

PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**

FISCAL YEAR ENDED JUNE 30, 2015



# **Pennsylvania Public School Employees' Retirement System**

(A Component Unit of the Commonwealth of Pennsylvania)

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Harrisburg, Pennsylvania 17101-1905

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## **Comprehensive Annual Financial Report** for the Fiscal Years Ended June 30, 2015 and 2014

**Melva S. Vogler**  
*Chairman*  
*Board of Trustees*

**James M. Sando**  
*Vice Chairman*  
*Board of Trustees*

**Glen R. Grell**  
*Executive Director*

*Report prepared by the Public School Employees' Retirement System  
Office of Financial Management Staff*

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## Letter of Transmittal

COMMONWEALTH OF PENNSYLVANIA

### PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

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5 North 5th Street  
Harrisburg PA 17101-1905

*Toll-Free - 1-888-773-7748*

*(1-888-PSERS4U)*

*Local - 717-787-8540*

*Web Address: [www.pfers.state.pa.us](http://www.pfers.state.pa.us)*

October 30, 2015

The Honorable Thomas W. Wolf, Governor of Pennsylvania  
Members of the PA General Assembly  
Members of the Retirement System  
Members of the Boards of PSERS' Employers  
Pennsylvania Public School Employees' Retirement System Board of Trustees

Dear Governor Wolf, Legislators, Members, Employer Board members, and PSERS Board of Trustees:

We are pleased to present the ninety-sixth edition of the Comprehensive Annual Financial Report (CAFR) for the Pennsylvania Public School Employees' Retirement System (PSERS, System, or Fund) for the fiscal years ended June 30, 2015 (FY 2015) and 2014 (FY 2014). This report is intended to provide financial, investment, actuarial, and statistical information in a single publication.

The management of the System is solely responsible for the accuracy and completion of this report, pursuant to section 24 Pa.C.S. §8502(n) of the Public School Employees' Retirement Code (Retirement Code). The entire report can be downloaded from PSERS' website at [www.pfers.state.pa.us](http://www.pfers.state.pa.us).

The System was established on July 18, 1917 to provide retirement benefits to public school employees of the Commonwealth of Pennsylvania (PA). The members eligible to participate in the System include all full-time public school employees, part-time hourly public school employees who render at least 500 hours of service in the school year, and part-time per diem public school employees who render at least 80 days of service in the school year in any of the 784 reporting entities in Pennsylvania. As of June 30, 2015, the System had nearly 260,000 active members with an estimated annualized active payroll of \$12.7 billion.

The annuitant membership at June 30, 2015 was comprised of approximately 220,000 retirees and beneficiaries who receive over \$456 million in pension and healthcare benefits each month. The average yearly benefit paid to annuitants is \$25,119. The average benefit payment for each benefit type, grouped by years of credited service, is detailed in the Statistical Section of this report.

The System is a governmental cost-sharing, multiple-employer defined benefit pension plan, to which all members and 784 reporting units contribute. PSERS is administered by a staff of 316. The System is headquartered in Harrisburg, Pennsylvania, and has eight field offices in strategic areas of the Commonwealth to enable direct contact with the membership and the System's employers.

PSERS was established by law as an independent administrative board directed by a governing board of trustees (Board) which exercises control and management of the System, including the investment of its assets. PSERS is considered a component unit of the Commonwealth of Pennsylvania as defined by the Governmental Accounting Standards Board (GASB). An annual audit of the System by an independent certified public accounting firm is required by the Retirement Code. PSERS has contracted with SB & Company, LLC for this audit of its financial statements and has received an unmodified opinion as evidenced in the Report of Independent Public Accountants in the Financial Section of this CAFR. An unmodified opinion means that PSERS' financial statements fairly present, in all material respects, its financial condition. In addition, no significant findings were noted during the audit and therefore, a management letter was not issued. This is the sixth consecutive year that a management letter was not issued by the independent public accountants and is reflective of the hard work and dedication of PSERS' staff to continue to improve the internal controls, operations, and efficiency of the System.

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## Economic Summary

Economically, this past fiscal year was a mixed year to be invested in higher risk assets with modestly positive returns to equities (in currency hedged terms) while commodity and commodity-related securities struggled. The fiscal year was marked by falling global growth and inflation expectations coupled with a modest increase in risk premiums. The global economy is still burdened by high debt levels which has the effect of constraining growth and is generally deflationary. Global monetary conditions have been very accommodative with most countries easing this past year, including implementation of quantitative easing programs by central banks in Europe and Japan. A notable exception was the U.S. which has ended quantitative easing during the past fiscal year and is contemplating increasing interest rates later in 2015. Domestically, the past fiscal year generated positive but tepid results given the low interest rates and amount of monetary stimulus injected into the economy through quantitative easing by the Federal Reserve (Fed). The U.S. real Gross Domestic Product (GDP) increased in each of the four quarters for the fiscal year ended June 30, 2015. The U.S. Core Consumer Price Index (CPI) was 2.1% year over year as of June 2014 and decreased to 0.1% as of June 2015. Housing during the past fiscal year has continued to show improvement, up 4.5% as measured by the S&P Case-Shiller 20-City Home Price Index after being up 8.1% last fiscal year. Globally, the Chinese economy remained one of the stronger economies in the world, increasing by 7.0% or more in each of the four quarters ended June 30, 2015. However, subsequent to the fiscal year end, China has shown notable signs that its economy is weakening as they try to rebalance their economy from a more investment driven economy to a more consumer oriented economy. The Japanese real GDP increased in three of the four quarters for the fiscal year ended June 30, 2015. The Eurozone economy, during the past year, remained very weak and on the verge of recession. Quarterly real GDP readings for the fiscal year ended June 30, 2015 remained below 0.5%. For FY 2015, PSERS' investment portfolio generated a time-weighted rate of return of 3.04%, which resulted in \$1.3 billion of net investment income. The total net position restricted for pension and postemployment healthcare benefits of the System decreased from \$53.3 billion to \$51.9 billion from July 1, 2014 to June 30, 2015. This decrease was due in large part to deductions for benefits and administrative expenses exceeding net investment income plus member and employer contributions.

The Board has continued to fulfill its mission to maintain stability and the long-term optimum value of the Fund. This is evidenced in the long-term growth of the System's assets and the actuarial soundness of the Fund. The annualized time-weighted rate of return for the twenty-five year period ended June 30, 2015 was 8.45% and exceeded the Fund's long-term investment rate of return assumption during that time period. Of utmost importance to the Board is the assurance that the required reserves are available for payment of retirement benefits.

## Status of Pension Funding Initiatives

For many years, the Commonwealth and school employers paid below the annual required contribution (ARC) that was necessary to pay down the unfunded liability of the System. The ARC percentage received fell to a low of 27% before significant pension reform was enacted in 2010. Act 120 of 2010 has made dramatic progress toward addressing the funding issue at PSERS. Since 2010, Act 120 has slowly resulted in increased employer contributions to the System and has raised the ARC to a level closer to other states. In FY 2015, PSERS received 69% of the ARC and is projected to receive 80% of the ARC in FY 2016. After FY 2017, PSERS' Employer Contribution Rates are projected to plateau.

As of June 30, 2015, approximately 48,000 of PSERS' active membership is under the reduced benefit structure of Act 120. The annual savings from the reduced benefit structure continue to grow and are estimated to exceed over \$100 million in FY 2016.

As the annual savings from the reduced benefit structure increase and higher employer contributions are paid by school employers and the Commonwealth, PSERS is approaching a turning point. Within two years, principal pay down on PSERS' unfunded liability begins and PSERS' funded ratio is projected to slowly improve after declining for many years.



### **Pension Reform Update**

Significant discussion on additional pension reform continues to take place. As of the date of this letter, there has been no consensus on pension reform and no pension legislation beyond Act 120 of 2010 has been enacted.

For many years PSERS has provided extensive objective technical information and volumes of actuarial data to members of the PA General Assembly. PSERS has accurately and professionally costed and drafted nearly every piece of pension legislation brought to PSERS by the PA General Assembly regardless of the impact on the structure of the System. 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 will continue to cooperate and provide information so effective pension policy decisions can be made.

### **Major Initiatives**

#### **Budgetary and Financial Governance**

PSERS submits its administrative budget request to the Governor's Office of the Budget each October where it is reviewed and evaluated. Any changes proposed by the Governor's Budget Office are made and a final amount is provided to the Legislature, which passes the final budget and submits it to the Governor for his signing into law. The administrative budget is not funded from the Commonwealth's General Fund, rather from the earnings of the Fund itself. PSERS has annually underspent its approved budget, keeping more funds available to invest for PSERS' members.

PSERS continues to be prudent in its use of funds and managing its annual budget. In FY 2015, PSERS replaced high speed color printers and copiers with more efficient models. PSERS consolidated mailings to members, producing savings in both paper and postage costs. Working with its actuary, PSERS continues to save fees by completing various actuarial analyses in-house. Other reductions were made to overtime, travel, and office supplies, all part of PSERS' ongoing efforts to control costs and improve operational efficiency.

PSERS participates in an independent, international benchmarking survey evaluating its costs and service performance in comparison to other similar public pension funds. Based on the most recent survey, PSERS had a 20% lower pension administration cost per member than the average cost for its peer group.

In addition, during FY 2015, PSERS continued its ongoing efforts to recover funds from securities class action litigation. The System received \$14.5 million in settlements from these cases in FY 2015.

#### **Customer Service**

PSERS has continued to make enhancements to its processes to operate more efficiently and provide quality customer service to our stakeholders. A major focus of this past year was the enhancement of death benefit processing. Much of this manually intensive process became automated, resulting in greater efficiency and improved communications.

PSERS continued its efforts to provide retirement benefits in an efficient manner through a one-step process. Approximately 90% of the retirement benefits processed in FY 2015 were paid in one-step. In the past, PSERS processed most initial retirements in two steps. The first step was the calculation and payment of an estimated monthly benefit and the second step was the calculation and payment of a finalized monthly benefit which occurred later. In addition, the average number of days to process a retirement benefit decreased from an average of 23.7 days down to 19.1 days. This decrease is largely attributed to the continued focus of reviewing member accounts at periodic milestones and event triggers to ensure each detail of a member's account is accurately portrayed prior to the member applying for retirement.

As a part of the ongoing effort to ensure the accuracy of member accounts, PSERS began automatically billing members who became qualified during the fiscal year and from whom contributions were not previously withheld. In FY 2015 alone, this enhancement streamlined the process for approximately 10,000 members who became qualified during the year.

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**Technology Upgrade**

The multi-year technology effort to upgrade the System's entire core client-server based pension administration system continues. This mission critical system is used by PSERS' staff members and employers to execute PSERS' primary pension administration functions for its members. These functions include but are not limited to: enrolling new members; processing membership class elections; reporting and processing employee and employer contribution data; processing member demographic, salary, and service data; processing purchase of service, multiple service, disability, retirement, and refund applications; processing death benefits; supporting the Health Options Program; processing premium assistance applications and payments; issuing benefit payments related to the above activities; calculating and posting interest and delinquencies, and payments and receipts related to the above activities; providing self-service functionality to PSERS' members via the internet; calculating, submitting, and reporting tax information and dollars to the Internal Revenue Service (IRS); and reporting information to PSERS' actuary.

This technology upgrade from the existing "classic" version to a new "browser-based" version not only helps ensure the viability of PSERS' core pension administration system into the future, it provides an enhanced "baseline" platform with built-in features that will make future business process and member self-service enhancements much easier to implement. These enhancements will have a significant impact on PSERS' members and employers in how they interact with the System and the services that are available to them.

As work to upgrade to the new browser-based version began, PSERS incorporated changes into the classic version of the system that were required to integrate with the Department of Treasury's new system. Additionally, final changes were made to the classic system so that resources can be directed towards the conversion to the new browser-based system.

**Financial Highlights**

The fair value of the System's fiduciary net position totaled \$51.9 billion as of June 30, 2015. The System is the 20th largest state-sponsored public defined benefit pension fund in the nation and the 30th largest among public and corporate pension funds in the nation. More specific information on the System's assets is detailed in the Statements of Fiduciary Net Position and Management's Discussion and Analysis included in the Financial Section of this report.

One of PSERS' mission critical objectives is the timely and accurate payment of benefits. In FY 2015, PSERS provided nearly \$6.6 billion in pension and healthcare benefits to its members. Over 90% of benefits were distributed to Commonwealth residents.

The System's administrative budget request is appropriated by the PA General Assembly and funded by the investment income of the System. For FY 2015, the appropriation was \$41.7 million.

**Funding**

Funding is the process of specifically setting aside money for current and future use. Proper funding for a defined benefit pension plan entails an actuarial examination of the fund balances and liabilities to ensure money will be available for current and future benefit payments. The actuarial valuation measures the progress toward funding pension obligations of the System by comparing the actuarial assets to the actuarial liabilities of the System.

The results of PSERS' latest published actuarial valuation (as of June 30, 2014) indicated that the rates of contribution payable by the members and employers, when taken together with the current assets of the System, are adequate to fund the actuarial liabilities on account of all benefits payable under the System at that date. The funded status as of the latest actuarial valuation was 62.0%. Additional comparative information on the funded status of PSERS can be found in the Actuarial Section and in the Financial Section of this report.

**Investments**

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

## Introductory Section

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the Fund's assets. In particular, PSERS actively reduced its risk profile by significantly decreasing its equity exposure and by moving portions of the Fund's assets into asset classes that are less correlated to the equity markets.

Income from the investment portfolio represents the major source of revenue to the System, accounting for 69% of total revenues over the twenty-year period from FY 1996 to FY 2015. During FY 2015, net investment income was \$1.3 billion. The investment portfolio, which is one part of the System's net position, totaled \$50.6 billion, at fair value, as of June 30, 2015. For FY 2015, the time-weighted net rate of return on the System's investments was 3.04%.

The investment portfolio is well diversified to emphasize a long-term investment approach. The overall objective of the System is to provide benefits to its members through a carefully planned and well-executed investment program. The return objectives are to (i) realize a return that exceeds the Policy Index (the Policy Index is a custom benchmark, based on the Board-established asset allocation structure that seeks to generate a return that meets the actuarial rate of return assumption); and (ii) invest the assets to maximize returns for the level of risk taken. The risk objectives are to (i) diversify the assets of the System to minimize the risk of losses within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location; and (ii) invest the assets so that the probability of investment losses (as measured by the Policy Index) in excess of 15.0% in any one year is no greater than 2.5% (or two standard deviations below the expected return). Additional information on the System's investments is contained in the Investment Section of this report.

### **Reduction in Investment Manager Fees**

As fiduciaries, PSERS constantly monitors investment manager fees, as well as return expectations, investment risk, diversification, and cash flow needs.

For the second year in a row, PSERS' investment manager fees have declined. PSERS' investment expenses decreased by over \$103 million, from \$558 million in FY 2013 to \$455 million in FY 2015, which is a reduction of over 18%. This was accomplished by reducing external investment management fees through strategically decreasing PSERS' private equity allocation, continued careful negotiation of fees, and by bringing the remaining U.S. equity allocation, previously managed by third-party investment managers, in-house to be managed by PSERS' internal staff.

Governor Wolf made reducing investment manager fees at the Commonwealth's pension systems a priority in his budget proposal earlier this year. PSERS continues to cooperate with Governor Wolf and his staff to look for ways to reduce investment fees in the future including bringing additional asset classes in-house to be managed internally by PSERS' investment staff. This approach would lessen the need for external investment managers in those instances where the Board believes PSERS' internal staff could produce higher net investment returns with similar investment risk.

### **Federal and State Tax Status**

The System is a qualified trust fund under Section 401(a) of the Internal Revenue Code (IRC). As a result of the qualified status, the trust fund is entitled to an exemption, under Section 501(a) of the IRC, from federal income taxation on its investment earnings. Additionally, contributions made on behalf of the active members are tax deferred under Section 414(h) of the IRC. The trust fund and any benefits accruing to the members of PSERS are exempt from Pennsylvania state and municipal taxes.

In September of 2013, PSERS was notified by the IRS that its tax qualification status has been confirmed pending minor modifications to the Retirement Code. The PA General Assembly has acted affirmatively to maintain PSERS' tax qualification status. Legislation, in the form of House Bill 1332, was introduced and has experienced significant advancement through the legislative process. The provisions of HB 1332 adopt the required IRS technical modifications to both the PA State Employees' Retirement System & PSERS Retirement Codes. Statutory enactment of the tax qualification compliance measure is anticipated by the close of calendar year 2015.

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## Internal Controls and Reporting

PSERS' management is responsible for and has implemented internal controls designed to provide reasonable assurances for the safeguarding of assets and the reliability of financial records. This report has been prepared in accordance with accounting principles generally accepted in the United States of America. The System maintains a full accrual accounting system. More specific accounting information is detailed in the Summary of Significant Accounting Policies (Note 2) in the notes to the financial statements found in the Financial Section of this report.

A system of internal controls provides reasonable, but not absolute, assurance that assets are properly safeguarded and that financial statements are reliable. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the valuation of the cost and benefits requires estimates and judgments by management.

PSERS' management believes the internal accounting controls currently in place are adequate to meet the purpose for which they were intended and also believes the financial statements, supporting schedules, and statistical tables are fairly presented.

### **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 replaced 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 significantly changed 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.

PSERS adopted Statement No. 67 for the fiscal year ended June 30, 2014. An analysis of the major differences between Statement No. 67 and Statement No. 25 can be found in the Management's Discussion and Analysis, notes to the financial statements, and RSI found in the Financial Section of this report.

In 2013, PSERS began an outreach effort to its employers. This mainly consisted of speaking at various conferences held by the Pennsylvania Association of School Business Officials (PASBO), Pennsylvania School Boards Association (PSBA), and the Pennsylvania Institute of Certified Public Accountants (PICPA). Additionally, PSERS has published articles in its Employer Bulletin, beginning with Volume 4 of 2014.

In June 2015, PSERS sent information to its employers to assist them in implementing GASB No. 68 which included a memo explaining PSERS' role and descriptions of the information provided. The information included a variety of schedules audited by PSERS' independent public accountants and unaudited schedules, to assist employers with the implementation of GASB 68.

PSERS continues to assist its employers and their auditors as they work through the process of implementing Statement No. 68.

### Professional Services

Professional consultants are appointed by the Board of Trustees to perform services essential to the efficient operation of the System. An annual audit by an independent certified public accounting firm and an annual valuation by an actuarial consultant attest to the financial and actuarial soundness of PSERS. The investment performance of the System is reviewed by an investment evaluation firm on a quarterly basis. The consultants providing services to the System are listed in the Financial Section and Investment Section of this report.

### Other Information

In compliance with the Retirement Code, actuarial tables and the computational procedures used by the System in calculating annuities and other benefits were published in the *Pennsylvania Bulletin* (Vol. 31, No. 14). This information can be found at [www.pabulletin.com/secure/data/vol31/31-14/index.html](http://www.pabulletin.com/secure/data/vol31/31-14/index.html).

### System Awards

#### **Government Finance Officers Association of the United States and Canada Certificate of Achievement for Excellence in Financial Reporting**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PSERS for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2014. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report whose contents conform to program standards. Such a comprehensive annual financial report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. PSERS has received a Certificate of Achievement for 32 consecutive years from FY 1983 to FY 2014. A photograph of this award appears in the Introductory Section of this report. Its attainment represents a significant accomplishment by the System, whose Office of Financial Management holds general responsibility for the compilation and validity of the financial data presented in the Comprehensive Annual Financial Report.

The System believes the current report continues to conform to the Certificate of Achievement program requirements and will be submitting this report to GFOA to determine eligibility for the 2015 certificate.

#### **Public Pension Coordinating Council Public Pension Standards Award**

The Public Pension Coordinating Council has awarded its Public Pension Standards Award to PSERS for 2014. This award is in recognition of meeting professional standards for plan design and administration as set forth in the Public Pension Standards.

The Public Pension Coordinating Council was formed in 1990 to assist the public employee retirement community. The Council is composed of representatives from three national associations whose members are directly involved in the administration of public employee retirement systems: the National Association of State Retirement Administrators (NASRA); the National Conference on Public Employee Retirement Systems (NCPERS); and the National Council on Teacher Retirement (NCTR). A reproduction of this award appears in the Introductory Section.

#### **Institutional Investor Magazine Hedge Fund Industry Award**

On June 25, 2015, Institutional Investor magazine's 13th Annual Hedge Fund Industry Awards ceremony recognized hedge funds, fund of hedge funds, investment consultants, endowments, foundations, family offices, corporate funds, public funds, and sovereign funds that stood out for their performance innovation, achievements, and contributions to the industry during the past year. PSERS won the award for the Large Public Plan of the Year.



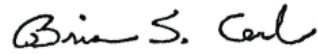
**Acknowledgements**

The preparation of this report reflects the combined efforts of PSERS' staff under the direction of the PSERS Board. It is intended to provide complete and reliable information in conformance with accepted standards and to document responsible stewardship of the System's assets.

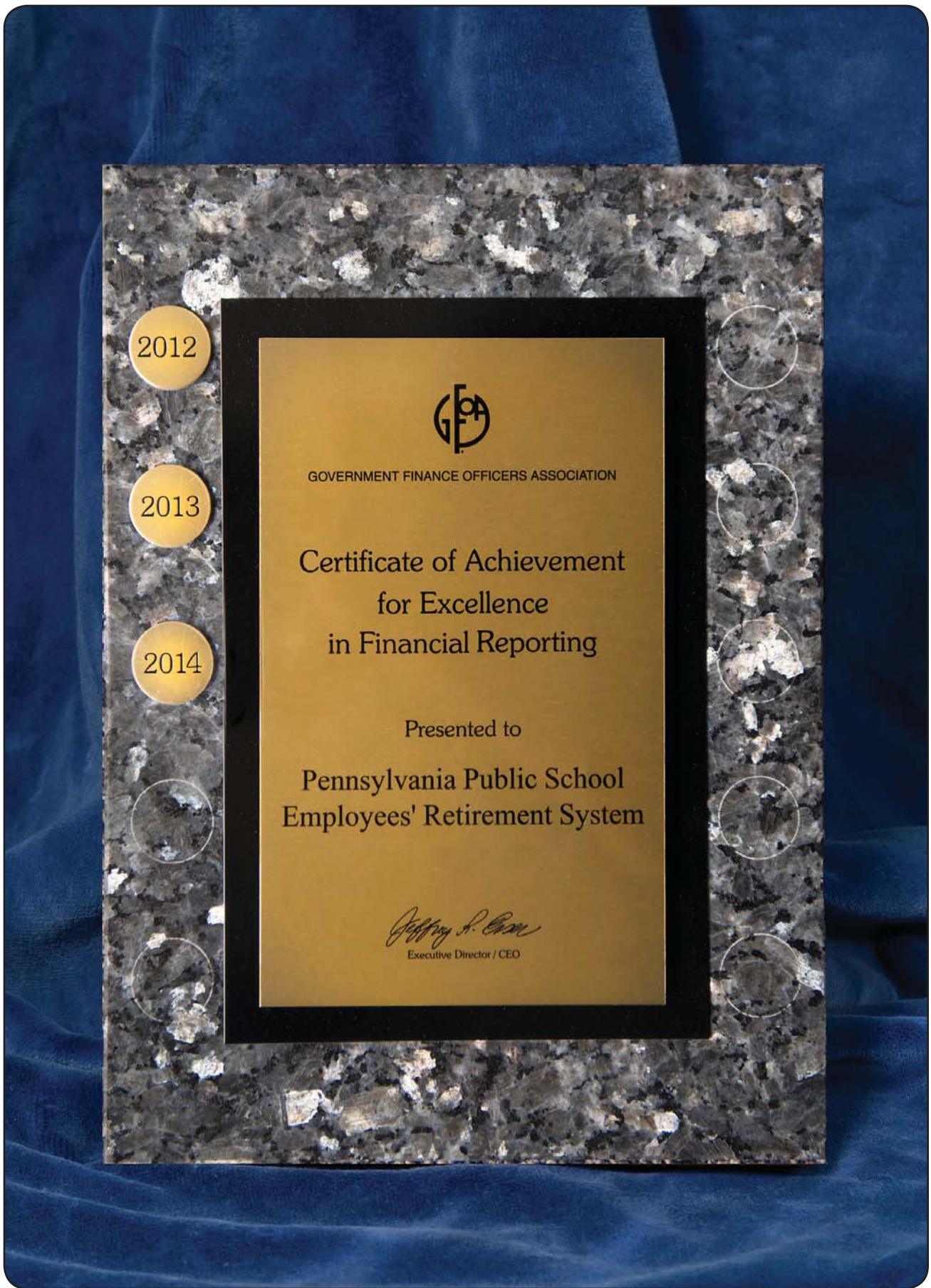
Respectfully submitted,



Glen R. Grell  
Executive Director



Brian S. Carl, CPA, CTP  
Chief Financial Officer





Public Pension Coordinating Council

*Public Pension Standards Award  
For Funding and Administration  
2014*

Presented to

***Pennsylvania Public School Employees'  
Retirement System***

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

*Presented by the Public Pension Coordinating Council, a confederation of*

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

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle  
Program Administrator

## *Mission Statement*



*The Board of Trustees and the employees of the Public School Employees' Retirement System (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*

adopted June 20, 2008



## Administrative Organization PSERS Board of Trustees



*Seated, front row:* Sally Keaveney, designee for Honorable Lawrence M. Farnese; Glen R. Grell, PSERS' Executive Director, Board Secretary; Melva S. Vogler, Board Chairman; Susan C. Lemmo; Honorable Timothy A. Reese; Deborah J. Beck

*Standing, second row:* Miriam Fox, designee for Honorable Joseph F. Markosek; Larry B. Breech; Frederick T. Berestecky; James M. Sando; Honorable Stephen Bloom; Stacey Connors, designee for Honorable Patrick M. Browne; Nathan G. Mains

*Not pictured:* Pedro A. Rivera; James R. Biery; and Ambassador Martin J. Silverstein



## PSERS Board of Trustees

**Secretary of Education of the Commonwealth of Pennsylvania (ex officio)**

Mr. Pedro A. Rivera

**Treasurer of the Commonwealth of Pennsylvania (ex officio)**

Honorable Timothy A. Reese

**Executive Director of the Pennsylvania School Boards Association, Inc. (ex officio)**

Mr. Nathan G. Mains

**Two members appointed by the Governor of the Commonwealth of Pennsylvania for a term of three years**

Mr. James R. Biery (term expires 12/31/15)

Ambassador Martin J. Silverstein (term expires 12/31/17)

**Three members elected from among the Active Certified Contributors of the System for a term of three years**

Mr. Frederick T. Berestecky (term expires 12/31/16)

Ms. Susan C. Lemmo (term expires 12/31/18)

Mr. James M. Sando (term expires 12/31/17)

**One member elected from among the Active Non-Certified Contributors of the System for a term of three years**

Ms. Deborah J. Beck (term expires 12/31/18)

**One member elected from among the annuitants of the System for a term of three years**

Ms. Melva S. Vogler (term expires 12/31/16)

**One member elected by the members of Pennsylvania Public School Boards from among their number for a term of three years**

Mr. Larry B. Breech (term expires 12/31/17)

**Two members appointed by the Speaker of the House from the Pennsylvania House of Representatives, one representing the Majority Party and one representing the Minority Party**

Honorable Stephen Bloom (term expires 12/31/16)

Honorable Joseph F. Markosek (term expires 12/31/16)

**Two members appointed by the President Pro Tempore of the Pennsylvania Senate, one representing the Majority Party and one representing the Minority Party**

Honorable Lawrence M. Farnese (term expires 12/31/16)

Honorable Patrick M. Browne (term expires 12/31/16)

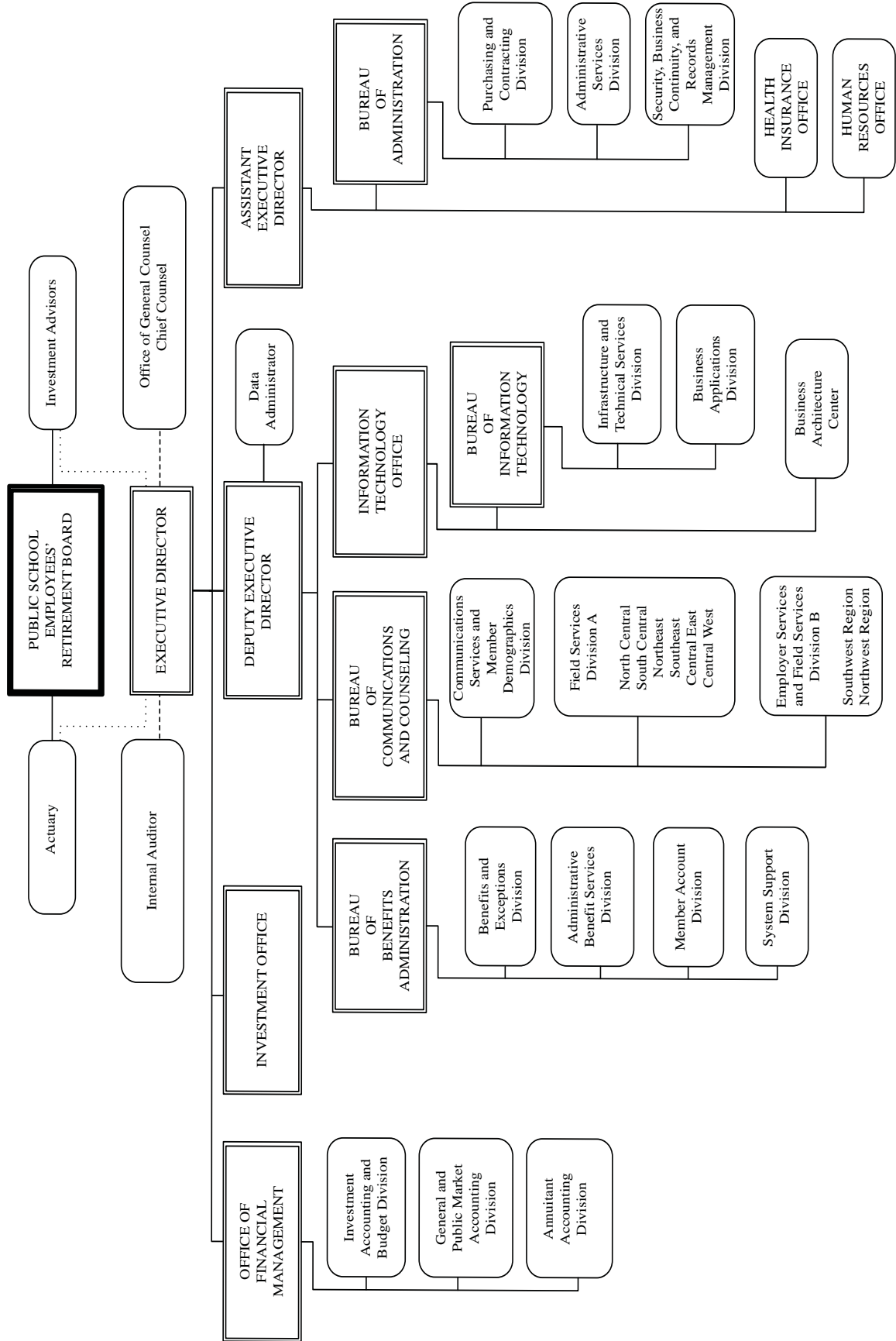
## 2015 Board Committees

<p><b>Appeals/Member Services</b></p> <p>Ms. Beck, Chair Mr. Berestecky Mr. Breech Senator Farnese Mr. Mains Mr. Sando</p>	<p><b>Audit/Budget</b></p> <p>Mr. Berestecky, Chair Representative Bloom Ms. Lemmo Mr. Mains Treasurer Reese Ambassador Silverstein</p>	<p><b>Bylaws/Policy</b></p> <p>Representative Markosek, Chair Ms. Beck Senator Browne Ms. Lemmo Mr. Mains Mr. Rivera</p>
<p><b>Corporate Governance</b></p> <p>Senator Browne, Chair Mr. Breech Representative Markosek Treasurer Reese Mr. Sando Ambassador Silverstein</p>	<p><b>Elections</b></p> <p>Ambassador Silverstein, Chair Mr. Biery Representative Bloom Senator Farnese Ms. Lemmo Mr. Rivera</p>	<p><b>Finance</b></p> <p>Mr. Sando, Chair</p> <p>Committee is comprised of all Board Members</p>
<p><b>Health Care</b></p> <p>Ms. Lemmo, Chair Ms. Beck Mr. Berestecky Mr. Biery Senator Farnese Representative Markosek</p>	<p><b>Personnel</b></p> <p>Mr. Mains, Chair Treasurer Reese, Vice Chair Mr. Berestecky Mr. Breech Representative Markosek Mr. Sando</p>	<p><b>Technology Steering</b></p> <p>Senator Farnese, Chair Mr. Biery Representative Bloom Senator Browne Mr. Rivera Mr. Sando</p>

NOTE: The chair of the Board of Trustees is a voting ex officio member of all Committees

# Organizational Chart of the Public School Employees' Retirement System

As of June 30, 2015



## Administrative Staff



James H. Grossman Jr.  
Chief Investment Officer



Glen R. Grell  
Executive Director



Terrill J. Sanchez  
Deputy Executive Director



Michele M. Ferencz  
Chief Counsel



Brian S. Carl  
Chief Financial Officer



Joseph E. Wasiak  
Assistant Executive Director



Richard R. Spinks  
Chief Technology Officer



James F. Noone  
Director of Administration



Mark F. Schafer  
Director of Health  
Insurance



Eugene W. Robison  
Director of Communications  
and Counseling



Steven C. Goldstein  
Director of Information  
Technology



Tammy L. Meshey  
Director of Human  
Resources



Marla Cattermole  
Director of Benefits  
Administration



Donald J. Halke, II  
Internal Auditor

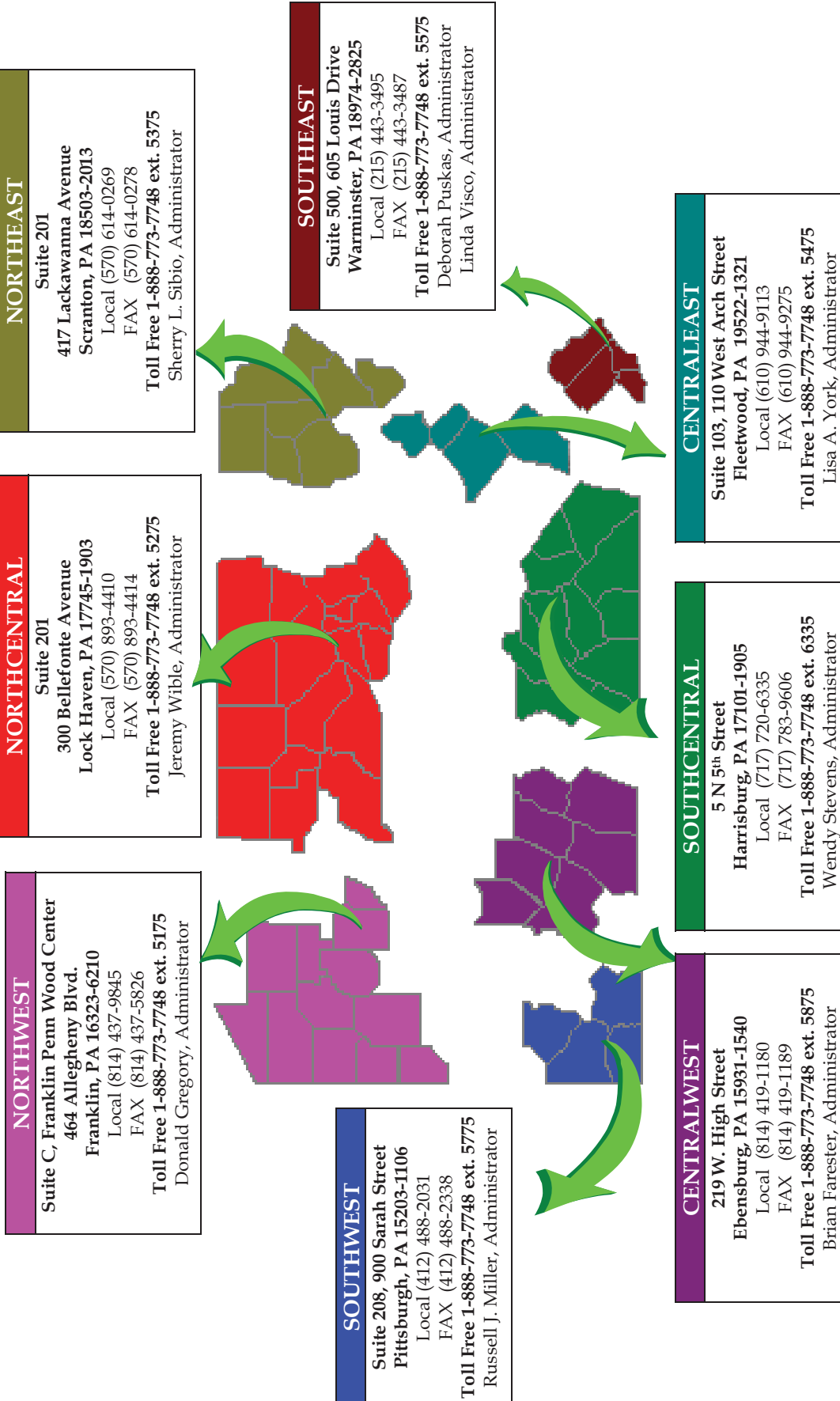


Francis J. Ryder  
Director of Government  
Relations



Evelyn M. Williams  
Press Secretary

**PSERS REGIONAL OFFICES**  
*Public School Employees' Retirement System of Pennsylvania*  
**PSERS FIELD SERVICES DIVISION**  
*Serving You in the 21<sup>st</sup> Century*





## PSERS Headquarters Building



The administrative headquarters of the Public School Employees' Retirement System (PSERS) is located at 5 North Fifth Street in downtown Harrisburg, Pennsylvania within the State Capitol complex. Regional field offices are also maintained in Ebensburg, Fleetwood, Franklin, Lock Haven, Harrisburg, Pittsburgh, Warminster, and Scranton.

The headquarters building was constructed and first occupied by the Retirement System in 1987. It is the first time a building was constructed for PSERS use. It is owned by the Five North Fifth Street Corporation, a holding entity formed by PSERS, and is managed by Property Management Inc.



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# FINANCIAL SECTION

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## **Report of Independent Public Accountants**

The Board of Trustees of  
Pennsylvania Public School Employees' Retirement System  
Harrisburg, Pennsylvania

### **Report on the Financial Statements**

We have audited the accompanying basic financial statements of the Commonwealth of Pennsylvania Public School Employees' Retirement System (PSERS), as of June 30, 2015 and 2014, and for the years then ended, and the related notes to the financial statements, which collectively comprise PSERS' basic financial statements as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

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

### **Auditor's Responsibility**

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

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

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

### **Opinion**

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the respective financial position of PSERS, as of June 30, 2015 and 2014, and the respective changes in its financial position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America (GAAP).





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**Other Matters**

*Adoption of GASB 68*

As discussed in Note 2 to the financial statements, PSERS has changed its method of accounting for measuring and recognizing liabilities, deferred outflows of resources, and expenditures related to the proportionate share of the Pennsylvania State Employees' Retirement System's net pension liability, due to the adoption of GASB Statement No. 68. The beginning net position restricted for pension and postemployment healthcare benefits for the fiscal year ended June 30, 2015 was restated by \$(41,543,000). Our opinion is not modified with respect to this matter.

*Required Supplementary information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and Required Supplementary Schedule of Changes in the Employer Net Pension Liability, Schedule of Employer Net Pension Liability, Schedule of Employer Contributions, Schedule of Investment Returns, Schedule of Funding Progress and related notes to Required Supplementary Schedules be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

*Other Supplementary Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise PSERS' basic financial statements. The Schedule of Operating Expenses, Summary of Investment Expenses, Schedule of Payments to Non-Investment Consultants and Schedule of Employer Contributions are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The Introductory, Investment, Actuarial, and Statistical Sections as listed in the table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Hunt Valley, Maryland  
September 24, 2015

## Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) of the Commonwealth of Pennsylvania Public School Employees' Retirement System (PSERS, System, Fund) for the fiscal year ended June 30, 2015 (FY 2015) provides a narrative summary of PSERS' financial position and performance, including highlights and comparative data. The MD&A is presented as required supplementary information to the financial statements and should be read in conjunction with the financial statements, the notes to financial statements, and the supplementary schedules.

### Overview of Financial Statements

PSERS is primarily responsible for administering a defined benefit pension plan for public school employees in the Commonwealth of Pennsylvania. PSERS also administers two voluntary postemployment healthcare programs, the Health Insurance Premium Assistance Program (Premium Assistance) and the Health Options Program (HOP), for its annuitants. As part of the HOP, PSERS has an Employer/Union Direct Contract with the Centers for Medicare and Medicaid Services (CMS) to provide a Medicare Part D Prescription Drug Plan to participants. The financial statements present the financial position and activities for the pension plan and the two postemployment healthcare programs.

