2020	1,085,000	1,282,210
New Enterprise Stone & Lime Company	11.000	09/01/2018	2,180,000	1,635,000
PHEAA	0.915	04/25/2019	1,906,984	1,912,056
West Penn Power Company	5.950	12/15/2017	2,000,000	2,374,060
Wyoming PA Area School District	5.280	09/01/2014	875,000	<u>880,819</u>
Total				\$ <u>27,002,984</u>

Section 4 - Commitment to Pennsylvania

Real Estate Separate Account Pennsylvania Properties
(as of December 31, 2012)

<i>Real Estate Separate Account Pennsylvania Properties</i>			
Property	Location	Description	Manager
5 North Fifth Street	Harrisburg	5 story office building (PSERS headquarters)	Grosvenor
Total market value (unaudited) of Pennsylvania-based properties was \$7.5 million as of December 31, 2012.			



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Section 4 - Commitment to Pennsylvania

Pennsylvania-Based Private Equity/Venture Capital/Private Debt General Partners

(Dollar Amounts in Millions)
(Since the inception of the program as of December 31, 2012)

<i>Partnership</i>	<i>Location</i>	<i>PSERS Maximum Capital Commitment</i>
Adams Capital Management, L.P.	Sewickley	\$ 12.5
APA/Fostin Venture Fund I (closed)	King of Prussia	20.0
CEO Venture Fund I (closed)	Pittsburgh	1.0
CEO Venture Fund II (closed)	Pittsburgh	15.0
Co-Investment 2000 Fund, L.P.	Wayne	135.0
Co-Investment Fund II, L.P.	Wayne	135.0
Commonwealth Venture Partners I (closed)	Philadelphia	20.0
Commonwealth Venture Partners II (closed)	Philadelphia	10.0
Cross Atlantic Technology Fund, L.P.	Radnor	30.1
Cross Atlantic Technology Fund II, L.P.	Radnor	21.1
Graham Partners Investments, L.P.	Newtown Square	56.7
Incline Equity Partners III (PSERS), L.P.	Pittsburgh	43.3
Keystone Minority Capital Fund (closed)	Philadelphia	0.1
Keystone Venture Fund IV (closed)	Philadelphia	7.8
LLR Equity Partners, L.P.	Philadelphia	62.5
LLR Equity Partners II, L.P.	Philadelphia	75.0
LLR Equity Partners III, L.P.	Philadelphia	187.5
LLR Equity Partners IV, L.P.	Philadelphia	200.0
Loyalhanna Venture Fund (closed)	Pittsburgh	15.0
Milestone Partners II, L.P.	Rosemont	29.9
Milestone Partners III, L.P.	Rosemont	60.0
Milestone Partners IV, L.P.	Rosemont	24.3
NEPA Venture Fund I (closed)	Bethlehem	1.0
NEPA Venture Fund II	Bethlehem	5.0
Novitas Capital I, L.P.	Wayne	30.0
Novitas Capital II, L.P.	Wayne	75.0
P/A Fund	King of Prussia	30.0
PNC Equity Partners, L.P.	Pittsburgh	43.2
PNC Equity Partners II, L.P.	Pittsburgh	68.1
Quaker BioVentures, L.P.	Philadelphia	69.4
Quaker BioVentures II, L.P.	Philadelphia	100.0
SCP Private Equity Partners I, L.P.	Wayne	62.5
SCP Private Equity Partners II, L.P.	Wayne	125.0
TDH III, L.P.	Rosemont	7.4
Technology Leaders, L.P. (closed)	Wayne	10.0
TL Ventures III, L.P.	Wayne	50.0
Versa Capital Partners, L.P. (f/k/a Chrysalis)	Wayne	75.0
Versa Capital Partners II, L.P.	Wayne	150.0
Versa Capital Partners III, L.P.	Wayne	150.0
Total		<u>\$ 2,213.4</u>

Section 5 - Other PSERS Programs





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Section 5 - Other PSERS Programs

Health Options Program

Pursuant to Sec. 8701 et seq. of the Public School Retirees Health Insurance Act 24 Pa. C.S. § 8701 et seq. PSERS sponsors a group health insurance program called the Health Options Program (HOP) for individuals who are annuitants or survivor annuitants or the spouse or dependents of an annuitant or survivor annuitant. The HOP is funded by and for eligible participants. The following is a summary of HOP initiatives during the period July 1, 2011 through June 30, 2012.

- » The Retirement Board issued an Invitation for Application (IFA) to allow qualified insurance carriers to apply to PSERS to offer a fully insured Medicare Advantage group insurance plan and accompanying Pre-65 group insurance plan to PSERS retirees who participate in the Health Options Program (HOP). The effective date of the insurance is January 1, 2013. As a result of the IFA, PSERS is expecting the following carriers to participate in HOP:

Aetna

Capital Blue Cross/Keystone Health Plan Central

Geisinger Health Plan

Highmark

Independence Blue Cross (IBC)/

Keystone Health Plan East

UPMC

- » The Retirement Board issued a Request for Proposal (RFP) for Medicare Prescription Drug Program Support Services and Pharmacy Benefit Management Services for the PSERS Health Options Program (HOP) effective January 1, 2013. The Retirement Board accepted the results of the RFP process and entered into a contract with Optum Rx.
- » The Retirement Board issued a Request for Proposal (RFP) for Health Care Consulting and Project Management Services for the PSERS Health Options Program (HOP) and Premium Assistance Program effective February 1, 2013. The Retirement Board accepted the results of the RFP process and entered into a contract with the Segal Company.
- » The Retirement Board issued a Request for Proposal (RFP) for Pharmacy Benefit Consulting and Medicare Part D Compliance Services for the PSERS Health Options Program (HOP) effective February 1, 2013. The Retirement Board accepted the results of the RFP and entered into a contract

with IPC/EvergreenRx.

