

COMMONWEALTH OF PENNSYLVANIA  
PUBLIC SCHOOL EMPLOYEES' RETIREMENT BOARD



MELVA S. VOGLER  
Chairman

JAMES M. SANDO  
Vice Chairman

March 7, 2016

Members of the House Appropriations Committee

Dear Members:

On behalf of the Public School Employees' Retirement System (PSERS), I am pleased to present the accompanying report on the financial, actuarial, and investment operations of PSERS and the budgetary recommendations for the 2016/17 fiscal year. Copies of this document and PSERS' Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015 (FY 2015) are available for download from PSERS' website at [www.psers.state.pa.us](http://www.psers.state.pa.us). Hard copies and CDs are also available upon request.

PSERS is responsible for administering a large defined benefit pension plan for over 600,000 active, retired, inactive, and vested public school employees in the Commonwealth of Pennsylvania. PSERS also administers two post-employment health care programs, the Premium Assistance Program and the Health Options Program (HOP) for its annuitants.

PSERS is administered by a staff of 316. Processing and customer service highlights for calendar year 2015 include:

- PSERS staff processed over 55,900 benefits including retirement and death benefits, refunds, purchases of service, and account verifications
- PSERS staff processed over 9,400 new Electronic Fund Transfer forms during 2015
- In 2015, over 251,000 vital tax forms (1099-Rs) were prepared, generated, and mailed by PSERS staff
- Over 2.5 million monthly payments were disbursed to members by PSERS staff
- Over 22,000 retirement benefit estimates were prepared by PSERS staff
- PSERS member service center answered over 191,000 phone calls and responded to over 16,800 email inquiries PSERS staff held over 900 retirement exit counseling sessions that were attended by over 7,700 members

For the fiscal year ended June 30, 2015 PSERS' investment portfolio generated a rate of return of 3.04% and added \$1.3 billion in net investment income to the Fund. The most recent actuarial valuation reports that PSERS is 60.6% funded and the total plan net assets were \$51.9 billion as of June 30, 2015.

Below are summaries of the economic impact of PSERS, the funding progress under Act 120 of 2010, and additional cost saving and improving efficiencies at PSERS.

### **Economic Impact of PSERS' Pension Benefits and Investments on Pennsylvania**

- PSERS members are required to contribute an average of 7.52% of their salary or approximately \$1 billion to help fund their retirement benefit in FY 2016/17. The average annual pension benefit for PSERS' total member population as of June 30, 2015 is a modest \$25,119. Approximately 75% of System retirees receive less than \$40,000 per year in benefits. Six-figure pensions are rare, with fewer than one-half of 1% of PSERS retirees receiving an annual benefit over \$100,000.

- In calendar year 2015, PSERS pension disbursements to retirees totaled approximately \$6.3 billion. Of this amount, approximately 90%, or \$5.7 billion, went directly into Pennsylvania's state and local economies. According to a study by the National Institute on Retirement Security (NIRS) this spending expands through the economy as the retiree's spending becomes another's income, multiplying the effect of the \$5.7 billion into an economic impact of \$10.2 billion throughout the Commonwealth. NIRS estimates show that the impact of money from PSERS in Pennsylvania includes:
  - Economic impact exceeding \$10.2 billion
  - Support for over 70,000 jobs that paid \$3.4 billion in wages and salaries
  - \$1.3 billion in federal and local tax revenues
- PSERS has shown a strong commitment to Pennsylvania by having assets managed by firms based in Pennsylvania or by firms with offices in Pennsylvania. In FY 2015, investment manager fees paid to external firms managing PSERS' assets from offices located in Pennsylvania amounted to \$29.7 million, or 6.9% of the total external investment manager fees.
- PSERS' investments employ approximately 35,000 Pennsylvania residents with a payroll of \$828 million.