The *Statements of Fiduciary Net Position* provide a snapshot of the financial position of PSERS at June 30, 2015, including comparative amounts for the prior year.

The *Statements of Changes in Fiduciary Net Position* summarize PSERS' financial activities that occurred during the fiscal period from July 1, 2014 to June 30, 2015, including comparative amounts for the prior year.

The *Notes to Financial Statements* provide additional information that is essential for a full understanding of the financial statements. The notes are an integral part of the financial statements and include detailed information not readily evident in the basic financial statements such as accounting policies, plan membership and benefits, and summary disclosures of selected financial data.

The *Required Supplementary Schedules* immediately following the notes to financial statements provide five schedules illustrating the Changes in the Employer Net Pension Liability, Employer Net Pension Liability, Employer Contributions, Investment Returns, and Funding Progress.

The remaining supplementary schedules provide additional detailed information concerning the operating expenses, investment expenses, payments to non-investment

consultants, and the employer contributions. These schedules emphasize the long-term nature of the pension and premium assistance plans and show the progress of PSERS in accumulating assets sufficient to pay benefits when due. All of this supplementary information is considered useful in understanding and evaluating the financial activities of PSERS.

### Financial Highlights

- The time-weighted rate of return on investments was 3.04% for FY 2015, 14.91% for the fiscal year ended June 30, 2014 (FY 2014), and 7.96% for the fiscal year ended June 30, 2013 (FY 2013). A time-weighted rate of return considers investment performance of a hypothetical dollar invested from the beginning of an investment period to the period's end. The annualized rate of return for the three years ended June 30, 2015 was 8.52%, which exceeded the 7.5% actuarial investment rate of return assumption. Unless otherwise noted, all rates of return are net of fees.
- PSERS' total net position decreased by \$1.4 billion from \$53.3 billion at June 30, 2014 to \$51.9 billion at June 30, 2015. This decrease was due in large part to deductions for benefits and administrative expenses exceeding net investment income plus member and employer contributions. The change in total net position from June 30, 2013 to June 30, 2014 was an increase of \$4.0 billion from \$49.3 billion at June 30, 2013 to \$53.3 billion at June 30, 2014. This increase was due in large part to net investment income plus member and employer contributions exceeding deductions for benefits and administrative expenses.
- Total member pension contributions increased from \$966.9 million in FY 2014 to \$984.6 million in FY 2015. The increase was mainly due to a \$12.7 million increase in member contributions from active member payroll. The portion of participant premiums for the HOP grew due to increased participation as well as ongoing health insurance rate increases.
- Total employer contributions increased from \$2.1 billion in FY 2014 to \$2.7 billion in FY 2015. This increase was primarily attributable to an increase in the total employer contribution rate from 16.93% in FY 2014 to 21.40% in FY 2015 in accordance with Act 120 of 2010. There was also a slight increase in active member payroll which contributed to the increase in employer contributions. Total employer contributions increased from \$1.6 billion in FY 2013 to \$2.1 billion in FY 2014. This increase was primarily attributable to an increase in the total employer contribution rate from 12.36% in FY 2013 to 16.93% in FY 2014. This rate increase was partially offset by a slight reduction in active member payroll.

**Management’s Discussion and Analysis (continued)**

- Total PSERS’ benefit expense increased slightly from \$6.4 billion in FY 2014 to \$6.6 billion in FY 2015. The average monthly benefit and the number of members receiving benefits increased in FY 2015. New retirements during FY 2015 increased by approximately 9% from FY 2014. Total PSERS’ benefit expense was steady at \$6.4 billion in FY 2013 and FY 2014. The average monthly benefit and the number of members receiving benefits increased in FY 2014. These increases were offset by a decrease in lump sum payments to new retirees. New retirements during FY 2014 decreased by approximately 21% from FY 2013.

*Pension Plans*, addresses financial reporting for state and local government pension plans. 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 and replaces the requirements of Statement No. 50, *Pension Disclosures*, for those governments and public pension plans. Under Statement No. 67, an emphasis is put on accounting for pension plans whereas Statement No. 25 dealt more with funding pension plans.

A key change from Statement No. 25 to Statement No. 67 is the measurement of the liability. GASB 25 subtracts the Actuarial Value of Assets from the Actuarial Accrued Liability to achieve the Unfunded Actuarial Accrued Liability. GASB 67 subtracts the Fiduciary Net Position from the Total Pension Liability (TPL) to attain the Net Pension Liability (NPL). The major difference in the measurements is that GASB 25 allows for asset smoothing, whereas, GASB 67 uses the fair value of assets as of the

**GASB Standards**

In June 2012, the Governmental Accounting Standards Board (GASB) approved a Statement that reflects substantial changes to the accounting and financial reporting of pension plans. Statement No. 67, *Financial Reporting for*

**Analysis of Fiduciary Net Position**

(Dollar Amounts in Thousands)

<b>Summary of Fiduciary Net Position</b>	<b>FY 2015</b>	<b>Increase (Decrease)</b>	<b>FY 2014</b>	<b>Increase (Decrease)</b>	<b>FY 2013</b>
<b>Assets:</b>					
Receivables	\$ 2,335,917	\$ 929,888	\$ 1,406,029	\$ 232,428	\$ 1,173,601
Investments	50,579,031	(2,349,076)	52,928,107	3,393,700	49,534,407
Securities lending collateral pool	1,207,170	610,234	596,936	(18,223)	615,159
Capital assets	22,814	(37)	22,851	447	22,404
<b>Total Assets</b>	<b>54,144,932</b>	<b>(808,991)</b>	<b>54,953,923</b>	<b>3,608,352</b>	<b>51,345,571</b>
<b>Deferred outflows of resources</b>	<b>3,895</b>	<b>3,895</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Liabilities:</b>					
Payables and other liabilities	1,056,539	(38,524)	1,095,063	(359,652)	1,454,715
Obligations under securities lending	1,207,170	610,234	596,936	(18,223)	615,159
<b>Total Liabilities</b>	<b>2,263,709</b>	<b>571,710</b>	<b>1,691,999</b>	<b>(377,875)</b>	<b>2,069,874</b>
<b>Deferred inflows of resources</b>	<b>44</b>	<b>44</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net Position</b>	<b>\$ 51,885,074</b>	<b>\$ (1,376,850)</b>	<b>\$ 53,261,924</b>	<b>\$ 3,986,227</b>	<b>\$ 49,275,697</b>
<b>Summary of Changes in Fiduciary Net Position</b>					
<b>Additions:</b>					
Contributions	\$ 3,698,173	\$ 621,295	\$ 3,076,878	\$ 530,713	\$ 2,546,165
Participant premiums and CMS	324,291	28,792	295,499	20,285	275,214
Net investment income	1,328,883	(5,769,139)	7,098,022	2,971,684	4,126,338
<b>Total Additions</b>	<b>5,351,347</b>	<b>(5,119,052)</b>	<b>10,470,399</b>	<b>3,522,682</b>	<b>6,947,717</b>
<b>Deductions:</b>					
Benefit expense	6,614,154	196,699	6,417,455	44,092	6,373,363
Administrative expenses	72,500	5,783	66,717	4,481	62,236
<b>Total Deductions</b>	<b>6,686,654</b>	<b>202,482</b>	<b>6,484,172</b>	<b>48,573</b>	<b>6,435,599</b>
<b>Changes in Net Position</b>	<b>\$ (1,335,307)</b>	<b>\$ (5,321,534)</b>	<b>\$ 3,986,227</b>	<b>\$ 3,474,109</b>	<b>\$ 512,118</b>

**Management’s Discussion and Analysis (continued)**

As of June 30, 2014

GASB 67 - Accounting Method		GASB 25 - Funding Method	
Total Pension Liability (TPL)	\$ 92,560,832	Actuarial Accrued Liability (AAL)	\$ 92,352,983
Fiduciary Net Position	52,980,115	Actuarial Value of Assets	57,231,799
Net Pension Liability (NPL)	39,580,717	Unfunded Actuarial Accrued Liability (UAAL)	35,121,184
Ratio - Fiduciary Net Position/TPL	57.2%	Funded Ratio	62.0%

measurement date. A chart illustrating the difference between the liability measurements as of June 30, 2014, the last measurement date GASB 25 information is available, is at the top of this page.

- Under GASB 25, PSERS’ funded ratio for the pension plan decreased from 63.8% at June 30, 2013 to 62.0% as of the latest actuarial valuation dated June 30, 2014. This decrease was primarily due to experience losses on investment assets and employer contributions that were less than the normal cost plus interest on the unfunded liability. This ratio is less volatile, as smoothing of the assets is used in the measurement.
- Under GASB 67, PSERS’ pension plan ratio of fiduciary net position to total pension liability, increased from 54.5% as of June 30, 2013 to 57.2% as of June 30, 2014. This increase is due to the increase in investment assets outpacing the increase in the TPL from benefits earned. This ratio is more susceptible to volatility, as the fair value of assets is used in the measurement.
- The NPL is larger than the Unfunded Actuarial Accrued Liability (UAAL) since the Actuarial Value of Assets, which is smoothed, is larger than the Fiduciary Net Position. The Actuarial Value of Assets is larger as the impact of the FY 2009 Great Recession losses is not fully recognized. For funding purposes, PSERS smooths asset gains and losses over a 10-year period to reduce volatility.

- GASB 67 separates the accounting for pensions from the funding provisions used for the actuarial valuation. GASB 67 has no impact on how pension plans are funded. The assumptions and methods used in the actuarial valuation to establish the employer contribution rate did not change as a result of its implementation.

At June 30, 2015, the NPL increased \$3.7 billion from \$39.6 billion at June 30, 2014 to \$43.3 billion due to a \$2.3 billion growth in the TPL from benefits earned and a \$1.4 billion decrease in the fiduciary net position due to benefit payments exceeding contributions and investment income. As a result, the ratio of fiduciary net position to TPL also decreased from 57.2% at June 30, 2014 to 54.4% at June 30, 2015.

**Funded Status**

PSERS uses an actuarial reserve type of funding that is financed by member contributions, employer contributions, and earnings from invested assets. A thirty-year history of PSERS’ funded status is shown at the bottom of this page. 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’ pension

**PSERS’ Funded Ratio**

**Funded Ratio = Actuarial Value of Assets / Actuarial Accrued Liability**



**Management’s Discussion and Analysis (continued)**

is 62.0% funded as of June 30, 2014. The funded ratio decreased from 63.8% as of June 30, 2013 due to a decrease in the actuarial value of assets, which is based on a ten-year smoothing period, employer contributions below the actuarially recommended level, and an increase in the actuarial accrued liability.

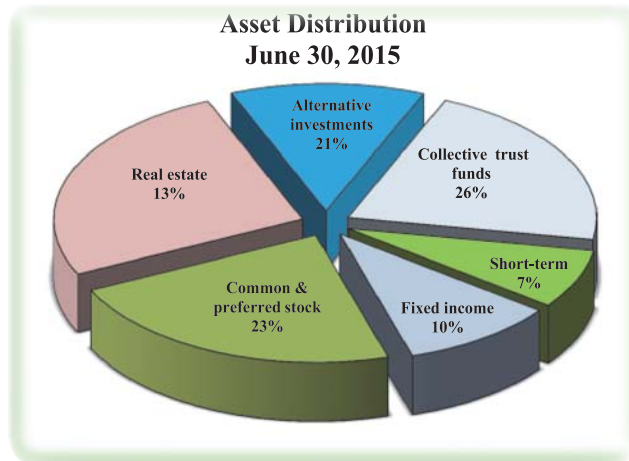
The results of operations for FY 2015 will be reflected in the actuarial valuation for the year ended June 30, 2015. Due to the normal lag time for completion of the actuarial valuation, the resulting funded status will be available at the end of the 2015 calendar year and will be reported in the financial statements for the fiscal year ending June 30, 2016 (FY 2016). Based on the investment performance for the ten-year period ended June 30, 2015, which is below the investment rate of return assumption during that time period, and employer contributions below the actuarially recommended level, the funded ratio at June 30, 2015 is expected to decrease. FY 2015 is the final year of a five-year transition from five-year to ten-year smoothing of actuarial assets.

PSERS’ State Accumulation Account deficit increased from June 30, 2014 to June 30, 2015 (See Note 3). One-year investment returns below the return assumption and employer contributions below the normal cost plus interest contributed to the deficit increase. Increased employer contributions, as mandated by Act 120, and investment earnings will be used to reduce the deficit in this account in the future.

**Investments**

PSERS is a long-term investor and manages the pension fund with long-term objectives in mind. A primary element of PSERS’ investment philosophy is diversification among various asset classes, which is the best way to achieve its goals. PSERS makes estimates of future long-term market returns and establishes an asset allocation plan taking into account the risk associated with each asset class as well as the financial objectives of the Fund.

Economically, this past fiscal year was a mixed year to be invested in higher risk assets with modestly positive returns to equities (in currency hedged terms) while commodity and commodity-related securities struggled. The fiscal year was marked by falling global growth and inflation expectations coupled with a modest increase in risk premiums. The global economy is still burdened by high debt levels which has the effect of constraining growth and is generally deflationary. Global monetary conditions have been very accommodative with most countries easing this past year, including implementation of quantitative easing programs by central banks in Europe and Japan. A notable exception was the U.S. which has ended quantitative easing during the



past fiscal year and is contemplating increasing interest rates later in 2015. Domestically, the past fiscal year generated positive but tepid results given the low interest rates and amount of monetary stimulus injected into the economy through quantitative easing by the Federal Reserve (Fed). The U.S. real Gross Domestic Product (GDP) increased in each of the four quarters for the fiscal year ended June 30, 2015. The U.S. Core Consumer Price Index (CPI) was 2.1% year over year as of June 2014 and decreased to 0.1% as of June 2015. Housing during the past fiscal year has continued to show improvement, up 4.5% as measured by the S&P Case-Shiller 20-City Home Price Index after being up 8.1% last fiscal year. Globally, the Chinese economy remained one of the stronger economies in the world, increasing by 7.0% or more in each of the four quarters ended June 30, 2015. However, subsequent to the fiscal year end, China has shown notable signs that its economy is weakening as they try to rebalance their economy from a more investment driven economy to a more consumer oriented economy. The Japanese real GDP increased in three of the four quarters for the fiscal year ended June 30, 2015. The Eurozone economy, during the past year, remained very weak and on the verge of recession. The Eurozone real GDP increased by 0.2%, 0.4%, 0.4% and 0.3% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively.

For FY 2015, PSERS’ time-weighted rate of return on investments was 3.04% which exceeded PSERS’ total fund Policy Index of 2.02% for the same time period. The Policy Index is a custom benchmark, which is based on the Board-established asset allocation structure, that seeks to generate a return that meets the actuarial rate of return assumption. Net investment income of \$1.3 billion in FY 2015 decreased from a net investment income of \$7.1 billion in FY 2014.

The time-weighted annualized rate of return over the past three- and five-year periods ended June 30, 2015 was 8.52% and 9.73%, respectively. The time-weighted returns for the three- and five-year periods exceeded the total fund Policy



**Management's Discussion and Analysis (continued)**

Index returns for those periods by 228 and 246 basis points, respectively. The annualized time-weighted rate of return for the ten- and twenty-five-year periods ended June 30, 2015 was 6.31% and 8.45%, respectively.

PSERS' long-term actuarial investment rate of return assumption was 7.5% at June 30, 2015.

The asset distribution of PSERS' investment portfolio at June 30, 2015, 2014 and 2013, at fair value, and including postemployment healthcare assets, is presented in the chart on the top of the previous page and the table at the bottom of this page.

**Short-term investments** (cash and cash equivalents) decreased by \$0.5 billion from \$4.3 billion at June 30, 2014 to \$3.8 billion at June 30, 2015. Due to a reallocation of exposure from other asset classes, PSERS decreased its short-term investments during FY 2015. **Fixed income investments** decreased by \$0.4 billion from \$5.5 billion at June 30, 2014 to \$5.1 billion at June 30, 2015 mostly due to manager terminations and reallocation of exposure to other asset classes during FY 2015. **Common and preferred stock investments** increased by \$0.5 billion from \$10.9 billion at June 30, 2014 to \$11.4 billion at June 30, 2015. The rise in this asset category was mainly the result of strong returns for domestic equity, international equity, and master limited partnerships, as well as the continual reallocation of exposure from other asset classes to master limited partnerships. **Collective trust funds** rose by \$1.3 billion from \$11.8 billion at June 30, 2014 to \$13.1 billion at June 30, 2015 mostly due to reallocation of exposure from other asset classes. **Real estate investments** decreased by \$0.8 billion from \$7.2 billion at June 30, 2014 to \$6.4 billion at June 30, 2015 due to significant partnership distributions which exceeded contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings. **Alternative investments** decreased by \$2.4 billion from \$13.2 billion at June 30, 2014 to \$10.8 billion at June 30, 2015 partially due to the sale of limited partnership interests to third parties and to significant partnership distributions which exceeded contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings.

**Short-term investments** (cash and cash equivalents) increased by \$1.1 billion from \$3.2 billion at June 30, 2013 to \$4.3 billion at June 30, 2014. Due to a reallocation of exposure from other asset classes, PSERS increased its short-term investments during FY 2014. **Fixed income investments** decreased by \$0.3 billion from \$5.8 billion at June 30, 2013 to \$5.5 billion at June 30, 2014 mostly due to manager terminations and reallocation of exposure to other asset classes during FY 2014. **Common and preferred stock investments** increased by \$1.1 billion from \$9.8 billion at June 30, 2013 to \$10.9 billion at June 30, 2014. The rise in this asset category was mainly the result of strong returns for domestic equity, international equity, and master limited partnerships, as well as the continual reallocation of exposure from other asset classes to master limited partnerships. **Collective trust funds** rose by \$0.5 billion from \$11.3 billion at June 30, 2013 to \$11.8 billion at June 30, 2014 mostly due to strong investment performance. **Real estate investments** increased by \$0.4 billion from \$6.8 billion at June 30, 2013 to \$7.2 billion at June 30, 2014 due to contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings which exceeded significant partnership distributions. **Alternative investments** increased by \$0.6 billion from \$12.6 billion at June 30, 2013 to \$13.2 billion at June 30, 2014 due to contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings which exceeded significant partnership distributions.

**Securities Lending**

The System experienced a significant decrease in net income from securities lending activities from \$18.6 million in FY 2014 to \$9.0 million in FY 2015 due to a recovery from the lending agent of specific losses incurred during the market downturn in 2008 received in FY 2014.

**Contributions**

Employer contributions increased from \$2.1 billion in FY 2014 to \$2.7 billion in FY 2015 due to the increase in the total employer contribution rate from 16.93% in FY 2014 to 21.40% in FY 2015.

<b>Asset Class</b>	(Dollar Amounts in Thousands)					
	<b>2015</b>	<b>%</b>	<b>2014</b>	<b>%</b>	<b>2013</b>	<b>%</b>
Short-term	\$ 3,780,778	7.5	\$ 4,331,188	8.2	\$ 3,242,139	6.5
Fixed income	5,085,921	10.0	5,532,214	10.4	5,828,418	11.8
Common and preferred stock	11,420,135	22.6	10,851,457	20.5	9,762,527	19.7
Collective trust funds	13,102,950	25.9	11,795,390	22.3	11,280,497	22.8
Real estate	6,386,295	12.6	7,230,493	13.7	6,797,535	13.7
Alternative investments	10,802,952	21.4	13,187,365	24.9	12,623,291	25.5
<b>Total</b>	<b>\$ 50,579,031</b>	<b>100.0</b>	<b>\$ 52,928,107</b>	<b>100.0</b>	<b>\$ 49,534,407</b>	<b>100.0</b>

**Management’s Discussion and Analysis (continued)**

Total member contributions increased from \$966.9 million in FY 2014 to \$984.6 million in FY 2015. The increase was mainly due to a \$12.7 million increase in member contributions from active member payroll. Additionally, there was a \$5.0 million rise in purchase of service contributions. Total member contributions decreased from \$991.1 million in FY 2013 to \$966.9 million in FY 2014 due to a \$22.6 million decrease in purchase of service contributions and a slight decrease in active member payroll. These decreases were partially offset by a small increase in the average member contribution rate. The average member contribution rate for pension increased from 7.40% in FY 2013 to 7.43% in FY 2014.

As a result of an increase in member purchase of service contributions and an increase in the receivables of member contributions from active member payroll, in the last quarter of FY 2014 to the last quarter of FY 2015, member contribution receivables increased from \$314.7 million at June 30, 2014 to \$329.2 million at June 30, 2015. The increase in the employer contribution rate from FY 2014 to FY 2015, resulted in the employer contribution receivables rising from \$624.3 million at June 30, 2014 to \$785.0 million at June 30, 2015.

**Progress of Act 120**

On November 23, 2010, the Governor signed HB 2497 into law. The legislation is now known as Act 120 of 2010. Act 120 preserves the benefits of existing members and includes a series of actuarial and funding changes to PSERS and benefit reductions for individuals who become new members of PSERS on or after July 1, 2011. The Act created two new membership classes, T-E and T-F. T-E

and T-F members are “shared-risk,” meaning that their employee contributions can increase or decrease due to investment performance.

Act 120 addressed the pending employer contribution rate spike projected for FY 2013 by smoothing the projected rate increases over a five- to nine-year time period. Instead of a large rate spike in one year, under Act 120, the employer contribution rate has increased steadily each year from the 5.64% in effect when Act 120 became law to the 21.40% rate in the FY 2015. During that time, PSERS’ Annual Required Contribution (ARC) percentage under GASB standards increased from 27% to 69% and is projected to continue to improve until the ARC reaches 100%.

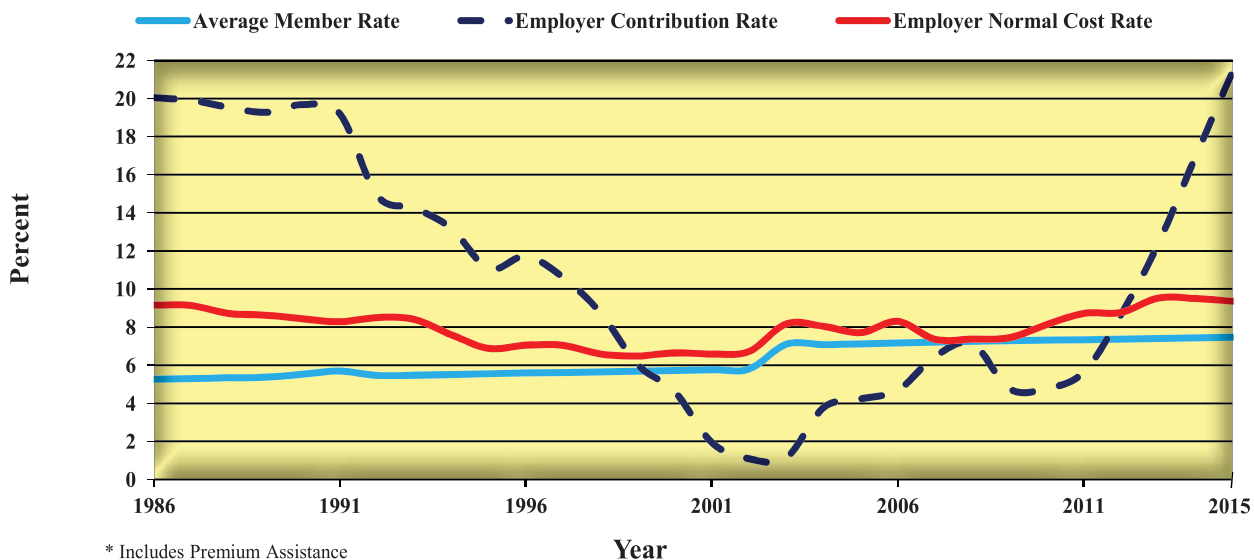
At June 30, 2015, there were an estimated 48,000 T-E and T-F active members representing approximately 18% of all active members. The employer normal cost of Act 120 members is less than 3% of payroll which is over 65% less than the normal cost for pre-Act 120 members. As the percentage of T-E and T-F membership grows, the annual cost of benefits continues to decline steadily.

**Investment Income**

Net investment income decreased from \$7.1 billion in FY 2014 to \$1.3 billion in FY 2015, which is consistent with the decrease in the time-weighted investment rate of return from 14.91% for FY 2014 to 3.04% for FY 2015. Net investment income increased from \$4.1 billion in FY 2013 to \$7.1 billion in FY 2014, which is consistent with the increase in the time-weighted investment rate of return from 7.96% for FY 2013 to 14.91% for FY 2014. As depicted in the following chart, investment earnings provided 69%

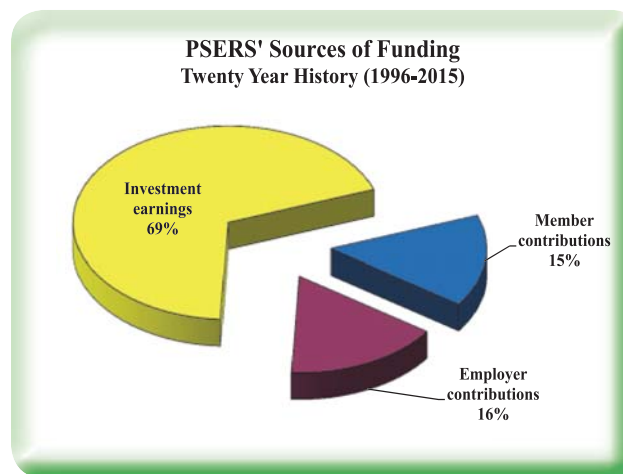
Below is a thirty-year history of PSERS’ contribution rates:

**History of PSERS' Contribution Rates as a Percent of Payroll\***



**Management’s Discussion and Analysis (continued)**

of PSERS’ funding over the past 20 years. Net investment income also includes investment expenses as a deduction. The “Total PSERS’ Benefits and Expenses” section that follows includes an analysis of investment expenses.



**Total PSERS’ Benefits and Expenses**

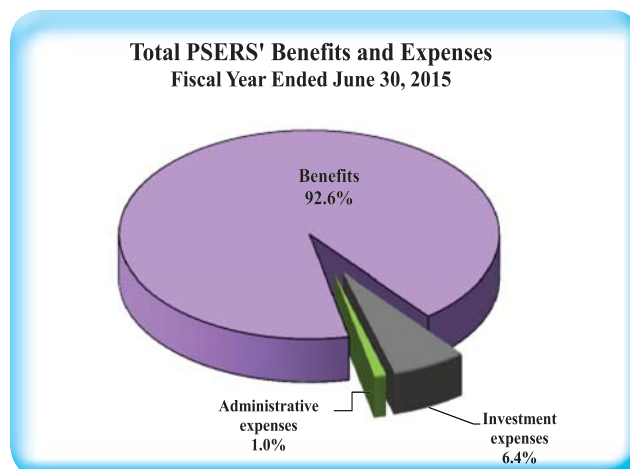
The primary source of expense during FY 2015 was for the payment of benefits approximating \$6.6 billion. The breakdown consisted of \$6.2 billion for Pension, \$106.3 million for Premium Assistance, and \$287.3 million for HOP benefits. The chart at the end of this page illustrates the significant portion of expenses attributable to benefit payments.

Total PSERS’ benefit expense increased from \$6.4 billion in FY 2014 to \$6.6 billion in FY 2015. The increase is attributable to an ongoing increase to the average monthly benefit and an increase in the number of members receiving benefits. Pension benefits payable increased from \$531.6 million at June 30, 2014 compared to \$560.3 million at June 30, 2015. This increase was due to the payment of the federal withholding tax earlier in FY 2014. This was partially offset by lower fourth quarter retirements in FY 2015 as compared to the same period in FY 2014. New retirements during FY 2015 increased by approximately 9% from FY 2014. Benefit expense increased from \$6.3 billion in FY 2013 to \$6.4 billion in FY 2014. The increase is attributable to an ongoing increase to the average monthly benefit and an increase in the number of members receiving benefits. Fourth quarter retirements in FY 2014 were lower compared to the same period in FY 2013, resulting in a lower pension benefits payable figure at June 30, 2014 of \$531.6 million compared to \$747.6 million at June 30, 2013. New retirements during FY 2014 decreased by approximately 21% from FY 2013.

Investment expenses decreased by \$27.0 million from \$482.2 million in FY 2014 to \$455.2 million in FY 2015 mainly due to a decrease in management fees in

the collective trust fund and alternative investment asset classes. As a percentage of total benefits and expenses, investment expense has decreased from 8.2% in FY 2013 to 6.4% in FY 2015. These decreases were slightly offset by an increase in management fees in the fixed income asset class and consultant and legal fees. The fee decrease in the collective trust fund asset class is mainly attributable to higher performance fees due to the stronger performance this asset class had for FY 2014. The decrease in the alternative investment class is partially attributable to the sale of certain limited partnership interests and to changes in fee structure brought on by partnerships maturing. Investment expenses decreased by \$75.4 million from \$557.6 million in FY 2013 to \$482.2 million in FY 2014 mainly due to a decrease in management fees in the collective trust fund and alternative investment asset classes. The fee decrease in the collective trust fund asset class is mainly attributable to higher performance fees due to the stronger performance this asset class had for FY 2013. The decrease in the alternative investment class is attributable to changes in fee structure brought on by partnerships maturing.

Administrative expenses increased by \$5.8 million from \$66.7 million during FY 2014 compared to \$72.5 million during FY 2015. This rise was mainly attributable to the implementation of GASB 68, as discussed in Note 7 of the Notes to the Financial Statements. A contributing factor was the increase in administrative costs for HOP due to increased membership. Administrative expenses increased by \$4.5 million from \$62.2 million during FY 2013 compared to \$66.7 million during FY 2014 mainly due to a rise in the administrative costs attributable to increased membership in the HOP.



**Management’s Discussion and Analysis (continued)**

**Postemployment Healthcare**

PSERS administers two postemployment healthcare programs, the Health Insurance Premium Assistance Program (Premium Assistance) and the Health Options Program (HOP), for its annuitants. The following paragraphs and summary financial data provide supplementary information to the financial statements which contain the financial position and activities for the two postemployment healthcare programs.

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**Health Insurance Premium Assistance Program  
(Premium Assistance)**

**Financial Highlights**

- Total net position increased by \$8.6 million in FY 2015 due to an increase in employer contributions driven by the increase in active member payroll. This increase was slightly offset by a decrease in the contribution rate from 0.93% for FY 2014 to 0.90% for the FY 2015. The change from June 30, 2013 to June 30, 2014 was an increase of \$11.7 million due to an increase in employer contributions driven by the increase in the contribution rate from 0.86% for FY 2013 to 0.93% for the FY 2014.
- Total receivables decreased from \$48.5 million at June 30, 2014 to \$35.9 million at June 30, 2015 mostly due to a decrease in interfund receivables from pension and employer receivables.
- Investments increased from \$64.1 million at June 30, 2014 to \$86.0 million at June 30, 2015 mainly due to the decrease in the interfund receivables combined with the increase in net position.

**Contributions**

Total employer contributions for Premium Assistance decreased from \$117.9 million in FY 2014 to \$116.8 million in FY 2015 due to the decrease in the employer contribution rate from FY 2014 to FY 2015. The contribution rate decreased from 0.93% in FY 2014 to 0.90% in FY 2015. This decrease was moderately offset by an increase in active member payroll.

**Investment Income**

Total investment income for Premium Assistance increased slightly from \$0.1 million for FY 2014 to \$0.2 for FY 2015.

**Benefits and Expenses**

Overall expenses for Premium Assistance increased from \$106.2 million in FY 2014 to \$108.4 million in FY 2015. This increase is primarily due to the increase in number of members receiving premium assistance benefits.

**Health Options Program (HOP)**

**Financial Highlights**

- Total net position increased by \$9.2 million in FY 2015 primarily due to the rise in premiums that outpaced the rise in expenses. The change from June 30, 2013 to June 30, 2014 is also primarily due to the rise in premiums that outpaced the rise in expenses.
- Total receivables increased from \$27.9 million at June 30, 2014 to \$39.1 million at June 30, 2015. The increase is tied primarily to higher premiums due to an increase in participation in the HOP.
- Investments decreased slightly from \$187.4 million at June 30, 2014 to \$186.3 million at June 30, 2015.
- Total liabilities increased 2.0% from \$45.5 million at June 30, 2014 to \$46.4 million at June 30, 2015. The increase is due to increased participation in the program and an increase in claims payable.

**Participant and CMS Premiums**

Total participant Centers for Medicare and Medicaid Services (CMS) premiums for HOP increased from \$295.5 million in FY 2014 to \$324.3 million in FY 2015. This increase is representative of the 7.5% increase in plan participation.

**Investment Income**

Investment income for HOP remained at \$0.2 million for FY 2014 and FY 2015 due to a continued period of low short-term interest rates.

**Benefits and Expenses**

Overall expenses for HOP increased from \$285.7 million in FY 2014 to \$315.3 million in FY 2015. This increase is primarily due to the increase in number of members enrolled in the HOP combined with an increase in the administrative costs.

**Management's Discussion and Analysis (continued)****Premium Assistance****Summary of Fiduciary Net Position**

(Dollar Amounts in Thousands)

<b>Assets:</b>	<b>FY 2015</b>	<b>Increase (Decrease)</b>	<b>FY 2014</b>	<b>Increase (Decrease)</b>	<b>FY 2013</b>
Receivables	\$ 35,858	\$ (12,644)	\$ 48,502	\$ 10,292	\$ 38,210
Investments	85,995	21,896	64,099	1,522	62,577
<b>Total Assets</b>	<b>121,853</b>	<b>9,252</b>	<b>112,601</b>	<b>11,814</b>	<b>100,787</b>
<b>Liabilities:</b>					
Payables and other liabilities	1,210	669	541	103	438
<b>Total Liabilities</b>	<b>1,210</b>	<b>669</b>	<b>541</b>	<b>103</b>	<b>438</b>
<b>Net Position</b>	<b>\$ 120,643</b>	<b>\$ 8,583</b>	<b>\$ 112,060</b>	<b>\$ 11,711</b>	<b>\$ 100,349</b>

**Summary of Changes in Fiduciary Net Position**

<b>Additions:</b>	<b>FY 2015</b>	<b>Increase (Decrease)</b>	<b>FY 2014</b>	<b>Increase (Decrease)</b>	<b>FY 2013</b>
Contributions	\$ 116,808	\$ (1,060)	\$ 117,868	\$ 9,192	\$ 108,676
Net investment income	215	145	70	(40)	110
<b>Total Additions</b>	<b>117,023</b>	<b>(915)</b>	<b>117,938</b>	<b>9,152</b>	<b>108,786</b>
<b>Deductions:</b>					
Benefit expenses	106,298	2,101	104,197	4,119	100,078
Administrative expenses	2,142	112	2,030	(82)	2,112
<b>Total Deductions</b>	<b>108,440</b>	<b>2,213</b>	<b>106,227</b>	<b>4,037</b>	<b>102,190</b>
<b>Changes in Net Position</b>	<b>\$ 8,583</b>	<b>\$ (3,128)</b>	<b>\$ 11,711</b>	<b>\$ 5,115</b>	<b>\$ 6,596</b>

**Health Options Program****Summary of Fiduciary Net Position**

(Dollar Amounts in Thousands)

<b>Assets:</b>	<b>FY 2015</b>	<b>Increase (Decrease)</b>	<b>FY 2014</b>	<b>Increase (Decrease)</b>	<b>FY 2013</b>
Receivables	\$ 39,066	\$ 11,202	\$ 27,864	\$ 4,821	\$ 23,043
Investments	186,292	(1,111)	187,403	11,713	175,690
<b>Total Assets</b>	<b>225,358</b>	<b>10,091</b>	<b>215,267</b>	<b>16,534</b>	<b>198,733</b>
<b>Liabilities:</b>					
Payables and other liabilities	46,448	930	45,518	6,572	38,946
<b>Total Liabilities</b>	<b>46,448</b>	<b>930</b>	<b>45,518</b>	<b>6,572</b>	<b>38,946</b>
<b>Net Position</b>	<b>\$ 178,910</b>	<b>\$ 9,161</b>	<b>\$ 169,749</b>	<b>\$ 9,962</b>	<b>\$ 159,787</b>

**Summary of Changes in Fiduciary Net Position**

<b>Additions:</b>	<b>FY 2015</b>	<b>Increase (Decrease)</b>	<b>FY 2014</b>	<b>Increase (Decrease)</b>	<b>FY 2013</b>
Participant and CMS premiums	\$ 324,291	\$ 28,792	\$ 295,499	\$ 20,285	\$ 275,214
Net investment income	152	(39)	191	(35)	226
<b>Total Additions</b>	<b>324,443</b>	<b>28,753</b>	<b>295,690</b>	<b>20,250</b>	<b>275,440</b>
<b>Deductions:</b>					
Benefit expenses	287,255	27,502	259,753	30,714	229,039
Administrative expenses	28,027	2,052	25,975	3,331	22,644
<b>Total Deductions</b>	<b>315,282</b>	<b>29,554</b>	<b>285,728</b>	<b>34,045</b>	<b>251,683</b>
<b>Changes in Net Position</b>	<b>\$ 9,161</b>	<b>\$ (801)</b>	<b>\$ 9,962</b>	<b>\$ (13,795)</b>	<b>\$ 23,757</b>



**Statements of Fiduciary Net Position**  
**June 30, 2015 and 2014**  
(Dollar Amounts in Thousands)

	2015			
	Postemployment Healthcare			Totals
	Pension	Premium Assistance	Health Options Program	
<b>Assets:</b>				
Receivables:				
Members	\$ 325,285	\$ 3,852	\$ 35	\$ 329,172
Employers	754,873	30,163	-	785,036
Investment income	149,175	41	18	149,234
Investment proceeds	1,031,297	-	-	1,031,297
CMS Part D and prescriptions	-	-	38,938	38,938
Interfund	-	929	-	929
Miscellaneous	363	873	75	1,311
<b>Total Receivables</b>	<b>2,260,993</b>	<b>35,858</b>	<b>39,066</b>	<b>2,335,917</b>
Investments, at fair value:				
Short-term	3,508,491	85,995	186,292	3,780,778
Fixed income	5,085,921	-	-	5,085,921
Common and preferred stock	11,420,135	-	-	11,420,135
Collective trust funds	13,102,950	-	-	13,102,950
Real estate	6,386,295	-	-	6,386,295
Alternative investments	10,802,952	-	-	10,802,952
<b>Total Investments</b>	<b>50,306,744</b>	<b>85,995</b>	<b>186,292</b>	<b>50,579,031</b>
Securities lending collateral pool	1,207,170	-	-	1,207,170
Capital assets (net of accumulated depreciation \$26,153)	22,814	-	-	22,814
<b>Total Assets</b>	<b>53,797,721</b>	<b>121,853</b>	<b>225,358</b>	<b>54,144,932</b>
<b>Deferred outflows of resources</b>	<b>3,895</b>	<b>-</b>	<b>-</b>	<b>3,895</b>
<b>Liabilities:</b>				
Accounts payable and accrued expenses	147,235	319	1,700	149,254
Benefits payable	560,319	191	20,308	580,818
Participant premium advances	-	-	24,440	24,440
Investment purchases and other liabilities	300,398	700	-	301,098
Obligations under securities lending	1,207,170	-	-	1,207,170
Interfund payable	929	-	-	929
<b>Total Liabilities</b>	<b>2,216,051</b>	<b>1,210</b>	<b>46,448</b>	<b>2,263,709</b>
<b>Deferred inflows of resources</b>	<b>44</b>	<b>-</b>	<b>-</b>	<b>44</b>
<b>Net position restricted for pension and postemployment healthcare benefits</b>	<b>\$ 51,585,521</b>	<b>\$ 120,643</b>	<b>\$ 178,910</b>	<b>\$ 51,885,074</b>

The accompanying notes are an integral part of the financial statements.