- » The Retirement Board continues to expand the capabilities of the HOPbenefits.com website. Currently the website gives HOP Medical Plan participants access to personal health information and provides them with the ability to inquire and receive updates on the status of their claims.
- » The Retirement Board continues to make changes in the Basic and Enhanced Medicare Rx Options as required by the Affordable Care Act (health care reform). Effective January 1, 2013, the following benefit changes were adopted:

The Member Pays in the Coverage Gap:	2012 Medicare Rx Option	2013 Medicare Rx Option
Basic Option		
Generic Rx	86%	79%
Brand	50%	47.5%
	(50% Manufacturer's Discount)	(50% Manufacturer's Discount)

These benefit requirements are unfunded federal mandates and the cost of these reductions in patient's out-of-pocket expenses increase the premium cost that will be paid by plan participants.

- » The School District of Philadelphia (District) terminated its post-65 retiree health insurance program covering approximated 3,000 PSERS retirees and their dependents effective January 1, 2013. The termination of this program, approved for Premium Assistance, created a Qualifying Event under the PSERS Health Options Program (HOP) for these participants. To assist in the transition from the District's post-65 retiree health insurance program to HOP, the Retirement Board:
 1. Mailed an enrollment packet to each of the District's post-65 health plan participants that included a letter from the District, a comparison of benefits and a HOP enrollment form.
 2. Conducted informational/enrollment meeting in the greater Philadelphia area for those persons affected by the termination, and
 3. Called individuals not submitting an application to HOP to make sure they understood that the District's plan was terminating.

If a retiree was receiving Premium Assistance from PSERS to help pay their out-of-pocket premium expense to the District's post-65 health insurance program and failed to enroll in HOP, their Premium Assistance benefit was terminated. Those retirees losing their Premium Assistance benefit can reinstate

Section 5 - Other PSERS Programs

Health Options Program

(continued)

this addition to their retirement benefit by enrolling in HOP within 180 days of the termination of their benefits under the District's program.

Plans Available Through HOP

HOP offers participants a choice among a supplement to Medicare, various Medicare prescription drug plans, and Medicare Advantage plans. Participants under age 65 and not eligible for Medicare may elect to enroll in a high deductible health insurance plan without prescription drug coverage or a managed care plan. These options are available to new enrollees or HOP participants electing to change coverage during the 2013 option selection period conducted in the fall of 2012. The following is a list of HOP plans as of January 1, 2013:

For Individuals Eligible for Medicare:	For Individuals Not Eligible for Medicare
HOP Medical Plan (Medicare supplement)	HOP Pre-65 Medical Plan
Basic Medicare Rx Option (Medicare Part D)	HOP Pre-65 Medical Plan w/ Rx coverage
Enhanced Medicare Rx Option (Medicare Part D)	
Medicare Advantage Plans	Companion Pre-65 Managed Care Plans
Aetna Medicare PPO	Aetna PPO Plan
Capital Blue Cross SeniorBlue PPO	Capital Blue Cross PPO
Geisinger Gold Preferred PPO	Geisinger Choice PPO
Highmark FreedomBlue PPO	Highmark PPO Blue
Independence Blue Cross-Keystone 65 HMO	Independence Blue Cross-Keystone HMO
UPMC for Life HMO	UPMC Health Plan



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Section 5 - Other PSERS Programs

Health Options Program

(continued)

HOP Premiums

Paid By Individuals ELIGIBLE for Medicare

The premiums paid by participants eligible for Medicare generally vary by geographical area. The exceptions are the premiums for the HOP Medicare Rx Options. The following is a summary of the 2012 and 2013 standard premium costs in Pennsylvania for single coverage:

Southeastern Region: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties	2012	2013	Increase/ (Decrease)
Medicare Supplement Plan			
HOP Medical Plan	\$ 199	\$ 199	0%
w/ Basic Rx	\$ 226	\$ 227	0.4%
w/ Enhanced Rx	\$ 280	\$ 281	0.4%
Medicare Advantage Plans (compared with 2010 legacy plan)			
Aetna Medicare 15 Special PPO	\$ 315	\$ 329	4%
Highmark FreedomBlue PPO	\$ 556	\$ 575	3%
Independence Blue Cross / Keystone East HMO	\$ 368	\$ 289	(22)%
Legacy Medicare Advantage Plans (no new participants)			
Aetna Medicare 10 Special Plan HMO	\$ 389	\$ 406	4%
IBC's Personal Choice 65 PPO	\$ 636	\$ 636	0%

Southwestern Region: Allegheny, Fayette, Greene, Indiana, Washington, and Westmoreland Counties	2012	2013	Increase/ (Decrease)
Medicare Supplement Plan			
HOP Medical Plan	\$ 195	\$ 195	0%
w/ Basic Rx	\$ 222	\$ 223	0.5%
w/ Enhanced Rx	\$ 276	\$ 277	0.4%
Medicare Advantage Plans (compared with 2010 legacy plan)			
Aetna Medicare 15 Special PPO	\$ 306	\$ 306	0%
Highmark FreedomBlue PPO	\$ 261	\$ 281	8%
UPMC for Life HMO	\$ 211	\$ 234	11%
Legacy Medicare Advantage Plans (no new participants)			
Aetna Medicare 15 Special Plan HMO	\$ 384	\$ 353	(8)%
Highmark SecurityBlue HMO	\$ 252	\$ 272	8%

Section 5 - Other PSERS Programs

Health Options Program (continued)

North & Central Region: All other counties in Pennsylvania	2012	2013	Increase
Medicare Supplement Plan			
HOP Medical Plan	\$ 164	\$ 164	0%
w/ Basic Rx	\$ 191	\$ 192	0.5%
w/ Enhanced Rx	\$ 245	\$ 246	0.4%
Medicare Advantage Plan (compared with 2010 legacy plan)			
Aetna Medicare 15 Special PPO	\$ 212	\$ 228	8%
Capital Blue Cross SeniorBlue PPO	\$ 210	\$ 228	9%
Geisinger Gold Preferred PPO	\$ 191	\$ 198	4%
Highmark FreedomBlue PPO	\$ 241	\$ 260	8%
UPMC for Life HMO	\$ 211	\$ 234	11%
Legacy Medicare Advantage Plans (no new participants)			
Aetna Medicare 10 Special Plan HMO	\$ 232	\$ 244	5%
Highmark SecurityBlue HMO	\$ 252	\$ 271	8%
Keystone Central SeniorBlue HMO	\$ 209	\$ 223	7%