#### **Five Years of Funding Progress under Act 120 of 2010**

- **Act 120 of 2010 has increased funding to PSERS** - Act 120 of 2010 continues to put PSERS on the path toward proper funding. During the past 15 years, various pieces of pension legislation artificially suppressed the employer contributions paid to PSERS by the Commonwealth and school employers. As a result, the largest contributor to the \$37.3 billion existing pension debt is the cumulative effect of the intentional underfunding of PSERS. As a result 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. PSERS is expected to receive 80% of the ARC in FY 2016 and the FY 2016/17 employer contribution rate fully meets actuarial funding obligations. After July 1, 2016 no additional pension debt will be added due to underfunding.
- **Act 120 rate collars no longer in effect** - Act 120 of 2010 put rate collars in place to limit the amount the pension component of the employer contribution rate could increase over the prior year's rate. Over the past five years, Act 120 of 2010 performed as expected and increased the employer contribution rate in measured increments to the level of the actuarially required rate. For FY 2016/17 the rate collars put in place under Act 120 of 2010 no longer apply. Total employer contributions to PSERS of \$3.4 billion are estimated in FY 2015/16. While difficult budgetary issues remain for school employers and the Commonwealth, the employer contribution rates have reached a plateau that will slowly begin to pay down the principal on the existing pension debt beginning in FY 2017/18.

- **Act 120 significantly reduced benefit costs** - Act 120 of 2010 significantly reduced benefit costs for all new members joining the System. As of June 30, 2015 approximately 48,000 or 19% of PSERS active membership is under the new reduced benefit structure of Act 120. The annual benefit cost for new members joining the System is less than 3%. The annual benefit cost continues to decrease. It is expected to decrease from 8.38% in FY 2015/16 to 8.31% in FY 2016/17 as more new members join the system under the reduced benefit structure of Act 120 of 2010. The annual employer cost for benefits is projected to be less than 3 percent once all members are under the Act 120 benefit structure. As the Act 120 membership grows, the annual savings from the lower Act 120 benefit cost structure will allow a larger proportion of employer contributions to pay down PSERS' existing unfunded liability. An estimated \$115 million is expected in annual savings during FY 2016/17 from the reduced Act 120 benefit tiers.
- **PSERS is approaching a turning point** - As the annual savings from the reduced benefit structure increase and higher employer contributions are paid by the Commonwealth and school employers, PSERS is approaching a turning point. In FY 2017/18, principal pay down on PSERS' unfunded liability begins and PSERS' funded ratio is projected to slowly improve after declining for many years.

#### **Continued Cost Savings and Improving Efficiencies at PSERS**

- **PSERS continues to be prudent in its use of funds and managing its annual budget** - PSERS Administrative Budget Request for FY 2016/17 is \$45,115,000. 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 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. By running a lean and efficient operation PSERS saves the Commonwealth and school employers approximately \$8.4 million annually in Administrative expenses compared to its peers.

In addition, PSERS continues to look for cost savings within its administrative operations. 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.

- **PSERS has continued to make enhancements to its processes to operate more efficiently and provide quality customer service** - 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 all initial 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 days down to 19 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.

- **The multi-year technology effort to upgrade the System's entire core client-server based pension administration system continues** – 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 processes and member self-services 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.

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.

- **PSERS investment manager fees continue to decrease** - As fiduciaries, PSERS constantly monitors investment manager fees, as well as return expectations, investment risk, diversification, and cash flow needs. While PSERS continues to face a difficult investment environment, for the second year in a row, PSERS’ investment manager fees have declined. Over the past two years PSERS’ investment expenses have decreased by over \$103 million. PSERS’ investment expenses declined from \$558 million in FY 2012/13 to \$455 million in FY 2014/15, a reduction of over 18 percent. This was accomplished by reducing external investment management fees through strategically reducing PSERS’ private equity allocation, continued careful negotiation of fees, and by bringing the remaining U.S. equity allocation that was managed by third-party investment managers in-house to be managed by PSERS’ internal staff.