**Statements of Fiduciary Net Position**  
**June 30, 2015 and 2014**  
(Dollar Amounts in Thousands)

	<b>2014</b>			
	Postemployment Healthcare			Totals
	Pension	Premium Assistance	Health Options Program	
<b>Assets:</b>				
Receivables:				
Members	\$ 310,305	\$ 4,395	\$ 31	\$ 314,731
Employers	590,953	33,352	-	624,305
Investment income	238,202	65	12	238,279
Investment proceeds	189,746	-	-	189,746
CMS Part D and prescriptions	-	-	27,793	27,793
Interfund	-	9,917	-	9,917
Miscellaneous	457	773	28	1,258
<b>Total Receivables</b>	<b>1,329,663</b>	<b>48,502</b>	<b>27,864</b>	<b>1,406,029</b>
Investments, at fair value:				
Short-term	4,079,686	64,099	187,403	4,331,188
Fixed income	5,532,214	-	-	5,532,214
Common and preferred stock	10,851,457	-	-	10,851,457
Collective trust funds	11,795,390	-	-	11,795,390
Real estate	7,230,493	-	-	7,230,493
Alternative investments	13,187,365	-	-	13,187,365
<b>Total Investments</b>	<b>52,676,605</b>	<b>64,099</b>	<b>187,403</b>	<b>52,928,107</b>
Securities lending collateral pool	596,936	-	-	596,936
Capital assets (net of accumulated depreciation \$24,080)	22,851	-	-	22,851
<b>Total Assets</b>	<b>54,626,055</b>	<b>112,601</b>	<b>215,267</b>	<b>54,953,923</b>
<b>Deferred outflows of resources</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Liabilities:</b>				
Accounts payable and accrued expenses	86,328	355	1,725	88,408
Benefits payable	531,621	186	21,531	553,338
Participant premium advances	-	-	22,262	22,262
Investment purchases and other liabilities	421,138	-	-	421,138
Obligations under securities lending	596,936	-	-	596,936
Interfund payable	9,917	-	-	9,917
<b>Total Liabilities</b>	<b>1,645,940</b>	<b>541</b>	<b>45,518</b>	<b>1,691,999</b>
<b>Deferred inflows of resources</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net position restricted for pension and postemployment healthcare benefits</b>	<b>\$ 52,980,115</b>	<b>\$ 112,060</b>	<b>\$ 169,749</b>	<b>\$ 53,261,924</b>

The accompanying notes are an integral part of the financial statements.

**Statements of Changes in Fiduciary Net Position**  
**Years Ended June 30, 2015 and 2014**  
(Dollar Amounts in Thousands)

	2015			
	Pension	Postemployment Healthcare		Totals
		Premium Assistance	Health Options Program	
<b>Additions:</b>				
Contributions:				
Members	\$ 984,634	\$ -	\$ -	\$ 984,634
Employers	2,596,731	116,808	-	2,713,539
<b>Total contributions</b>	<b>3,581,365</b>	<b>116,808</b>	<b>-</b>	<b>3,698,173</b>
Participant premiums	-	-	281,855	281,855
Centers for Medicare & Medicaid Services premiums	-	-	42,436	42,436
Investment income:				
From investing activities:				
Net appreciation (depreciation) in fair value of investments	511,997	(128)	-	511,869
Short-term	8,940	376	186	9,502
Fixed income	167,788	-	-	167,788
Common and preferred stock	279,940	-	-	279,940
Collective trust funds	2,117	-	-	2,117
Real estate	345,250	-	-	345,250
Alternative investments	458,658	-	-	458,658
<b>Total investment activity income</b>	<b>1,774,690</b>	<b>248</b>	<b>186</b>	<b>1,775,124</b>
Investment expenses	(455,140)	(33)	(34)	(455,207)
<b>Net income from investing activities</b>	<b>1,319,550</b>	<b>215</b>	<b>152</b>	<b>1,319,917</b>
From securities lending activities:				
Securities lending income	9,934	-	-	9,934
Securities lending expense	(968)	-	-	(968)
<b>Net income from securities lending activities</b>	<b>8,966</b>	<b>-</b>	<b>-</b>	<b>8,966</b>
<b>Total net investment income</b>	<b>1,328,516</b>	<b>215</b>	<b>152</b>	<b>1,328,883</b>
<b>Total Additions</b>	<b>4,909,881</b>	<b>117,023</b>	<b>324,443</b>	<b>5,351,347</b>
<b>Deductions:</b>				
Benefits	6,199,681	106,298	287,255	6,593,234
Refunds of contributions	20,920	-	-	20,920
Administrative expenses	42,331	2,142	28,027	72,500
<b>Total Deductions</b>	<b>6,262,932</b>	<b>108,440</b>	<b>315,282</b>	<b>6,686,654</b>
<b>Net increase (decrease)</b>	<b>(1,353,051)</b>	<b>8,583</b>	<b>9,161</b>	<b>(1,335,307)</b>
<b>Net position restricted for pension and postemployment healthcare benefits:</b>				
Balance, beginning of year	52,980,115	112,060	169,749	53,261,924
Effect of change in accounting principle	(41,543)	-	-	(41,543)
<b>Balance, beginning, as restated</b>	<b>52,938,572</b>	<b>112,060</b>	<b>169,749</b>	<b>53,220,381</b>
<b>Balance, end of year</b>	<b>\$ 51,585,521</b>	<b>\$ 120,643</b>	<b>\$ 178,910</b>	<b>\$ 51,885,074</b>

The accompanying notes are an integral part of the financial statements.

**Statements of Changes in Fiduciary Net Position**  
**Years Ended June 30, 2015 and 2014**  
(Dollar Amounts in Thousands)

	<b>2014</b>			
	Postemployment Healthcare			Totals
	Pension	Premium Assistance	Health Options Program	
<b>Additions:</b>				
Contributions:				
Members	\$ 966,926	\$ -	\$ -	\$ 966,926
Employers	1,992,084	117,868	-	2,109,952
<b>Total contributions</b>	<b>2,959,010</b>	<b>117,868</b>	<b>-</b>	<b>3,076,878</b>
Participant premiums	-	-	257,740	257,740
Centers for Medicare & Medicaid Services premiums	-	-	37,759	37,759
Investment income:				
From investing activities:				
Net appreciation (depreciation) in fair value of investments				
Short-term	6,024,512	(651)	-	6,023,861
Fixed income	7,695	816	191	8,702
Common and preferred stock	220,447	-	-	220,447
Collective trust funds	284,808	-	-	284,808
Real estate	7,069	-	-	7,069
Alternative investments	374,076	-	-	374,076
Total investment activity income	642,727	-	-	642,727
Investment expenses	7,561,334	165	191	7,561,690
Net income from investing activities	(482,141)	(95)	-	(482,236)
From securities lending activities:	7,079,193	70	191	7,079,454
Securities lending income	19,859	-	-	19,859
Securities lending expense	(1,291)	-	-	(1,291)
Net income from securities lending activities	18,568	-	-	18,568
Total net investment income	7,097,761	70	191	7,098,022
<b>Total Additions</b>	<b>10,056,771</b>	<b>117,938</b>	<b>295,690</b>	<b>10,470,399</b>
<b>Deductions:</b>				
Benefits	6,030,682	104,197	259,753	6,394,632
Refunds of contributions	22,823	-	-	22,823
Administrative expenses	38,712	2,030	25,975	66,717
<b>Total Deductions</b>	<b>6,092,217</b>	<b>106,227</b>	<b>285,728</b>	<b>6,484,172</b>
<b>Net increase</b>	<b>3,964,554</b>	<b>11,711</b>	<b>9,962</b>	<b>3,986,227</b>
<b>Net position restricted for pension and postemployment healthcare benefits:</b>				
<b>Balance, beginning of year</b>	49,015,561	100,349	159,787	49,275,697
<b>Balance, end of year</b>	<b>\$ 52,980,115</b>	<b>\$ 112,060</b>	<b>\$ 169,749</b>	<b>\$ 53,261,924</b>

The accompanying notes are an integral part of the financial statements.

**Notes to Financial Statements**

**Years Ended June 30, 2015 and 2014**

**1. Organization and Description of the System**

**(A) Organization**

The System was established on July 18, 1917, under the provisions of Pamphlet Law 1043, No. 343 as a governmental cost-sharing, multiple-employer plan that provides retirement allowances and other benefits to its members. Membership in the System is mandatory for nearly all qualifying public school employees in the Commonwealth of Pennsylvania (Commonwealth). As of June 30, 2015, there were 784 participating employers, generally school districts. Membership as of June 30, 2014, the most recent year for which actual amounts are available, is presented in the table at the bottom of this page.

The Public School Employees’ Retirement Board (Board) is established by state law as an independent administrative board of the Commonwealth. The Board exercises control and management of the System, including the investment of its assets. The Board has fifteen members including the Commonwealth’s Secretary of Education, the State Treasurer, the Executive Director of the Pennsylvania School Boards Association, two members appointed by the Governor, six elected members (three from among the System’s certified members, one from among the System’s noncertified members, one from among the System’s annuitants, and one from among school board members in Pennsylvania), two members from the Senate, and two members from the House of Representatives.

The State Treasurer is the custodian of the System’s fund. The retirement plan of the System is a contributory defined benefit plan for which the benefit payments to members and contribution provisions by employers and employees are specified in the Pennsylvania Public School Employees’ Retirement Code (Code). Changes in benefit and contribution provisions for the retirement plan must be made by legislation. Pursuant to state law, all legislative bills and amendments proposing to change the System’s retirement plan are to be accompanied with an actuarial note prepared by an enrolled pension actuary from the Public

Employee Retirement Commission providing an estimate of the cost and actuarial effect of the proposed change.

Based upon criterion of financial accountability as defined by governmental accounting standards, the System is considered a component unit of the Commonwealth of Pennsylvania financial reporting entity and is included in the Comprehensive Annual Financial Report of the Commonwealth of Pennsylvania.

**(B) Pension Plan**

**i. Pension Benefits**

Under the provisions of the 1975 revision of the Code by the Pennsylvania General Assembly, members are eligible for monthly retirement benefits upon reaching (a) age 62 with at least 1 year of credited service; (b) age 60 with 30 or more years of credited service; or (c) 35 or more years of service regardless of age. Act 120 of 2010 (Act 120) preserves the benefits of existing members and introduced benefit reductions for individuals who become new members on or after July 1, 2011. Act 120 created two new membership classes, Membership Class T-E (Class T-E) and Membership Class T-F (Class T-F). To qualify for normal retirement, Class T-E and Class T-F members must work until age 65 with a minimum of 3 years of service or attain a total combination of age and service that is equal to or greater than 92 with a minimum of 35 years of service. The Internal Revenue Code (IRC) limitation on the annual benefits for a defined benefit plan was \$210,000 for 2015 and \$210,000 for 2014.

Benefits are generally equal to 2% or 2.5%, depending upon membership class, of the member’s final average salary (as defined in the Code) multiplied by the number of years of credited service. For members whose membership started prior to July 1, 2011, after completion of five years of service, a member’s right to the defined benefits is vested and early retirement benefits may be elected. For Class T-E and Class T-F members, the right to benefits is vested after ten years of service. Active members may purchase

**Membership as of June 30, 2014**

Currently employed members:		
Vested	194,585	
Nonvested	68,727	
<b>Total currently employed members</b>		<b>263,312</b>
Retirees and beneficiaries currently receiving benefits	213,900	
Inactive members and vestees entitled to but not receiving benefits*	20,467	
<b>Total retirees and other members</b>		<b>234,367</b>
<b>Total number of members</b>		<b>497,679</b>

\*Does not include 112,097 inactive members who are no longer participating.



**Notes to Financial Statements (continued)**

The contribution rates based on qualified member compensation for virtually all members are presented below:

**PSERS members whose membership started prior to July 1, 2011:**

Membership Class T-C	Active Members hired before July 22, 1983	5.25%
Membership Class T-C	Active Members hired on or after July 22, 1983	6.25%
Membership Class T-D	Active Members hired before July 22, 1983	6.50%
Membership Class T-D	Active Members hired on or after July 22, 1983	7.50%

**PSERS members whose membership started on or after July 1, 2011 (Act 120 members):**

Membership Class T-E*		7.50%
Membership Class T-F**		10.30%

\* Shared risk program could cause future contribution rates to fluctuate between 7.5% and 9.5%

\*\* Shared risk program could cause future contribution rates to fluctuate between 10.3% and 12.3%

credit for various types of school and non-school service on a lump-sum, installment purchase basis, or through an actuarially calculated benefit reduction. Class T-E and Class T-F members must purchase Non Qualifying Part Time service and most other types of non-school or non-state service credit at full actuarial cost. Class T-E and Class T-F members must purchase credit for Non Qualifying Part Time service within 365 days of enrollment in the system.

In addition to regular retirement benefits, the System also provides for disability retirement benefits and death benefits. Participants are eligible for disability retirement benefits after completion of five years of credited service. Such benefits are generally equal to 2% or 2.5%, depending upon membership class, of the member's final average salary (as defined in the Code) multiplied by the number of years of credited service, but not less than one-third of such salary nor greater than the benefit the member would have had at normal retirement age. Members over normal retirement age may apply for disability benefits.

Death benefits are payable upon the death of an active member who has reached age 62 with at least one year of credited service (age 65 with at least three years of credited service for Class T-E and Class T-F members) or who has at least five years of credited service (ten years for Class T-E and Class T-F members). Such benefits are actuarially equivalent to the benefit that would have been effective if the member had retired on the day before death.

Members with credited service in the Commonwealth of Pennsylvania State Employees' Retirement System (SERS) may elect to transfer service to the Public School Employees' Retirement System upon commencement of employment in the public school system. Similarly, a member with credited service in the System may transfer such service to SERS upon becoming a member of that system.

All members are fully vested in their individual balance in the Members' Savings Account which is described in Note 3. All non-vested members may receive a refund of their individual balance of member contributions and interest

from the Members' Savings Account upon termination of public school employment. Vested members who enrolled prior to July 1, 2011 may elect to receive a return of their accumulated contributions and interest upon their retirement which results in a reduced monthly annuity. Vested Class T-E and Class T-F members cannot withdraw their accumulated contributions and interest from the Members' Savings Account upon their retirement.

**ii. Contributions**

The contribution policy is set by the Code and requires contributions by active members, employers, and the Commonwealth. The System's funding policy provides for periodic employer and Commonwealth contributions at actuarially determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay retirement benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial funding method. This method determines the amount of contributions necessary to (1) fully fund all current costs, (also known as normal cost), which represents the estimated amount necessary to pay for the benefits earned by the employees during the current service year; and (2) liquidate the prior service cost for service earned prior to the current service year and subsequent benefit increases, which represents the amount necessary to fund accrued liabilities over the appropriate amortization periods.

Contribution rates for active members are set by law (redefined with the provisions of Act 9 of 2001 and Act 120) and are dependent upon membership class. The IRC limitation on the annual compensation for a defined benefit plan was \$260,000 for 2014 and \$265,000 for 2015.

Active members who enrolled between July 1, 2001, the effective date of Act 9, and June 30, 2011 are Membership Class T-D (Class T-D). The contribution rates for all

**Notes to Financial Statements (continued)**

members in Class T-D were effective January 1, 2002. For Act 120 members, all new members automatically become Class T-E members. New members, however, have a one-time opportunity to elect Class T-F within 45 days of receiving written notification from PSERS. Failure to elect Class T-F at time of original eligibility will make the member ineligible for Class T-F forever. Act 120 introduced a shared risk program that could affect Class T-E and Class T-F members' contribution rates in future fiscal years. With the shared risk program Class T-E and Class T-F members benefit when investments of the fund are doing well and share some of the risk when investments underperform. The member contribution rate will stay within the specified range allotted for Class T-E or Class T-F; but could increase or decrease by 0.5% every three years starting July 1, 2015, dependent on investment performance of PSERS. The member contribution rate will never go below the base rate of 7.5% for Class T-E and 10.3% for Class T-F members, or above 9.5% for Class T-E and 12.3% for Class T-F members.

The total contribution rate for the employers and the Commonwealth was 21.40% and 16.93% (20.50% and 16.00% for pension component) of qualified compensation for the years ended June 30, 2015 and 2014, respectively.

Act 120 suppresses 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. For FY 2014 and thereafter, the rate can increase no 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. Once the rate caps no longer apply, the employer normal cost becomes the contribution rate floor.

According to requirements established in Act 29 of 1994, the Commonwealth reimburses school entity employers a portion of the employer contributions paid to the System. All school entity employers are reimbursed by the Commonwealth at least 50% of the total employer contributions based on the total contribution rate. The Commonwealth reimburses certain school entity employers at a rate greater than 50% based upon non-pension criteria which stipulate that the entity must have a Commonwealth Department of Education calculated Market Value / Personal Income Aid Ratio in excess of .5000. The Commonwealth remits 50% of the total employer contributions for employers other than school entities directly to the System. All contributions from employers and the Commonwealth

are shown as employer contributions on the Statements of Changes in Fiduciary Net Position.

**(C) Postemployment Healthcare Plans**

**i. Health Insurance Premium Assistance Program**

**(a) Premium Assistance Benefits**

The System provides a Health Insurance Premium Assistance Program (Premium Assistance) for all eligible annuitants who qualify and elect to participate. Under this program, employer contribution rates for Premium Assistance are established to provide reserves in the Health Insurance Account that are sufficient for the payment of Premium Assistance benefits for each succeeding year. Effective January 1, 2002, under the provisions of Act 9 of 2001, 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. To receive premium assistance, eligible annuitants must obtain their health insurance through either their school employer or the PSERS' Health Options Program. As of June 30, 2015 there were no assumed future benefit increases to participating eligible annuitants in the Premium Assistance program.

**(b) Contributions**

A portion of each employer and Commonwealth contribution to the System is set aside for the funding of Premium Assistance. The Premium Assistance contribution rate is set at a level necessary to establish reserves sufficient to provide Premium Assistance payments for all participating eligible members for the subsequent fiscal year. The portion of the total contribution rate for employers and the Commonwealth used to fund Premium Assistance was 0.90% and 0.93% for the years ended June 30, 2015 and 2014, respectively.

**(c) Funding Status and Annual Required Contributions (ARC)**

As of June 30, 2014, the most recent actuarial valuation, the plan was 8.2% funded. The actuarial accrued liability for benefits was \$1.374 billion, and the actuarial value of assets was \$112.1 million, resulting in an unfunded accrued liability of \$1.262 billion. The covered payroll of active members was \$12.6 billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was 10.0%.

For fiscal year ended June 30, 2015, the ARC was \$127.6 million. The actual employer contributions for fiscal year ended June 30, 2015 was \$116.0 million resulting in a 91%

## Notes to Financial Statements (continued)

contributed rate. The ratio of assets to Actuarial Accrued Liabilities (AAL) was 8.2%, 7.2%, and 6.9% for fiscal years ended June 30, 2014, 2013, and 2012, respectively. Assets have increased in relation to AAL from fiscal year ended June 30, 2012 to 2013 and increased from fiscal year ended June 30, 2013 to 2014.

The Schedule of Funding Progress and the Schedule of Employer Contributions included as Required Supplementary Information following the notes to the financial statements provide multiple year presentations about whether the actuarial value of plan assets is increasing or decreasing relative to the actuarial accrued liability for benefits over time.

### (d) Actuarial Assumptions and Methods

The health insurance liability and funding provisions of the PSERS Code differ from the GASB disclosure requirements. As a result, there are different determinations of actuarial liability and contribution requirements for GASB accounting purposes and for Commonwealth funding purposes. For purposes of funding, the actuarial liability equals the assets in the Premium Assistance account, and the contribution required is the amount necessary to establish reserves sufficient to provide Premium Assistance payments to all participating eligible annuitants during the fiscal year that immediately follows the year the employer contribution is made. For GASB accounting purposes, the actuarial liability has been determined under the entry age normal actuarial cost method, and the ARC is equal to the entry age normal cost for health insurance plus an amount that will amortize the entry age unfunded actuarial liability for health insurance over a period of 30 years using level dollar open amortization. The entry age actuarial cost method was selected for this calculation because it meets the GASB parameters for determining actuarial liability and normal cost, and is the cost method specified by the PSERS Code for the PSERS pension plan.

Each annual actuarial valuation for Premium Assistance includes calculations that are based on the Premium Assistance benefits provided under the terms of the substantive plan in effect at the time of each valuation. The valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. The actuarial calculations for Premium Assistance reflect a long-term perspective. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Other significant actuarial assumptions employed by the actuary as of June 30, 2014, the date of the most recent actuarial valuation were:

- Investment return - 7.50%, includes inflation at 3.00%
- Salary increases - 5.50%, which reflects an allowance for inflation of 3.00%, real wage growth of 1%, and merit or seniority increases of 1.50%
- Multiple decrement tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary

### ii. Health Options Program

The Health Options Program (HOP) is a PSERS-sponsored voluntary health insurance program for the sole benefit of annuitants of PSERS, spouses of annuitants, survivor annuitants and their dependents who participate in HOP. The HOP is funded exclusively by the premiums paid by its participants for the benefit coverage they elect. HOP offers several health plans. Participants may select among a self-funded Medicare supplement plan, two Medicare Rx plans, and multiple Medicare Advantage plans for those eligible for Medicare. Participants not eligible for Medicare have a choice of a self-funded high deductible indemnity plan and multiple managed care plans. Medicare Advantage and managed care plans are available to retirees residing in the plan's service area. The Medicare Advantage and managed care plans are provided by private insurance companies or managed care organizations and benefits are fully insured. The Medicare supplement and high deductible plans are self-funded and claims are adjudicated by a third party administrator. The Medicare Rx Options and the prescription drug benefit of the high deductible plan for those not eligible for Medicare are also self-funded. HOP uses a pharmacy benefits manager to administer the benefits. Effective January 1, 2006, PSERS entered into an Employer/Union Entity contract with the Centers for Medicare and Medicaid Services (CMS) to operate a voluntary Medicare Prescription Drug Plan (PDP). Monthly premiums are received from CMS covering the 69,035 participants in the PDP. An independent actuarial consulting firm sets the rates for the self-funded benefits. The HOP maintains reserves for claims that are Incurred But Not Reported (IBNR) and for claim fluctuation for the self-funded benefit plans. At June 30, 2015 and 2014, PSERS recorded \$13,571,000 and \$16,308,000, respectively, in IBNR. The IBNR is included in benefits payable. The PSERS pension fund assets are not available to fund or satisfy obligations of the HOP.

**Notes to Financial Statements (continued)**

**2. Summary of Significant Accounting Policies**

**(A) Basis of Accounting**

The financial statements of the System are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Member and employer contributions are recognized in the period for which employees' salaries are reported. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

The accounting and reporting policies of the System conform to accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions in fiduciary net position during the reporting period. Actual results could differ from those estimates.

**(B) Investments**

The System's investments are reported at fair value. Fair value is the amount that the System can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. Short-term securities are carried at cost, which approximates fair value, unless they have published market prices or quotations from national securities exchanges or securities pricing services, in which case they are valued at the published market price. Fixed income securities and common and preferred stocks are generally valued based on published market prices and quotations from national securities exchanges or securities pricing services. Securities which are not traded on a national securities exchange are valued by the respective fund manager or other third parties based on similar sales.

Directly-owned real estate investments are primarily valued based on appraisals performed by independent appraisers and, for properties not appraised, the present value of the projected future net income stream is used. Real estate owned investments are reported net of related debt borrowed against the market value of the property. As of June 30, 2015 and 2014, \$132,000,000 in line of credit advances were netted against the related property valuation. The line of credit balance is due on March 4, 2016. The line is payable at an interest rate equivalent to the lender's commercial paper rate plus 75 basis points and

is collateralized by certain fixed income investments of the System.

For alternative investments, which include private equity, private debt, venture capital and equity real estate investments where no readily ascertainable market value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Futures contracts, foreign exchange contracts, and options are marked-to-market daily based on published market prices and quotations from national securities exchanges or securities pricing services. The changes in market value are recognized as part of net appreciation/depreciation in the fair value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Collective trust fund investments (CTF) consist primarily of domestic and international institutional funds. The funds generally do not pay interest or dividends to shareholders and reinvest all income earned on securities held by the fund. The fair value of CTF is based on the reported share value of the respective fund. CTF are managed by state chartered banks for which various state banking departments have regulatory oversight and investment advisors for which regulatory agencies such as the Securities and Exchange Commission have regulatory oversight. Investments that are not subject to this oversight are subject to annual independent audits.

In accordance with PSERS' investment guidelines, cash collateral from securities loaned is invested in a short-term collateral investment pool. The pool is invested entirely in overnight repurchase agreements carried at amortized cost which approximates fair value.

Investment expenses consist of investment manager fees and those administrative expenses directly related to the System's investment operations. Investment proceeds receivable generally includes unsettled investment sales and unsettled investment purchases are included in investment purchases and other liabilities. At June 30, 2015, investment proceeds receivable also includes \$771,000,000 in receivables due to the sale of limited partnership interests during FY 2015.

**(C) Capital Assets**

Capital assets consist primarily of data processing equipment, software, and internally developed computer software recognized as intangible assets. Capital assets are depreciated using the straight-line method over an estimated useful life of five years. Intangible assets are amortized



**Notes to Financial Statements (continued)**

using the straight-line method over an estimated useful life of twenty years for assets purchased prior to July 1, 2012 and 5 years for assets purchased after June 30, 2012.

**(D) Benefits Payable**

Benefits payable identifies the obligations of the System, on an accrual basis, at the end of the fiscal year. It includes the estimated retirement and death benefits payable, premium assistance benefits payable, and the HOP IBNR claims for its participants.

**(E) Pensions for Employees of the System**

For purposes of measuring the net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense, information about the fiduciary net position of the Pennsylvania State Employees' Retirement System (SERS) and additions to/deductions from SERS' fiduciary net position have been determined on the same basis as they are reported by SERS, please refer to Note 7 for additional information regarding SERS. PSERS' net pension liability for its employees to SERS is reported in Accounts payable and accrued expenses. The pension expense is reported in Administrative expenses and is detailed on the Schedule of Operating Expenses Supplementary Schedule.

**(F) Compensated Absences**

The System uses the accrual basis of accounting for measuring vacation leave, sick leave, and other compensated absences liabilities. Employees of the System are paid for accumulated vacation leave upon termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between 30% and 100% of sick days available at retirement, up to 161 maximum days paid. As of June 30, 2015 and 2014, \$3,647,000 and \$3,649,000, respectively, were accrued for unused vacation and sick leave for the System's employees and are included in "Accounts payable and accrued expenses" on the Statements of Fiduciary Net Position.

**(G) Participant Premium Advances**

Premium advances in the fiscal years ended June 30, 2015 and 2014 are for HOP premiums related to health care coverage to be provided in calendar year 2015 and 2014, respectively.

**(H) Federal Income Taxes**

The Internal Revenue Service (IRS) issued a determination letter dated September 30, 2013 which stated that the plan and its underlying trust qualify under the provisions of Section 501(a) of the Internal Revenue Code (IRC) and therefore are exempt from federal income taxes.

**(I) Risk Management**

The System is exposed to various liabilities and risks of loss, including, without limitation, the ordinary risks of investment losses, risks related to theft or destruction of assets, liabilities resulting from injuries to employees, and liabilities resulting from court challenges to fiduciary decisions. As an administrative agency of the Commonwealth of Pennsylvania, the System is accorded sovereign immunity. For claims not shielded by sovereign immunity, the System participates in certain Commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage for the protection of the System. The System has implemented a self-insurance program for fiduciary and director and officer liability coverage. During the past three fiscal years, insurance settlements did not exceed insurance coverage.

**(J) Reclassifications**

Certain 2014 amounts have been reclassified in conformity with the 2015 presentation. These reclassifications had no effect on net position restricted for pension benefits or the change in fiduciary net position.

**(K) Members Receivables**

Members receivables include an amount for members' obligations to the System for the purchase of service credit. Members have a variety of options to remit purchase of service payments:

- Remit a lump sum payment.
- Request an installment plan from one to seven years where the member's employer establishes a payroll

The following is a summary of the members receivables at June 30, 2015 and 2014:

	(Dollar Amounts in Thousands)	
	2015	2014
<b>Pension:</b>		
Member contributions	\$ 74,488	\$ 69,874
Purchase of service	245,180	234,727
Other	5,617	5,704
<b>Total Members Receivables</b>	<b>\$ 325,285</b>	<b>\$ 310,305</b>



**Notes to Financial Statements (continued)**

deduction process. The member's employer then forwards monthly payments of the withheld amounts to PSERS.

- Accept an actuarial reduction debt through which the amount of the purchase plus accumulated interest will reduce the member's retirement or death benefit.
- Rollover funds from an eligible distribution.

**(L) Interfund Transactions and Balances**

Interfund transfers of assets take place on a regular recurring basis between Pension and Premium Assistance. The transfers occur upon receipt of employer contributions and payment of benefits or expenses. The interfund receivables and payables related to interfund activity are classified under receivables and liabilities on the financial statements.

**(M) Adoption of New Accounting Standards**

During the fiscal year ended June 30, 2015, the System adopted GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* which replaces the requirements of GASB Statement Nos. 25 and 50 related to pension plans that are administered through trusts or equivalent arrangements.

During the fiscal year ended June 30, 2015, the System adopted GASB Statement No. 69, *Government Combinations and Disposals of Government Operations*. Upon examination of GASB 69, it was determined to have no current impact on PSERS.

During the fiscal year ended June 30, 2015, the System adopted GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date* which is to be applied simultaneously with the provisions of GASB Statement No. 68.

During the fiscal year ended June 30, 2014, the System adopted GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*. This Statement specifies items that were previously reported as assets and liabilities that should now be reported as deferred outflows of resources or deferred inflow of resources.

During the fiscal year ended June 30, 2014, the System adopted GASB Statement No. 67 which addresses accounting and financial reporting requirements for pension plans. The requirements for GASB No. 67 require changes in presentation of the financial statements, notes to the financial statements, and required supplementary information. Significant changes include an actuarial calculation of total and net pension liability. It also includes comprehensive footnote disclosure regarding the pension

liability, the sensitivity of the net pension liability to the discount rate, and increased investment activity disclosures.

During the fiscal year ended June 30, 2014, the System adopted GASB Statement No. 70, *Accounting and Financial Reporting for Nonexchange Financial Guarantees*. This Statement establishes accounting and financial reporting standards for situations where a state or local government, as a guarantor, agrees to indemnify a third-party obligation holder under specified conditions. Upon examination of GASB 70, it was determined to have no current impact on PSERS.

**(N) Change in Accounting Principle**

Due to the implementation of GASB Statement No. 68, the beginning net position restricted for pension and postemployment healthcare benefits has been restated by \$(41,543,000). The purpose of the restatement was to record the beginning net pension liability of \$(42,989,000) and the beginning deferred outflows of resources for contributions subsequent to the measurement date of \$1,446,000 to SERS.

**3. Description of Accounts**

The Code requires the System to maintain the following accounts which represent reserves held for future and current benefit payments as follows and as illustrated in the table at the top of the following page.

**(A) State Accumulation Account**

The State Accumulation Account is credited with contributions from the Commonwealth and the employers. Additionally, interest earnings of the System (after crediting the Members' Savings Account with 4% interest and the reserve for retirement with 5.50% statutory interest) are credited to this account. Each year, the necessary amounts, as determined by the actuary for the payment of retirement, disabilities, and death benefits, are transferred from the State Accumulation Account to the Annuity Reserve Account increasing the reserve credit to the 7.50% valuation assumption rate determined by the actuary. All administrative expenses necessary for the operation of the System, except for Premium Assistance and HOP expenses, are paid from the State Accumulation Account.

**(B) Members' Savings Account**

The Members' Savings Account is credited with all contributions made by active members of the System. Interest is added to the member's individual account at an annual rate of 4%.

## Notes to Financial Statements (continued)

	(Dollar Amounts in Thousands)	
	2015	2014
<b>Pension:</b>		
State Accumulation Account	\$ (15,751,974)	\$ (13,136,437)
Members' Savings Account	14,079,658	13,554,229
Annuity Reserve Account	53,257,837	52,562,323
	<u>\$ 51,585,521</u>	<u>\$ 52,980,115</u>
<b>Postemployment Healthcare:</b>		
Health Insurance Account	\$ 120,643	\$ 112,060
Health Insurance Program Account	178,910	169,749
	<u>\$ 299,553</u>	<u>\$ 281,809</u>

Upon death or retirement of a member, the accumulated contributions plus interest are transferred to the Annuity Reserve Account for subsequent payment of benefits.

**(C) Annuity Reserve Account**

The Annuity Reserve Account represents the amounts transferred from the Members' Savings and State Accumulation Accounts, plus additional contributions made by the Commonwealth and employers for the payment of supplemental annuities and cost-of-living increases. All death, disability, and retirement benefits are paid from this account. Annual interest of 5.50% is credited to the Annuity Reserve Account.

**(D) Health Insurance Account**

The Health Insurance Account is credited with contributions from the Commonwealth and the employers for Premium Assistance. Effective January 1, 2002, under the provisions of Act 9 of 2001, 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 Health Insurance Account pays all administrative expenses necessary to operate the Premium Assistance.

**(E) Health Insurance Program Account**

The Health Insurance Program Account is credited with premiums from members of the HOP and from CMS. All benefits related to the HOP (premium payments to the insurance companies and self-funded benefits) are paid from this account. The Health Insurance Program Account pays all administrative expenses necessary to operate the HOP.

**4. Investments****(A) Summary of Investments**

The Board has the responsibility to invest and reinvest available funds of the System in accordance with the guidelines and limitations set forth in the Code and other applicable state law. The Board accomplishes the daily management of the System's investments through investment advisors who act as agents for the System and through internal investment managers.

The Board invests the funds of the System using the Prudent Investor Standard, as articulated in the Code, which means "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 Board has adopted its investment policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System. See the summary of investments table on the following page.

**(B) Deposit and Investment Risk Disclosures****i. Deposits**

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, the System would not be able to recover the value of the deposits. The Commonwealth's Treasury Department is the custodian of the System's funds. Commonwealth Treasury Department deposits must be held in insured depositories approved by the Commonwealth's Board of Finance and Revenue and must be fully collateralized.

The System, through its third party administrator, maintains certain bank deposits for the operation of its voluntary HOP. These deposits are not required to be collateralized by statute or policy. These deposits totaled \$97,483,000 and \$98,774,000 at June 30, 2015 and 2014, respectively, and are under the custody of M&T Bank which has an A- rating by Standard and Poor's (S&P) and an A3 rating by Moody's Investor Services (Moody's).

## Financial Section

### Notes to Financial Statements (continued)

A summary of the fair value of investments at June 30, 2015 and 2014 follows:

	(Dollar Amounts in Thousands)	
	2015	2014
<b>Pension investments:</b>		
<b>Short-term:</b>		
PSERS Short-Term Investment Fund	\$ 3,250,700	\$ 3,730,820
Other domestic short-term	82,214	216,570
International short-term	175,577	132,296
	<u>3,508,491</u>	<u>4,079,686</u>
<b>Fixed income:</b>		
Domestic asset-backed and mortgage-backed securities	1,269,736	1,739,734
U.S. government and agency obligations	1,399,117	1,523,266
Domestic corporate and taxable municipal bonds	1,594,524	1,103,634
International fixed income	822,544	1,165,580
	<u>5,085,921</u>	<u>5,532,214</u>
<b>Common and preferred stock:</b>		
Domestic common and preferred stock	5,216,388	6,675,218
International common and preferred stock	6,203,747	4,176,239
	<u>11,420,135</u>	<u>10,851,457</u>
<b>Collective trust funds</b>	<u>13,102,950</u>	<u>11,795,390</u>
<b>Real estate:</b>		
Equity real estate	6,073,946	6,944,983
Directly-owned real estate	312,349	285,510
	<u>6,386,295</u>	<u>7,230,493</u>
<b>Alternative investments:</b>		
Private equity	6,055,821	8,748,284
Private debt	3,791,320	3,471,149
Venture capital	955,811	967,932
	<u>10,802,952</u>	<u>13,187,365</u>
<b>Pension investments at fair value</b>	<u>\$ 50,306,744</u>	<u>\$ 52,676,605</u>
<hr/>		
<b>Postemployment healthcare investments:</b>		
<b>Premium Assistance:</b>		
PSERS Short-Term Investment Fund	\$ 71,106	\$ 53,052
Other domestic short-term	14,889	11,047
	<u>85,995</u>	<u>64,099</u>
<b>Health Options Program:</b>		
PSERS Short-Term Investment Fund	88,809	88,629
Other domestic short-term	97,483	98,774
	<u>186,292</u>	<u>187,403</u>
<b>Postemployment healthcare investments at fair value</b>	<u>\$ 272,287</u>	<u>\$ 251,502</u>

## Notes to Financial Statements (continued)

### ii. Investment Risks

The System's investments, including derivatives and other similar investments, may be subject to various risks. Among these risks are concentration of credit risk, custodial credit risk, credit risk, interest rate risk, and foreign currency risk. The policies addressing each one of these risks, discussed in more detail below, are contained within the Investment Policy Statement, Objectives, and Guidelines reviewed and approved annually by the Board. Due to the level of risk associated with certain investments, it is possible that changes in the values of investments may occur in the near term and that such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

#### (a) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. As of June 30, 2015 and 2014, the System had no single issuer that exceeded 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments were excluded.

#### (b) Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments, where securities are used as evidence of the investment, are held by the custodian in book-entry form in the System's name. Those investments are defined as insured or registered investments for which the securities are held by the System or its agent and, therefore, have a very minimal level of custodial credit risk. The remaining investments, which do not have securities that are used as evidence of the investment, are primarily in collective trust funds and limited partnerships, which include real estate and alternative investments.

#### (c) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating organizations (NRSRO) such as Fitch Investor Services (Fitch), Moody's, and S&P. Annually, the Board establishes an asset allocation plan. This plan manages the overall credit risk of the fixed income asset class through a clearly defined long-term asset allocation policy. This policy

establishes a long-term target allocation of the fixed income asset class at 23.0% of the investment portfolio. The fixed income target allocation consists of:

- An allocation of 5.0% of the portfolio has been made to the U.S. core plus segment of the fixed income asset class benchmarked to the Barclays Capital U.S. Aggregate Index. The U.S. core plus allocation is composed of primarily investment grade, relatively liquid, public domestic bonds with an overall weighted-average NRSRO credit rating of A or better.
- An allocation of 6.0% of the portfolio has been made to the high yield segment of the fixed income asset class benchmarked to the Barclays Capital U.S. High Yield Index. The high yield allocation is composed of less liquid public non-investment grade fixed income securities with an overall weighted-average NRSRO credit rating of B- or better.
- An allocation of 6.0% of the portfolio has been made to the Treasury Inflation-Protected Securities (TIPS) segment of the fixed income asset class benchmarked to the Barclays Capital U.S. TIPS Index and composed of primarily government issued TIPS with an overall weighted-average NRSRO credit rating of AA or better. The portfolio manager is permitted to leverage the portfolio using TIPS total return swaps up to 3:1.
- An allocation of 1.0% of the portfolio has been made to the non-U.S. developed markets fixed income asset class benchmarked to the Barclays Capital Global Aggregate GDP-weighted Developed Market ex-U.S. (Unhedged) Index composed of primarily investment grade, relatively liquid non-U.S. public bonds with an overall weighted-average NRSRO credit rating of A or better.
- An allocation of 2.0% of the portfolio has been made to the emerging markets fixed income asset class benchmarked to the Barclays Capital EM Local Currency-Government-MV Weighted (Unhedged) -10% Country Cap Index composed of primarily investment grade, relatively liquid non-U.S. public bonds with an overall weighted-average NRSRO credit rating of BB- or better.
- An allocation of 3.0% of the portfolio has been made to cash benchmarked to the Merrill Lynch U.S. Treasury Bill 0-3 Months Index composed of primarily investment grade, relatively liquid U.S. and non-U.S. public bonds with an overall weighted-average NRSRO credit rating of AA or better.

**Notes to Financial Statements (continued)**

The following table discloses aggregate market value by credit quality rating category. Many securities have ratings from more than one NRSRO and sometimes those ratings differ from one NRSRO to another. The data listed below uses the rating (expressed as S&P equivalent) available from Fitch, Moody's and/or S&P that indicates the lowest credit quality at June 30, 2015 and 2014.

Quality Rating	(Dollar Amounts in Thousands)	
	2015 Fair Value	2014 Fair Value
AAA	\$ 624,399	\$ 533,518
AA	417,854	613,511
A	398,294	460,003
BBB	693,513	648,371
BB and Below	309,954	362,024
NR*	13,638,198	13,249,826
<b>Total Exposed to Credit Risk</b>	<b>16,082,212</b>	<b>15,867,253</b>
<b>US Government Guaranteed**</b>	<b>1,578,899</b>	<b>2,189,602</b>
<b>Total Fixed Income and Short-Term Investments</b>	<b>\$ 17,661,111</b>	<b>\$ 18,056,855</b>

\* Not Rated securities include \$8,794,411 and \$8,194,002 in collective trust funds at June 30, 2015 and 2014 respectively.

\*\* Comprised of U.S. government and agency obligations explicitly guaranteed by the U.S. government and not considered to have credit risk.

For derivatives exposed to credit risk, the table below presents aggregate market value by the least favorable credit rating provided by NRSROs at June 30, 2015 and 2014.

Quality Rating	(Dollar Amounts in Thousands)	
	2015 Fair Value	2014 Fair Value
A	\$ (15,821)	\$ 87,881
BBB	(2,179)	-
<b>Total Swaps-Total Return</b>	<b>\$ (18,000)</b>	<b>\$ 87,881</b>

**(d) Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of a fixed income investment. The System manages its interest rate risk by diversifying the fixed income portfolio and maintaining the fixed income portfolio at a Board-approved effective duration range of the benchmark index.

Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The higher the duration, the greater the changes in fair value when interest

rates change. For example, a duration of 4.0 would mean that, given a 100-basis point change up/down in rates, a bond's price would move down/up approximately 4.0%. PSERS measures interest rate risk using option-adjusted duration, which recognizes the fact that yield changes may change the expected cash flows due to embedded options.

**(e) Foreign Currency Risk**

Foreign currency risk is the risk that fluctuations in exchange rates will adversely affect the fair value of an investment. As part of the System's program to manage risk and enhance returns, the System invests in non-U.S. markets. Investment managers in non-U.S. equity and global fixed income may hedge their non-U.S. foreign currency exposure back to U.S. dollars. During FY 2014, the System adopted an 8% total fund-level currency hedge on foreign currency exposure to developed market currencies which include, but are not limited to, the Australian dollar, Swiss franc, Euro, British pound sterling, Hong Kong dollar, and Japanese yen.

**(C) Securities Lending**

During the year ended June 30, 2015, the System entered into a securities lending program with a third party agent. Under this program, the lending agent loans securities (equities, fixed income and money market instruments) to independent brokers and dealers in exchange for U.S. dollar cash collateral in an amount not less than 102% of the fair value of any securities loaned except for non-U.S. corporations for which 105% of the fair value is required. Collateral is marked-to-market daily. If the fair value of the collateral held falls below the minimum guidelines for securities loaned, additional collateral is obtained. The lending agent invests the cash collateral in accordance with reinvestment guidelines approved by the System.

As of June 30, 2015 and 2014, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Under the securities lending program, the lending agent provides indemnification to the System if a borrower fails to return borrowed securities (and the collateral is inadequate to replace the loaned securities) or fails to pay income distributions on them. The lending agent also provides indemnification to the System if investment of cash collateral results in investment loss. There were no losses during the fiscal years ended June 30, 2015 and 2014 resulting from a default of the borrowers or the lending agent.

All securities loans can be terminated on demand by either the System or the borrower, although the average term of the loan is one day. There were no term loans as of June 30, 2015 and 2014.



## Notes to Financial Statements (continued)

At June 30, 2015 and 2014, the System's fixed income portfolio had the following option-adjusted durations by fixed income sector:

Investment Type	(Dollar Amounts in Thousands)			
	2015		2014	
	Option-Adjusted Duration	Fair Value	Option-Adjusted Duration	Fair Value
Domestic asset-backed and mortgage-backed securities	1.0	\$ 1,269,736	1.3	\$ 1,739,734
U.S. government and agency obligations	6.7	1,399,117	7.6	1,523,266
Domestic corporate and taxable municipal bonds	2.9	1,594,524	3.3	1,103,634
International fixed income	5.5	822,544	5.3	1,165,580
Collective trust funds	3.7	8,794,411	4.1	8,194,002
PSERS Short-Term Investment Fund	0.1	3,410,615	0.1	3,872,501
<b>Total</b>	3.0*	<b>\$ 17,290,947</b>	3.3*	<b>\$ 17,598,717</b>

\* Fixed income investment managers enter into futures contracts to adjust the durations of their portfolios as a whole rather than any particular investment type within the portfolio. In total, the futures contracts have adjusted PSERS' total portfolio duration upward by 0.1 at June 30, 2015 and 2014. The total portfolio option-adjusted duration is calculated by weighting each investment type by fair value.

Cash collateral is invested in a short-term collateral investment pool that is managed by the lending agent, is segregated from all other clients of the lending agent, and is not subject to custodial credit risk. The System's income from securities lending represents its pro-rata share from participating in the program. The weighted-average maturity of the investments in the pool was one day at June 30, 2015 and 2014. During the fiscal years ended June 30, 2015 and 2014, the mismatch between the maturities of the investments made with cash collateral and the maturities of the securities loans may have posed some interest rate risk to the System. In the event of a default, the lending agent may use the collateral to replace the loaned securities.

As of June 30, 2015, the fair value of loaned securities was \$1,179,064,000. The fair value of the associated collateral was \$1,207,170,000, all of which was cash. As of June 30, 2014, the fair value of loaned securities was \$2,305,109,000,

which includes \$1,722,457,000 of loaned securities which are collateralized by securities and irrevocable letters of credit that are not included in the Statements of Fiduciary Net Position. The fair value of the associated collateral was \$2,476,587,000 of which \$596,936,000 was cash.

## 5. Derivative and Other Similar Investments

The System enters into a variety of financial contracts, which include options and futures. The System also enters into foreign exchange positions, such as forward and spot contracts to obtain or hedge foreign currency exposure; swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts, and U.S. Treasury strips. The System is not a dealer, but an end-user of these instruments. The contracts are used primarily to enhance performance and reduce the volatility of the

At June 30, 2015 and 2014, the System had the following foreign currency exposures for its derivatives (except for foreign exchange contracts which are included in Note 5):

Currency	(Dollar Amounts in Thousands)	
	2015	2014
	Notional Value	Notional Value
Japanese yen	\$ 136,159	\$ 501,484
Euro	212,058	144,193
British pound sterling	140,441	118,565
Canadian dollar	45,424	40,219
Australian dollar	41,481	29,941
Hong Kong dollar	4,056	1,640
<b>Total Futures Contracts and Total Return Swaps</b>	<b>\$ 579,619</b>	<b>\$ 836,042</b>

## Notes to Financial Statements (continued)

Non-U.S. currency exposures at June 30, 2015 and 2014:

<b>2015</b>						
(Dollar Amounts in Thousands)						
Currency	Equity	Fixed Income	Alternative Investments & Real Estate	Short-Term*	Currency Hedge	Total Fair Value
Euro	\$ 1,134,258	\$ 106,466	\$ 2,163,559	\$ 32,433	\$ (2,069,019)	\$ 1,367,697
South Korean won	123,179	37,570	-	241	(5,305)	155,685
British pound sterling	1,137,744	35,406	60,984	45,979	(1,154,757)	125,356
Taiwan new dollar	107,355	-	-	(2)	(1,188)	106,165
South African rand	59,842	40,085	-	262	(1,757)	98,432
Mexican new peso	23,208	49,808	-	9,664	75	82,755
Indian rupee	69,658	7,933	-	-	-	77,591
Brazil real	26,411	65,829	-	952	(18,192)	75,000
Hong Kong dollar	237,528	-	-	2,549	(176,248)	63,829
Other non-U.S. currencies	2,861,729	277,629	38	77,944	(3,130,990)	86,350
<b>Total</b>	<b>\$ 5,780,912</b>	<b>\$ 620,726</b>	<b>\$ 2,224,581</b>	<b>\$ 170,022</b>	<b>(6,557,381)</b>	<b>\$ 2,238,860</b>

<b>2014</b>						
(Dollar Amounts in Thousands)						
Currency	Equity	Fixed Income	Alternative Investments & Real Estate	Short-Term*	Currency Hedge	Total Fair Value
Euro	\$ 676,095	\$ 211,282	\$ 2,991,462	\$ 50,951	\$ (1,941,107)	\$ 1,988,683
British pound sterling	702,457	54,218	56,465	51,156	49,029	913,325
Canadian dollar	270,360	27,266	48	6,681	(87,043)	217,312
Japanese yen	629,041	57,363	-	46,142	(535,133)	197,413
Australian dollar	213,541	20,878	-	5,992	(60,118)	180,293
South Korean won	114,168	43,328	-	542	2,719	160,757
Hong Kong dollar	144,030	-	-	1,806	177	146,013
Swedish krona	128,351	2,572	-	154	(9,108)	121,969
Taiwan new dollar	100,911	-	-	587	(386)	101,112
Other non-U.S. currencies	759,979	469,532	-	20,031	(180,847)	1,068,695
<b>Total</b>	<b>\$ 3,738,933</b>	<b>\$ 886,439</b>	<b>\$ 3,047,975</b>	<b>\$ 184,042</b>	<b>(2,761,817)</b>	<b>\$ 5,095,572</b>

\* Includes investment receivables and payables

**Notes to Financial Statements (continued)**

portfolio. The System is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The System generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The System is exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions.

The notional or contractual amounts of derivatives indicate the extent of the System's involvement in the various types and uses of derivative financial instruments and do not measure the System's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives.

Futures contracts are contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that a counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the System enters into short sales, sales of securities it does not presently own, to neutralize the market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are

provided by investment securities pledged as collateral and by cash held by various brokers. Although the System has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The value of securities pledged and the amount of cash held at June 30, 2015 and 2014 represent a restriction on the amount of assets available as of year-end for other purposes.

Option contracts provide the option purchaser with the right, but not the obligation, to buy or sell the underlying security at a set price during a period or at a specified date. The option writer is obligated to buy or sell the underlying security if the option purchaser chooses to exercise the option. The System generally uses exchange listed currency, index, stock, and futures options. The System held no option positions at June 30, 2015 and 2014.

Foreign exchange contracts involve an agreement to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. To reduce the risk of counterparty non-performance, the investment managers generally enter into these contracts with institutions regarded as meeting high standards of credit worthiness. The contracts reported below primarily include forwards. The \$8,302,553,000 of foreign currency contracts outstanding at June 30, 2015 consist of "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currencies of \$906,950,000 and "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currencies of \$7,395,603,000. The \$5,644,996,000 of foreign currency contracts outstanding at June 30, 2014 consist of "buy" contracts

The table presented below summarizes the aggregate notional or contractual amounts for the System's derivative financial instruments at June 30, 2015 and 2014.

	(Dollar Amounts in Thousands)	
	2015	2014
<b>Futures contracts - long:</b>		
Treasury futures	\$ 1,835,560	\$ 1,724,904
U.S. equity futures	1,096,741	605,732
Non-U.S. equity futures	488,995	748,268
Commodity futures	381,855	815,786
Non-U.S. bond futures	128,229	102,093
<b>Futures contracts - short:</b>		
Treasury futures	27,541	105,342
U.S. equity futures	24,008	94,272
Commodity futures	-	26,553
Non-U.S. bond futures	-	7,087
Foreign exchange forward and spot contracts, gross	8,302,553	5,644,996
Swaps - total return type	4,224,789	3,203,881

**Notes to Financial Statements (continued)**

of \$1,465,116,000 and “sell” contracts of \$4,179,880,000. The unrealized loss on contracts of \$(24,982,000) and \$(32,195,000) at June 30, 2015 and 2014, respectively, is included in the Statements of Fiduciary Net Position and represents the fair value of the contracts.

Swap agreements provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes, or interest rates. During the year ended June 30, 2015 and 2014, the System entered into total return type swaps. Under the total return type swap arrangements, the System receives the net return of certain equity securities or indexes in exchange for a short-term rate minus a spread or a predetermined fixed charge. The receivable (payable) on the total return type swap contracts of \$(18,000,000) and \$87,881,000 at June 30, 2015 and 2014, respectively, is included in the Statements of Fiduciary Net Position and represents the fair value of the contracts. The contracts have varying maturity dates ranging from July 6, 2015 to July 5, 2016.

The System also invests in mortgage-backed securities (MBS) such as CMOs and MBS forwards to maximize yields. These securities are sensitive to prepayments of mortgages, which may result from a drop in interest rates. The MBS forwards are subject to credit risk in the event of nonperformance by counterparties. The fair value of CMOs at June 30, 2015 and 2014 is \$663,492,000 and \$990,794,000, respectively.

The System invests in U.S. Treasury strips which essentially act as zero coupon bonds and are subject to market volatility from a rise or drop in interest rates.

Through certain collective trust funds, the System also indirectly holds various derivative financial instruments. The collective trust funds invest in futures and options thereon; forward foreign currency contracts; options; interest rate, currency, equity, index, and total return swaps; interest-only strips; and CMOs, to enhance the performance and/or reduce the volatility of their portfolios.

The fair values of derivative instruments outstanding at June 30, 2015 and 2014 are classified by type and by the changes in fair value of the derivative instrument in the table below.

(Dollar Amounts in Thousands)

Investment Derivative Type	Change in Fair Value Gain/(Loss) FY 2015		Fair Value at June 30, 2015	
	Classification	Amount	Classification	Amount
Futures	Investment income	\$ (52,839)	Receivable/(Payable)	\$ (52,839)
Total return type swaps	Investment income	(18,000)	Receivable/(Payable)	(18,000)
Foreign exchange contracts	Investment income	(24,982)	Receivable/(Payable)	(24,982)
<b>Total</b>		<b>\$ (95,821)</b>		<b>\$ (95,821)</b>

Investment Derivative Type	Change in Fair Value Gain/(Loss) FY 2014		Fair Value at June 30, 2014	
	Classification	Amount	Classification	Amount
Futures	Investment income	\$ 21,549	Receivable/(Payable)	\$ 21,549
Total return type swaps	Investment income	87,881	Receivable/(Payable)	87,881
Foreign exchange contracts	Investment income	(32,195)	Receivable/(Payable)	(32,195)
<b>Total</b>		<b>\$ 77,235</b>		<b>\$ 77,235</b>

## Notes to Financial Statements (continued)

The following table summarizes the System's foreign exchange contracts by currency at June 30, 2015 and 2014:

<b>2015</b>				
(Dollar Amounts in Thousands)				
<b>Currency</b>	<b>Buys</b>	<b>Unrealized Gain/(Loss)</b>	<b>Sells</b>	<b>Unrealized Gain/(Loss)</b>
Euro	\$ 251,588	\$ (906)	\$ 2,289,025	\$ 26,764
British pound sterling	152,820	912	1,307,577	(34,253)
Japanese yen	111,106	425	1,396,701	(23,285)
Australian dollar	109,548	(1,376)	473,944	(2,207)
Canadian dollar	96,932	(1,084)	637,493	2,994
New Zealand dollar	39,460	(1,303)	81,090	4,048
Swedish krona	37,599	(197)	187,052	215
Brazilian real	32,138	245	50,330	(68)
Polish zloty	20,668	(409)	11,252	129
Norwegian krone	12,187	(20)	50,613	666
Romanian leu	6,909	(6)	-	-
Philippine dollar	6,526	(76)	83	-
Swiss franc	5,535	24	483,605	3,211
Russian ruble	5,348	(273)	13,168	727
Singapore dollar	1,358	11	85,102	(549)
South Korean won	44	-	5,349	(15)
Hong Kong dollar	29	-	176,277	(7)
Danish krone	-	-	95,058	1,441
Israeli shekel	-	-	34,999	(567)
Turkish lira	-	-	5,517	(98)
Other non-US currencies	17,155	(84)	11,368	(11)
<b>Total</b>	<b>\$ 906,950</b>	<b>\$ (4,117)</b>	<b>\$ 7,395,603</b>	<b>\$ (20,865)</b>

<b>2014</b>				
(Dollar Amounts in Thousands)				
<b>Currency</b>	<b>Buys</b>	<b>Unrealized Gain/(Loss)</b>	<b>Sells</b>	<b>Unrealized Gain/(Loss)</b>
British pound sterling	\$ 487,597	\$ 3,772	\$ 438,568	\$ (7,071)
Japanese yen	249,459	750	784,593	(7,534)
Euro	235,252	1,433	2,144,922	(15,155)
Australian dollar	194,925	1,508	255,045	(4,251)
Canadian dollar	128,865	1,836	215,908	(3,933)
New Zealand dollar	32,404	70	54,237	(839)
Swedish krona	28,814	86	25,512	(56)
Norwegian krone	24,614	(417)	17,420	456
Swiss franc	22,514	(2)	214,648	(2,716)
Philippine dollar	14,670	69	1,990	(7)
Brazilian real	8,287	38	10,875	(130)
Polish zloty	5,944	8	5,960	(48)
Malaysian ringgit	5,483	47	2,003	1
Other non-US currencies	26,288	(101)	8,199	(9)
<b>Total</b>	<b>\$ 1,465,116</b>	<b>\$ 9,097</b>	<b>\$ 4,179,880</b>	<b>\$ (41,292)</b>



Notes to Financial Statements (continued)

6. Net Pension Liability of Participating Employers

The components of the net pension liability of the participating employers at June 30, 2015 were as follows:

(Dollar amounts in thousands)	
Total pension liability	\$ 94,900,830
Plan fiduciary net position	(51,585,521)
Employer net pension liability	\$ 43,315,309
Plan fiduciary net position as a percentage of the total pension liability	54.36%

**Actuarial Assumptions**

The total pension liability as of June 30, 2015 was determined by rolling forward the System’s total pension liability as of June 30, 2014 to June 30, 2015 using the following actuarial assumptions, applied to all periods included in the measurement:

- Actuarial cost method - Entry Age Normal - level % of pay
- Investment return - 7.50%, includes inflation at 3.00%
- Salary increases - Effective average of 5.50%, comprised of inflation of 3.00%, real wage growth of 1%, and merit or seniority increases of 1.50%
- Mortality rates were based on the RP-2000 Combined Healthy Annuitant Tables (male and female) with age set back 3 years for both males and females. For disabled annuitants the RP-2000 Combined Disabled Tables (male and female) with age set back 7 years for males and 3 years for females.

**Investments**

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The pension plan’s policy in regard to the allocation of invested plan assets is established and may be amended by the Board. Plan assets are managed with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension.

For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 3.08%. The

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Public markets global equity	22.5%	4.8%
Private markets (equity)	15.0%	6.6%
Private real estate	12.0%	4.5%
Global fixed income	7.5%	2.4%
U.S. long treasuries	3.0%	1.4%
TIPS	12.0%	1.1%
High yield bonds	6.0%	3.3%
Cash	3.0%	0.7%
Absolute return	10.0%	4.9%
Risk parity	10.0%	3.7%
MLPs/Infrastructure	5.0%	5.2%
Commodities	8.0%	3.1%
Financing (LIBOR)	(14.0%)	1.1%
	<u>100.0%</u>	

money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The above was the Board’s adopted asset allocation policy and best estimates of geometric real rates of return for each major asset class as of June 30, 2015.

**Discount Rate**

The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from employers will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Sensitivity of the Net Pension Liability**

The following presents the net pension liability, calculated using the discount rate of 7.50%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.50%) or 1-percentage point higher (8.50%) than the current rate:

(Dollar amounts in thousands)			
	1% Decrease 6.50%	Current Discount Rate 7.50%	1% Increase 8.50%
Net pension liability	\$ 53,390,292	\$ 43,315,309	\$ 34,847,279

## Notes to Financial Statements (continued)

### 7. Pension Plan for Employees of the System

#### (A) SERS' Plan Description

The System contributes to SERS, a cost-sharing multiple-employer defined benefit pension plan established by the Commonwealth to provide pension benefits for employees of state government and certain independent agencies. SERS is a component unit of the Commonwealth and is included in the Commonwealth's financial report as a pension trust fund.

Membership in SERS is mandatory for most state employees. SERS provides retirement, death, and disability benefits. Article II of the Commonwealth's constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly.

#### (B) SERS' Benefits Provided to Employees of the System

SERS member retirement benefits are generally determined by taking years of credited service times final average salary times 2% or 2.5%, depending on date of hire. The normal retirement age ranges from 50 - 65, depending on the membership class.

According to the State Employees' Retirement Code (SERC), all obligations of SERS will be assumed by the Commonwealth should SERS terminate.

#### (C) Contributions to SERS

The contribution requirements of SERS plan members is mandated by Commonwealth statute. The member contribution rate for the majority of SERS' members is 6.25%.

Employer rates are calculated based on SERS full year ended December 31 and applied to the Commonwealth based on its fiscal year end of June 30; therefore, the employer contribution rates, in effect for SERS full year ended December 31, reflect a blended average of calculated rates. As of December 31, 2014 and 2013, the blended contribution rates were 18.29% and 13.82%, respectively. Contributions to SERS from PSERS were \$3.6 million for the year ended June 30, 2015.

#### (D) Proportionate Share of Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources from SERS

At June 30, 2015, PSERS reported a liability of \$47.3 million for its proportionate share of the net pension liability for the

SERS plan in Accounts payable and accrued expenses on the Statement of Fiduciary Net Position. The net pension liability was measured as of December 31, 2014, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2014. The discount rate for SERS used to measure the total pension liability was 7.50%. PSERS' proportion of the net pension liability was calculated utilizing a projected-contribution method. This methodology applies the most recent calculated contribution rates for Commonwealth fiscal year 2015-2016, from the December 31, 2014 funding valuation, to the expected funding payroll for the allocation of the 2014 amounts, and the contribution rates for fiscal year 2014-2015 from the December 31, 2013 funding valuation to the expected funding payroll for the allocation of the 2013 net pension liability. At December 31, 2014, PSERS' proportion was 0.31817394 percent, which was an increase of 0.00354436 from its proportion measured as of June 30, 2013.

For the year ended June 30, 2015, PSERS recognized pension expense of \$5.5 million in Administrative expenses on the Statement of Fiduciary Net Position. At June 30, 2015, PSERS reported \$3.9 million of deferred outflows of resources and \$.04 million of deferred inflows of resources. Of the \$3.9 million of deferred outflows of resources, PSERS recorded \$1.9 million for contributions subsequent to the measurement date which will be recognized as a reduction of the net pension liability in the year ended June 30, 2016. The other amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized over a 5 and 5.6 year closed amortization periods, dependent on the type of deferral.

#### (E) Sensitivity of PSERS' Proportionate Share of the Net Pension Liability from SERS to Changes in the Discount Rate

If SERS' net pension liability were calculated using a discount rate that is 1-percentage point lower (6.50%), PSERS' proportionate share would result in a net pension liability of \$60.5 million. If SERS' net pension liability were calculated using a discount rate 1-percentage point higher (8.50%), PSERS' proportionate share would result in a lower net pension liability of \$35.9 million.

#### (F) SERS' Pension Plan Fiduciary Net Position

Detailed information about SERS' fiduciary net position is available in SERS' Comprehensive Annual Financial Report which can be found on SERS' website at [www.SERS.pa.gov](http://www.SERS.pa.gov).

**Notes to Financial Statements (continued)**

**8. Postemployment Healthcare Plan for Employees of the System**

The System participates in the Commonwealth’s Retired Employees Health Program (REHP). The REHP is a single-employer plan and provides certain healthcare benefits to qualifying individuals meeting specified age and/or service requirements. The Commonwealth’s Office of Administration (OA), in its sole discretion, determines available REHP benefits on an ongoing basis. The Pennsylvania Employees Benefit Trust Fund (PEBTF) is a third-party administrator for the REHP under the provisions of an Administration Agreement between OA and PEBTF.

Employer costs for retiree healthcare benefits are charged as a component of payroll expenditures on a ‘pay-as-you-go’ basis. REHP funding is arranged between OA and the Governor’s Budget Office. FY 2015 employer costs were charged at the rate of \$334/employee/bi-weekly pay period. Plan members who retired after June 30, 2005 contribute to the plan based on a percentage of their final annual gross base salary at the time of retirement. Plan member contribution rates vary based on their REHP enrollment date.

In September 2014, the Commonwealth released an Actuarial Valuation of its Post-Retirement Medical Plan with calculations made as of July 1, 2014 using census data collected as of December 2013 and health care claims costs for calendar 2013. This valuation provided Other Postemployment Benefits (OPEB) reporting that was used for both FY 2013 and FY 2014. For FY 2014, the valuation indicated overall Annual OPEB Cost (AOC) of \$898.3 million with the System’s allocated AOC of \$4.1 million. Based on the aggregate REHP qualifying contributions for FY 2014, the net OPEB liability for the System was \$0.9 million for that fiscal year. For FY 2015, the valuation indicated overall AOC of \$1.1 billion with the System’s allocated AOC of \$5.2 million. Based on the aggregate REHP qualifying contributions for FY 2015, the net OPEB liability for the System was \$1.5 million for that fiscal year. The ARC/AOCs and OPEB for fiscal years 2015, 2014, and 2013 are illustrated in the following table:

(Dollar Amounts in Thousands)			
<b>Fiscal Year</b>	<b>Commonwealth ARC/AOC</b>	<b>PSERS’ ARC/AOC</b>	<b>PSERS’ Net OPEB</b>
2015	\$ 1,136,817	\$ 5,157	\$ 1,547
2014	898,330	4,099	948
2013	869,100	3,966	1,166

**9. Litigation and Contingencies**

The System is subject to various threatened and pending lawsuits. These lawsuits include issues related to benefit calculations and eligibility. It is the opinion of management that the ultimate liability arising from such threatened and pending litigation will not have a material effect on the financial position of the System. The System is exposed to various other liabilities and risks related to fiduciary responsibilities of directors and officers.

**10. Commitments**

As of June 30, 2015, PSERS had commitments for the future purchase of investments in alternative investments of \$6.5 billion and real estate of \$2.6 billion.

**11. Subsequent Events**

The System has performed an evaluation of subsequent events through September 24, 2015, the date the basic financial statements were available to be issued. No material events were identified by the System.



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**Required Supplementary Schedule 1**  
**Schedule of Changes in the Employer Net Pension Liability**  
**(Unaudited – See Accompanying Auditor’s Report)**  
(Dollar Amounts in Thousands)

	2015	2014
Total pension liability		
Service cost	\$ 1,926,539	\$ 2,139,037
Interest	6,857,497	6,523,484
Changes of benefit terms	-	-
Differences between expected and actual experience	(223,437)	-
Changes of assumptions	-	-
Benefit payments	(6,220,601)	(6,053,505)
Net change in total pension liability	2,339,998	2,609,016
Total pension liability - beginning	92,560,832	89,951,816
Total pension liability - ending (a)	\$ 94,900,830	\$ 92,560,832
Plan fiduciary net position		
Contributions - employer	\$ 2,596,731	\$ 1,992,084
Contributions - member	984,634	966,926
Net investment income	1,327,637	7,097,761
Benefit payments	(6,220,601)	(6,053,505)
Administrative expense	(41,452)	(38,712)
Other	-	-
Net Change in plan fiduciary net position	(1,353,051)	3,964,554
Plan fiduciary net position - beginning	52,980,115	49,015,561
Effect of change in accounting principle	(41,543)	-
Plan fiduciary net position - beginning, as restated	52,938,572	-
Plan fiduciary net position - ending (b)	\$ 51,585,521	\$ 52,980,115
Employer net pension liability - ending (a) - (b)	\$ 43,315,309	\$ 39,580,717



**Required Supplementary Schedule 2**  
**Schedule of Employer Net Pension Liability**  
**(Unaudited – See Accompanying Auditor’s Report)**  
(Dollar Amounts in Thousands)

	2015	2014
Total pension liability	\$ 94,900,830	\$ 92,560,832
Plan fiduciary net position	(51,585,521)	(52,980,115)
Employer net pension liability	<u>\$ 43,315,309</u>	<u>\$ 39,580,717</u>
Plan fiduciary net position as a percentage of the total pension liability	54.36%	57.24%
Covered payroll	\$ 12,866,473	\$ 12,760,785
Employer net pension liability as a percentage of covered payroll	336.65%	310.17%

**Required Supplementary Schedule 3**  
**Schedule of Employer Contributions**  
**(Unaudited – See Accompanying Auditor’s Report)**  
(Dollar Amounts in Thousands)

<b>Pension</b>		
	2015	2014
Actuarially determined contribution	\$ 3,289,615	\$ 2,965,715
Contractually required contribution*	2,582,114	1,992,084
Contributions in relation to the actuarially determined contribution*	2,582,114	1,992,084
Contribution deficiency	<u>\$ 707,501</u>	<u>\$ 973,631</u>
Covered payroll	\$ 12,866,473	\$ 12,760,785
Contributions as a percentage of covered payroll	20.07%	15.61%

\*Amounts for 2015 exclude purchase of service contributions.

<b>Premium Assistance</b>			
<u>Year Ended June 30</u>	<u>Annual Required Contributions</u>	<u>Actual Employer Contributions</u>	<u>Percentage Contributed</u>
2015	\$ 127,576	\$ 115,978	91%
2014	121,260	117,471	97%
2013	113,016	107,993	96%

**Required Supplementary Schedule 4  
Schedule of Investment Returns  
(Unaudited – See Accompanying Auditor’s Report)**

	2015	2014
Annual money-weighted rate of return, net of investment expense	3.08%	14.98%

**Required Supplementary Schedule 5  
Schedule of Funding Progress\*  
(Unaudited – See Accompanying Auditor’s Report)  
(Dollar Amounts in Millions)**

Premium Assistance							
Valuation as of June 30	(1) Actuarial Accrued Liabilities (AAL)	(2) Actuarial Value of Assets	(3) Unfunded Actuarial Accrued Liabilities UAAL (1) - (2)	(4) Ratio of Assets to AAL (2) / (1)	(5) Annualized Salaries	(6) UAAL as a Percentage of Covered Payroll (3) / (5)	
2014	\$ 1,374.1	\$ 112.1	\$ 1,262.0	8.2%	\$ 12,620.9	10.0%	
2013	1,385.0	100.3	1,284.7	7.2%	12,577.1	10.2%	
2012	1,364.7	93.8	1,270.9	6.9%	12,714.4	10.0%	
2011	1,339.4	111.3	1,228.2	8.3%	12,910.0	9.5%	

\* The amounts reported above in the Schedule of Funding Progress do not include assets or liabilities for the HOP.

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**Notes to Required Supplementary Information  
for the Year Ended June 30, 2015**

*Changes in benefit terms*

None

*Changes in assumptions*

None

*Method and assumptions used in calculations of actuarially determined contributions*

The actuarially determined contributions are calculated as of the June 30 preceding the fiscal year in which contributions are made. That is, the contribution calculated as of the June 30, 2014 actuarial valuation will be made during the fiscal year ended June 30, 2016. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

- Investment return - 7.50%, includes inflation at 3.00%
- Salary increases - Effective average of 5.50%, which reflects an allowance for inflation of 3.00%, real wage growth of 1%, and merit or seniority increases of 1.50%
- Benefit payments - no postretirement benefit increases assumed in the future
- Multiple decrement tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary

*10-year reporting requirements*

Required Supplementary Schedules 1 - 4, as related to pensions, are intended to show information for 10 years. Additional years will be displayed as they become available.

**Supplementary Schedule 1**  
**Schedule of Operating Expenses**  
**Year Ended June 30, 2015**  
(Dollar Amounts in Thousands)

	<u>Administrative Expenses (1)</u>	<u>Investment Expenses (2)</u>	<u>Total</u>
<b>Personnel costs:</b>			
Salaries and wages	\$ 14,758	\$ 4,617	\$ 19,375
Employee benefits	6,842	996	7,838
<b>Total personnel costs</b>	<b>21,600</b>	<b>5,613</b>	<b>27,213</b>
<b>Operating costs:</b>			
Investment managers' fees	-	432,189	432,189
Custodian fees	-	2,383	2,383
Specialized services	30,597	886	31,483
Rental of real estate, electricity	2,104	236	2,340
Consultant and legal fees	1,227	11,446	12,673
Treasury and other Commonwealth services	1,528	388	1,916
Postage	1,145	-	1,145
Contracted maintenance and repair services	1,162	-	1,162
Office supplies	155	10	165
Rental of equipment and software	3,815	344	4,159
Printing	209	-	209
Travel and training	139	21	160
Telecommunications	365	-	365
Equipment (non-capital assets)	367	-	367
Miscellaneous expenses	487	1,691	2,178
<b>Total operating costs</b>	<b>43,300</b>	<b>449,594</b>	<b>492,894</b>
<b>Other charges:</b>			
Pension expense	5,527	-	5,527
Depreciation	2,073	-	2,073
<b>Total other charges</b>	<b>7,600</b>	<b>-</b>	<b>7,600</b>
<b>Total operating expenses</b>	<b>\$ 72,500</b>	<b>\$ 455,207</b>	<b>\$ 527,707</b>

(1)Includes administrative expenses of \$2,142 related to Postemployment Healthcare Premium Assistance and \$28,027 related to Postemployment Healthcare Health Options Program for the fiscal year ended June 30, 2015.

(2)Includes investment expenses of \$33 related to Postemployment Healthcare Premium Assistance and \$34 related to Health Options Program for the fiscal year ended June 30, 2015 and does not include \$6,481 in capitalized broker commissions for the fiscal year ended June 30, 2015.

**Supplementary Schedule 2**  
**Summary of Investment Expenses\***  
**Year Ended June 30, 2015**  
(Dollar Amounts in Thousands)

	<u>Investment Management</u>		<u>Other Expenses</u>	<u>Total</u>
	<u>Base</u>	<u>Performance</u>		
<b>External management:</b>				
Domestic equity	\$ 2,097	\$ 555	\$ -	\$ 2,652
International equity	18,058	5,752	-	23,810
Fixed income	76,505	7,784	-	84,289
Real estate	68,955	-	-	68,955
Alternative investments	102,190	-	-	102,190
Absolute return	83,278	33,958	-	117,236
Commodities	7,963	272	-	8,235
Master limited partnership	8,502	3,407	-	11,909
Risk parity	12,913	-	-	12,913
<b>Total external management</b>	<u>380,461</u>	<u>51,728</u>	<u>-</u>	<u>432,189</u>
<b>Total internal management</b>	<u>-</u>	<u>-</u>	<u>9,189</u>	<u>9,189</u>
<b>Total investment management</b>	<u>380,461</u>	<u>51,728</u>	<u>9,189</u>	<u>441,378</u>
Custodian fees	-	-	2,383	2,383
Consultant and legal fees	-	-	11,446	11,446
<b>Total investment expenses</b>	<u>\$ 380,461</u>	<u>\$ 51,728</u>	<u>\$ 23,018</u>	<u>\$ 455,207</u>

\* External investment management fees classified on an asset allocation basis



**Supplementary Schedule 3**  
**Schedule of Payments to Non-Investment Consultants**  
**Year Ended June 30, 2015**  
(Dollar Amounts Greater than \$100,000)

<b>Consultant</b>	<b>Fees</b>	<b>Services Provided</b>
CoreSource Inc.	\$ 20,942,589	Postemployment healthcare benefits administration and claims adjudication
ViTech Systems Group Inc.	5,500,000	Pension administration system services
Rx Solutions, Inc.	5,335,571	Administration of postemployment healthcare benefits and prescription drug plan
The Segal Company, Inc.	2,840,288	Actuarial services and consulting for HOP and prescription drug plan
Buck Consultants LLC	604,766	Pension benefit actuarial services
Independent Pharmaceutical Consultants, Inc.	542,877	Pharmacy benefit consulting services
Healthways, Inc.	317,355	Administration of the Silver Sneakers Fitness Program

**Supplementary Schedule 4**  
**Schedule of Employer Contributions**  
**(Unaudited – See Accompanying Auditor’s Report)**  
(Dollar Amounts in Thousands)

<b>Pension</b>			
<b>Year Ended June 30</b>	<b>Annual Required Contributions</b>	<b>Actual Employer Contributions*</b>	<b>Percentage Contributed</b>
2015	\$ 3,760,827	\$ 2,582,114	69%
2014	3,410,373	1,986,384	58%
2013	3,110,429	1,434,815	46%
2012	2,629,244	1,001,140	38%
2011	2,436,602	646,560	27%
2010	1,928,278	527,212	27%

\*Amounts exclude purchase of service contributions.

The schedule above and information below is not required by current GASB standards. PSERS is voluntarily providing this information for historical perspective as PSERS transitions to GASB Statement No. 67.

The Board adopted all contribution rates as recommended by the Board’s actuary pursuant to the prevailing provisions of the Retirement Code for each year, with the exception of the year ended June 30, 2011. Act 46 required the Board to recertify the employer contribution rate from 8.22% to 5.64%, allocating 5% to the pension component and .64% to the premium assistance component.

### **Funding Status and Annual Required Contributions (ARC)**

As of June 30, 2014, the most recent actuarial valuation, the plan was 62.0% funded. The actuarial accrued liability for pension benefits was \$92.4 billion, and the actuarial value of pension assets was \$57.2 billion, resulting in an unfunded accrued liability of \$35.1 billion. The covered payroll of active members was \$12.6 billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was 278.3%.

For fiscal year ended June 30, 2015, the ARC was \$3.8 billion. The actual employer contributions, net of purchase of service contributions, for fiscal year ended June 30, 2015 was \$2.6 billion resulting in a 69% contributed rate.

The Schedule of Funding Progress and the Schedule of Employer Contributions included as Required Supplementary Information following the notes to the financial statements provide multiyear presentations of funding status and ARC to illustrate their trends over time.

### **Actuarial Assumptions and Methods**

#### **(A) Funding Method**

For purposes of determining pension contributions under the PSERS Code, the entry-age normal actuarial cost method is used in determining benefit liabilities and normal cost. Act 120 modified the funding method. The outstanding balance of the unfunded accrued liability as of June 30, 2010 was re-amortized over a 24-year period with amortization payments based on level percentage of pay. Future valuation experience gains or losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 24-year period as a level percent of pay. Future increases in accrued liability enacted by legislation after June 30, 2010 will be funded over a 10-year period as a level percent of pay.

### **(B) Asset Valuation Method**

For actuarial purposes, Act 120 extended the asset smoothing from five years to ten years. Assets are valued using a ten-year moving market average value that will recognize the actuarial expected investment return immediately and spread the difference between actual and expected investment return beginning with fiscal year ended June 30, 2010 over a period of ten years (the averaging period is being phased-in from fiscal year 2006). Previously, PSERS recognized the actuarial expected return immediately and spread the difference between actual and expected investment return over a period of five years.

### **(C) Actuarial Assumptions**

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30, 2014, the date of the most recent actuarial valuation, include:

- Investment return - 7.50%, includes inflation at 3.00%
- Salary increases - Effective average of 5.50%, which reflects an allowance for inflation of 3.00%, real wage growth of 1%, and merit or seniority increases of 1.50%
- Benefit payments - no postretirement benefit increases assumed in the future
- Multiple decrement tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary

The System's actuarial liabilities are calculated separately for retirees and beneficiaries and for active and inactive members. The actuarial present value of benefits to be paid to retirees and beneficiaries currently receiving benefits and deferred survivor beneficiaries, whose benefits have been determined, is calculated using the assumptions noted above. The Annuity Reserve Account with interest credited thereon at an annual rate of 5.50% is compared to the actuarial accrued liability for the remaining lifetimes of the retirees and beneficiaries and any deficiency is then funded by a transfer from the State Accumulation Account.

The actuarial accrued liability for active and inactive members is calculated on the projected benefit basis using the entry-age normal actuarial cost method under which the present value of each member's expected benefit payable at retirement or death is determined. The assets of the Members' Savings Account, State Accumulation Account and the fair value adjustment are subtracted from this present value to arrive at the funded or unfunded actuarial accrued liability.

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COMMONWEALTH OF PENNSYLVANIA  
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

James H. Grossman Jr., CPA, CFA  
Chief Investment Officer

October 30, 2015

Dear Members of The PSERS Board of Trustees:

It is a privilege to present to you the Investment Section of the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015.

### Authority and Fiduciary Standard

The Board has the responsibility to invest funds of the System in accordance with guidelines and limitations set forth in the Code and other applicable state law. As fiduciaries, the members of the Board and Staff must act solely in the interests of the members of the System and for the exclusive benefit of the System's members. In performance of their duties, the members of the Board and Staff who have been delegated with investment authority shall be held to the Prudent Investor Standard.

The Prudent Investor Standard, as articulated in the Code, means "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 requires a trustee to act prudently and with caution, discretion, loyalty, and care but does not restrict the assets in which the Board can invest. Under the Prudent Investor Standard, which recognizes modern portfolio theory, the Board's investment and management decisions with respect to individual assets shall be considered in the context of the portfolio as a whole and as part of an overall investment strategy, and not in isolation. No specific investment or course of action, taken alone, shall be considered inherently prudent or imprudent. This Standard recognizes the trade-off between risk and return.

### Policies and Objectives

The Board is responsible for the formulation of investment policies for the System. Staff is responsible for the implementation of those investment policies. The overall investment objectives of the System are as follows:

**Return Objectives** – the System has a return objective of meeting or exceeding the targeted actuarial rate of return of 7.5% over the long-term. In addition, the Board has the following broad objectives:

1. The assets of the System shall be invested to maximize the returns for the level of risk taken; and,
2. The System shall strive to achieve a net of fee return that exceeds the Policy Index (the Policy Index is a custom benchmark, based on the Board-established asset allocation structure that seeks to generate a return that meets the actuarial rate of return assumption).

### Risk Objectives

1. The assets of the System shall be diversified to minimize the risk of losses at the portfolio level and within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location. Failure to do so could impair the System's ability to achieve its funding and long-term investment goals and objectives; and,
2. 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).



To achieve these objectives, the Board meets during the first half of the calendar year to review the overall asset allocation plan and investment policies for the System. Implementation of investment policies is accomplished through the use of external investment management firms who act as agents for the System and through the use of internal investment managers. The Board also retains various investment consultants to assist with the formulation and implementation of investment policies.