Medicare Prescription Drug Plans All Regions	2012	2013	Increase
Basic Medicare Rx Only	\$ 27	\$ 28	0.4%
Enhanced Medicare Rx Only	\$ 81	\$ 82	0.1%



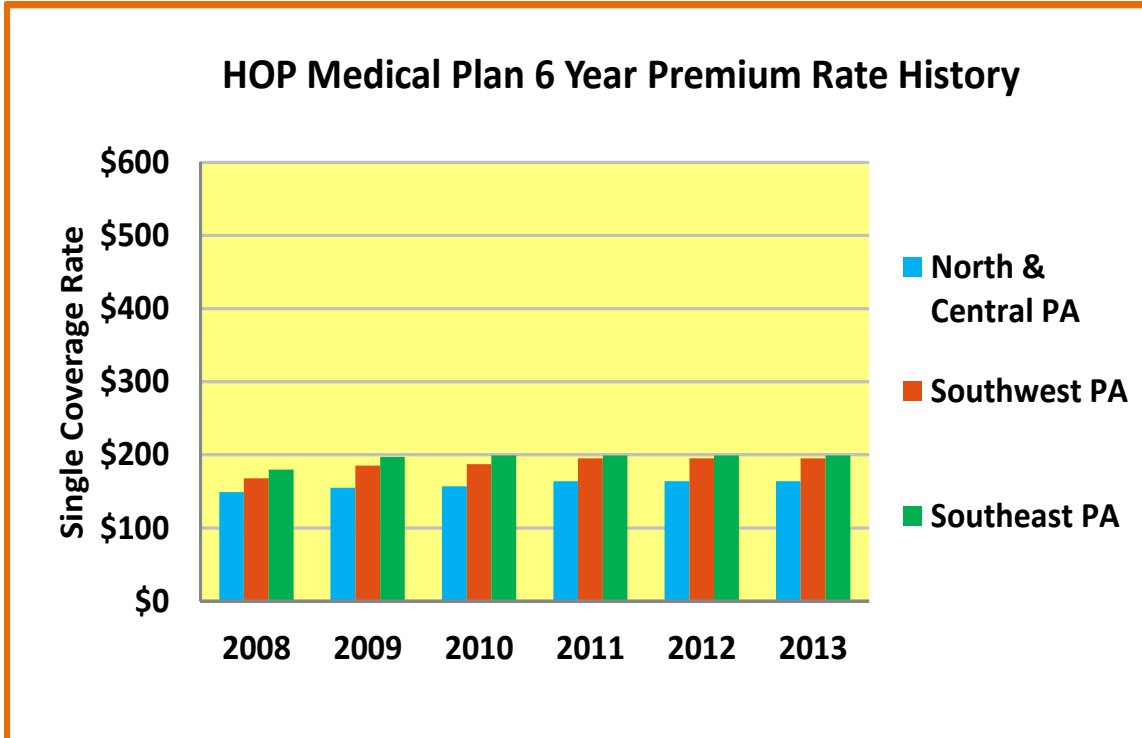
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Health Options Program
(continued)

Premium History

HOP Medical Plan

The following chart illustrates the HOP Medical Plan monthly premium rates for single coverage since 2008. Rates vary by region in the Commonwealth to reflect differences in the cost of health care.



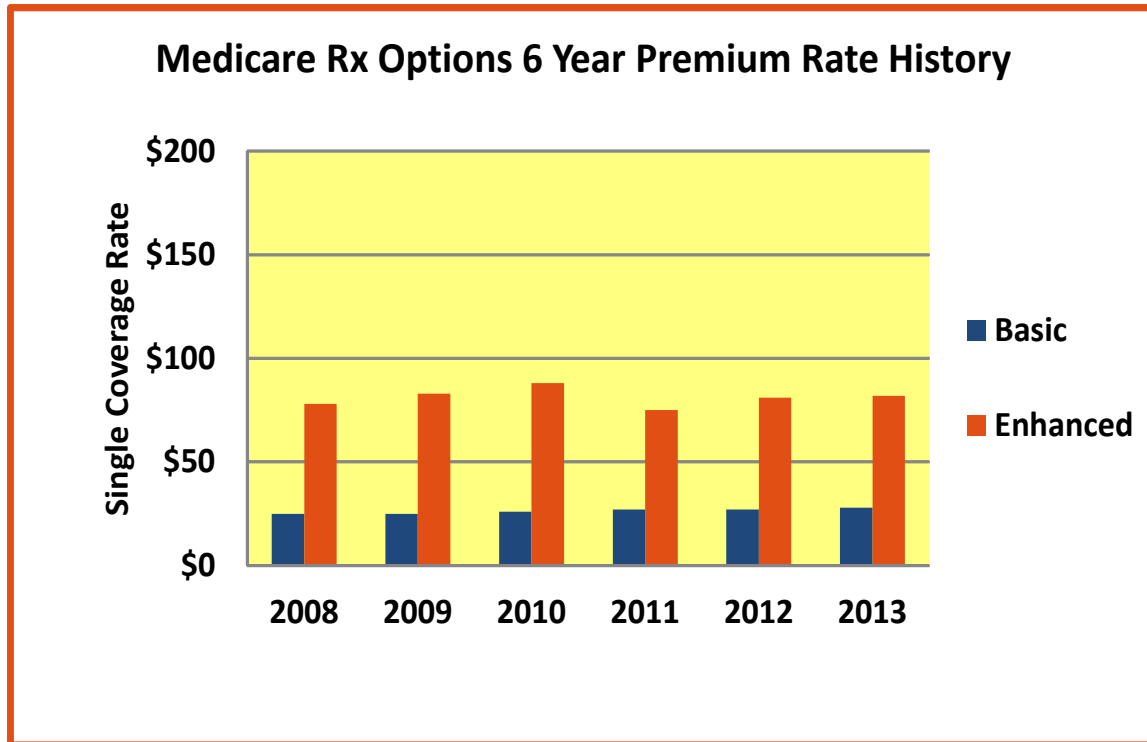
This remarkable premium stability can be attributed to:

1. The following plan design changes adopted by the Retirement Board to manage the utilization of health care services: in 2008, replacing the Medicare Part B deductible (\$131 in 2007) with a \$10 per physician visit copay and, in 2012, adding a \$25 per emergency room visit copay (waived if admitted), \$25 copay for high cost Imaging (MRI and CT Scans), and a 10% copay up to \$100 for durable medical equipment.
2. Increasing number of enrollees at age 65 (baby-boomer generation), thereby lowering the average age of the participant population.

Health Options Program (continued)

Basic and Enhanced Medicare Rx Options

The following chart illustrates the Basic and Enhanced Medicare Rx Options monthly premium rates for single coverage since 2008. The rates for the Medicare Rx Options do not vary by region.



This relative premium stability can be attributed to:

1. Plan design changes adopted by the Retirement Board to encourage the use of generic drugs.
2. Increasing number of enrollees at age 65 (baby-boomer generation), thereby lowering the average age of the participant population in the Basic Rx Option.

The significant decrease in the premium cost of the Enhanced Rx Option in 2011 is attributable to the reduction in benefits (plan payments) of 50% of the cost of brand drugs as mandated by the Affordable Care Act. The participants out-of-pocket expense remained the same while their monthly premium decreased.

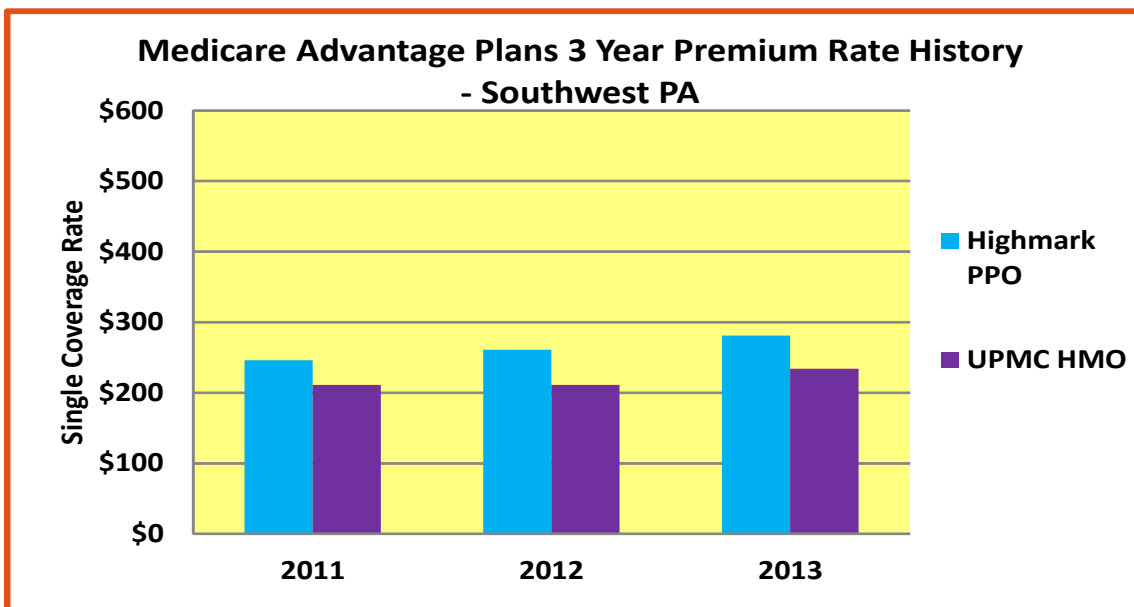
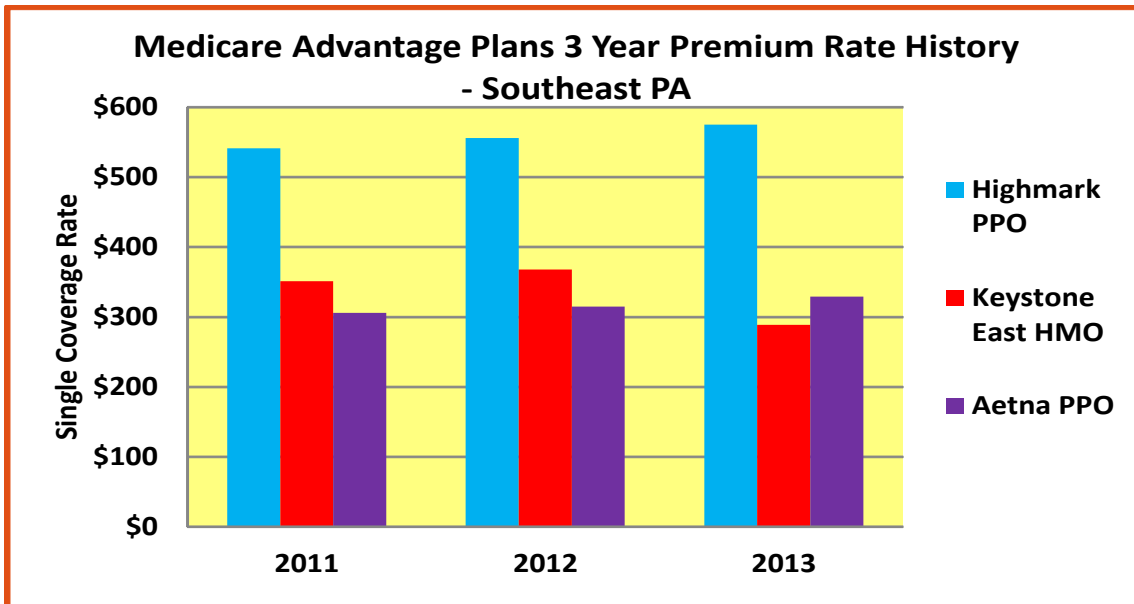
Health Options Program