### **Operations**

The Board, via its Finance Committee, provides oversight of investment activities. The Finance Committee generally conducts seven meetings per year and may meet more frequently as needed. Investment Office staff, as well as external investment advisors, Investment Accounting staff, and Internal Audit staff, assist the Board in achieving investment objectives and monitoring compliance with investment policies. For the fiscal year ended June 30, 2015, Aon Hewitt Investment Consulting, Inc. (Aon Hewitt) served as the general investment consultant to assist the Board and Staff in formalizing investment objectives, establishing an asset allocation plan, conducting investment advisor searches, reviewing performance, and commenting on compliance with investment policies. In addition, the Board retained Aksia, LLC as an absolute return consultant, Courtland Partners, Ltd. as a real estate consultant, and Portfolio Advisors, LLC as an alternative investment consultant. Alternative investments generally consist of investments in private debt, private equity, and venture capital limited partnerships. Investment Office staff implement the investment decisions within the guidelines established in the Investment Policy Statement, Objectives and Guidelines regarding asset allocation, manager selection, security selection, and other objectives directed by the Board.

The Board employs both external investment management firms and internal investment managers to manage the investment portfolio of the System. At fiscal year-end, 35 external public market investment management firms were managing \$16.5 billion in assets of the System, \$16.9 billion in assets were managed by the System's internal investment managers, and the remaining \$17.2 billion in assets were managed by numerous alternative investment and real estate investment managers. The performance of each external investment management firm and each internal manager is monitored quarterly against a pre-established benchmark as well as the performance of the manager's peer group.

### **Asset Allocation**

The Board reviews the long-term asset allocation targets of the System annually. The Board will consult with its actuary, consultants, Investment Office staff, and other sources of information it deems appropriate in formulating the asset allocation plan. The level of risk assumed by the System is largely determined by the Board's strategic asset allocation plan. The Board, in determining its long-term asset allocation, takes the following factors into consideration:

- The System's investment time horizon;
- The demographics of the plan participants and beneficiaries;
- The cash flow requirements of the System;
- The actuarial assumptions approved by the Board;
- The funded status of the System;
- The employers' (Commonwealth and school districts) financial strength; and,
- The Board's willingness and ability to take risk.

In approving the asset allocation for the System that is recommended by Investment Office staff and PSERS' general investment consultant, the Board considers capital market expectations for expected return, volatility, and asset class correlations as prepared by its general investment consultant. The current long-term, top-down asset allocation targets of the Board are discussed in the following paragraphs.

The current target allocation as of June 30, 2015, included an equity target allocation of 39.0% consisting of publicly traded stocks (23.0%) and private markets (16.0%). Specific publicly traded stock targets have been established for U.S. equity (9.0%) and non-U.S. equity (14.0%). Within the U.S. equity target, the portfolios are diversified between large and small capitalization investment mandates, and growth and value investment exposures. The non-U.S. equity exposure includes both developed and emerging markets portfolios as well as large and small capitalization investment mandates. The non-U.S. developed markets equity exposure is currency-hedged back to the U.S. Dollar. The primary vehicle used to invest funds in private markets is the limited partnership. The partnerships are established by individual management groups that

## Investment Section

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have been selected by the System for the purpose of investing in and managing private equity, venture capital, and unlisted subordinated debt positions on behalf of PSERS and other limited partners.

The fixed income target allocation of 23.0% consisted of investment grade exposure (6.0%), credit-related exposure (8.0%), inflation-protected exposure (6.0%) and cash (3.0%). Investment grade exposure consisted of U.S. core fixed income (5.0%) and non-U.S. developed market fixed income (1.0%). Credit-related exposure consisted of high yield (6.0%) and emerging markets fixed income (2.0%). Inflation protected exposure consisted of leveraged Treasury Inflation-Protected Securities (TIPS) which provides approximately two times exposure to TIPS. Within these categories, all sectors of the fixed income market are represented. The high yield exposure is primarily private debt. The System also gains incremental fixed income exposure through U.S. Long Treasury securities funded primarily through leverage equating to approximately 3.0% of the System's assets (not included in the fixed income target allocation). The cash consisted of short-duration, high quality government and investment grade securities. The Board, Investment Office Staff, and Aon Hewitt deemed it prudent to have an allocation to cash given the known and potential cash flow requirements of the System.

The real asset exposure of 21.0% consisted of real estate (13.0%), master limited partnerships (4.0%), and commodities (4.0%). The real estate allocation consisted primarily of limited partnerships. The types of partnerships the System invests in include core, value-added, and opportunistic real estate limited partnerships. The commodities allocation consisted primarily of commodity futures and commodity and commodity-related publicly traded stocks. Commodities are included in the allocation to diversify the System's total portfolio risk. The System also gains incremental commodity exposure through Gold swaps funded primarily through leverage equating to approximately 2.0% of the System's assets (not included in the commodity target allocation). The Master Limited Partnership (MLP) allocation consisted of publicly traded partnerships that own and operate assets such as natural gas, crude oil, refined products and pipelines, and storage facilities that are a vital part of the U.S. energy infrastructure. MLPs are included in the allocation due to their attractive current yields, strong growth potential, and ability to diversify the System's total portfolio risk.

The absolute return target allocation of 10.0% consisted primarily of investment managers retained by the System to generate positive returns over time that are independent of how the equity, fixed income, and commodity markets perform. Strategies implemented to achieve this target include, but are not limited to, global macro, event-driven, and relative value strategies such as insurance-linked securities and long/short credit. The absolute return program is included in the allocation to generate returns equal to or greater than LIBOR plus 3.5% with low correlation to the public financial markets to diversify the System's total portfolio risk.

The risk parity allocation of 7.0% consisted primarily of global equities, global nominal bonds, global inflation-linked securities, and commodities in an allocation that balances risk across these asset classes with structurally offsetting biases to the primary drivers of asset class returns, growth and inflation. Risk parity provides diversification and liquidity to the System.

### Liquidity and Asset Allocation

The System's risk profile is, in part, driven by its liquidity needs. During each of the past five fiscal years, the System has paid out over \$2.5 billion more in benefits than it has received in member and employer contributions. This funding deficiency has amounted to 5.0% or more of beginning net assets each of the last five years and represents the amount of investment return needed each year to make up the shortfall. The large annual cash flow shortfall will continue and necessitates a larger liquidity position and lower risk profile than a retirement system that has smaller liquidity requirements. Given the legislated reduction in the employer contribution rate, which is expected to continue for another year or two, the System anticipates only a modest liquidity improvement until the employer contribution rate rises to the actuarially required level.

Given the significant cash outflows projected, the Board has prudently reduced the risk profile of the System since the financial crisis in 2008. It has done so by decreasing its return dependence on the equity markets and balancing the risk exposures into less correlated asset classes such as inflation-linked bonds, commodities, and absolute return. The goal of such an allocation is to generate the desired return profile with less volatility. While such an allocation will not provide for a large upside in returns, it is expected to minimize downside risks to the System's assets in the event of a large equity drawdown as experienced during the financial crisis in 2008.

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## The Economy During The Past Fiscal Year

### *The U.S. Economy*

The U.S. economy during the past fiscal year generated positive but tepid results given the low interest rates and amount of monetary stimulus injected into the economy through quantitative easing by the Federal Reserve (Fed). The U.S. real Gross Domestic Product (GDP) increased by 4.3%, 2.1%, 0.6%, and 3.7% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The official unemployment rate (otherwise known as the U3 unemployment rate) fell during the fiscal year from 6.1% as of June 2014 to 5.3% as of June 2015, approaching what the Fed would consider full employment. The more encompassing U6 unemployment rate, which measures not only people without work seeking full-time employment (U3 unemployment rate) but also counts “marginally attached workers and those working part-time for economic reasons” remains elevated at 10.5% as of fiscal year end, down from 12.0% at the end of the last fiscal year but significantly above the low point over the past 10 years of 7.9% in December 2006. However, the U.S. Labor Participation Rate (LPR), which measures the total labor force as a percentage of the working age population, remains depressed. The LPR dropped from 62.8% in June 2014 to 62.6% in June 2015 which explains some of the improvement in the official unemployment rate. The LPR was as high as 67.3% in March 2000. If the LPR were at 2000 levels today, the official unemployment rate would probably be significantly higher.

The Fed has had extremely accommodative monetary policies since the 2008 financial crisis to support asset prices and economic growth in the United States. The Federal Funds target rate has been in a range between 0.0% to 0.25% all year and has been that low since December 2008. The Fed’s program of outright purchases of longer dated U.S. Treasuries in the amount of \$45 billion a month and mortgage-backed securities in the amount of \$40 billion began in 2013. The Fed’s objective was to lower the cost of borrowing money so that the economy, housing, and employment conditions could continue to improve. This program of buying assets, which began in varying forms in 2008, saw the Fed’s balance sheet increase from \$910 billion in August 2008 to \$4.4 trillion in June 2014 and has now stabilized around \$4.5 trillion in June 2015. Given the improvement in economic growth and the unemployment rate, the Fed started tapering these purchases in December 2013 by \$10 billion per meeting. The asset purchase program ended in October 2014. While interest rates remain very accommodative, this tapering represents a mild tightening to monetary conditions in the United States. In addition, the Fed has been signaling to the markets that it is considering increasing the Fed Funds target rate later in 2015.

Inflation in the United States, even with improving economic conditions and very accommodative interest rates, remains well below the Fed’s target inflation rate of 2.0% as the burdens of high global debt create a more deflationary environment worldwide. The U.S. Core Consumer Price Index (CPI) was 2.1% year over year as of June 2014 and decreased over the year to 0.1% as of June 2015. Housing during the past fiscal year has continued to show improvement, up 4.5% as measured by the S&P Case-Shiller 20-City Home Price Index after being up 8.1% last fiscal year.

### *Select Non-U.S. Economies*

The Eurozone economy during the past year remained very weak and on the verge of recession. The Eurozone real GDP increased by 0.2%, 0.4%, 0.4% and 0.3% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The Eurozone unemployment rate, while falling modestly during the fiscal year from 11.6% as of June 2014 to 11.1% as of June 2015, remains very elevated. Inflation for the Eurozone has fallen from 0.6% on a year over year basis in June 2014 to 0.2% in June 2015 and is getting uncomfortably close to deflation. Economic conditions remain very depressed in the Eurozone as fiscal and monetary conditions on the whole have not been loose enough to generate any real improvements in economic growth and employment. The European Central Bank (ECB) launched a \$1.2 trillion quantitative easing program in March 2015 to combat weak inflation conditions. The ECB will print about \$72 billion a month in euros and use the new money to buy bonds. The ECB has committed that this program will continue through September 2016 or longer if necessary until inflation expectations reach the ECB’s 2.0% target. Impacts of this policy were felt quickly as the Euro currency depreciated 7.8% against the U.S. Dollar from January 1, 2015 to June 30, 2015 while the EURO STOXX 50 Index, an index of 50 Eurozone stocks, increased by 8.8% during the same period.

During the past fiscal year, the Japanese economy has weakened. The Japanese real GDP increased/(decreased) by (0.7%), 0.8%, 2.2%, and 0.0% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The Japanese unemployment rate remains very well contained, falling from a modest 3.7% in June 2014 to 3.5% in June 2015. Inflation for Japan has moderated significantly during the past fiscal year from a 3.6% year over year rate in June 2014 to 0.4% in June 2015. Japanese policy makers have been aggressively trying to stimulate their economy

## Investment Section

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through a combination of low interest rates (near 0.0%), purchase of higher risk assets by the Bank of Japan, coordinated diversification into higher risk assets by large public investors, and other fiscal policies to encourage liquidity to move into riskier assets. While economic conditions have improved in Japan after years of stagnant growth and low inflation, time will tell if the necessary economic and structural reforms can be put in place for a sustained period of economic prosperity.

The Chinese economy during the past year continued to be one of the stronger economies in the world, albeit at a slowing pace of growth. The Chinese real GDP increased by 7.3%, 7.3%, 7.0%, and 7.0% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. Inflation in China has fallen from 2.3% on a year over year basis in June 2014 to 1.4% in June 2015 and appears fairly stable but weakening. China is struggling to rebalance its economy from an investment oriented economy to a consumer oriented economy. About 47% of China's GDP is generated by investments in infrastructure; however, that level of investment is unsustainable. Average investments as a percentage of GDP in emerging markets is 28% while only 19% in developed markets. It is increasingly apparent that this rebalancing will weigh on GDP growth over the next several years as Chinese policy makers endeavor to rebalance the economy. Subsequent to the fiscal year-end, China has shown notable signs that its economy is weakening.

### Investment Results

This past fiscal year was a mixed year to be invested in higher risk assets with modestly positive returns to equities (in currency hedged terms) while commodity and commodity-related securities struggled. The fiscal year was marked by falling global growth and inflation expectations coupled with a modest increase in risk premiums. The global economy is still burdened by high debt levels which has the effect of constraining growth and is generally deflationary. Global monetary conditions have been very accommodative with most countries easing this past year, including implementation of quantitative easing programs by central banks in Europe and Japan. A notable exception was the U.S. which has ended quantitative easing during the past fiscal year and is contemplating increasing interest rates later in 2015. The low-volatility environment in the fiscal year ended in 2014 as measured by the Chicago Board Options Exchange Volatility Index (VIX Index), an index which reflects a market estimate of future volatility, has changed toward the end of the current fiscal year. The VIX Index increased from 11.57 at June 30, 2014 to 18.23 at June 30, 2015. As a point of reference, during the financial crisis the VIX Index peaked on a monthly basis at 59.89 in October 2008. On a risk-adjusted basis, U.S. long treasuries had the best performance during the past fiscal year as falling inflation expectations led to lower yields and higher bond prices. Commodities, the riskiest asset class, had the worst performance during the past year as increasing risk premiums, falling growth and inflation expectations negatively impacted returns. Unless otherwise noted, all rates of return are based on time-weighted return methodology. Highlights of the System's fiscal year performance follow.

As of June 30, 2015, the fair value of the investment portfolio was \$50.6 billion, a decrease of \$2.3 billion from last year's value. This decrease was primarily due to the combination of net investment income (\$1.3 billion) and member and employer contributions (\$3.7 billion) which was less than the deductions for benefits and administrative expenses (\$6.7 billion) and net changes in other investment assets and liabilities (\$0.6 billion). The investment portfolio, as invested, was composed of 24.4% common and preferred stocks (equities), 22.7% fixed income investments, 15.9% alternative investments, 12.9% real estate, 9.4% absolute return portfolios, 4.0% commodities, 3.5% master limited partnerships, and 7.2% risk parity at June 30, 2015. The table immediately following this letter illustrates a more detailed description of the investment portfolio's asset classes in dollars and as a percentage of the total investment portfolio.

The MSCI U.S. Investable Market Index, a U.S. equity index, returned 7.36% during the fiscal year. Returns for the second and third quarters of the fiscal year were stronger, posting a 5.12% and 1.86% return, respectively. Returns for the first and fourth quarters of the fiscal year were weaker, posting 0.02% and 0.25%, respectively. Foreign markets, in U.S. Dollar terms, were roughly in line with the U.S. markets as the MSCI All-Country World (ACW) ex. U.S. Investable Market Index hedged, an international equity index with developed market currencies hedged back to the U.S. Dollar, returned 6.94% for the fiscal year, driven primarily by accommodative monetary policies and more stable economic conditions. The Burgiss Median return, a benchmark for alternative investments that represents the median performance of the venture capital/private equity industry listed in the Investment Benchmark Reports on Venture Capital and buy-outs produced by the Burgiss Group, returned 4.29% for the fiscal year (reported on a one-quarter lag).

Commodity markets performed very poorly in this environment as global economic expectations for growth and inflation fell. For the fiscal year, the Bloomberg Commodity Index, an index composed of futures contracts on 19 physical commodities weighted to account for economic significance and market liquidity, was down 23.71%.



The following table provides the System's total time-weighted investment returns for each major asset class and the total portfolio, including, where applicable and available, respective benchmark indexes used by asset class and median performance by asset class:

	Annualized Total Returns (%)			
	Net of Fees			
	Ended June 30, 2015			
	1 Year	3 Years	5 Years	10 Years
<b>PSERS Total Portfolio</b>	<b>3.04</b>	<b>8.52</b>	<b>9.73</b>	<b>6.31</b>
Total Fund Policy Index	2.02	6.24	7.27	4.86
Median Public Defined Benefit Plan (DBP) Fund Universe (Aon Hewitt Database)	3.16	10.50	10.60	6.40
<b>PSERS U.S. Equity Portfolios</b>	<b>6.53</b>	<b>17.61</b>	<b>17.47</b>	<b>7.82</b>
U.S. Equity Policy Index (1)	7.36	17.72	17.46	8.17
<b>PSERS Non-U.S. Equity Portfolios</b>	<b>9.31</b>	<b>14.38</b>	<b>11.14</b>	<b>8.46</b>
Non-U.S. Equity Policy Index (2)	7.79	14.14	10.54	7.32
<b>PSERS Fixed Income Portfolios (10)</b>	<b>1.93</b>	<b>4.74</b>	<b>7.05</b>	<b>6.77</b>
Fixed Income Policy Index (3)	-1.19	1.61	4.61	5.61
<b>PSERS Commodity Portfolios (10)</b>	<b>-18.65</b>	<b>-6.21</b>	<b>-1.18</b>	<b>N/A</b>
Commodity Policy Index (4)	-19.59	-7.15	-2.89	N/A
<b>PSERS Absolute Return Portfolios</b>	<b>4.30</b>	<b>4.87</b>	<b>6.04</b>	<b>N/A</b>
Absolute Return Policy Index (5)	3.76	6.24	6.84	N/A
<b>PSERS Risk Parity Portfolios (11)</b>	<b>-0.86</b>	<b>4.99</b>	<b>N/A</b>	<b>N/A</b>
Risk Parity Policy Index (6)	-0.81	3.98	N/A	N/A
<b>PSERS Master Limited Partnership (MLP) Portfolios</b>	<b>-10.14</b>	<b>18.76</b>	<b>20.62</b>	<b>N/A</b>
Standard & Poor's MLP Index	-16.48	10.54	13.32	N/A
<b>PSERS Real Estate (7)</b>	<b>13.92</b>	<b>12.92</b>	<b>13.31</b>	<b>4.99</b>
Blended Real Estate Index (8)	14.32	11.71	12.51	8.16
<b>PSERS Alternative Investments (7)</b>	<b>2.63</b>	<b>8.97</b>	<b>10.92</b>	<b>11.49</b>
Burgiss Median, Vintage Year Weighted Index (9)	4.29	4.84	5.37	4.87

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI ACWI ex USA IMI with DM 100% Hedged to USD (Net) Index effective October 1, 2014. From July 1, 2008 to September 30, 2014, the index was the MSCI All Country World (ACW) ex. USA Investable Market Index. Before July 1, 2008, the MSCI ACW ex. U.S. Index was used. The benchmark was 30% hedged to the U.S. dollar from July 1, 2006 to March 31, 2009.
3. Returns presented are a blend of the Barclays Capital U.S. Aggregate Index (17.2%), Barclays Capital Global Aggregate GDP Weighted Dev x U.S. (Unhedged) Index (3.5%), Barclays Capital Emerging Mkt 10% Country Cap Index (6.9%), Barclays Capital U.S. Treasury Long Index (10.3%), Barclays Capital U.S. High Yield Index (20.7%), and Barclays Capital U.S. TIPS Index (41.4%) effective July 1, 2013. Prior to July 1, 2013, the blend was Barclays Capital U.S. Universal Index (24.7%), JP Morgan GBI EM Global Diversified Index (9.4%), Barclays Capital U.S. High Yield Index (28.2%), Barclays Capital Multiverse Index (14.1%), and Blended Policy (Net Levered TIPS) (23.6%).
4. Returns presented are a blend of the Bloomberg Commodity Gold Index (33.3%) and the Bloomberg Commodity Index (66.7%). On July 1, 2014, the indices names were changed from DJ/UBS to Bloomberg. The returns have been adjusted for leverage.
5. Three month LIBOR +3.50% effective July 1, 2014. Previously, was based on the assumed actuarial rate of return for the Fund which was 8.0% from July 1, 2009 through June 30, 2011. The assumed rate changed to 7.5% on July 1, 2011 and was used as the Absolute Return Policy Index through June 30, 2014.
6. Effective July 1, 2014 returns presented are a blend of MSCI ACW Index (\$Net) (50%); Barclays Capital U.S. Treasury Index (75%); Barclays Capital World Inflation Linked Bond Index Hedged (55%); Bloomberg Commodity Index (Total Return) (15%); Bloomberg Gold Subindex (5%); and 3-Month LIBOR (-100%). The weights to these indices have varied in previous quarters. The returns have been adjusted for volatility.
7. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
8. Effective April 1, 2015, comprised of a blended benchmark consisting of the National Council of Real Estate Investment Fiduciaries (NCREIF) – Open End Diversified Core Equity (ODCE) Index and Burgiss Private iQ (for Value-Added Real Estate and Opportunistic Real Estate) reported on a one-quarter lag. For periods between April 1, 2010 and March 31, 2015, the benchmark was comprised of a blended benchmark of NCREIF-ODCE (core) and various private real estate benchmarks for Value-Added and Opportunistic (including NCREIF-Closed-End Value-Added (CEVA), NCREIF/Townsend and NCREIF-NPI) reported on a one-quarter lag. For all prior periods, the benchmark was comprised of a blended benchmark strategically split between public/private using various public REIT indices (FTSE EPRA/NAREIT Global Real Estate, Wilshire Real Estate Securities and Wilshire REIT) and NCREIF-NPI (for all non-core) reported on a one-quarter lag.
9. Burgiss Median, Vintage Year Weighted Index effective January 1, 2011. Previously, the Thompson ONE, Vintage Year Weighted Index was used. Returns reported on a one-quarter lag.
10. Returns are presented on an unleveraged basis for comparability purposes to the Policy Index.
11. Returns are presented on a volatility-adjusted basis for comparability purposes to the Policy Index.



## Investment Section

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Fixed income markets were generally mixed as interest rates fell even with the headwind of slight monetary tightening in the U.S. from an ending of quantitative easing by the Fed. For the fiscal year, the Barclays U.S. Aggregate Index, a U.S. fixed income index, was up 1.86% as the yield curve fell from the June 2014 level. The Barclays Global Aggregate GDP Weighted Developed Market ex. U.S. Index (Unhedged), a non-U.S. fixed income index, was down 14.08% due primarily to non-U.S. currencies weakening significantly vs. the U.S. Dollar. The Barclays High Yield Index was down 0.40% during the past fiscal year due to a slight widening of credit spreads. The Barclays U.S. TIPS Index, an index of U.S. Treasury Inflation Protection Securities, driven by rising real yields, had a negative return of 1.73% for the fiscal year.

To benchmark real estate performance, the System uses a blended benchmark consisting of the National Council of Real Estate Investment Fiduciaries (NCREIF) – Open End Diversified Core Equity (ODCE) Index and Burgiss Private iQ (for Value-Added Real Estate and Opportunistic Real Estate) starting the first calendar quarter of 2015. Previously, the System used a blend of various real estate indices more fully discussed in footnote 8 on page 77. The indices are designed to reflect the performance of funds available to U.S. institutional investors, including private real estate/equity-oriented investments, without regard to geographic location. The combined performance of the NTF Index and Burgiss Index was 14.32% during the past fiscal year. Index returns are reported on a one-quarter lag due to the time taken to acquire this information from private market sources, so this return is for the twelve months ended March 31, 2015. Investment performance in the private real estate markets has continued to rebound from significant declines sustained during the credit crisis in 2008.

The absolute return program had an above target fiscal year generating a total return of 4.30%, 54 basis points above its target return of LIBOR + 3.50% (3.76%). Performance was driven primarily by strong returns in reinsurance and global macro funds during the year offset somewhat by weak performance in event driven strategies. The absolute return program is structured to have low beta to the equity, fixed income, and commodity markets and to provide additional diversification from the remainder of the asset allocation. These objectives were achieved by the program.

The risk parity program was down 0.86%, 5 basis points below the policy index for this program. The risk parity managers take a balanced risk approach to portfolio construction, leveraging up low risk assets such as nominal and inflation-linked bonds to an equivalent risk level as higher risk asset classes such as equities and commodities and then balancing the risks in constructing their portfolios. Risk parity had flat performance for the past fiscal year due to negative returns generated from increasing risk premiums demanded by investors.

The master limited partnership (MLP) portfolio traded down in sympathy with the commodity market during the fiscal year, with a negative return of 10.14%, as the market started discounting slower growth and potentially slower dividend growth during the year. For the fiscal year, the MLP market, as measured by the Standard & Poor's MLP Index, was down 16.48%.

For the one-year period ended June 30, 2015, the System generated a total net of fee return of 3.04%. This return exceeded the total fund Policy Index return of 2.02% by 102 basis points. Annualized total net of fee returns for the three-, five-, and ten-year periods ended June 30, 2015 were 8.52%, 9.73%, and 6.31%, respectively. The three-, five- and ten-year returns ended June 30, 2015 exceeded the total fund Policy Index returns by 228, 246, and 145 basis points, respectively.

Aon Hewitt calculates the total investment return of the System as well as the performance of each external investment management firm and each internal investment manager retained by the Board to invest the System's assets. Performance is calculated using a time-weighted return methodology.

The System also participates in a securities lending program administered by Deutsche Bank AG. This program is designed to provide incremental income to the System by lending securities in the System's portfolio to securities dealers in exchange for cash collateral, which can be reinvested to generate income, or non-cash collateral plus a cash fee. This program generated \$9.0 million in net gains during the year.

### Accomplishments

The biggest accomplishment of fiscal year 2015 was the sale of approximately \$2.0 billion in alternative investments in the secondary market. The purpose of this sale was to bring the amount invested in alternative investments down closer to the System's long-term allocation target of 15.0%. In addition, this will allow the System to be more liquid prospectively since the proceeds from the sale were re-invested in the public markets. The strength of the U.S. equity market over the past six years and strong investor demand for higher risk/higher expected return assets presented the Investment Office staff with

the opportunity to execute a sale of this size (one of the largest sales in the world in calendar year 2014). I appreciate all of the efforts of our Board, Investment Office staff, the System's Legal staff, Greenhill Cogent, LP, our external financial advisor on this transaction, and Proskauer Rose LLP, our external legal advisor on this transaction.

I continue to be proud that collectively the Board, the Investment Office staff, external investment managers, and the System's consultants (collectively, the "Investment Team") contributed to generating dollar returns in excess of the passive Policy Index of over \$500 million, net of all fees and expenses. If the Board succumbed to the pressure of passively managing the portfolio, the System would have billions of dollars less in assets than it does today. Over the past ten years, the System has generated approximately \$7.7 billion in excess of the dollar returns that would have been generated from the passive Policy Index. In fact, the System has exceeded its Policy Index in 8 of the past 10 years (28 of the past 40 quarters). Many people mistakenly associate higher management fees with lower investment returns. When a manager generates investment returns, net of fees and expenses, in excess of the passive index returns, their fees can generally be justified as long as those returns were accomplished in a risk-controlled fashion. PSERS' investment program utilizing active management has been successful due to the wisdom of the System's Board in giving Investment Office staff the latitude to use active managers and the skill of PSERS' Investment Team in choosing active managers in those areas where staff believe inefficiencies exist and the System has a demonstrable edge in manager selection. In those areas that staff believes are efficient or where staff does not believe PSERS has a demonstrable edge in manager selection (i.e. U.S. equities), the System will generally internally manage those assets in passive index funds. In addition, the Investment Team will terminate those managers underperforming their benchmarks over time should staff believe that they no longer have an investment edge or are incurring too much risk. Just as investment managers are actively managing portfolios, the Investment Team is actively managing managers. Should PSERS no longer be successful using active management, for whatever reason, PSERS has a very capable and competent team of investment professionals at the System who can manage assets internally at very competitive costs.

### Summary

The System had positive returns of 3.04% during the fiscal year ended June 30, 2015 which was in excess of the Policy Index return of 2.02%. This excess return amounted to an incremental income for the System of over \$500 million. Over the past three- and five-year periods ended June 30, 2015, the System returned 8.52% and 9.73%, both in excess of the System's Policy Index. The continued monetary support of low interest rates and quantitative easing outside the United States should continue to provide some support to financial assets prospectively. However, this support over the past few years has driven up the current value of asset prices while the underlying cash flows have not materially changed, meaning that financial assets are more expensive today and have lower expected returns over the next decade. In addition, all of the monetary support has provided stability in financial markets as evidenced by a lack of a material correction of 15% or more in the U.S. equity market for over 900 days and counting. The concerns going forward include building a portfolio with the opportunity to achieve the assumed actuarial rate of return without incurring unacceptable levels of risk. The Board and Investment Office staff are using all available tools to build an asset allocation to achieve that objective, including utilizing active investment managers as well as the prudent use of leverage to allow the System to maintain sufficient diversification. We believe we are in a good position to accomplish our objectives in an uncertain environment. As always, time will tell.



James H. Grossman Jr., CPA, CFA  
Chief Investment Officer

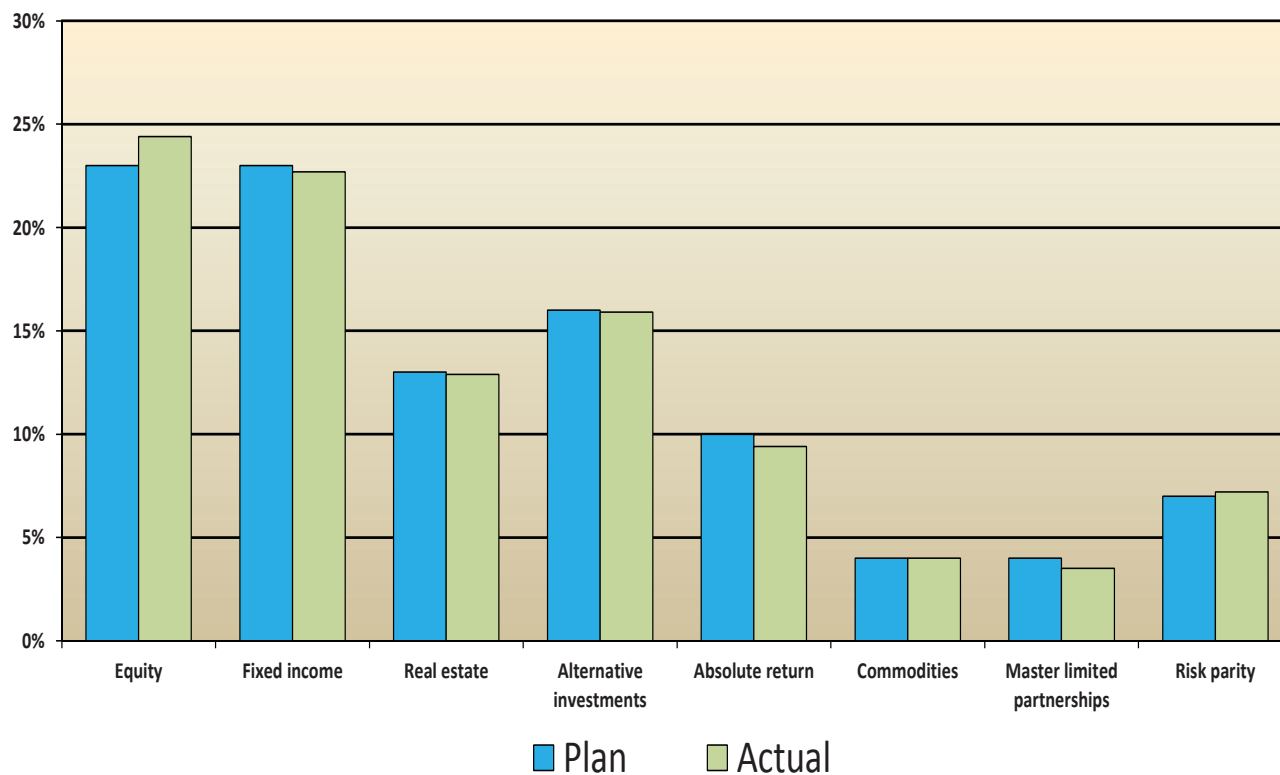
**Portfolio Summary Statistics**  
**Asset Allocation**  
**As of June 30, 2015**  
(Dollar Amounts in Thousands)

<b>Pension investments</b>	<b>Fair Value</b>	<b>% Fair Value</b>
<b>Common and preferred stock (Equity):</b>		
Large and mid cap stocks	\$ 5,425,666	10.6
Small cap stocks	813,239	1.6
Emerging markets stocks	1,358,075	2.6
<b>Total Non-U.S. equity</b>	<b>7,596,980</b>	<b>14.8</b>
Large cap stocks	3,502,331	6.9
Mid and small cap stocks	1,363,437	2.6
Microcap stocks	32,513	0.1
<b>Total U.S. equity</b>	<b>4,898,281</b>	<b>9.6</b>
<b>Total Common and preferred stock - Asset Allocation Basis</b>	<b>12,495,261</b>	<b>24.4</b>
<b>Fixed income:</b>		
Investment grade fixed income	3,711,849	7.3
High yield fixed income	3,111,805	6.1
<b>Total U.S. Fixed income</b>	<b>6,823,654</b>	<b>13.4</b>
Non-U.S. developed markets fixed income	2,478,974	4.9
Emerging markets fixed income	972,515	1.9
<b>Total Non-U.S. Fixed income</b>	<b>3,451,489</b>	<b>6.8</b>
<b>Cash and cash equivalents</b>	<b>1,276,862</b>	<b>2.5</b>
<b>Total Fixed income - Asset Allocation Basis</b>	<b>11,552,005</b>	<b>22.7</b>
<b>Real estate</b>	<b>6,568,798</b>	<b>12.9</b>
<b>Alternative investments:</b>		
Private equity	6,055,821	11.8
Private debt	1,129,519	2.2
Venture capital	955,811	1.9
<b>Total Alternative investments - Asset Allocation Basis</b>	<b>8,141,151</b>	<b>15.9</b>
<b>Absolute return</b>	<b>4,817,016</b>	<b>9.4</b>
<b>Commodities</b>	<b>2,025,583</b>	<b>4.0</b>
<b>Master limited partnerships</b>	<b>1,785,117</b>	<b>3.5</b>
<b>Risk parity</b>	<b>3,686,887</b>	<b>7.2</b>
<b>Total Pension investments - Asset Allocation Basis</b>	<b>51,071,818</b>	<b>100.0</b>
Net Asset Allocation Adjustment*	(765,074)	
<b>Pension investments per Statement of Fiduciary Net Position</b>	<b>50,306,744</b>	
<b>Postemployment Healthcare investments</b>	<b>\$ 272,287</b>	<b>100.0</b>

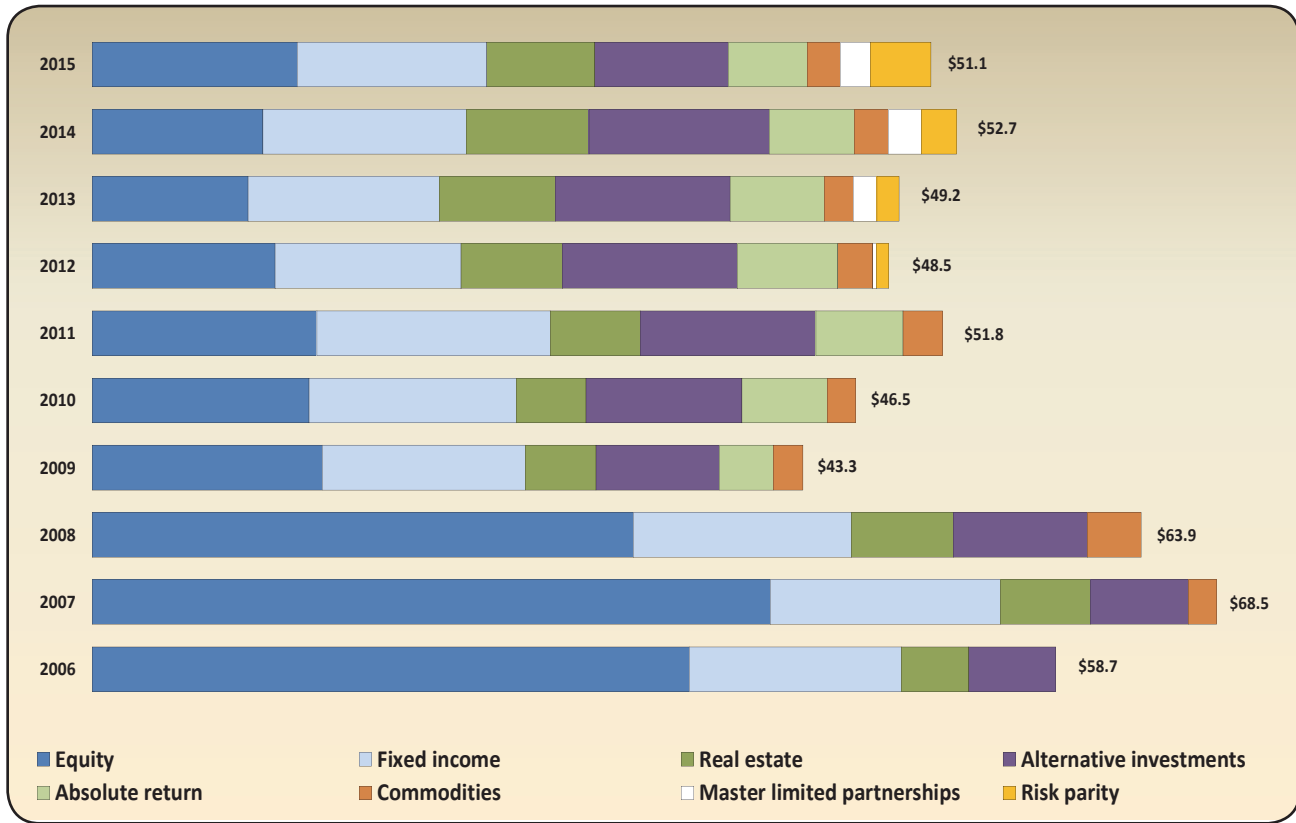
\* Includes reclassifications of certain investments between asset classes and investment receivables/payables to adjust the Statement of Fiduciary Net Position classification to the basis used to measure Asset Allocation. See the table and graph which follow.

### Comparison of Actual Portfolio Distribution to Asset Allocation Plan As of June 30, 2015

Asset Category	Plan	Actual
Common and preferred stock (Equity)	23.0%	24.4%
Fixed income	23.0	22.7
Real estate	13.0	12.9
Alternative investments	16.0	15.9
Absolute return	10.0	9.4
Commodities	4.0	4.0
Master limited partnerships	4.0	3.5
Risk parity	7.0	7.2
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>



### Portfolio Distribution 10 Year Trend (Fair Value - Dollar Amounts in Billions)



The following lists of portfolio detail statistics present the ten largest holdings by descending order of fair value for the largest public market asset classes. Information on the complete holdings of the System can be downloaded from the PSERS website at [www.pfers.state.pa.us](http://www.pfers.state.pa.us).