(continued)

Medicare Advantage Plans

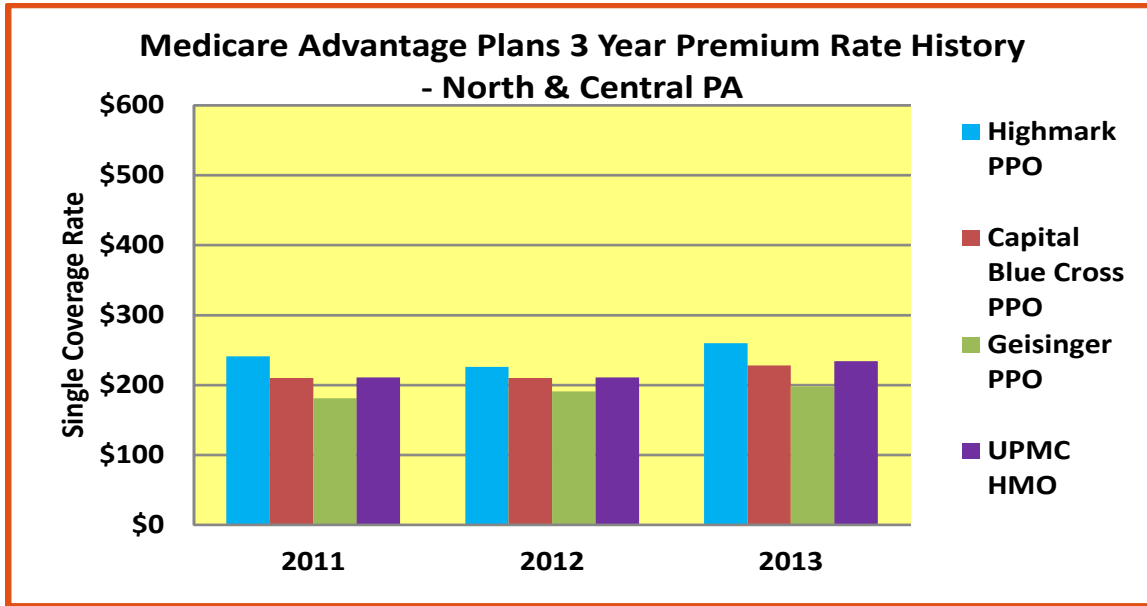
PSERS issues an Invitation for Application (IFA) to allow qualified insurance carriers to apply to offer a fully insured Medicare Advantage group insurance plan through HOP. Other than requiring prescription drug coverage, the insurance carriers are given wide latitude to offer a plan tailored to the PSERS retiree population.

The following charts illustrate the Medicare Advantage monthly premium rates for single coverage since 2011.



Section 5 - Other PSERS Programs

Health Options Program (continued)



HOP Premiums Paid By Individuals NOT ELIGIBLE for Medicare

The premiums paid by participants not eligible for Medicare generally do not vary by geographical area. The exceptions are the regional managed care plans. The following is a summary of the 2012 and 2013 premium costs in Pennsylvania for single coverage:

All Regions	2012	2013	Increase
HOP Pre-65 Medical Plan (for comparison)			
HOP Pre-65 Medical Plan (Single Coverage)	\$ 650	\$ 676	4%
Pre-65 Medical Plan w/ Prescription Drugs	\$ 750	\$ 780	4%

Southeastern Region: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties	2012	2013	Increase/ (Decrease)
Active Managed Care Plan			
Aetna PPO	\$ 878	\$ 960	9%
Highmark PPOBlue	\$ 1,026	\$ 1,169	14%
Keystone East HMO	\$ 1,051	\$ 1,185	13%
Legacy Managed Care Plans (no new participants)			
Aetna Citizen HMO Plan	\$ 1,201	\$ 1,201	0%
IBC's Personal Choice PPO	\$ 1,248	\$ 1,189	(5)%

Section 5 - Other PSERS Programs

Health Options Program (continued)

Southwestern Region: Allegheny, Fayette, Greene, Indiana, Washington, and Westmoreland Counties	2012	2013	Increase
Active Managed Care Plan			
Aetna PPO (not available in all counties)	\$ 878	\$ 960	9%
Highmark PPOBlue	\$ 1,026	\$ 1,169	14%
UPMC HMO	\$ 1,967	\$ 2,256	15%
Legacy Managed Care Plans (no new participants)			
Aetna HMO	\$ 1,201	\$ 1,201	0%
Highmark HMO	\$ 1,285	\$ 1,459	14%

North & Central Region: All other counties in Pennsylvania	2012	2013	Increase
Active Managed Care Plan			
Aetna PPO (not available in all counties)	\$ 878	\$ 960	9%
Geisinger	\$ 957	\$ 1,050	10%
Highmark PPOBlue	\$ 716	\$ 786	10%
Keystone Central PPO	\$ 1,026	\$ 1,169	14%
UPMC EPO	\$ 1,967	\$ 2,256	15%
Legacy Managed Care Plans (no new participants)			
Aetna Patriot Plan HMO	\$ 1,201	\$ 1,201	0%
Highmark HMO	\$ 1,285	\$ 1,459	14%
Keystone Central HMO	\$ 968	\$ 1,057	9%



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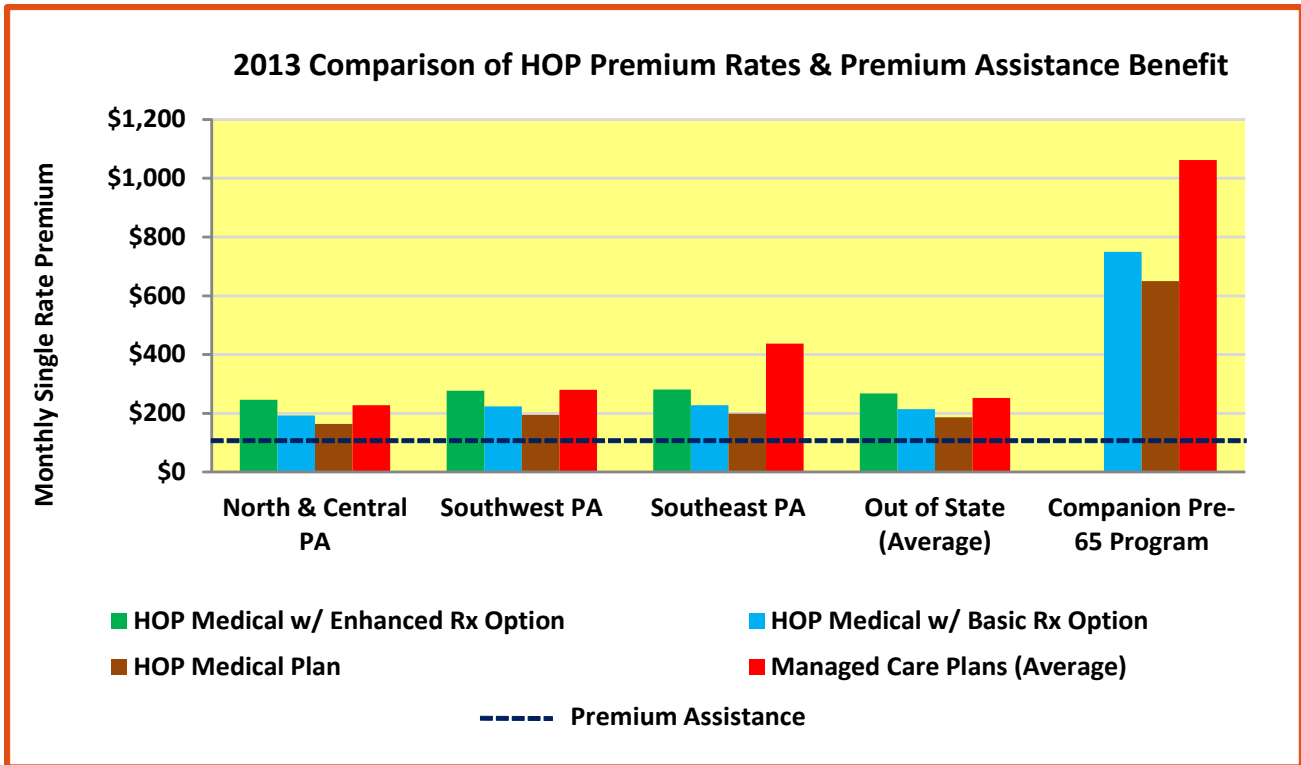
Section 5 - Other PSERS Programs

Health Options Program

(continued)

HOP Premiums Compared to the PSERS Premium Assistance Benefit

The following charts illustrate the HOP premiums paid by PSERS retirees for single coverage compared with the PSERS Premium Assistance benefit. Participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of \$100 per month or their out-of-pocket monthly health insurance premium. The premiums for 2-person and family coverage would be at least twice the cost of single coverage. Premium Assistance is an offset for the PSERS retiree's premium only.



	North & Central PA	Southwest PA	Southeast PA	Out of State (Average)	Companion Pre-65 Program
HOP Medical w/ Enhanced Rx Option	\$ 246	\$ 277	\$ 281	\$ 268	N/A
HOP Medical w/ Basic Rx Option	\$ 192	\$ 223	\$ 227	\$ 214	\$ 750
HOP Medical Plan	\$ 164	\$ 195	\$ 199	\$ 186	\$ 650
Managed Care Plans (Average)	\$ 227	\$ 280	\$ 437	\$ 252	\$ 1,062
Premium Assistance	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100

As illustrated in the table above, the percentage of Premium Assistance benefit coverage varies by region and plan.

Section 5 - Other PSERS Programs

Health Options Program (continued)

HOP Enrollment

As of January 1, 2013 there are 83,142 participants (67,639 retirees plus their dependents) in the HOP. The majority of the HOP participants were enrolled in the HOP Medical Plan with Enhanced Medicare Rx Option. The total numbers of retirees by Option are:

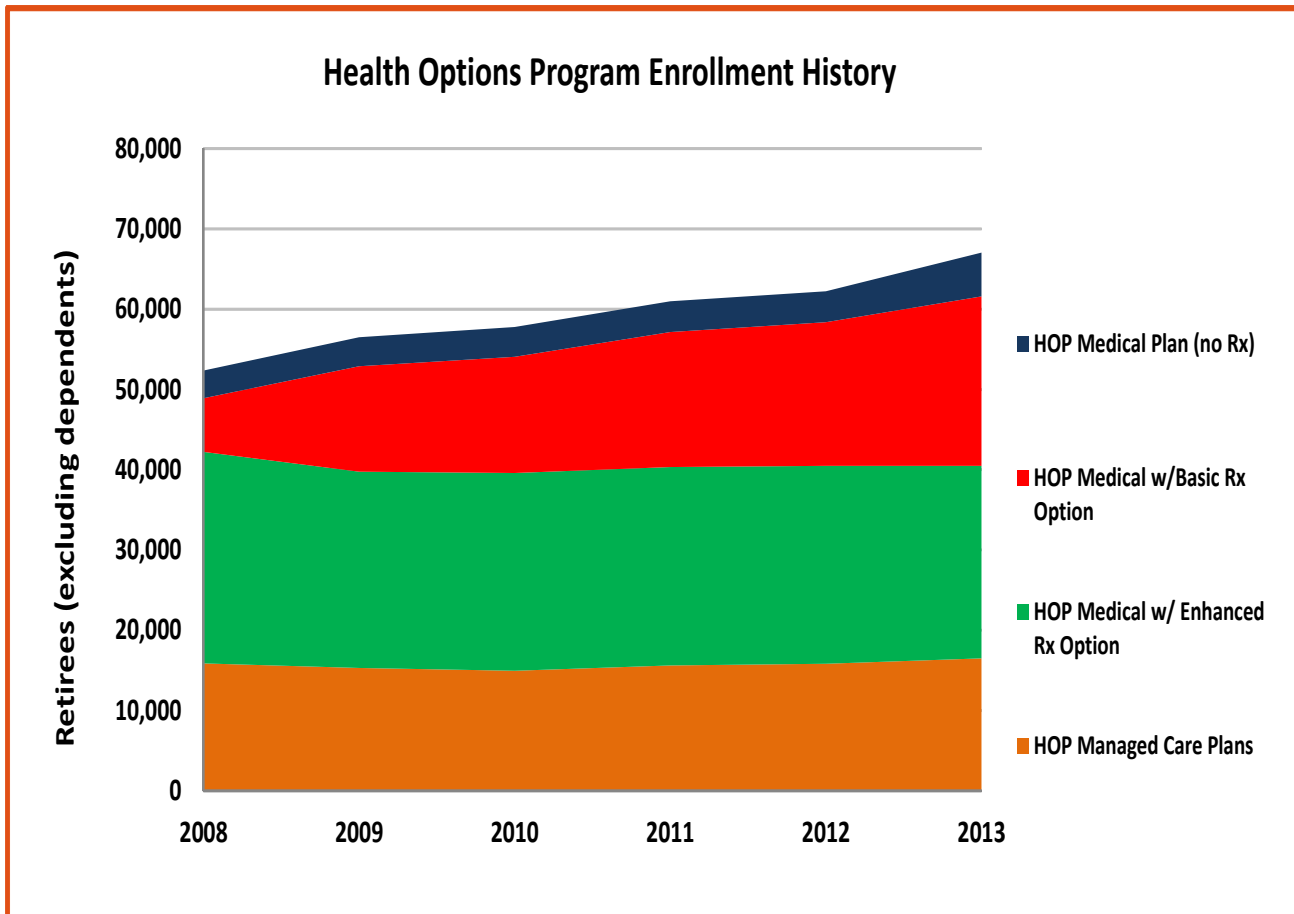
Individuals Eligible for Medicare	Retirees	Participants
HOP Medical w/ Enhanced Medicare Rx Option	23,990	28,912
HOP Medical w/Basic Medicare Rx Option	21,110	26,001
HOP Medical Plan (no Rx)	5,457	6,181
HOP Enhanced Rx Only	82	101
HOP Basic Rx Only	222	288
Aetna PPO/Legacy HMO	751	914
Geisinger PPO	206	268
Highmark PPO/ Legacy HMO	13,025	17,003
Capital BC PPO/Keystone Central Legacy HMO	811	1,068
Keystone East HMO/IBC Legacy PPO	1,226	1,510
UPMC HMO	330	446
Total Medicare Eligible	67,210	82,692
Individuals Not Eligible for Medicare		
HOP Pre-65 Medical Plan	79	82
HOP Pre-65 Medical Plan w/Rx Coverage	177	182
Aetna PPO/Legacy HMO	18	19
Geisinger PPO	11	12
Highmark PPO	56	57
Capital BC PPO/Keystone Central Legacy HMO	17	17
Keystone East HMO/IBC Legacy PPO	70	80
UPMC HMO	1	1
Total Not Eligible for Medicare	429	450
Total in HOP	67,639	83,142



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Health Options Program
(continued)

The enrollment in the PSERS Health Options Program continues to increase. As illustrated by the following chart, the number of members has increased 28% over the past 5 years.



Funding

A majority of the premium income is deducted from the retiree’s monthly retirement benefit and transferred to the plans (claims administrator for the self-funded Options). Approximately 5,000 retirees submit monthly premium payments to the HOP Administration Unit, as their monthly retirement benefits, if any, are insufficient to cover the premium cost. In addition, individuals enrolled in a Medicare Rx Option without HOP Medical Plan coverage must submit monthly premium payments.

HOP income is projected to be \$267.3 million during the 2013 Plan (Calendar) Year. A majority of this income comes from premium payments from participants. Other sources of funding are Medicare prescription drug payments (for participants enrolled in a Medicare prescription drug

Section 5 - Other PSERS Programs

Health Options Program (continued)

plan) from the Center for Medicare and Medicaid Services (CMS), anticipated payment from the Early Retirement Reinsurance Program (ERRP) from Health and Human Services (HHS), and interest income. The following is a breakdown of these sources of income (Dollar amounts in Millions):

Income	CY2013
Participant Contributions	\$ 232.0
CMS - Medicare Prescription Drug Payments	35.0
HHS – Early Retiree Reinsurance Program	0.3
Total	\$ 267.3

PSERS retirees enrolled in HOP, who meet the eligibility requirements for Premium Assistance, receive \$100 per month as a partial reimbursement for the out-of-pocket premium expense. Approximately 58,600 of the 67,600 HOP participants receive Premium Assistance. This accounts for about \$70 million of the \$111 million annual benefit expense of the Premium Assistance Program. The following Premium Assistance Program section provides additional information.

Contributions and interest income pay for the benefits provided to HOP participants plus administrative expenses. The following is a breakdown of the benefit expenses (Dollar amounts in Millions):

	Calendar Year
Benefit Expenses	2013
Self-funded Hospital, Medical & Major Medical Benefits	\$ 111.0
Self-funded Prescription Drug Benefits	74.0
Managed Care Contributions	70.0
Total	\$ 255.0

In addition to the benefit expenses identified above, the HOP will pay \$7 million in enrollment and administrative expenses including reimbursing PSERS for its expenses.

As of December 31, 2012, HOP had net assets of \$158 million held in trust to pay the expenses of HOP for the exclusive benefit of participants.