### Common and Preferred Stock - Non-U.S. Equity 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2015 (Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class D	287	\$ 326,369
The 32 Capital Fund Ltd.	98	193,683
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class P	32	107,779
Nestle SA	1,387	79,172
Toyota	1,245	63,584
Novartis AG	612	60,306
Roche Holding AG	197	55,112
Royal Dutch Shell PLC	1,675	49,486
HSBC Holdings PLC	4,690	42,845
Novo Nordisk A/S	766	41,708
<b>Total of 10 Largest Holdings</b>		<b>\$ 1,020,044</b>



**Common and Preferred Stock - U.S. Equity**  
**10 Largest Holdings in Descending Order by Fair Value**  
**As of June 30, 2015**  
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
AllianceBernstein Factor Risk Premia Fund, L.P.	188,914	\$ 188,914
Security Capital Preferred Growth	13,039	182,503
Apple Computer, Inc.	647	81,141
Microsoft Corporation	908	40,106
Exxon Mobil Corporation	585	39,063
Google, Inc.	64	34,133
Johnson & Johnson	385	33,991
General Electric Company	1,131	30,063
Wells Fargo & Company	526	29,592
JPMorgan Chase & Co.	417	28,238
<b>Total of 10 Largest Holdings</b>		<b>\$ 687,744</b>

**Fixed Income**  
**10 Largest Holdings in Descending Order by Fair Value**  
**As of June 30, 2015**  
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
PIMCO Multi-Sector Strategy Fund Ltd.	817	\$ 904,688
BlackRock US Extended Core Global Alpha Bond Fund Ltd.	448	820,757
Bridgewater International Inflation-Linked Bond Fund	250	670,790
Bridgewater U.S. Inflation-Linked Bond Fund	252	500,021
Bridgewater Pure Alpha Fund II Ltd.	109	461,358
Sankaty Advisors LLC-Bank Loans	N/A	424,717
Black River Inflation Opportunity Fund Class B	351	291,400
Sankaty Credit Opportunities V-A, L.P.	N/A	284,786
ICG Europe Fund V, L.P.	N/A	215,360
Brigade Structured Credit Offshore Fund Ltd.	200	205,236
<b>Total of 10 Largest Holdings</b>		<b>\$ 4,779,113</b>

**Absolute Return**  
**10 Largest Holdings in Descending Order by Fair Value**  
**As of June 30, 2015**  
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
Bridgewater Pure Alpha Fund II, Ltd.	240	\$ 905,010
Capula Global Relative Value Fund Ltd.	3,000	371,319
Brevan Howard Fund Ltd. - Class E US	2,553	348,234
Capula Tail Risk Fund Ltd.	3,977	338,670
Black River Fixed Income Relative Value Opportunity Fund Ltd.	250	305,299
PIMCO Absolute Return Strategy V Offshore Fund Ltd.	101	285,934
Brigade Leveraged Capital Structures Offshore Ltd.	170	271,279
PIMCO Global Credit Opportunity Offshore Fund Ltd.	123	263,036
BlackRock Capital Structure Investments Offshore Fund Ltd.	198	251,883
Aeolus Property Catastrophe Fund	219	244,768
<b>Total of 10 Largest Holdings</b>		<b>\$ 3,585,432</b>

**Postemployment Healthcare Investments**  
**10 Largest Holdings in Descending Order by Fair Value**  
**As of June 30, 2015**  
(Dollar Amounts in Thousands)

Description	Maturity Date	Interest Rate (%)	Par Value	Fair Value
PSERS Short-Term Investment Fund	Various	Various	\$ 159,915	\$ 159,915
Wilmington US Government MM	N/A	Various	67,342	67,342
Chase Issuance Trust Class 2012-A5 Class A5	08/15/17	0.590%	2,500	2,500
American Express Credit Account Master Trust 2012-2 Class A	03/15/18	0.680%	1,825	1,825
Mercedes-Benz Auto Lease Trust 2013-B Class A3	07/15/16	0.620%	1,635	1,635
GNMA Guaranteed REMIC 2010-87 Class LH	08/20/36	2.500%	1,243	1,255
GNMA Guaranteed REMIC 2006-31 Class E	05/16/39	4.643%	1,051	1,067
Mercedes-Benz Auto Lease Trust 2014-A Class A2B	09/15/15	0.366%	847	847
Master Credit Card Trust 2012-2A Class A	04/21/17	0.780%	790	790
MMAF Equipment Finance, LLC 2012-A	08/10/16	0.940%	698	698
<b>Total of 10 Largest Holdings</b>				<b>\$ 237,874</b>

**Comparison of Investment Activity Income**  
**Fiscal Years Ended June 30, 2015 and 2014**  
(Dollar Amounts in Thousands)

Investment Activity	2015	2014
Net appreciation in fair value of investments	\$ 511,869	\$ 6,023,861
Short-term	9,502	8,702
Fixed income	167,788	220,447
Common and preferred stock	279,940	284,808
Collective trust funds	2,117	7,069
Real estate	345,250	374,076
Alternative investments	458,658	642,727
<b>Total investment activity income</b>	<b>\$ 1,775,124</b>	<b>\$ 7,561,690</b>

Brokers' fees on equity investment transactions for the fiscal year ended June 30, 2015 were \$6.5 million. The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investment transactions directly to the System. During the fiscal year ended June 30, 2015, the System earned \$61,000 from the commissions recapture program. A list of the brokers receiving fees in excess of \$100,000 during the fiscal year follows:

**Summary Schedule of Brokers' Fees**  
**(Cumulative Fiscal Year Amounts Exceeding \$100,000)**  
**Fiscal Year Ended June 30, 2015**

Broker Name	Fees Paid	Broker Name	Fees Paid
Citigroup Global Markets Incorporated	\$ 716,798	Merrill Lynch	\$ 227,752
Instinet Corporation	563,918	Credit Suisse First Boston	213,583
BNY Mellon	314,096	Goldman Sachs & Company	211,054
Fimat USA	281,049	Daiwa Securities	210,615
Morgan Stanley & Company	254,374	Macquarie Equities Limited	175,295
Jones Trading	250,127	Deutsche Bank	113,260
UBS Securities	236,571	Skandinaviska Enskilda Banken AG	106,465
JP Morgan Chase & Company	229,425		

**Professional Consultants**  
**External Investment Advisors**  
**As of June 30, 2015**

**Absolute Return Managers**

- ◆ AllianceBernstein, LP
- ◆ Apollo Aviation Services II & III, LP
- ◆ Aeolus Capital Management, Ltd.
- ◆ Black River Asset Management, LLC
- ◆ BlackRock Financial Management, Inc.
- ◆ Brevan Howard Asset Management, LLP
- ◆ Bridgewater Associates, Inc.
- ◆ Brigade Capital Management
- ◆ Capula Investment Management, LLP
- ◆ Caspian Capital, LP
- ◆ Ellis Lake Capital, LLC
- ◆ Nephila Capital, Ltd.
- ◆ Oceanwood Capital Management, Ltd.
- ◆ Pacific Investment Management Company
- ◆ Perry Capital, LLC

**Publicly-Traded Real Estate Securities Manager**

- ◆ Security Capital Research & Management, Inc.

**Non-U.S. Equity Managers**

- ◆ Acadian Asset Management, Inc.
- ◆ Baillie Gifford Overseas, Ltd.
- ◆ Batterymarch Financial Management, Inc.
- ◆ BlackRock Financial Management, Inc.
- ◆ Marathon Asset Management, LLP
- ◆ Oberweis Asset Management, Inc.
- ◆ Pyramis Global Advisors, Inc.
- ◆ Wasatch Advisors, Inc.

**Commodity Managers**

- ◆ Gresham Investment Management, LLC
- ◆ Pacific Investment Management Company
- ◆ Wellington Management Company, LLP

**U.S. Core Plus Fixed Income Managers**

- ◆ BlackRock Financial Management, Inc.
- ◆ Piedmont Investment Advisors, LLC
- ◆ Pugh Capital Management, Inc.
- ◆ SEI Investment Management Corporation

**High Yield Fixed Income Managers**

- ◆ Apollo Management International, LLP
- ◆ Avenue Capital Group
- ◆ BlackRock Financial Management, Inc.
- ◆ Brigade Capital Management
- ◆ Cerberus Institutional Partners, LP
- ◆ Haymarket Financial, LLP
- ◆ Intermediate Capital Group, PLC
- ◆ LBC Credit Partners
- ◆ Mariner Investment Group, LLC
- ◆ Oaktree Capital Management, LP

- ◆ Radcliffe Capital Management, LP
- ◆ Sankaty Advisors, LLC
- ◆ Summit Partners
- ◆ The Carlyle Group
- ◆ TPG Partners, LP
- ◆ Varde Partners

**Non-U.S. Developed Markets Fixed Income Manager**

- ◆ AllianceBernstein, LP

**Emerging Markets Debt Managers**

- ◆ Franklin Templeton Investments
- ◆ Stone Harbor Investment Partners, LP

**Multi-Sector Fixed Income Manager**

- ◆ Pacific Investment Management Company

**Global Treasury Inflation - Protected Securities Managers**

- ◆ Black River Asset Management, LLC
- ◆ Bridgewater Associates, Inc.

**Passive Currency Hedging Overlay Program Manager**

- ◆ Pareto Investment Management, Ltd.

**Risk Parity Managers**

- ◆ AQR Capital Management, LLC
- ◆ BlackRock Financial Management, Inc.
- ◆ Bridgewater Associates, Inc.
- ◆ D.E. Shaw Investment Management, LLC

**Master Limited Partnership Advisors**

- ◆ Atlantic Trust Private Wealth Management
- ◆ Harvest Fund Advisors, LLC
- ◆ Salient Capital Advisors, LLC

**Professional Consultants (Continued)****Real Estate Advisors**

- ◆ Charter Oak Advisors, Inc.
- ◆ GF Management, Inc.
- ◆ Grosvenor Fund Management US, Inc.
- ◆ L&B Realty Advisors, LLP

**Real Estate Partnerships**

- ◆ AG Core Plus Realty Fund III, LP
- ◆ Almanac Realty Securities V & VI, LP
- ◆ Apollo Real Estate Finance Corp.
- ◆ AREFIN Co-Invest Corp.
- ◆ Ares European Real Estate Fund III, LP
- ◆ Ares U.S. Real Estate Fund VII, LP
- ◆ AvalonBay Value Added Fund I & II, LP
- ◆ Avenue Real Estate Fund, LP
- ◆ Beacon Capital Strategic Partners V, LP
- ◆ Bell Institutional Fund IV & V, LP
- ◆ BlackRock Asia Property Fund III, LP
- ◆ BlackRock Europe Property Fund III, LP
- ◆ Blackstone Real Estate Debt Strategies II, LP
- ◆ Blackstone Real Estate Partners V, VI, & VII, LP
- ◆ Blackstone Real Estate Partners Europe III & IV, LP
- ◆ BPG Investment Partnership V & VI, LP
- ◆ BPG/PSERS Co-Investment Fund, LP
- ◆ Broadway Partners Real Estate Fund II & III, LP
- ◆ Brookfield Strategic Real Estate Partners, LP
- ◆ Cabot Industrial Value Fund III & IV, LP
- ◆ Carlyle Europe Real Estate Partners III-A, LP
- ◆ Carlyle Realty Partners III, IV, V, & VI, LP
- ◆ DLJ Real Estate Capital Partners II, III, & IV, LP
- ◆ DRA Growth and Income Fund VI & VII, LLC
- ◆ Exeter Industrial Value Fund II, LP
- ◆ Fillmore West Fund, LP
- ◆ Fortress Investment Fund I, IV, & V, LP
- ◆ Hines U.S. Office Value Added Fund, LP
- ◆ JP Morgan Strategic Property Fund
- ◆ LAI Real Estate Investors, LLC
- ◆ Latitude Management Real Estate Capital III, Inc.
- ◆ LCCG Real Estate Special Situations Mortgage Fund, LLC
- ◆ Legg Mason Real Estate Capital I & II, Inc.
- ◆ LEM Real Estate High Yield Debt and Preferred Equity Fund III, LP
- ◆ LEM Real Estate Mezzanine Fund II, LP
- ◆ Lubert-Adler Real Estate Fund III, IV, V, & VI, LP
- ◆ Madison Marquette Retail Enhancement Fund, LP
- ◆ North Haven Domestic Real Estate Fund IV, LP
- ◆ North Haven Int'l. Real Estate Fund IV, V, & VI, LP
- ◆ North Haven Real Estate Fund V US, LP
- ◆ North Haven Real Estate Fund VII Global, LP
- ◆ O'Connor North American Property Partners I & II, LP
- ◆ Paladin Realty Latin America Investors III, LP
- ◆ Paramount Group, Inc.
- ◆ Peabody Global Real Estate Partners
- ◆ PRISA
- ◆ RCG Longview Debt Fund IV & V, LP

- ◆ RCG Longview Equity Fund, LP
- ◆ Senior Housing Partnership Fund IV, LP
- ◆ Silverpeak Legacy Partners I, II, & III, LP
- ◆ Stockbridge Real Estate Fund I, II, & III, LP
- ◆ Strategic Partners II, III, & IV RE, LP
- ◆ Strategic Partners Value Enhancement Fund, LP
- ◆ UBS (US) Trumbull Property Fund, LP
- ◆ William E. Simon & Sons Realty Partners, LP

**Farmland Advisor**

- ◆ Prudential Agricultural Group

**Private Equity/Venture Capital Partnerships**

- ◆ ABS Capital Partners II, LP
- ◆ Actis Emerging Markets 3, LP
- ◆ Actis Global 4, LP
- ◆ Adams Capital Management, LP
- ◆ Aisling Capital Partners II & III, LP
- ◆ Allegheny New Mountain Partners, LP
- ◆ Apax Europe VII, LP
- ◆ Bain Capital Asia Fund II, LP
- ◆ Bain Capital Fund XI, LP
- ◆ Baring Asia Private Equity Fund III, IV, & V, LP
- ◆ Blue Point Capital Partners I, II, & III, LP
- ◆ Bridgepoint Capital II, LP
- ◆ Bridgepoint Europe I, II, III, & IV, LP
- ◆ Capital International Private Equity Fund V & VI, LP
- ◆ Catterton Growth Partners I & II, LP
- ◆ Catterton Partners V, VI, & VII, LP
- ◆ Co-Investment Fund 2000, LP
- ◆ Co-Investment Fund II, LP
- ◆ Coller International Partners VI, LP
- ◆ Credit Suisse Intl. Equity Partners, LP
- ◆ Crestview Partners I & II, LP
- ◆ Cross Atlantic Technology Fund I & II, LP
- ◆ CVC Capital Partners Asia Pacific III, LP
- ◆ CVC European Equity Partners V, LP
- ◆ DCPF VI Oil and Gas Co-Investment Fund, LP
- ◆ Denham Commodity Partners VI, LP
- ◆ DLJ Merchant Banking Partners III, LP
- ◆ Dubin Clark Fund II, LP
- ◆ Equistone Partners Europe Fund VE, LP
- ◆ Evergreen Pacific Partners I & II, LP
- ◆ First Reserve Fund XI & XII, LP
- ◆ Goldpoint Partners Co-Investment Fund V, LP
- ◆ Greenwich Street Capital Partners II, LP
- ◆ HgCapital 7, LP
- ◆ HGGC Fund II
- ◆ Incline Equity Partners III, LP
- ◆ Irving Place Capital Partners II & III, LP
- ◆ Jefferson Partners Fund IV, LP
- ◆ KBL Healthcare Ventures, LP
- ◆ KRG Capital Fund II, LP
- ◆ Landmark Equity Partners IV, V, XIII, & XIV, LP
- ◆ Landmark Mezzanine Partners, LP

**Professional Consultants (Continued)**

- ◆ Lexington Capital Partners I, LP
- ◆ Lindsay, Goldberg & Bessemer, LP
- ◆ LLR Equity Partners I, II, III, & IV, LP
- ◆ Milestone Partners II, III, & IV, LP
- ◆ Morgan Stanley Dean Witter Capital Partners IV, LP
- ◆ North Haven Private Equity Asia Fund IV, LP
- ◆ NEPA Venture Fund II, LP
- ◆ New Mountain Partners I & III, LP
- ◆ New York Life Capital Partners I, II, III, & IV, LP
- ◆ NGP Natural Resources X, LP
- ◆ Novitas Capital I & II, LP
- ◆ Odyssey Investment Partners, LLC
- ◆ Orchid Asia V, LP
- ◆ PAI Europe IV & V, LP
- ◆ Palladium Equity Partners II-A & IV, LP
- ◆ Partners Group Secondary 2008 & 2011, LP
- ◆ Permira IV, LP
- ◆ Perseus-Soros Bio-Pharmaceutical Fund, LP
- ◆ Platinum Equity Capital Partners I, II, & III, LP
- ◆ PNC Equity Partners I & II, LP
- ◆ Psilos Group Partners III, LP
- ◆ Quadrangle Capital Partners I, LP
- ◆ Quaker BioVentures I & II, LP
- ◆ SCP Private Equity Partners I & II, LP
- ◆ StarVest Partners I & II, LP
- ◆ StepStone International Investors III, LP
- ◆ Sterling Capital Partners, LP
- ◆ Sterling Venture Partners, LP
- ◆ Strategic Feeder, LP
- ◆ Strategic Partners II, III-B, & III-VC, LP
- ◆ Strategic Partners Fund IV, IV-VC, & V, LP
- ◆ Summit Partners Growth Equity Fund VIII, LP
- ◆ Summit Partners Venture Capital Fund III, LP
- ◆ Tenaya Capital IV-P, V-P, & VI, LP
- ◆ The Energy & Minerals Group
- ◆ The Fifth Cinven Fund No. 1, LP
- ◆ The Fourth Cinven Fund
- ◆ Trilantic Capital Partners IV, LP
- ◆ Trilantic Capital Partners V (North America), LP
- ◆ U.S. Equity Partners II, LP

**Private Debt Partnerships**

- ◆ Apollo Investment Fund VIII, LP
- ◆ Avenue Asia Special Situations Fund II, III, & IV, LP
- ◆ Avenue Europe Special Situations Fund, LP
- ◆ Avenue Special Situations Fund IV, V, & VI, LP
- ◆ Cerberus Institutional Partners, II, III, IV & V, LP
- ◆ Gleacher Mezzanine Fund I & II
- ◆ Gold Hill Venture Lending, LP
- ◆ GSC Partners CDO Investors IV, LP
- ◆ GSC Recovery II & III, LP
- ◆ New York Life Investment Management Mezzanine Partners I & II, LP
- ◆ OCM Opportunities Fund VII & VII-B, LP
- ◆ Venor Special Situations Fund II, LP

- ◆ Versa Capital Fund I & II, LP
- ◆ Windjammer Senior Equity Fund III & IV, LP

**Alternative Investment Consultant**

- ◆ Portfolio Advisors, LLC

**Custodian Bank**

- ◆ The Bank of New York Mellon Corporation

**Securities Lending Agent**

- ◆ Deutsche Bank AG

**Absolute Return Consultant**

- ◆ Aksia, LLC

**Investment Accounting Application Service Provider**

- ◆ Financial Control Systems, Inc.

**Investment Evaluator and General Investment Consultant**

- ◆ Aon Hewitt Investment Consulting, Inc.

**Proxy Voting Agent**

- ◆ Glass, Lewis & Co., LLC

**Real Estate Investment Consultant**

- ◆ Courtland Partners, Ltd.



# ACTUARIAL SECTION

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January 14, 2015

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Public School Employees'  
Retirement System of Pennsylvania  
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Re: Actuary's Certification Letter

Members of the Board:

An actuarial valuation of the Public School Employees' Retirement System of Pennsylvania (Retirement System or PSERS) is performed annually to measure the ongoing costs of the Retirement System and the progress towards the funding goals of the Retirement System over time. The most recent actuarial valuation was completed as of June 30, 2014. The financing objective of the Retirement System is to:

- Fully fund all current costs based on the normal contribution rate determined under the funding method,
- Liquidate the unfunded accrued liability based on level percentage of pay amortization schedules required by the Public School Employees' Retirement Code, 24 Pa. C.S. §8101 et. seq. (Retirement Code) as amended by Act 2010-120, which requires amortization over 24 years of the unfunded accrued liability as of June 30, 2010, and of each change in the unfunded accrued liability due to actuarial experience after the June 30, 2010 valuation. Any increases in the unfunded liability arising from legislation enacted after June 30, 2010, are to be amortized over 10 years; and
- As directed by Act 2010-120, use pension rate collars to moderate the rise of annual employer pension contribution rates to reach the full actuarially determined contribution funding level in a budgetarily sound manner and within a financially responsible period of time.

The contribution policy of the Retirement System is set by statute. The Commonwealth's General Assembly has the authority to amend the benefit terms and funding policy for the System by passing bills in the Senate and House of Representatives and sending them to the Governor for approval.

Based on the June 30, 2014, actuarial valuation, a total contribution rate of 28.66% of payroll payable by employers for FY2015/2016, when taken together with the contributions payable by the members, current assets, and expected future asset returns, is sufficient to achieve the financing objective. However, Act 2010-120 limits the contribution for FY 2015/2016 to 25.84% of payroll. This has the effect of deferring part of the contribution that would otherwise have been payable in FY 2015/2016 to future years.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2014, including pension and survivor benefits, and as required by the Retirement Code as the basis for the contribution rate for fiscal year 2015/2016. There were no legislative or administrative changes made to the benefits payable by PSERS since the prior valuation.

As required under Section 8502(j) of the Retirement Code, experience studies are performed for PSERS every five years, the most recent having been made as of June 30, 2010. This valuation was prepared on the basis of the demographic and economic assumptions that were recommended on the basis of the July 1, 2005 – June 30, 2010 Experience Review and approved by the Board of Trustees at its March 11, 2011 meeting.

In our opinion, the actuarial assumptions used for funding purposes are reasonably related to the experience of the System and to reasonable long-term expectations. These assumptions were selected in accordance with applicable Actuarial Standards of Practice published by the Actuarial Standards Board.

The actuarial assumptions and methods used by PSERS for financial reporting meet the requirements set forth in Governmental Accounting Standards Board (GASB) Statements No. 67 and are unchanged from the prior valuation. The actuarial cost method used for GASB Statement No. 67 disclosures differs from the actuarial cost method used for funding purposes in that the market value of assets has been used instead of an actuarial value of assets. The actuarial assumptions and methods for the GASB 25 disclosure are the same as those used for pension funding, except that the GASB 25 amortization payment will be determined on the basis of 30-year level-dollar funding. GASB 25 disclosures are no longer required to be reported due to GASB 67. However, PSERS is voluntarily providing GASB 25 disclosures for historical perspective as PSERS transitions to GASB 67. The Health Insurance funding provisions of the Retirement Code differ from the GASB 43 disclosure requirements. For funding purposes, the actuarial liability equals the assets in the health insurance account, and a contribution is determined to provide for solvency of the account through the third fiscal year following the valuation date. For GASB 43 purposes, the Health Insurance actuarial liability and normal cost requirements are determined under the entry age actuarial cost method, with 30-year level-dollar funding. (The entry age actuarial cost method meets the GASB 43 requirements for determining actuarial liability and normal cost and is the cost method specified by the Retirement Code for the PSERS pension plan.)

The Retirement System reported the individual data for members of the Retirement System as of the valuation date to the actuaries. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System. The accuracy of the results presented in this report is dependent on the accuracy of the data.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. An analysis of the potential range of future results is beyond the scope of this valuation.

In our opinion, the attached schedules of valuation results fairly represent the status of the Public School Employees' Retirement System and present an accurate view of historical data. The underlying assumptions and methods used for both funding and GASB disclosure purposes are consistent with the statutory specifications and represent a best estimate of the aggregate future experience of the Retirement System.

The following supporting schedules in the Actuarial Section were prepared by Buck Consultants:

- Summary of Results of Actuarial Valuation as of June 30, 2014
- History and Projection of Contribution Rates and Funded Ratios
- Summary of Actuarial Assumptions and Methods
- Schedule of Active Member Valuation Data
- Schedule of Retired Members and Beneficiaries Added To and Removed From Rolls
- Solvency Test
- Analysis of Past Financial Experience - Reconciliation of Employer Contribution Rates



## Actuarial Section

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In addition, Buck Consultants prepared the “Schedule of Changes in the Employer Net Pension Liability,” “Schedule of Employer Net Pension Liability,” “Schedule of Employer Contributions,” and the “Schedule of Funding Progress” in the Financial Section.

This report was prepared solely for the Public School Employees’ Retirement System of Pennsylvania for the purposes herein stated and may not be appropriate to use for other purposes. Buck does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than PSERS and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants’ prior written consent.

David L. Driscoll is a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. Edward Quinn and Salvador Nakar are Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

Respectfully submitted,  
Buck Consultants



David L. Driscoll, FSA, MAAA, EA  
Principal, Consulting Actuary



Edward A. Quinn, MAAA, EA  
Director, Retirement Actuary



Salvador Nakar, MAAA, EA  
Senior Consultant



**SUMMARY OF RESULTS OF ACTUARIAL VALUATION**  
**AS OF JUNE 30, 2014**  
**(\$ Amounts in Thousands)**

Item	June 30, 2014	June 30, 2013
<b>Member Data</b>		
1. Number of Members		
a) Active Members	263,312	267,428
b) Inactive Members and Vesteess*	20,467	18,911
c) Annuitants, Beneficiaries and Survivor Annuitants**	213,900	207,553
d) Total	497,679	493,892
2. Annualized Salaries (\$ Amounts in Thousands)***	\$ 12,620,862	\$ 12,577,105
3. Annual Annuities (\$ Amounts in Thousands)	\$ 5,339,477	\$ 5,147,060
<b>Valuation Results</b>		
4. Present Value of Future Pension Benefits		
a) Active Members	\$ 60,153,320	\$ 59,347,835
b) Inactive Members and Vesteess	1,521,474	1,379,601
c) Annuitants, Beneficiaries and Survivor Annuitants	51,425,295	49,979,444
d) Total	\$ 113,100,089	\$ 110,706,880
5. Present Value of Future Pension Normal Cost		
a) Active Members	\$ 9,786,167	\$ 9,826,502
b) Employer	10,960,939	10,928,562
c) Total	\$ 20,747,106	\$ 20,755,064
6. Pension Accrued Liability		
a) Active Members (4a) – (5c)	\$ 39,406,214	\$ 38,592,771
b) Inactive Members and Vesteess	1,521,474	1,379,601
c) Annuitants, Beneficiaries and Survivor Annuitants	51,425,295	49,979,444
d) Total	\$ 92,352,983	\$ 89,951,816
7. Health Insurance Assets for Premium Assistance	\$ 112,060	\$ 100,349
8. Total Accrued Liability for Funding (6) + (7)	\$ 92,465,043	\$ 90,052,165
9. Actuarial Value of Assets	\$ 57,343,859	\$ 57,453,611
10. Funded Status (9) / (8)	62.0%	63.8%
11. Unfunded Accrued Liability (8) – (9)	\$ 35,121,184	\$ 32,598,554
12. Total Normal Cost Rate	15.87%	15.92%
13. Member Contribution Rate	7.49%	7.46%
14. Employer Normal Cost Rate (12) – (13)	8.38%	8.46%
<b>Employer Annual Funding Requirement</b>		
15. Employer Contribution Rate Calculated by Actuary	<b>Fiscal 2015/2016</b>	<b>Fiscal 2014/2015</b>
a) Normal	8.38%	8.46%
b) Unfunded Accrued Liability	19.44%	17.51%
c) Preliminary Pension Rate	27.82%	25.97%
d) Act 120 Employer Pension Rate Collar	25.00%	20.50%
e) Health Insurance	0.84%	0.90%
f) Total Rate	25.84%	21.40%

\* In addition, there are 112,097 and 109,739 inactive members as of June 30, 2014 and June 30, 2013, respectively, who are no longer participating and are valued for their accumulated deductions only.

\*\* In addition, there are 1,459 and 1,651 beneficiaries as of June 30, 2014 and June 30, 2013, respectively, who are only entitled to a pending lump sum distribution.

\*\*\* The salaries shown represent an annual rate of pay for members who were in active service on the valuation date.

**HISTORY AND PROJECTION OF CONTRIBUTION RATES AND FUNDED RATIOS<sup>1</sup>**

Fiscal Year Ending June 30	Appropriation Payroll (thousands)	Contribution Rates <sup>2</sup>							
		Employee	Employer Normal Cost	Employer Unfunded Liability	Preliminary Employer Pension	Final Employer Pension <sup>7</sup>	Employer Health Insurance	Total Employer	Funded Ratio
2005 <sup>3</sup>	\$ 11,062,589	7.12%	7.48%	(7.10%)	0.38%	4.00%	0.23%	4.23%	83.7%
2006	11,505,093	7.16	7.61	(4.28)	3.33	4.00	0.69	4.69	81.2
2007 <sup>4</sup>	11,821,951	7.21	6.62	(0.95)	5.67	5.72	0.74	6.46	85.8
2008	12,881,244	7.25	6.68	(0.24)	6.44	6.44	0.69	7.13	86.0
2009	12,500,000	7.29	6.68	(3.37)	3.31	4.00	0.76	4.76	79.2
2010 <sup>5</sup>	12,899,000	7.32	7.35	(3.72)	3.63	4.00	0.78	4.78	75.1
2011 <sup>5,6</sup>	13,510,000	7.34	8.08	(0.50)	7.58	5.00	0.64	5.64	69.1
2012	14,112,000	7.37	8.12	10.15	18.27	8.00	0.65	8.65	66.4
2013 <sup>8</sup>	14,297,000	7.40	8.66	12.99	21.65	11.50	0.86	12.36	63.8
2014	13,720,000	7.43	8.57	15.25	23.82	16.00	0.93	16.93	62.0
2015	13,482,000	7.46	8.46	17.51	25.97	20.50	0.90	21.40	60.6
2016	13,375,000	7.49	8.38	19.44	27.82	25.00	0.84	25.84	59.6
2017	13,739,290	7.50	8.21	20.64	28.85	28.85	0.84	29.69	58.7
2018	14,097,299	7.50	8.05	21.74	29.79	29.79	0.83	30.62	58.4
2019	14,477,945	7.51	7.89	22.85	30.74	30.74	0.82	31.56	60.0
2020	14,875,749	7.51	7.74	23.69	31.43	31.43	0.80	32.23	61.7
2021	15,280,718	7.51	7.60	23.64	31.24	31.24	0.78	32.02	63.0
2022	15,689,939	7.51	7.45	23.68	31.13	31.13	0.77	31.90	64.7
2023	16,112,661	7.52	7.29	23.92	31.21	31.21	0.75	31.96	66.5
2024	16,541,176	7.52	7.14	24.02	31.16	31.16	0.74	31.90	68.1
2025	16,980,255	7.52	6.99	24.12	31.11	31.11	0.72	31.83	69.9
2026	17,416,242	7.52	6.83	24.37	31.20	31.20	0.70	31.90	71.8

1. The projection of contribution rates is based on the assumption that there are no changes in demographic assumptions, no changes in benefit provisions and no actuarial gains or losses other than gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the market value of assets.
2. In general, the Preliminary Employer Pension Rate equals the sum of the rates for the Employer Normal Cost and the Unfunded Liability; and the Final Employer Pension Rate is the greater of the Preliminary Pension Rate and any Pension Rate Floor or Collar stated in the Retirement Code. The Total Employer Rate is the sum of the Final Employer Pension Rate and the Employer Health Insurance Rate.
3. Act 2003-40 amended the Retirement Code to increase the Employer Pension Rate Floor from 1% to 4%.
4. Revised actuarial assumptions based on a five-year experience review ending June 30, 2005 were used to determine the contributions for the fiscal year ending June 30, 2007. Since the benefit changes under Act 2001-9 had not been in effect throughout the entire period covered by the study the Board decided, at its December 2005 meeting, to delay making any changes to the retirement rate assumptions until further data became available. The 5.72% Final Employer Pension Rate equals the 6.46% Total Employer Rate certified by the Board at that meeting, minus the 0.74% Employer Health Insurance Rate. The 5.67% Preliminary Employer Pension Rate equals the sum of the Employer Normal Cost and Unfunded Liability rates. The Normal Cost and Unfunded Liability rates were calculated by the actuary in January 2006, based on the package of assumptions adopted at the December 2005 meeting.
5. At its January 2009 meeting, the Board voted to reduce the interest rate from 8.50% to 8.25% for the June 30, 2008 valuation and to 8.00% for subsequent valuations.
6. Act 2010-46 recertified the fiscal year ending June 30, 2011 pension rate from 7.58% to 5.00%.
7. The Final Employer Pension rate is limited by the Act 2010-120 pension rate collars for fiscal years 2012 through 2016.
8. Revised actuarial assumptions based on a five-year experience review ending June 30, 2010 were used to determine the contributions for the fiscal year ending June 30, 2013 and thereafter, which includes an interest rate of 7.50%.



## DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS

### ASSUMPTIONS

**Investment Rate of Return:** 7.50% per annum, compounded annually (adopted as of June 30, 2011). The components are 3.00% for inflation and 4.50% for the real rate of return. Actuarial equivalent benefits are determined based on 4% (since 1960).

**Discount Rate for GASB 67 Accounting:** 7.50% as of June 30, 2013 and June 30, 2014. Rates were determined in accordance with the methods prescribed in GASB Statement No. 67.

**Separation from Service:** Illustrative rates of assumed separation from service are shown in the following table (adopted as of June 30, 2011).

Age	Annual Rate of:						
	Non-Vested Withdrawal	Vested Withdrawal*		Death	Disability	Early Retirement**	Superannuation Retirement
		Less Than 10 Years of Service	10 or More Years of Service				
<b>MALES</b>							
25	12.50%	5.50%	2.00%	0.037%	0.024%		
30	10.50	3.20	2.00	0.038	0.024		
35	11.00	3.00	1.50	0.056	0.100		
40	13.00	3.50	1.25	0.090	0.180		
45	13.00	3.50	1.25	0.121	0.180		25.00%
50	13.00	3.50	1.70	0.173	0.280		25.00
55	11.00	3.50	3.00	0.245	0.430	15.00%	30.00
60	10.50	3.50	4.50	0.363	0.580	12.00	28.00
65				0.592	0.100		20.00
69				0.810	0.100		18.00
<b>FEMALES</b>							
25	13.00%	8.50%	5.00%	0.018%	0.030%		
30	13.00	6.50	4.00	0.019	0.040		
35	13.00	5.50	3.00	0.022	0.060		
40	10.90	4.50	1.50	0.035	0.100		
45	10.90	4.00	1.50	0.055	0.150		30.00%
50	10.90	3.75	1.75	0.085	0.200		30.00
55	10.90	3.75	3.00	0.133	0.380	15.00%	30.00
60	10.90	4.50	5.50	0.197	0.380	15.00	30.00
65				0.301	0.130		25.00
69				0.428	0.130		20.00

\* Vested Withdrawal – At least 5 years of service for Class T-C and Class T-D members and 10 years of service for Class T-E and Class T-F members but not eligible for Early or Superannuation retirement.

\*\* Early Retirement – Age 55 with 25 years of service, but not eligible for Superannuation retirement.

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS  
(Continued)**

**Death after Retirement:** The RP-2000 Combined Healthy Annuitant Tables (Male and Female) with age set back 3 years for both genders for healthy annuitants and for dependent beneficiaries. The RP-2000 Combined Disabled Tables (Male and Female) with age set back 7 years for males and set back 3 years for females for disabled annuitants. (A unisex table based on the RP-2000 Combined Healthy Annuitant Tables (Male and Female) with age set back 3 years for both genders assuming the population consists of 25% males and 75% females is used to determine actuarial equivalent benefits.) No provision has been made for future improvements in mortality.

**Salary Increase:** Effective average of 5.50% per annum, compounded annually (adopted as of June 30, 2011). The components are 3.00% for inflation, 1% for real wage growth and 1.5% for merit or seniority increases. Representative values are as follows:

Age	Annual Rate of Salary Increase
20	10.75%
30	8.25
40	6.25
50	4.25
55	3.75
60	3.75
65	3.75
70	3.75

**Payroll Growth:** 3.50% per annum.

**MISCELLANEOUS**

**Option 4 Elections:** 100% of Class T-C and Class T-D members are assumed to elect a refund of contributions and a reduced annuity.

**Withdrawal Annuity:** 90% of members are assumed to commence payment immediately and 10% are assumed to defer payment to superannuation age.

**Health Insurance**

**Elections:** 65% of eligible retirees are assumed to elect premium assistance. This decreased from the 66% used in the prior valuation.

**Administrative Expenses:** Assumed equal to 2% of contributions made during the year.

**METHODS**

**Calculations:** The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Retirement System, and on actuarial assumptions that are internally consistent and reasonable based on the actual experience of the System.

**Asset Valuation Method:** A ten-year smoothed market average (five-year smoothed market average prior to June 30, 2010) value of assets that recognizes the 7.50% (8.00% prior to June 30, 2011, 8.25% prior to June 30, 2009, and 8.50% prior to June 30, 2008) actuarial expected investment return immediately and spreads the difference between the actual return on the market value of assets and the expected return on the actuarial value of assets over a period of ten years. The averaging period is being phased-in from fiscal year 2006.

**Actuarial Cost Method for Pension Funding:** Entry Age Normal Cost Method (modified slightly as of June 30, 2005 to use a pay-weighted average normal contribution rate). The results of each June 30 valuation normally determine the employer contribution rate for the second succeeding fiscal year. Act 120 revised the funding method effective with the June 30, 2010 valuation. Act 120 mandated that the outstanding balance of the unfunded accrued liability as of June 30, 2010, including changes in the unfunded accrued liability due to the funding reforms of Act 120, be amortized over a 24-year period, as a level percent of pay, beginning July 1, 2011. Future valuation gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 24-year period, as a level percent of pay. Future increases in the unfunded accrued liability due to legislation will be amortized over a 10-year period, as a level percent of pay. Act 120 also modified the employer pension contribution requirements by imposing collars on the rate at which employer contributions may rise from year to year. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014 the pension contribution rate can be no more than 3%, 3.5% and 4.5%, respectively, of total compensation of all active members, greater than the prior year's final contribution rate. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate is the

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
(Continued)

actuarially determined contribution rate, provided that the final contribution rate is not less than the employer normal contribution rate.

**Actuarial Cost Method for GASB 67 Accounting for Pensions:** Same as for pension funding except that the market value of assets is used instead of an actuarial value of assets.

**Actuarial Cost Method for Health Insurance Funding:** The actuarial liability equals the assets in the health insurance account, and the results of the June 30 valuation determine the contribution rate for the second succeeding fiscal year. The rate so determined is the rate necessary to establish reserves sufficient to cover administrative expenses and provide premium assistance payments for all participating eligible annuitants during the third fiscal year that follows the valuation date. This funding method is set by statute.

**Actuarial Cost Method for GASB 43 Accounting for Health Insurance:** The actuarial liability is determined under the entry age actuarial cost method, and the Annual Required Contribution (ARC) for the second fiscal year that follows the valuation date is equal to the entry age

normal cost for health insurance plus an amount that will amortize the entry age unfunded actuarial liability for health insurance over a period of 30 years.

**DATA**

**Census and Assets:** The valuation was based on members of the Retirement System as of June 30, 2014 and does not take into account future members. All census data was supplied by the Retirement System and was subject to reasonable consistency checks. The actuary adjusts the data to account for service and pay earned by members on or before the valuation that is not reported by the Retirement System until after the actuarial valuation is performed. Asset data was supplied by the Retirement System.

**SCHEDULE OF ACTIVE MEMBERS**  
**VALUATION DATA**

Valuation as of June 30	Number of Participating Employers	Number of Active Members	Annual Compensation (Thousands)	Average Compensation	% Increase in Average
2014	784	263,312	\$12,620,862	\$47,931	1.92%
2013	782	267,428	12,577,105	47,030	1.17
2012	773	273,504	12,714,371	46,487	0.52
2011	747	279,152	12,910,043	46,247	1.99
2010	747	282,041	12,788,847	45,344	1.26
2009	742	279,701	12,524,593	44,779	2.43
2008	739	272,690	11,921,469	43,718	1.16
2007	739	264,023	11,410,257	43,217	(0.33)
2006	733	263,350	11,419,049	43,361	5.22
2005	734	255,465	10,527,668	41,209	1.84

**SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES  
ADDED TO AND REMOVED FROM ROLLS**

Valuation Date as of June 30	Added to Rols		Removed from Rols		Rols at End of Year		% Increase in Annual Allowance	Average Annual Allowance
	Number	Annual Allowance (Millions)	Number	Annual Allowance (Millions)	Number	Annual Allowance* (Millions)		
2014	15,225	\$300.5	8,878	\$84.9	213,900	\$5,339.5	3.74%	\$24,962
2013	16,404	377.6	10,866	\$83.7	207,553	5,147.1	5.63	24,800
2012	14,579	332.7	7,186	66.6	202,015	4,872.9	4.78	24,122
2011	16,228	453.7	6,540	76.4	194,622	4,650.8	7.17	23,897
2010	12,649	372.8	5,678	77.6	184,934	4,339.6	8.59	23,466
2009	9,651	314.9	5,228	74.4	177,963	3,996.3	4.85	22,456
2008	10,911	345.3	5,397	73.9	173,540	3,811.5	8.18	21,963
2007	10,612	307.5	4,399	56.0	168,026	3,523.4	7.60	20,970

\* Reflects changes in annuities for continuing payees due to finalization of benefit calculations and due to the commencement of supplemental annuity payments.

**POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS  
SCHEDULE OF RETIRED MEMBERS ADDED TO AND REMOVED FROM ROLLS**

Valuation Date as of June 30	Added to Rols		Removed from Rols		Rols at End of Year		% Increase in Annual Premium Assistance	Average Annual Premium Assistance
	Number*	Annual Premium Assistance (Millions)	Number*	Annual Premium Assistance (Millions)	Number*	Annual Premium Assistance (Millions)		
2014	4,969	\$3.9	2,289	\$1.8	140,373	\$109.5	0.37%	\$1,200
2013	6,759	5.4	2,364	1.9	137,693	109.1	3.31	1,200
2012	5,751	4.6	1,372	1.1	133,298	105.6	3.43	1,200
2011	8,185	6.5	2,074	1.6	128,919	102.1	4.93	1,200
2010	6,709	5.3	2,323	1.8	122,808	97.3	3.73	1,200
2009	6,285	5.0	3,079	2.4	118,422	93.8	2.74	1,200
2008	8,792	7.0	6,050	4.8	115,216	91.3	2.47	1,200
2007	7,072	5.6	2,637	2.1	112,474	89.1	4.09	1,200

\* Number of retired members eligible to participate in the Health Insurance Premium Assistance; 65% of eligible retirees are assumed to elect premium assistance as of June 30, 2014. 66% of eligible retirees are assumed to elect premium assistance for the periods June 30, 2007 to June 30, 2013.