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Premium Assistance Program

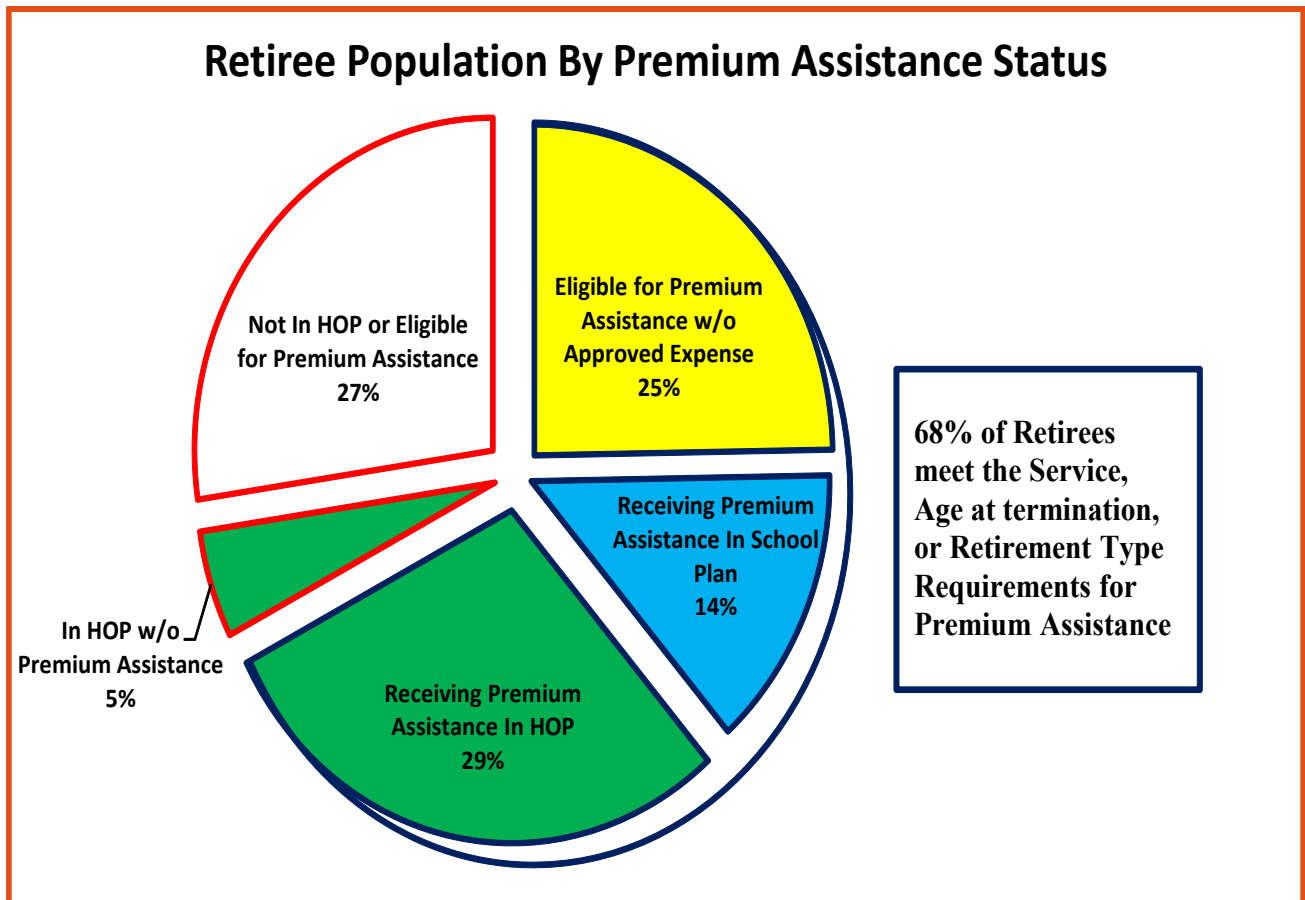
In accordance with Sec. 8509 of the Public School Employees' Retirement Code 24 Pa. C.S. § 8509, PSERS provides up to \$100 per month in Premium Assistance to eligible retirees to help cover the cost of their health insurance. The eligibility requirements for premium assistance are as follows:

- 24.5 years of credited service, or
- 15 years of credited service if termination of employment and retirement occurred after age 62, or
- Receiving a Disability annuity from PSERS; and
- Have an out-of-pocket premium expense from their former school employer's health plan or the PSERS sponsored Health Options Program (HOP).

Enrollment

As of June 30, 2012, PSERS had 190,560 retirees (excluding survivor annuitants and beneficiaries) receiving a monthly benefit. Of these retirees 128,485 meet the service, service and age at termination of school service, or retirement type (disability) eligibility requirements for the premium assistance program. Of the retirees meeting these requirements, 47,108 are not receiving premium assistance payments because they do not have an out-of-pocket premium expense from an approved plan. Of the 81,377 retirees receiving premium assistance benefits, 55,025 are enrolled in HOP and 26,352 are participating in their former school employer's health plan and have an out-of-pocket premium expense.

A breakdown of retirees by their premium assistance status is as follows:



Section 5 - Other PSERS Programs

Premium Assistance Program

(continued)

June 30, 2012	Number	Percentage
Eligible for Premium Assistance w/o Approved Expense ⁽¹⁾	47,108	24.7%
Receiving Premium Assistance In School Plan ⁽¹⁾	26,352	13.8%
Receiving Premium Assistance In HOP ⁽¹⁾	55,025	28.9%
In HOP w/o Premium Assistance	9,942	5.2%
Not In HOP or Eligible for Premium Assistance	52,133	27.4%
Total Retiree Population ⁽²⁾	190,560	100%

(1) Meeting the service, service and age at termination of school employment or retirement type requirements.

(2) As of June 30, 2012 Actuarial Valuation (Excludes Survivor Annuitants and Beneficiaries)

Funding

The Premium Assistance Program is funded by employer contributions. The contribution rate calculated by PSERS actuary for FY2013/14 is 0.93% of payroll. For the year ended June 30, 2012, employer contributions totaled \$81.3 million and net investment income totaled \$0.4 million, while PSERS paid Premium Assistance benefits totaling \$97.2 million and administrative expenses of \$2.1 million.

As of June 30, 2012, the Premium Assistance Program had net assets of \$93.8 million.



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