**SOLVENCY TESTS**  
**COMPARATIVE SUMMARY OF ACCRUED LIABILITY AND**  
**ACTUARIAL VALUE OF ASSETS**  
(\$ Amounts in Thousands)

**PENSIONS**

Valuation as of June 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Member Employer Financed	Actuarial Value of Assets	Portion of Accrued Liability Covered by Valuation Assets		
					(1)	(2)	(3)
2014	\$13,554,229	\$51,425,295	\$27,373,459	\$57,231,799	100%	85%	0%
2013	13,089,342	49,979,444	26,883,030	57,353,262	100	89	0
2012	12,535,442	47,511,912	27,713,306	58,227,622	100	96	0
2011	12,242,308	45,648,780	27,749,295	59,141,131	100	100	5
2010	11,850,031	40,284,383	26,871,014	59,306,848	100	100	27
2009	11,087,345	37,112,318	27,321,073	59,781,575	100	100	42
2008	10,532,683	34,617,953	25,695,001	60,922,157	100	100	61
2007	10,183,433	31,603,788	24,708,649	57,057,838	100	100	62
2006	9,571,668	29,117,164	25,938,529	52,464,726	100	100	53
2005	9,116,347	27,051,245	25,058,989	51,219,293	100	100	60

**POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS**

Valuation as of June 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Member Employer Financed	Actuarial Value of Assets	Portion of Accrued Liability Covered by Valuation Assets		
					(1)	(2)	(3)
2014	\$0	\$959,079	\$415,033	\$112,060	N/A	12%	0%
2013	0	961,701	423,332	100,349	N/A	10	0
2012	0	934,506	430,161	93,753	N/A	10	0
2011	0	909,076	430,368	111,258	N/A	12	0
2010	0	767,587	394,632	116,831	N/A	15	0
2009	0	759,891	399,164	105,114	N/A	14	0
2008	0	749,070	383,941	95,785	N/A	13	0
2007	0	684,677	373,415	97,292	N/A	14	0
2006	0	684,435	371,719	92,777	N/A	14	0

The solvency test compares the actuarial accrued liabilities by various categories with the System's actuarial value of assets.

**ANALYSIS OF PAST FINANCIAL EXPERIENCE  
RECONCILIATION OF EMPLOYER CONTRIBUTION RATES**

Fiscal Year Ending June 30	2016	2015	2014	2013	2012	2011	2010	2009	2008
Effective Prior Year Contribution Rate	21.40%	16.93%	12.36%	8.65%	5.64%	4.78%	4.76%	7.13%	6.46%
Prior Year Adjustment for Legislation	5.47	7.82	10.15	10.27	2.58	(0.37)	(0.69)	N/A	(0.05)
<b>Net Change Due to:</b>									
Change in Normal Rate	(0.08)	(0.11)	(0.09)	(0.22)	0.04	0.00	(0.02)	0.00	0.06
Payroll Growth and Liability Experience	0.58	0.68	0.72	(0.21)	0.40	(0.03)	0.33	(0.88)	0.47
Investment Loss/(Gain)	0.66	0.81	0.78	0.59	1.94	2.04	(1.71)	(2.25)	0.24
Health Insurance Contribution Change	(0.06)	(0.03)	0.07	0.21	0.01	(0.14)	0.02	0.07	(0.05)
Assumption/Method Change	N/A	N/A	N/A	3.04	N/A	1.94	1.72	N/A	N/A
Act 40 4.00% Floor*	N/A	N/A	N/A	N/A	N/A	N/A	0.37	0.69	N/A
Act 120 Funding Reforms	N/A	N/A	N/A	N/A	8.31	N/A	N/A	N/A	N/A
Amortization of Prior Legislation Deferrals	0.69	0.77	0.76	0.18	N/A	N/A	N/A	N/A	N/A
Legislation Deferrals:									
Act 46 Rate Cap**	N/A	N/A	N/A	N/A	N/A	(2.58)	N/A	N/A	N/A
Act 120 Collar***	(2.82)	(5.47)	(7.82)	(10.15)	(10.27)	N/A	N/A	N/A	N/A
Actual Contribution Rate:	25.84%	21.40%	16.93%	12.36%	8.65%	5.64%	4.78%	4.76%	7.13%

\* Act 2003-40 amended the Retirement Code to increase the Employer Pension Rate Floor from 1% to 4%.

\*\* Act 2010-46 recertified the fiscal year ending June 30, 2011 pension rate from 7.58% to 5.00%.

\*\*\* The Final Employer Pension rate is limited by the Act 2010-120 pension rate collar. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014 the pension contribution rate can be no more than 3%, 3.5% and 4.5%, respectively, of total compensation of all active members, greater than the prior year's final contribution rate. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate is the actuarially determined contribution rate, provided that the final contribution rate is not less than the employer normal contribution rate.



**SCHEDULE OF FUNDING PROGRESS FOR PENSIONS\***

(\$ Amounts in Thousands)

Valuation as of June 30	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Accrued Liability as a Percentage of Covered Payroll
2014	\$57,231,799	\$92,352,983	\$35,121,184	62.0%	\$12,620,862	278.3%
2013	57,353,262	89,951,816	32,598,554	63.8	12,577,105	259.2
2012	58,227,622	87,760,660	29,533,038	66.3	12,714,371	232.3
2011	59,141,131	85,640,383	26,499,252	69.1	12,910,043	205.3
2010	59,306,848	79,005,428	19,698,580	75.1	12,788,847	154.0
2009	59,781,575	75,520,736	15,739,161	79.2	12,524,593	125.7
2008	60,922,157	70,845,637	9,923,480	86.0	11,921,469	83.2
2007	57,057,838	66,495,870	9,438,032	85.8	11,410,257	82.7
2006	52,464,726	64,627,361	12,162,635	81.2	11,419,049	106.5
2005	51,122,156	61,129,444	10,007,288	83.6	10,527,668	95.1

\* The amounts reported above include assets and liabilities for Pensions.

The schedule above is not required by current GASB standards. PSERS is voluntarily providing this information for historical perspective as PSERS transitions to GASB Statement No. 67.

**SCHEDULE OF FUNDING PROGRESS FOR  
POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS\*\***

**GASB STATEMENT NO. 43 DISCLOSURE**

(\$ Amounts in Thousands)

Valuation as of June 30	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Accrued Liability as a Percentage of Covered Payroll
2014	\$112,060	\$1,374,112	\$1,262,052	8.2%	\$12,620,862	10.0%
2013	100,349	1,385,033	1,284,684	7.2	12,577,105	10.2
2012	93,753	1,364,667	1,270,914	6.9	12,714,371	10.0
2011	111,258	1,339,444	1,228,186	8.3	12,910,043	9.5
2010	116,831	1,162,219	1,045,388	10.1	12,788,847	8.2
2009	105,114	1,159,055	1,053,941	9.1	12,524,593	8.4
2008	95,785	1,133,011	1,037,226	8.5	11,921,469	8.7
2007	97,292	1,058,092	960,800	9.2	11,410,257	8.4
2006	92,777	1,056,154	963,377	8.8	11,419,049	8.4

\*\* The amounts reported above include assets and liabilities for Health Insurance Premium Assistance. The health insurance liabilities for GASB 43 disclosure have been calculated under the entry age normal cost method, which provides liabilities that differ from those determined under the funding requirements of the Retirement Code.

**SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR PENSIONS**  
 (\$ Amounts in Thousands)

<b>Fiscal Year Ended June 30</b>	<b>Annual Required Contribution</b>	<b>Actual Employer Contribution</b>	<b>Percentage Contributed</b>
2014	\$3,410,373	\$1,986,384	58%
2013	3,110,429	1,434,815	46
2012	2,629,244	1,001,140	38
2011	2,436,602	647,000	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
2005	945,107	431,556	46

The Annual Required Contribution (ARC) presented above was determined as part of the actuarial valuation as of two years prior to the dates indicated (i.e., the ARC for the fiscal year ended June 30, 2014 was determined by the valuation completed as of June 30, 2012, which was based on a 7.50% interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2014
Actuarial Cost Method:	Entry Age
Amortization Method:	Level Dollar, Open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	10 Year Smoothed Market
Actuarial Assumptions:	
-Investment Rate of Return*	7.50%
-Projected Salaried Increases*	5.50%
*Includes Inflation at:	3.00%

The schedule above is not required by current GASB standards. PSERS is voluntarily providing this information for historical perspective as PSERS transitions to GASB Statement No. 67.

**SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR  
POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS  
GASB STATEMENT NO. 43 DISCLOSURE  
(\$ Amounts in Thousands)**

Fiscal Year Ended June 30	Annual Required Contribution	Actual Employer Contribution	Percentage Contributed
2014	\$121,260	\$117,471	97%
2013	113,016	107,993	96
2012	102,104	80,936	79
2011	119,320	88,796	74
2010	117,187	102,703	88
2009	109,531	92,493	84
2008	101,352	81,317	80
2007	94,970	86,763	91

The Annual Required Contribution (ARC) beginning with the fiscal year ended June 30, 2009 was determined as part of the actuarial valuation as of two years prior to the date indicated (i.e., the ARC for the fiscal year ended June 30, 2014 was determined by the valuation completed as of June 30, 2012, which was based on a 7.50% interest rate). Prior to the fiscal year which ended June 30, 2009, the ARC was determined as part of the actuarial valuation as of one year prior to the dates indicated.

Additional information as of the latest actuarial valuation follows:

Valuation Date:	6/30/2014
Actuarial Cost Method:	Entry Age
Amortization Method:	Level Dollar, Open
Remaining Amortization Period:	30 Years
Asset Valuation Method:	Market
Actuarial Assumptions:	
-Investment Rate of Return*	7.50%
-Projected Salaried Increases*	5.50%
*Includes Inflation at:	3.00%



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# STATISTICAL SECTION

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## Statistical Section Narrative

To assist readers in the assessment of the System's economic condition, the Statistical Section of this Comprehensive Annual Financial Report presents information to add historical perspective, context, and detail to the financial statements, notes to financial statements, and required supplementary information presented in the preceding sections. To provide historical perspective and a sense of trend, the exhibits in this Section are presented in multiple-year formats. The information is categorized into four topical groups: *Financial Trends*, *Revenue Capacity*, *Demographic and Economic Information*, and *Operating Information*.

### Financial Trends

The Financial Trend Schedules and Graphs provide detailed information to present how PSERS' financial position has changed over time.

The following Financial Trend Schedules are presented:

- Schedule of Trend Data
- Total Changes in Fiduciary Net Position - Pension
- Total Changes in Fiduciary Net Position - Postemployment Healthcare Plans

The following Financial Trend Graphs are presented:

- Additions to Fiduciary Net Position - Pension
- Additions to Fiduciary Net Position - Postemployment Healthcare Plans
- Deductions from Fiduciary Net Position - Pension
- Deductions from Fiduciary Net Position - Postemployment Healthcare Plans

### Revenue Capacity

- Pension Investment Income
- Premium Assistance Investment Income
- Health Options Program Investment Income

### Demographic and Economic Information

Some of the following schedules listed are dependent upon an actuarial valuation. For those schedules, the most recent information is presented as of the year ended June 30, 2014, the date of PSERS' most current actuarial valuation completed at the time of publication.

- Summary Membership Data
- Summary Annuity Data
- Pension Benefit and Refund Deductions from Fiduciary Net Position
- Average Monthly Pension Benefit Payments
- Average Monthly Pension Benefit Payments and Average Final Average Salary
- Average Monthly Premium Assistance Benefit Payments and Average Final Average Salary
- Pension Benefit Disbursement by County

### Operating Information

- Ten Largest Employers
- Schedule of Employers



**Schedule of Trend Data**  
(Dollar Amounts in Thousands)\*

For years ended June 30	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Contribution Rates:</b>										
Total Pension %	20.50	16.00	11.50	8.00	5.00	4.00	4.00	6.44	5.72	4.00
Health Care Insurance Premium Assistance %	.90	.93	.86	.65	.64	.78	.76	.69	.74	.69
Total Employer %	21.40	16.93	12.36	8.65	5.64	4.78	4.76	7.13	6.46	4.69
Average Member %	7.46	7.43	7.40	7.37	7.34	7.32	7.29	7.25	7.21	7.16
<b>Contributions:</b>										
Member - Pension \$	984,634	966,926	991,087	952,887	1,042,707	952,047	911,118	879,598	855,322	827,647
Employer - Pension \$	2,596,731	1,992,084	1,446,402	1,004,584	658,511	535,331	515,889	753,532	659,545	456,878
Employer - Health Care Insurance Premium Assistance \$	116,808	117,868	108,676	81,343	89,242	102,703	92,483	81,317	86,763	74,065
Participant Premiums - HOP \$	281,855	257,740	234,516	213,642	201,014	191,184	178,801	159,563	144,185	155,199
CMS \$ ***	42,436	37,759	40,698	33,462	32,080	33,901	31,556	28,426	27,789	13,941
Average Annual Member Compensation \$ *	48,787	47,931	47,030	46,487	46,247	45,344	44,779	43,718	43,217	43,361
Market Value of Assets \$	51,706,000	53,092,000	49,116,000	48,628,000	51,311,000	45,715,000	43,101,000	62,569,000	67,438,000	57,328,000
Actuarial Value of Assets \$	**	57,344,000	57,454,000	58,321,000	59,252,000	59,424,000	59,887,000	61,018,000	57,155,000	52,558,000
Accrued Actuarial Liability \$	**	92,465,000	90,052,000	87,854,000	85,752,000	79,122,000	75,626,000	70,941,000	66,593,000	64,720,000
Funded Ratio %	**	62.0	63.8	66.4	69.1	75.1	79.2	86.0	85.8	81.2
Total Benefits & Refunds \$	6,614,154	6,417,455	6,373,363	5,992,979	5,617,247	5,269,175	4,931,854	4,941,681	4,320,440	4,115,865
Average Pension \$ *	25,119	24,962	24,799	24,122	23,897	23,466	22,456	21,963	20,970	20,236
Annuity & Beneficiaries	219,775	213,900	207,553	202,015	194,622	184,934	177,963	173,540	168,026	161,813
Active Members	259,868	263,312	267,428	273,504	279,152	282,041	279,701	272,690	264,023	263,350
Retirements	10,813	9,888	12,468	12,228	11,546	9,255	8,753	9,701	10,106	9,388

\* All dollar amounts are in thousands, except Average Annual Member Compensation and Average Pension.  
 \*\* Data for these categories relate to the actuarial valuation for fiscal year ended June 30, 2015. Results for this valuation were not available at publication date.  
 \*\*\* Centers for Medicare and Medicaid Services

## Total Changes in Fiduciary Net Position - Pension 10 Year Trend

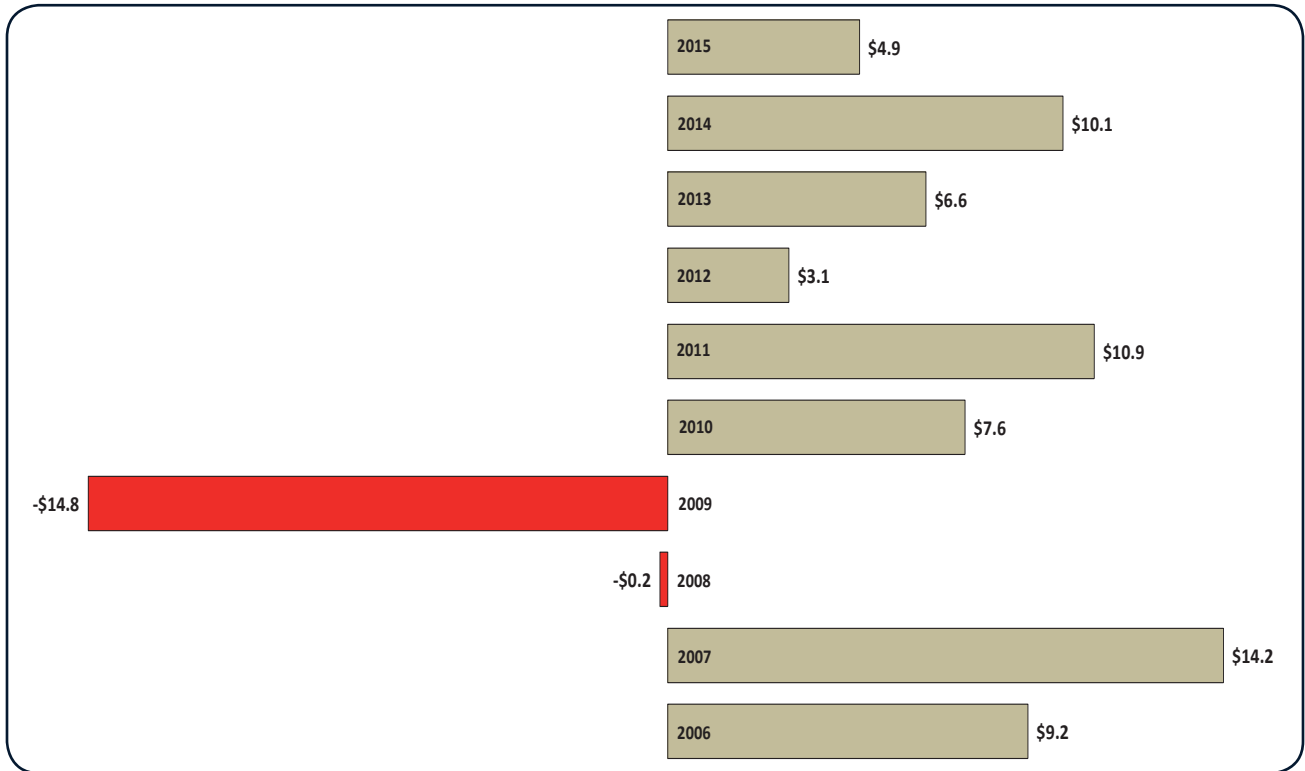
(Dollar Amounts in Thousands)

Year Ended June 30	Additions to Fiduciary Net Position					Deductions from Fiduciary Net Position					Net Increase / (Decrease)	
	Member Contributions	Employer Contributions	Net Investment Income	Total Additions		Annuities	Lump-Sums	Refunds of Contributions	Administrative*	Net Transfers,**		Total Deductions
2015	\$ 984,634	\$ 2,596,731	\$ 1,328,516	\$ 4,909,881		\$ 5,356,085	\$ 840,167	\$ 20,920	\$ 42,331	\$ 3,429	\$ 6,262,932	\$ (1,353,051)
2014	966,926	1,992,084	7,097,761	10,056,771		5,166,777	862,018	22,823	38,712	1,887	6,092,217	3,964,554
2013	991,087	1,446,402	4,126,002	6,563,491		4,905,200	1,111,692	24,461	37,480	2,893	6,081,726	481,765
2012	952,887	1,004,584	1,093,319	3,050,790		4,691,250	964,056	24,675	34,242	2,765	5,716,988	(2,666,198)
2011	1,042,707	658,511	9,246,091	10,947,309		4,322,520	958,703	17,695	37,028	9,844	5,345,790	5,601,519
2010	952,047	535,331	6,113,679	7,601,057		4,095,334	866,888	16,720	12,105	7,015	4,998,062	2,602,995
2009	911,118	515,889	(16,201,701)	(14,774,694)		3,885,286	754,011	20,369	35,639	7,947	4,703,252	(19,477,946)
2008	879,598	753,532	(1,782,628)	(149,498)		3,623,652	1,012,688	28,713	35,863	17,157	4,718,073	(4,867,571)
2007	855,322	659,545	12,694,327	14,209,194		3,189,004	855,431	18,180	35,239	6,010	4,103,864	10,105,330
2006	827,647	456,878	7,935,586	9,220,111		3,030,297	830,361	16,330	35,391	8,462	3,920,841	5,299,270

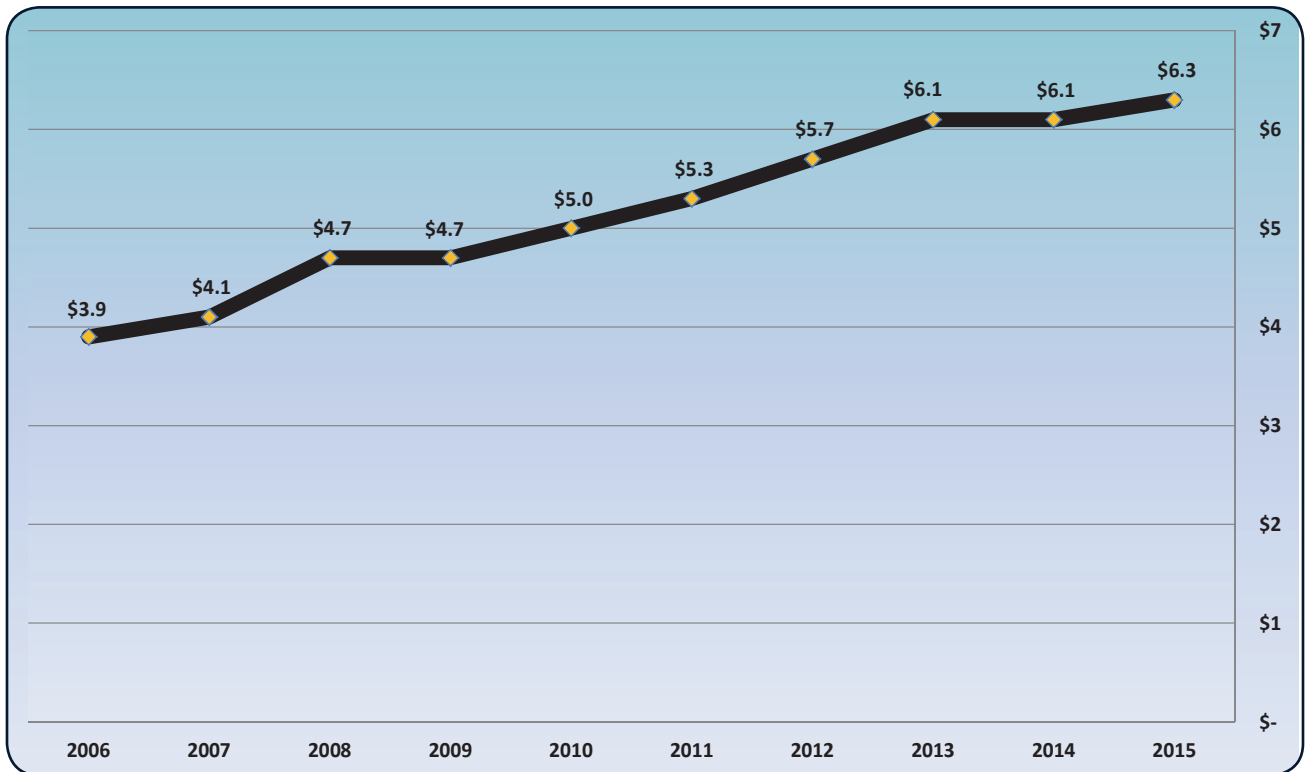
\* Reporting of administrative expenses for fiscal year ended June 30, 2010 includes effects of the capitalization of intangible assets as a result of PSERS' implementation of GASB Statement No. 51 *Accounting and Financial Reporting for Intangible Assets*.

\*\* Net transfers to the Commonwealth of Pennsylvania State Employees' Retirement System.

### Additions to Fiduciary Net Position - Pension 10 Year Trend (Dollar Amounts in Billions)



### Deductions from Fiduciary Net Position - Pension 10 Year Trend (Dollar Amounts in Billions)



## Total Changes in Fiduciary Net Position - Postemployment Healthcare Plans 10 Year Trend

(Dollar Amounts in Thousands)

### Premium Assistance

Year Ended June 30	Additions to Fiduciary Net Position			Deductions from Fiduciary Net Position			Net Increase / (Decrease)
	Employer Contributions	Net Investment Income	Total Additions	Benefits	Administrative	Total Deductions	
2015	\$ 116,808	\$ 215	\$ 117,023	\$ 106,298	\$ 2,142	\$ 108,440	\$ 8,583
2014	117,868	70	117,938	104,197	2,030	106,227	11,711
2013	108,676	110	108,786	100,078	2,112	102,190	6,596
2012	81,343	423	81,766	97,206	2,065	99,271	(17,505)
2011	89,242	691	89,933	93,518	1,988	95,506	(5,573)
2010	102,703	869	103,572	89,911	1,944	91,855	11,717
2009	92,493	1,861	94,354	83,206	1,819	85,025	9,329
2008	81,317	2,755	84,072	84,335	1,244	85,579	(1,507)
2007	86,763	2,573	89,336	82,031	2,790	84,821	4,515
2006	74,065	2,850	76,915	79,298	1,977	81,275	(4,360)

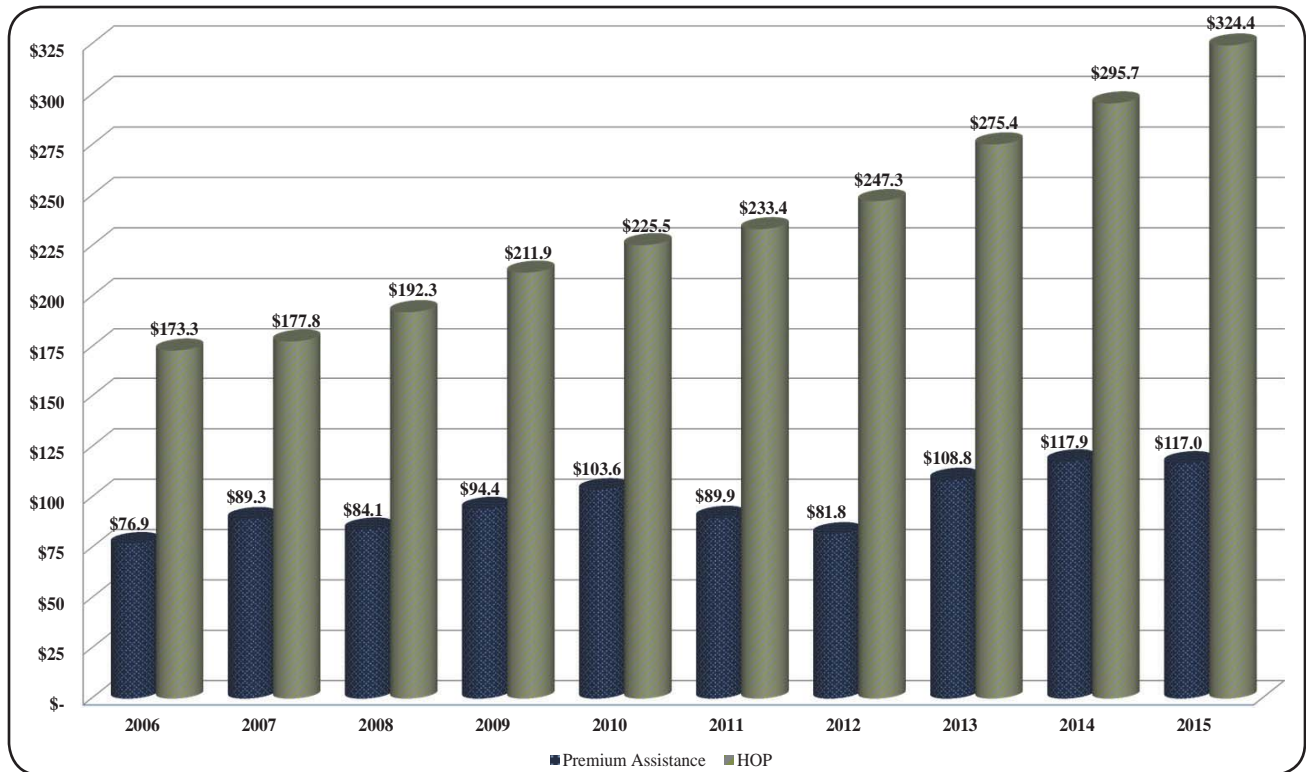
### Health Options Program

Year Ended June 30	Additions to Fiduciary Net Position			Deductions from Fiduciary Net Position			Net Increase / (Decrease)
	Participant Premiums	CMS Contributions	Net Investment Income	Benefits	Administrative	Total Deductions	
2015	\$ 281,855	\$ 42,436	\$ 152	\$ 287,255	\$ 28,027	\$ 315,282	\$ 9,161
2014	257,740	37,759	191	259,753	25,975	285,728	9,962
2013	234,516	40,698	226	229,039	22,644	251,683	23,757
2012	213,642	33,462	237	213,027	20,213	233,240	14,101
2011	201,014	32,080	310	214,967	18,729	233,696	(292)
2010	191,184	33,901	440	193,307	16,443	209,750	15,775
2009	178,801	31,556	1,528	181,035	13,817	194,852	17,033
2008	159,563	28,426	4,288	175,136	12,143	187,279	4,998
2007	144,185	27,789	5,821	169,784	12,453	182,237	(4,442)
2006	155,199	13,941	4,203	151,117	11,261	162,378	10,965

## Additions to Fiduciary Net Position - Postemployment Healthcare Plans

### 10 Year Trend

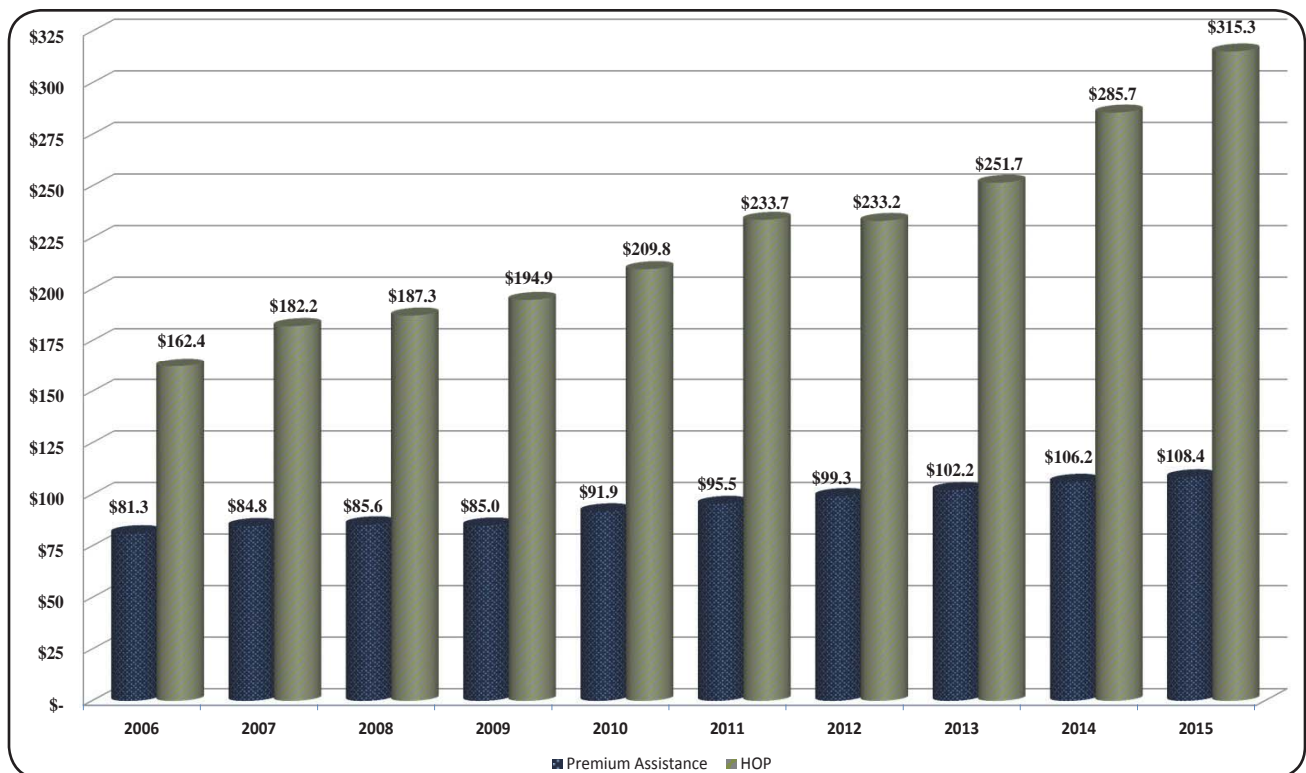
(Dollar Amounts in Millions)



## Deductions from Fiduciary Net Position - Postemployment Healthcare Plans

### 10 Year Trend

(Dollar Amounts in Millions)



**Pension Investment Income**  
**10 Year Trend**  
(Dollar Amounts in Thousands)

For years ended June 30	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Investment income:</b>										
<b>From investing activities:</b>										
<b>Net appreciation (depreciation) in fair value of investments</b>	\$ 511,997	\$ 6,024,512	\$ 3,428,449	\$ 539,129	\$ 8,616,152	\$ 5,561,419	\$ (17,007,821)	\$ (3,763,649)	\$ 10,457,473	\$ 5,969,223
<b>Investment income</b>	1,262,693	1,536,822	1,246,879	1,027,141	1,137,339	1,066,017	1,310,460	2,331,266	2,524,655	2,154,654
<b>Total investment activity income (loss)</b>	1,774,690	7,561,334	4,675,328	1,566,270	9,753,491	6,627,436	(15,697,361)	(1,432,383)	12,982,128	8,123,877
<b>Investment expenses</b>	(455,140)	(482,141)	(557,533)	(481,234)	(514,647)	(522,268)	(477,520)	(399,098)	(313,726)	(211,247)
<b>Net income (loss) from investing activities</b>	1,319,550	7,079,193	4,117,795	1,085,036	9,238,844	6,105,168	(16,174,881)	(1,831,481)	12,668,402	7,912,630
<b>From securities lending activities:</b>										
<b>Securities lending income</b>	9,934	19,859	9,541	9,457	8,251	9,574	55,574	319,107	419,762	270,447
<b>Securities lending expense</b>	(968)	(1,291)	(1,334)	(1,174)	(1,004)	(1,063)	(82,394)	(270,254)	(393,837)	(247,491)
<b>Net income (loss) from securities lending activities</b>	8,966	18,568	8,207	8,283	7,247	8,511	(26,820)	48,853	25,925	22,956
<b>Total net investment income (loss)</b>	\$ 1,328,516	\$ 7,097,761	\$ 4,126,002	\$ 1,093,319	\$ 9,246,091	\$ 6,113,679	\$ (16,201,701)	\$ (1,782,628)	\$ 12,694,327	\$ 7,935,586



**Premium Assistance Investment Income**  
**10 Year Trend**  
(Dollar Amounts in Thousands)

For years ended June 30	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Investment income:</b>										
From investing activities:										
Net appreciation (depreciation) in fair value of investments	\$ (128)	\$ (651)	\$ (1,140)	\$ (1,543)	\$ (1,324)	\$ (1,039)	\$ (363)	\$ 268	\$ 88	\$ (480)
Investment income	376	816	1,306	2,018	2,063	1,955	2,269	2,525	2,517	3,362
Total investment activity income	248	165	166	475	739	916	1,906	2,793	2,605	2,882
Investment expenses	(33)	(95)	(56)	(52)	(48)	(47)	(45)	(38)	(32)	(32)
<b>Total net investment income</b>	<b>\$ 215</b>	<b>\$ 70</b>	<b>\$ 110</b>	<b>\$ 423</b>	<b>\$ 691</b>	<b>\$ 869</b>	<b>\$ 1,861</b>	<b>\$ 2,755</b>	<b>\$ 2,573</b>	<b>\$ 2,850</b>

**Health Options Program Investment Income**  
**10 Year Trend**  
(Dollar Amounts in Thousands)

For years ended June 30	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>Investment income:</b>										
From investing activities:										
Net appreciation in fair value of investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 123
Investment income	186	191	226	237	310	440	1,528	4,288	5,821	4,080
Total investment activity income	186	191	226	237	310	440	1,528	4,288	5,821	4,203
Investment expenses	(34)	-	-	-	-	-	-	-	-	-
<b>Total net investment income</b>	<b>\$ 152</b>	<b>\$ 191</b>	<b>\$ 226</b>	<b>\$ 237</b>	<b>\$ 310</b>	<b>\$ 440</b>	<b>\$ 1,528</b>	<b>\$ 4,288</b>	<b>\$ 5,821</b>	<b>\$ 4,203</b>

**Summary Membership Data  
10 Year Trend \***

For year ended June 30	Male			Female			Total Number of Active Members
	Average Age	Average Service	Average Annual Salaries	Average Age	Average Service	Average Annual Salaries	
2014	44.5	11.2	\$ 53,248	45.0	10.9	\$ 45,918	263,312
2013	44.4	11.1	52,413	44.9	10.7	45,005	267,428
2012	44.3	10.9	51,751	44.9	10.6	44,513	273,504
2011	44.1	10.8	51,678	44.6	10.3	44,209	279,152
2010	44.2	10.9	50,770	44.6	10.3	43,306	282,041
2009	44.4	11.2	50,613	44.7	10.3	42,606	279,701
2008	44.5	11.4	49,818	44.7	10.4	41,440	272,690
2007	44.5	11.7	49,220	44.7	10.5	40,958	264,023
2006	44.6	12.0	49,153	44.7	10.7	41,155	263,350
2005	44.9	12.6	47,416	45.0	11.0	38,832	255,465

\* Actuarial Valuation for year ended June 30, 2014 is most current valuation completed at publication date.

**Summary Annuity Data  
10 Year Trend \*\***

For year ended June 30	Number of Annuitants & Beneficiaries	Total Annual Annuities***	Average Annual Annuity
2014	213,900	\$ 5,339,477	\$ 24,962
2013	209,204	5,147,060	24,603
2012	202,015	4,872,918	24,122
2011	194,622	4,650,798	23,897
2010	184,934	4,339,639	23,466
2009	177,963	3,996,000	22,456
2008	173,540	3,812,000	21,963
2007	168,026	3,523,000	20,970
2006	161,813	3,274,000	20,236
2005	156,519	3,027,550	19,343

\*\* Actuarial Valuation for year ended June 30, 2014 is most current valuation completed at publication date.

\*\*\* Total Annual Annuities dollar amounts expressed in thousands.

## Pension Benefit and Refund Deductions from Fiduciary Net Position 10 Year Trend

(Dollar Amounts in Thousands)

For year ended June 30	Retirements *									
	Normal	Early	Disability	Pension Lump Sum Benefits	Survivor and Beneficiary	Net Transfers***	Total Pension Benefits Deductions	Refunds	Total Pension Benefits and Refund Deductions	
2015	\$ 3,088,036	\$ 1,986,684	\$ 177,693	\$ 709,240	\$ 234,599	\$ 3,429	\$ 6,199,681	\$ 20,920	\$ 6,220,601	
2014	2,953,187	1,928,614	167,676	741,386	237,932	1,887	6,030,682	22,823	6,053,505	
2013	2,811,906	1,845,269	161,995	933,049	264,673	2,893	6,019,785	24,461	6,044,246	
2012	2,629,151	1,758,581	149,000	887,244	231,330	2,765	5,658,071	24,675	5,682,746	
2011	2,420,883	1,664,903	141,273	847,482	206,682	9,844	5,291,067	17,695	5,308,762	
2010	2,273,819	1,600,435	136,174	733,333	218,461	7,015	4,969,237	16,720	4,985,957	
2009	2,110,018	1,538,421	130,820	666,827	193,211	7,947	4,647,244	20,369	4,667,613	
2008	4,636,340	**	**	**	**	17,157	4,653,497	28,713	4,682,210	
2007	4,044,435	**	**	**	**	6,010	4,050,445	18,180	4,068,625	
2006	3,860,658	**	**	**	**	8,462	3,869,120	16,330	3,885,450	

\* Data presented in Normal column for years 2006 to 2008 are aggregate amounts for all Retirement Types.

\*\* Detailed data is not available.

\*\*\* Net transfers to the Commonwealth of Pennsylvania State Employees' Retirement System.

**Average Monthly Pension Benefit Payments\***  
**Total Annuitants Grouped by Years of Credited Service**  
**10 Year Trend**

Years of Credited Service									
< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	Total

**Fiscal year ended June 30, 2014**

Normal and Early	4,232	16,238	24,007	20,109	20,068	23,694	45,272	35,798	5,468	<b>194,886</b>
	\$ 94	\$ 183	\$ 346	\$ 743	\$ 1,292	\$ 2,097	\$ 3,186	\$ 4,181	\$ 4,448	<b>\$ 2,157</b>
Disability	-	1,812	2,038	1,624	1,495	1,316	557	20	8	<b>8,870</b>
	\$ -	\$ 752	\$ 954	\$ 1,266	\$ 1,888	\$ 2,712	\$ 3,598	\$ 3,216	\$ 2,240	<b>\$ 1,560</b>
Beneficiary and Survivor	-	4,733	672	674	678	697	1,124	1,100	466	<b>10,144</b>
	\$ -	\$ 1,192	\$ 256	\$ 397	\$ 606	\$ 875	\$ 1,213	\$ 1,392	\$ 1,455	<b>\$ 1,052</b>

**Fiscal year ended June 30, 2013**

Normal and Early	4,051	14,757	23,095	19,499	19,506	22,897	44,704	35,277	5,384	<b>189,170</b>
	\$ 93	\$ 179	\$ 331	\$ 708	\$ 1,243	\$ 2,041	\$ 3,151	\$ 4,142	\$ 4,354	<b>\$ 2,146</b>
Disability	-	1,749	1,950	1,554	1,455	1,283	547	17	10	<b>8,565</b>
	\$ -	\$ 729	\$ 925	\$ 1,249	\$ 1,843	\$ 2,654	\$ 3,546	\$ 3,163	\$ 2,311	<b>\$ 1,532</b>
Beneficiary and Survivor	-	5,659	724	729	728	745	1,191	1,190	503	<b>11,469</b>
	\$ -	\$ 814	\$ 254	\$ 387	\$ 620	\$ 854	\$ 1,195	\$ 1,368	\$ 1,442	<b>\$ 866</b>

**Fiscal year ended June 30, 2012**

Normal and Early	3,881	13,459	22,313	18,971	18,919	21,855	43,662	34,024	5,170	<b>182,254</b>
	\$ 111	\$ 176	\$ 317	\$ 680	\$ 1,202	\$ 1,972	\$ 3,105	\$ 4,078	\$ 4,196	<b>\$ 2,110</b>
Disability	-	1,698	1,882	1,517	1,397	1,257	531	15	9	<b>8,306</b>
	\$ -	\$ 694	\$ 875	\$ 1,166	\$ 1,748	\$ 2,583	\$ 3,465	\$ 2,917	\$ 2,147	<b>\$ 1,467</b>
Beneficiary and Survivor	-	5,234	772	784	780	797	1,261	1,281	546	<b>11,455</b>
	\$ -	\$ 702	\$ 245	\$ 390	\$ 603	\$ 850	\$ 1,175	\$ 1,341	\$ 1,412	<b>\$ 811</b>

**Fiscal year ended June 30, 2011**

Normal and Early	3,695	12,263	21,497	18,343	18,199	21,042	42,507	33,045	5,045	<b>175,636</b>
	\$ 114	\$ 174	\$ 305	\$ 656	\$ 1,158	\$ 1,921	\$ 3,064	\$ 4,041	\$ 4,133	<b>\$ 2,091</b>
Disability	-	1,629	1,798	1,473	1,366	1,216	523	15	9	<b>8,029</b>
	\$ -	\$ 680	\$ 839	\$ 1,136	\$ 1,686	\$ 2,548	\$ 3,476	\$ 2,878	\$ 2,147	<b>\$ 1,441</b>
Beneficiary and Survivor	-	4,389	817	819	804	842	1,322	1,362	602	<b>10,957</b>
	\$ -	\$ 652	\$ 239	\$ 372	\$ 583	\$ 842	\$ 1,170	\$ 1,322	\$ 1,383	<b>\$ 796</b>

**Fiscal year ended June 30, 2010**

Normal and Early	4,695	11,529	20,812	17,777	17,356	19,973	40,625	30,716	4,755	<b>168,238</b>
	\$ 1,023	\$ 349	\$ 287	\$ 613	\$ 1,093	\$ 1,839	\$ 3,004	\$ 3,933	\$ 3,896	<b>\$ 2,037</b>
Disability	-	1,633	1,761	1,453	1,352	1,227	517	18	11	<b>7,972</b>
	\$ -	\$ 694	\$ 819	\$ 1,098	\$ 1,654	\$ 2,513	\$ 3,475	\$ 2,563	\$ 1,958	<b>\$ 1,424</b>
Beneficiary and Survivor	-	2,604	772	735	755	773	1,192	1,280	613	<b>8,724</b>
	\$ -	\$ 1,008	\$ 217	\$ 336	\$ 525	\$ 770	\$ 1,075	\$ 1,200	\$ 1,241	<b>\$ 872</b>

\* Actuarial valuation for year ended June 30, 2014 is the most current valuation completed at the publication date.

**Average Monthly Pension Benefit Payments**  
**Total Annuitants Grouped by Years of Credited Service**  
**10 Year Trend (Continued)**

Years of Credited Service									
< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	Total

**Fiscal year ended June 30, 2009**

Normal and Early	4,395	10,474	20,503	17,544	17,134	19,821	39,700	28,187	4,448	<b>162,206</b>
	\$ 376	\$ 178	\$ 279	\$ 602	\$ 1,090	\$ 1,828	\$ 2,966	\$ 3,780	\$ 3,720	\$ <b>1,945</b>
Disability	-	1,566	1,713	1,417	1,313	1,205	485	12	2	<b>7,713</b>
	\$ -	\$ 661	\$ 802	\$ 1,103	\$ 1,658	\$ 2,507	\$ 3,461	\$ 3,318	\$ 2,348	\$ <b>1,412</b>
Beneficiary and Survivor	-	1,824	788	744	767	786	1,207	1,304	624	<b>8,044</b>
	\$ -	\$ 838	\$ 218	\$ 336	\$ 524	\$ 770	\$ 1,070	\$ 1,201	\$ 1,248	\$ <b>820</b>

**Fiscal year ended June 30, 2008**

Normal and Early	4,054	9,541	20,539	17,450	16,748	19,166	38,331	27,318	4,509	<b>157,656</b>
	\$ 355	\$ 165	\$ 270	\$ 584	\$ 1,032	\$ 1,733	\$ 2,904	\$ 3,732	\$ 3,629	\$ <b>1,896</b>
Disability	-	1,468	1,664	1,364	1,280	1,178	466	14	1	<b>7,435</b>
	\$ -	\$ 876	\$ 949	\$ 1,205	\$ 1,854	\$ 2,714	\$ 3,707	\$ 3,681	\$ 4,550	\$ <b>1,595</b>
Beneficiary and Survivor	789	402	964	874	879	917	1,381	1,522	721	<b>8,449</b>
	\$ 1,127	\$ 121	\$ 223	\$ 347	\$ 533	\$ 783	\$ 1,083	\$ 1,223	\$ 1,255	\$ <b>817</b>

**Fiscal year ended June 30, 2007**

Normal and Early	2,812	8,675	20,554	17,448	16,304	18,664	37,422	25,100	5,382	<b>152,361</b>
	\$ 54	\$ 149	\$ 256	\$ 553	\$ 971	\$ 1,662	\$ 2,821	\$ 3,574	\$ 3,488	\$ <b>1,820</b>
Disability	-	1,437	1,689	1,370	1,307	1,154	430	11	1	<b>7,399</b>
	\$ -	\$ 595	\$ 770	\$ 1,044	\$ 1,569	\$ 2,476	\$ 3,466	\$ 3,576	\$ 4,550	\$ <b>1,356</b>
Beneficiary and Survivor	94	430	1,025	930	936	980	1,453	1,628	790	<b>8,266</b>
	\$ 47	\$ 119	\$ 218	\$ 342	\$ 530	\$ 768	\$ 1,075	\$ 1,201	\$ 1,234	\$ <b>767</b>

**Fiscal year ended June 30, 2006**

Normal and Early	2,723	7,810	20,380	17,198	15,979	18,140	35,227	23,660	5,465	<b>146,582</b>
	\$ 53	\$ 147	\$ 249	\$ 537	\$ 945	\$ 1,611	\$ 2,747	\$ 3,474	\$ 3,397	\$ <b>1,756</b>
Disability	-	1,375	1,655	1,339	1,261	1,136	398	10	1	<b>7,175</b>
	\$ -	\$ 579	\$ 750	\$ 1,023	\$ 1,510	\$ 2,429	\$ 3,422	\$ 3,549	\$ 4,550	\$ <b>1,320</b>
Beneficiary and Survivor	88	413	1,000	902	911	951	1,404	1,572	815	<b>8,056</b>
	\$ 47	\$ 116	\$ 212	\$ 327	\$ 516	\$ 742	\$ 1,027	\$ 1,154	\$ 1,182	\$ <b>739</b>

**Fiscal year ended June 30, 2005**

Normal and Early	2,654	7,117	20,423	17,022	15,827	17,732	33,402	21,971	5,615	<b>141,763</b>
	\$ 67	\$ 147	\$ 244	\$ 523	\$ 921	\$ 1,561	\$ 2,669	\$ 3,326	\$ 3,278	\$ <b>1,679</b>
Disability	8	1,321	1,641	1,281	1,232	1,113	357	10	1	<b>6,964</b>
	\$ 1,301	\$ 550	\$ 723	\$ 975	\$ 1,464	\$ 2,377	\$ 3,340	\$ 3,546	\$ 4,550	\$ <b>1,271</b>
Beneficiary and Survivor	79	400	976	881	876	913	1,322	1,530	814	<b>7,791</b>
	\$ 47	\$ 110	\$ 204	\$ 316	\$ 496	\$ 709	\$ 987	\$ 1,075	\$ 1,099	\$ <b>700</b>

**Average Monthly Pension  
Benefit Payments and Average Final Average Salary \*  
New Annuitants Grouped by Years of Credited Service  
10 Year Trend**

Years of Credited Service									
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+

**Fiscal year ended June 30, 2014**

Number of retired members	426	1,957	1,442	1,195	1,098	1,191	1,209	894	187
Final Average Salary	\$ 18,745	\$ 31,795	\$ 35,935	\$ 45,981	\$ 56,674	\$ 64,895	\$ 74,770	\$ 78,322	\$ 82,919
Monthly Benefit	\$ 126	\$ 267	\$ 605	\$ 1,242	\$ 2,043	\$ 2,795	\$ 3,973	\$ 4,811	\$ 5,835

**Fiscal year ended June 30, 2013**

Number of retired members	404	1,967	1,662	1,386	1,471	1,680	2,013	1,517	298
Final Average Salary	\$ 22,052	\$ 30,966	\$ 36,735	\$ 46,773	\$ 55,331	\$ 67,805	\$ 77,241	\$ 83,353	\$ 85,981
Monthly Benefit	\$ 156	\$ 280	\$ 658	\$ 1,265	\$ 1,988	\$ 2,956	\$ 4,161	\$ 5,200	\$ 6,066

**Fiscal year ended June 30, 2012**

Number of retired members	384	1,716	1,395	1,226	1,373	1,440	1,998	1,704	319
Final Average Salary	\$ 19,074	\$ 30,273	\$ 35,706	\$ 44,534	\$ 54,305	\$ 64,007	\$ 74,534	\$ 80,285	\$ 80,899
Monthly Benefit	\$ 126	\$ 286	\$ 635	\$ 1,216	\$ 1,977	\$ 2,815	\$ 4,097	\$ 5,033	\$ 5,630

**Fiscal year ended June 30, 2011**

Number of retired members	380	1,591	1,323	1,131	1,247	1,418	2,309	2,023	281
Final Average Salary	\$ 17,212	\$ 30,174	\$ 34,363	\$ 44,577	\$ 52,788	\$ 64,398	\$ 73,905	\$ 79,420	\$ 79,799
Monthly Benefit	\$ 98	\$ 315	\$ 645	\$ 1,238	\$ 1,908	\$ 2,893	\$ 4,031	\$ 4,981	\$ 5,491

**Fiscal year ended June 30, 2010**

Number of retired members	312	1,294	989	826	947	1,035	1,992	1,731	218
Final Average Salary	\$ 21,528	\$ 28,957	\$ 34,500	\$ 42,207	\$ 52,104	\$ 63,290	\$ 72,258	\$ 79,239	\$ 80,405
Monthly Benefit	\$ 312	\$ 269	\$ 634	\$ 1,140	\$ 1,906	\$ 2,833	\$ 3,979	\$ 4,963	\$ 5,550

**Fiscal year ended June 30, 2009**

Number of retired members	259	1,213	857	753	835	902	1,959	1,757	165
Final Average Salary	\$ 18,802	\$ 27,718	\$ 31,600	\$ 39,456	\$ 48,973	\$ 61,459	\$ 71,256	\$ 76,947	\$ 77,351
Monthly Benefit	\$ 106	\$ 230	\$ 556	\$ 1,063	\$ 1,726	\$ 2,764	\$ 3,915	\$ 4,834	\$ 5,343

**Fiscal year ended June 30, 2008**

Number of retired members	253	1,304	903	857	798	1,038	2,318	1,936	139
Final Average Salary	\$ 18,146	\$ 26,404	\$ 31,479	\$ 38,271	\$ 47,220	\$ 57,595	\$ 70,232	\$ 75,942	\$ 75,041
Monthly Benefit	\$ 104	\$ 210	\$ 556	\$ 1,010	\$ 1,647	\$ 2,551	\$ 3,863	\$ 4,775	\$ 5,164

**Fiscal year ended June 30, 2007**

Number of retired members	274	1,348	920	884	836	1,163	2,702	2,105	142
Final Average Salary	\$ 17,233	\$ 26,678	\$ 29,390	\$ 38,155	\$ 45,934	\$ 56,810	\$ 68,962	\$ 73,165	\$ 77,381
Monthly Benefit	\$ 85	\$ 231	\$ 502	\$ 1,011	\$ 1,591	\$ 2,534	\$ 3,800	\$ 4,604	\$ 5,421

**Fiscal year ended June 30, 2006**

Number of retired members	256	1,184	816	889	788	1,063	2,654	1,908	132
Final Average Salary	\$ 16,172	\$ 25,512	\$ 28,360	\$ 35,156	\$ 43,902	\$ 54,791	\$ 66,976	\$ 72,236	\$ 75,847
Monthly Benefit	\$ 88	\$ 222	\$ 475	\$ 947	\$ 1,536	\$ 2,467	\$ 3,725	\$ 4,571	\$ 5,255

**Fiscal year ended June 30, 2005**

Number of retired members	199	931	770	867	711	1,121	2,903	2,234	166
Final Average Salary	\$ 16,899	\$ 24,980	\$ 28,573	\$ 35,081	\$ 42,144	\$ 53,664	\$ 66,212	\$ 70,328	\$ 73,362
Monthly Benefit	\$ 85	\$ 232	\$ 519	\$ 938	\$ 1,488	\$ 2,436	\$ 3,684	\$ 4,454	\$ 5,096

\* Actuarial valuation for year ended June 30, 2014 is the most current valuation completed at the publication date.



**Average Monthly Premium Assistance  
Benefit Payments and Average Final Average Salary \*  
New Annuitants Grouped by Years of Credited Service  
10 Year Trend**

Years of Credited Service								
< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+

**Fiscal year ended June 30, 2014**

Number of retired members		20	24	279	402	628	723	549	127
Final Average Salary		\$ 44,134	\$ 45,734	\$ 50,908	\$ 61,032	\$ 67,662	\$ 74,376	\$ 80,928	\$ 85,627
Monthly Benefit		\$ 99	\$ 100	\$ 99	\$ 99	\$ 98	\$ 99	\$ 98	\$ 100

**Fiscal year ended June 30, 2013**

Number of retired members		10	29	345	521	945	1,169	937	191
Final Average Salary		\$ 39,856	\$ 61,571	\$ 51,758	\$ 57,669	\$ 69,854	\$ 76,812	\$ 83,780	\$ 84,225
Monthly Benefit		\$ 99	\$ 100	\$ 99	\$ 100	\$ 98	\$ 98	\$ 98	\$ 100

**Fiscal year ended June 30, 2012**

Number of retired members		8	18	259	342	594	819	666	128
Final Average Salary		\$ 33,448	\$ 38,655	\$ 45,382	\$ 54,454	\$ 64,728	\$ 74,849	\$ 79,041	\$ 77,220
Monthly Benefit		\$ 100	\$ 69	\$ 100	\$ 100	\$ 99	\$ 98	\$ 97	\$ 99

**Fiscal year ended June 30, 2011**

Number of retired members		24	39	325	475	853	1,543	1,402	207
Final Average Salary		\$ 41,609	\$ 51,763	\$ 48,062	\$ 54,261	\$ 67,086	\$ 74,658	\$ 79,436	\$ 77,751
Monthly Benefit		\$ 100	\$ 100	\$ 98	\$ 99	\$ 97	\$ 96	\$ 97	\$ 98

**Fiscal year ended June 30, 2010**

Number of retired members		20	21	227	381	597	1,371	1,253	165
Final Average Salary		\$ 36,052	\$ 48,277	\$ 45,245	\$ 55,323	\$ 65,244	\$ 73,207	\$ 80,413	\$ 80,328
Monthly Benefit		\$ 100	\$ 100	\$ 98	\$ 98	\$ 98	\$ 97	\$ 97	\$ 100

**Fiscal year ended June 30, 2009**

Number of retired members		32	33	202	353	555	1,324	1,273	129
Final Average Salary		\$ 30,120	\$ 44,926	\$ 44,889	\$ 49,416	\$ 62,449	\$ 72,314	\$ 76,742	\$ 79,676
Monthly Benefit		\$ 100	\$ 96	\$ 99	\$ 98	\$ 97	\$ 95	\$ 96	\$ 97

**Fiscal year ended June 30, 2008**

Number of retired members		32	36	242	336	609	1,686	1,435	114
Final Average Salary		\$ 31,419	\$ 41,391	\$ 41,714	\$ 49,709	\$ 59,708	\$ 70,486	\$ 75,903	\$ 72,718
Monthly Benefit		\$ 97	\$ 100	\$ 99	\$ 99	\$ 97	\$ 95	\$ 95	\$ 96

**Fiscal year ended June 30, 2007**

Number of retired members		29	36	271	370	741	1,986	1,609	101
Final Average Salary		\$ 36,165	\$ 39,981	\$ 37,907	\$ 46,781	\$ 59,682	\$ 69,722	\$ 73,808	\$ 78,288
Monthly Benefit		\$ 9	\$ 99	\$ 98	\$ 99	\$ 96	\$ 93	\$ 93	\$ 98

**Fiscal year ended June 30, 2006**

Number of retired members		35	29	288	343	713	1,931	1,491	113
Final Average Salary		\$ 27,700	\$ 40,994	\$ 37,316	\$ 43,608	\$ 56,647	\$ 68,662	\$ 72,726	\$ 74,851
Monthly Benefit		\$ 97	\$ 100	\$ 97	\$ 98	\$ 98	\$ 93	\$ 92	\$ 92

**Fiscal year ended June 30, 2005**

Number of retired members		32	42	265	297	751	2,143	1,759	136
Final Average Salary		\$ 31,231	\$ 32,470	\$ 37,651	\$ 41,099	\$ 56,000	\$ 68,328	\$ 71,690	\$ 74,802
Monthly Benefit		\$ 78	\$ 99	\$ 100	\$ 97	\$ 94	\$ 89	\$ 87	\$ 94

\* Actuarial valuation for year ended June 30, 2014 is the most current valuation completed at the publication date.



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**Ten Largest Employers \***  
**As of June 30, 2015**  
 (Based on number of reported members)

<b>Employer</b>	<b>Number of Reported Members</b>	<b>Percentage of Total</b>
1. Philadelphia City School District	17,422	6.20%
2. Pittsburgh School District	4,099	1.46%
3. Central Bucks School District	2,738	0.98%
4. North Penn School District	2,213	0.79%
5. Allentown City School District	2,062	0.73%
6. Bethlehem Area School District	1,949	0.69%
7. Reading School District	1,855	0.66%
8. Council Rock School District	1,820	0.65%
9. Lower Merion School District	1,765	0.63%
10. Pennsbury School District	1,713	0.61%

\* Due to the stable comparable populations of school employees in PSERS' employers over the years, a single presentation provides perspective for a ten-year period.

**Schedule of Employers  
As of June 30, 2015  
School Districts**

**A** \_\_\_\_\_

Abington  
Abington Heights  
Albert Gallatin  
Aliquippa  
Allegheny Valley  
Allegheny-Clarion Valley  
Allentown City  
Altoona Area  
Ambridge Area  
Annville-Cleona  
Antietam  
Apollo-Ridge  
Armstrong  
Athens Area  
Austin Area  
Avella Area  
Avon Grove  
Avonworth

**B** \_\_\_\_\_

Bald Eagle Area  
Baldwin-Whitehall  
Bangor Area  
Beaver Area  
Bedford Area  
Belle Vernon Area  
Bellefonte Area  
Bellwood-Antis  
Bensalem Township  
Benton Area  
Bentworth  
Berlin Brothersvalley  
Bermudian Springs  
Berwick Area  
Bethel Park  
Bethlehem Area  
Bethlehem-Center  
Big Beaver Falls Area  
Big Spring  
Blackhawk  
Blacklick Valley  
Blairsville-Saltsburg  
Bloomsburg Area  
Blue Mountain  
Blue Ridge  
Boyertown Area  
Bradford Area  
Brandywine Heights Area  
Brentwood Borough  
Bristol Borough  
Bristol Township

Brockway Area  
Brookville Area  
Brownsville Area  
Burgettstown Area  
Burrell  
Butler Area

**C** \_\_\_\_\_

California Area  
Cambria Heights  
Cameron County  
Camp Hill  
Canon-McMillan  
Canton Area  
Carbondale Area  
Carlisle Area  
Carlynton  
Carmichaels Area  
Catasauqua Area  
Centennial  
Central Bucks  
Central Cambria  
Central Columbia  
Central Dauphin  
Central Fulton  
Central Greene  
Central Valley  
Central York  
Chambersburg Area  
Charleoi Area  
Chartiers Houston  
Chartiers Valley  
Cheltenham Township  
Chester-Upland  
Chestnut Ridge  
Chichester  
Clairton City  
Clarion Area  
Clarion-Limestone Area  
Claysburg-Kimmel  
Clearfield Area  
Coatesville Area  
Cocalico  
Colonial  
Columbia Borough  
Commodore Perry  
Conemaugh Township Area  
Conemaugh Valley  
Conestoga Valley  
Conewago Valley  
Conneaut  
Connellsville Area

Conrad Weiser Area  
Cornell  
Cornwall-Lebanon  
Corry Area  
Coudersport Area  
Council Rock  
Cranberry Area  
Crawford Central  
Crestwood  
Cumberland Valley  
Curwensville Area

**D** \_\_\_\_\_

Dallas  
Dallastown Area  
Daniel Boone Area  
Danville Area  
Deer Lakes  
Delaware Valley  
Derry Area  
Derry Township  
Donegal  
Dover Area  
Downingtown Area  
Dubois Area  
Dunmore  
Duquesne City

**E** \_\_\_\_\_

East Allegheny  
East Lycoming  
East Penn  
East Pennsboro Area  
East Stroudsburg Area  
Eastern Lancaster County  
Eastern Lebanon County  
Eastern York  
Easton Area  
Elizabeth Forward  
Elizabethtown Area  
Elk Lake  
Ellwood City Area  
Ephrata Area  
Erie City  
Everett Area  
Exeter Township

**F** \_\_\_\_\_

Fairfield Area  
Fairview  
Fannett Metal  
Farrell Area

Schedule of Employers (Continued)

Ferndale Area  
 Fleetwood Area  
 Forbes Road  
 Forest Area  
 Forest City Regional  
 Forest Hills  
 Fort Cherry  
 Fort LeBoeuf  
 Fox Chapel Area  
 Franklin Area  
 Franklin Regional  
 Frazier  
 Freedom Area  
 Freeport Area

**G** \_\_\_\_\_

Galeton Area  
 Garnet Valley  
 Gateway  
 General McLane  
 Gettysburg Area  
 Girard  
 Glendale  
 Governor Mifflin  
 Great Valley  
 Greater Johnstown  
 Greater Latrobe  
 Greater Nanticoke Area  
 Greencastle-Antrim  
 Greensburg Salem  
 Greenville Area  
 Greenwood  
 Grove City Area

**H** \_\_\_\_\_

Halifax Area  
 Hamburg Area  
 Hampton Township  
 Hanover Area  
 Hanover Public  
 Harbor Creek  
 Harmony Area  
 Harrisburg City  
 Hatboro-Horsham  
 Haverford Township  
 Hazleton Area  
 Hempfield  
 Hempfield Area  
 Hermitage  
 Highlands  
 Hollidaysburg Area  
 Homer-Center  
 Hopewell Area  
 Huntingdon Area

**I** \_\_\_\_\_

Indiana Area  
 Interboro  
 Iroquois

**J** \_\_\_\_\_

Jamestown Area  
 Jeannette City  
 Jefferson-Morgan  
 Jenkintown  
 Jersey Shore Area  
 Jim Thorpe Area  
 Johnsonburg Area  
 Juniata County  
 Juniata Valley

**K** \_\_\_\_\_

Kane Area  
 Karns City Area  
 Kennett Consolidated  
 Keystone  
 Keystone Central  
 Keystone Oaks  
 Kiski Area  
 Kutztown Area

**L** \_\_\_\_\_

Lackawanna Trail  
 Lakeland  
 Lake-Lehman  
 Lakeview  
 Lampeter-Strasburg  
 Lancaster  
 Laurel  
 Laurel Highlands  
 Lebanon  
 Leechburg Area  
 Lehighton Area  
 Lewisburg Area  
 Ligonier Valley  
 Line Mountain  
 Littlestown Area  
 Lower Dauphin  
 Lower Merion  
 Lower Moreland Township  
 Loyalsock Township

**M** \_\_\_\_\_

Mahanoy Area  
 Manheim Central  
 Manheim Township  
 Marion Center Area  
 Marple Newtown  
 Mars Area

McGuffey  
 McKeesport Area  
 Mechanicsburg Area  
 Mercer Area  
 Methacton  
 Meyersdale Area  
 Mid Valley  
 Middletown Area  
 Midd-West  
 Midland Borough  
 Mifflin County  
 Mifflinburg Area  
 Millcreek Township  
 Millersburg Area  
 Millville Area  
 Milton Area  
 Minersville Area  
 Mohawk Area  
 Monessen  
 Moniteau  
 Montgomery Area  
 Montour  
 Montoursville Area  
 Montrose Area  
 Moon Area  
 Morrisville Borough  
 Moshannon Valley  
 Mount Carmel Area  
 Mount Pleasant Area  
 Mount Union Area  
 Mountain View  
 Mt. Lebanon  
 Muhlenberg  
 Muncy

**N** \_\_\_\_\_

Nazareth Area  
 Neshaminy  
 Neshannock Township  
 New Brighton Area  
 New Castle Area  
 New Hope-Solebury  
 New Kensington-Arnold  
 Newport  
 Norristown Area  
 North Allegheny  
 North Clarion County  
 North East  
 North Hills  
 North Penn  
 North Pocono  
 North Schuylkill  
 North Star  
 Northampton Area

## Statistical Section

### Schedule of Employers (Continued)

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Northeast Bradford  
Northeastern York  
Northern Bedford County  
Northern Cambria  
Northern Lebanon  
Northern Lehigh  
Northern Potter  
Northern Tioga  
Northern York County  
Northgate  
Northwest Area  
Northwestern  
Northwestern Lehigh  
Norwin

#### O \_\_\_\_\_

Octorara Area  
Oil City Area  
Old Forge  
Oley Valley  
Oswayo Valley  
Otto-Eldred  
Owen J. Roberts  
Oxford Area

#### P \_\_\_\_\_

Palisades  
Palmerton Area  
Palmyra Area  
Panther Valley  
Parkland  
Pen Argyl Area  
Penn Cambria  
Penn Hills  
Penn Manor  
Penncrest  
Penn-Delco  
Pennridge  
Penns Manor  
Penns Valley Area  
Pennsbury  
Penn-Trafford  
Pequea Valley  
Perkiomen Valley  
Peters Township  
Philadelphia City  
Philipsburg-Osceola Area  
Phoenixville Area  
Pine Grove Area  
Pine-Richland  
Pittsburgh  
Pittston Area  
Pleasant Valley  
Plum Borough

Pocono Mountain  
Port Allegany  
Portage Area  
Pottsgrove  
Pottstown  
Pottsville Area  
Punxsutawney Area  
Purchase Line

#### Q \_\_\_\_\_

Quaker Valley  
Quakertown Community

#### R \_\_\_\_\_

Radnor Township  
Reading  
Red Lion Area  
Redbank Valley  
Reynolds  
Richland  
Ridgway Area  
Ridley  
Ringgold  
Riverside  
Riverside Beaver County  
Riverview  
Rochester Area  
Rockwood Area  
Rose Tree Media

#### S \_\_\_\_\_

Saint Clair Area  
Saint Marys Area  
Salisbury Township  
Salisbury-Elk Lick  
Saucon Valley  
Sayre Area  
Schuylkill Haven Area  
Schuylkill Valley  
Scranton  
Selinsgrove Area  
Seneca Valley  
Shade Central City  
Shaler Area  
Shamokin Area  
Shanksville-Stonycreek  
Sharon City  
Sharpsville Area  
Shenandoah Valley  
Shenango Area  
Shikellamy  
Shippensburg Area  
Slippery Rock Area  
Smethport Area

Solanco  
Somerset Area  
Souderton Area  
South Allegheny  
South Butler County  
South Eastern  
South Fayette Township  
South Middleton  
South Park  
South Side Area  
South Western  
South Williamsport Area  
Southeast Delco  
Southeastern Greene  
Southern Columbia Area  
Southern Fulton  
Southern Huntingdon County  
Southern Lehigh  
Southern Tioga  
Southern York County  
Southmoreland  
Spring Cove  
Spring Grove Area  
Springfield  
Springfield Township  
Spring-Ford Area  
State College Area  
Steel Valley  
Steelton-Highspire  
Sto-Rox  
Stroudsburg Area  
Sullivan County  
Susquehanna Community  
Susquehanna Township  
Susquenita

#### T \_\_\_\_\_

Tamaqua Area  
Titusville Area  
Towanda Area  
Tredyffrin-Easttown  
Trinity Area  
Tri-Valley  
Troy Area  
Tulpehocken Area  
Tunkhannock Area  
Turkeyfoot Valley Area  
Tuscarora  
Tussey Mountain  
Twin Valley  
Tyrone Area



**Schedule of Employers (Continued)**

**U** \_\_\_\_\_

Union  
 Union Area  
 Union City Area  
 Uniontown Area  
 Unionville-Chadds Ford  
 United  
 Upper Adams  
 Upper Darby  
 Upper Dauphin Area  
 Upper Dublin  
 Upper Merion Area  
 Upper Moreland Township  
 Upper Perkiomen  
 Upper Saint Clair

Warren County  
 Warrior Run  
 Warwick  
 Washington  
 Wattsburg Area  
 Wayne Highlands  
 Waynesboro Area  
 Weatherly Area  
 Wellsboro Area  
 West Allegheny  
 West Branch Area  
 West Chester Area  
 West Greene  
 West Jefferson Hills  
 West Middlesex Area  
 West Mifflin Area  
 West Perry  
 West Shore  
 West York Area  
 Western Beaver County  
 Western Wayne  
 Westmont Hilltop  
 Whitehall-Coplay

Wilkes-Barre Area  
 Wilkesburg Borough  
 William Penn  
 Williams Valley  
 Williamsburg Community  
 Williamsport Area  
 Wilmington Area  
 Wilson  
 Wilson Area  
 Windber Area  
 Wissahickon  
 Woodland Hills  
 Wyalusing Area  
 Wyoming Area  
 Wyoming Valley West  
 Wyomissing Area

**V** \_\_\_\_\_

Valley Grove  
 Valley View

West York Area  
 Western Beaver County  
 Western Wayne  
 Westmont Hilltop  
 Whitehall-Coplay

**Y** \_\_\_\_\_

York City  
 York Suburban  
 Yough

**W** \_\_\_\_\_

Wallenpaupack Area  
 Wallingford-Swarthmore

**Area Vocational Technical Schools**

A. W. Beattie Career Center  
 Admiral Peary AVTS  
 Beaver County AVTS  
 Bedford County Technical Center  
 Berks CTC  
 Bethlehem AVTS  
 Bucks County Technical High School  
 Butler County AVTS  
 Carbon Career & Technical Institute  
 Career Institute of Technology  
 Central Montco Technical High School  
 Central PA Institute of Science &  
 Technology  
 Central Westmoreland CTC  
 Clarion County Career Center  
 Clearfield County CTC  
 Columbia-Montour AVTS  
 Crawford County CTC  
 CTC of Lackawanna County  
 Cumberland-Perry AVTS  
 Dauphin County Technical School  
 Delaware County AVTS  
 Eastern Center for Arts & Technology  
 Eastern Westmoreland CTC  
 Erie County Technical School  
 Fayette County AVTS  
 Forbes Road CTC  
 Franklin County CTC  
 Fulton County AVTS

Greater Altoona CTC  
 Greater Johnstown AVTS  
 Greene County CTC  
 Huntingdon County CTC  
 Indiana County Technology Center  
 Jefferson County-DuBois AVTS  
 Lancaster County CTC  
 Lawrence County CTC  
 Lebanon County CTC  
 Lehigh Career & Technical Institute  
 Lenape Tech  
 Lycoming CTC  
 Mercer County Career Center  
 Middle Bucks Institute of Technology  
 Mifflin County Academy of Science &  
 Technology  
 Mon Valley CTC  
 Monroe Career & Tech Institute  
 North Fayette County AVTS  
 North Montco Technical Career Center  
 Northern Tier Career Center  
 Northern Westmoreland CTC  
 Northumberland County AVTS  
 Parkway West CTC  
 Reading-Muhlenberg CTC  
 Schuylkill Technology Center  
 Somerset County Technology Center  
 Steel Center AVTS  
 SUN Area Technical Institute

Susquehanna County CTC  
 Upper Bucks County AVTS  
 Venango Technology Center  
 West Side AVTS  
 Western Area CTC  
 Western Center for Technical Studies  
 Wilkes-Barre Area CTC  
 York County School of Technology

## Statistical Section

### Schedule of Employers (Continued)

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#### Intermediate Units

Allegheny #3	Colonial #20	Schuylkill #29
Appalachia #8	Delaware County #25	Seneca Highlands #9
Arin #28	Intermediate Unit #1	Tuscarora #11
Beaver Valley #27	Lancaster-Lebanon #13	Westmoreland #7
Berks County #14	Lincoln #12	
BLaST #17	Luzerne #18	
Bucks County #22	Midwestern #4	
Capital Area #15	Montgomery County #23	
Carbon-Lehigh #21	Northeastern Educational #19	
Central #10	Northwest Tri-County #5	
Central Susquehanna #16	Pittsburgh-Mt. Oliver #2	
Chester County #24	Riverview #6	

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#### Colleges / Universities

State System of Higher Education	Bucks County Community College	Westmoreland County Community College
• Bloomsburg University	Butler County Community College	
• California University	Community College of Allegheny County	
• Cheyney University	Community College of Beaver County	
• Clarion University of Pennsylvania	Community College of Philadelphia	
• East Stroudsburg University	Delaware County Community College	
• Edinboro University	Harrisburg Area Community College	
• Indiana University	Lehigh Carbon Community College	
• Kutztown University	Luzerne County Community College	
• Lock Haven University	Montgomery County Community College	
• Mansfield University	Northampton County Community College	
• Millersville University	Penn State University	
• Shippensburg University	Pennsylvania College of Technology	
• Slippery Rock University	Pennsylvania Highlands Community College	
• West Chester University	Reading Area Community College	

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#### Other

Berks County Earned Income Tax Bureau	Overbrook School for the Blind	York Adams Academy
Department of Corrections - Commonwealth of Pennsylvania	Pennsylvania School Boards Association	
Department of Education - Commonwealth of Pennsylvania	Pennsylvania School for the Deaf	
Lancaster County Academy	Thaddeus Stevens College of Technology	
	Western Pennsylvania School for the Blind	
	Western Pennsylvania School for the Deaf	

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#### Charter Schools (C S)

21st Century Cyber C S	Baden Academy C S	Foundation C S
Achievement House C S	Bear Creek Community C S	Centre Learning Community C S
Act Academy Cyber C S	Beaver Area Academic C S	Chester County Family Academy C S
Ad Prima C S	Belmont Academy C S	Christopher Columbus C S
Agora Cyber C S	Belmont C S	Circle of Seasons C S
Alliance For Progress C S	Birney Preparatory Academy C S	City Charter High School
Antonia Pantoja C S	Boys' Latin of Philadelphia C S	Collegium C S
Architecture and Design Charter High School	Bucks County Montessori C S	Commonwealth Connections Academy C S
Arise Academy Charter High School	Casa C S	Community Academy of Philadelphia C S
Arts Academy C S	Center for Student Learning Charter School at Pennsbury	Crispus Attucks Youthbuild C S
Aspira Bilingual Cyber C S	Central Pennsylvania Digital Learning	Delaware Valley C S
Avon Grove C S		Discovery C S

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**Schedule of Employers (Continued)**

Dr. Robert Ketterer C S	Mastery Charter School - Mann Elementary	School Lane C S
Eastern University Academy C S	Mastery Charter School - Pickett Campus	Seven Generations C S
Environmental Charter School at Frick Park	Mastery Charter School - Shoemaker Campus	Souderton Charter School Collaborative
Erie Rise Leadership Academy C S	Mastery Charter School - Simon Gratz	Spectrum C S
Esperanza Academy C S	Mastery Charter School - Smedley Elementary	Stone Valley Community C S
Esperanza Cyber C S	Mastery Charter School - Thomas Campus	Sugar Valley Rural C S
Eugenio Maria de Hostos Community Bilingual C S	Math Civics and Sciences C S	SusQ - Cyber C S
Evergreen Community C S	Mathematics, Science & Technology Community C S	Sylvan Heights Science C S
Fell C S	Medical Academy C S	Tacony Academy C S
First Philadelphia Charter School for Literacy	Memphis Street Academy C S - J.P. Jones	Tidioute Community C S
Folk Arts - Cultural Treasures C S	Montessori Regional C S	Truebright Science Academy C S
Franklin Towne Charter Elementary School	Multi-Cultural Academy C S	Universal Alcorn C S
Franklin Towne Charter High School	New Day C S	Universal Audenried C S
Freire C S	New Foundations C S	Universal Bluford C S
Frederick Douglas Mastery C S	New Media Technology C S	Universal Creighton C S
Gettysburg Montessori C S	Nittany Valley C S	Universal Daroff C S
Gillingham C S	Northside Urban Pathways C S	Universal Institute C S
Global Leadership Academy C S	Northwood Academy C S	Universal Vare C S
Green Woods C S	Olney Charter High School	Urban League of Pittsburgh C S
Hardy Williams Academy C S	Pan American Academy C S	Urban Pathways K - 5 College C S
Helen Thackston C S	Penn Hills C S for Entrepreneurship	Vida C S
Hill House Passport Academy C S	Pennsylvania Cyber C S	West Oak Lane C S
Hope for Hyndman C S	Pennsylvania Distance Learning C S	West Philadelphia Achievement Charter Elementary School
Howard Gardner Multiple Intelligence C S	Pennsylvania Leadership C S	Wissahickon C S
I-Lead C S	Pennsylvania Virtual C S	Wonderland C S
Imani Education Circle C S	People for People C S	World Communications C S
IMHOTEP Institute C S	Perseus House Charter School of Excellence	York Academy Regional C S
Independence C S	Philadelphia Academy C S	Young Scholars C S
Infinity C S	Philadelphia Charter School for Arts & Sciences at H.R. Edmunds	Young Scholars Kenderton C S
John B Stetson C S	Philadelphia Electrical & Technology Charter High School	Young Scholars of Central Pennsylvania C S
Keystone Academy C S	Philadelphia Harambee Institute of Science and Technology C S	Young Scholars of Western Pennsylvania C S
Keystone Education Center C S	Philadelphia Montessori C S	
Khepera C S	Philadelphia Performing Arts C S	
Kipp Academy C S	Premier Arts & Science C S	
Kipp West Philadelphia Preparatory C S	Preparatory Charter School of Mathematics, Science, Technology & Careers	
La Academia: The Partnership C S	Propel - East C S	
Laboratory C S	Propel - Northside	
Lehigh Valley Academy Regional C S	Propel Charter School - Braddock Hills	
Lehigh Valley Charter School for the Performing Arts	Propel Charter School - Homestead	
Lehigh Valley Dual Language C S	Propel Charter School - McKeesport	
Lincoln C S	Propel Charter School - Montour	
Lincoln Leadership Academy C S	Propel Charter School - Pitcairn	
Lincoln Park Performing Arts C S	Renaissance Academy - Edison C S	
Manchester Academic C S	Richard Allen Preparatory C S	
Mariana Bracetti Academy C S	Robert Benjamin Wiley Community C S	
Maritime Academy C S	Roberto Clemente C S	
Mastery Charter High School	Roberto Clemente Elementary C S	
Mastery Charter School - Cleveland Elementary	Russell Byers C S	
Mastery Charter School - Clymer Elementary	Sankofa Freedom Academy C S	
Mastery Charter School - Francis D Pastorius Elementary		
Mastery Charter School - Harrity Elementary		



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