PSERS continues to cooperate with the Administration 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. As of December 31, 2015, PSERS had over 32% of its portfolio, or over \$17 billion, in exposure, in active and passively managed portfolios managed by PSERS’ internal 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.

- PSERS remains very open and transparent regarding investment management fees paid and the value received for those fees. During the past 16 fiscal years, PSERS incurred \$5.4 billion in investment management fees. In exchange PSERS generated \$12.5 billion in additional investment returns above the applicable index returns of \$33.9 billion for total net of fee investment returns of \$46.4 billion. At the total fund level for every 1 dollar that the fund spent in investment management fees, the fund earned the index return PLUS an additional 3 dollars net of fees over the past 16 years. PSERS has exceeded the passive index implementation of the asset allocation plan in 13 of the past 16 years, net of all fees.

### **Legislative Pension Proposal Assistance**

- Throughout 2015, PSERS staff was actively engaged in providing actuarial data, legislative analyses, and related technical information to members of the General Assembly and Executive Branch Officials on a range of pension policy proposals while remaining policy neutral. PSERS incurred over \$490,000 in outside actuarial services from PSERS' actuary solely for numerous pension policy proposals during 2015.
- PSERS staff also spent hundreds of hours on multiple variations of pension policy proposals. The cost work performed internally by PSERS staff saved hundreds of thousands of dollars in outside actuarial fees in 2015. PSERS legal staff also drafted hundreds of pages of draft legislation for numerous pension policy proposals.

In closing, PSERS will continue to cooperate with the General Assembly in its role as a technical expert in providing fact-based information to support efforts in determining effective pension policy. As in the past, PSERS will assist in drafting technically correct provisions and providing input on funding and operational aspects of various proposals, while remaining policy neutral on plan design elements of legislative proposals. PSERS looks forward to working with you on this critical appropriation issue during the current legislative session. Please contact PSERS Executive Office, if you have any questions or would like additional information.

Respectfully,



Melva S. Vogler  
Chairman of the Board



**Pennsylvania  
Public School Employees' Retirement System**

(A Component Unit of the Commonwealth of Pennsylvania)

5 North 5th Street  
Harrisburg, Pennsylvania 17101-1905

**Fiscal Year 2016/17 Budget Report  
House Appropriations Committee  
March 7, 2016**

**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 and Investment Office staff*

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# SECTION 1 - PSERS OVERVIEW

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### Overview

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

As of June 30, 2015, the System had approximately 260,000 active members. The annuitant membership was comprised of approximately 220,000 retirees and beneficiaries who received average monthly pension benefit payments of over \$456 million including healthcare premium assistance. The average yearly pension benefit paid to annuitants was \$25,119. PSERS had 784 participating employers on June 30, 2015.

As reported in the latest *Pension and Investments* survey, published February 8, 2016, PSERS is the 31st largest plan among United States corporate and public pension plans, and the 20th largest state-sponsored defined benefit public pension fund in the nation. PSERS' total plan net assets as of December 31, 2015 were approximately \$48.5 billion.

During calendar year 2015, PSERS pension disbursements to retirees totaled \$6.3 billion. Of this amount 90%, or \$5.7 billion, was distributed to Pennsylvania residents representing PSERS' significant impact on the Commonwealth's economy.



### Mission Statement

**T**he Board of Trustees and the employees of the Public School Employees' Retirement System serve the members and stakeholders of the System by:

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



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## PSERS Board of Trustees

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James M. Sando, Vice Chairman

Deborah J. Beck

Frederick T. Berestecky

James R. Biery

Honorable Stephen Bloom  
House of Representatives

Larry Breech

Honorable Patrick M. Browne  
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Honorable Lawrence M. Farnese  
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Nathan G. Mains  
Executive Director of the Pennsylvania School Boards Association, Inc.

Honorable Joseph F. Markosek  
House of Representatives

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Secretary of Education

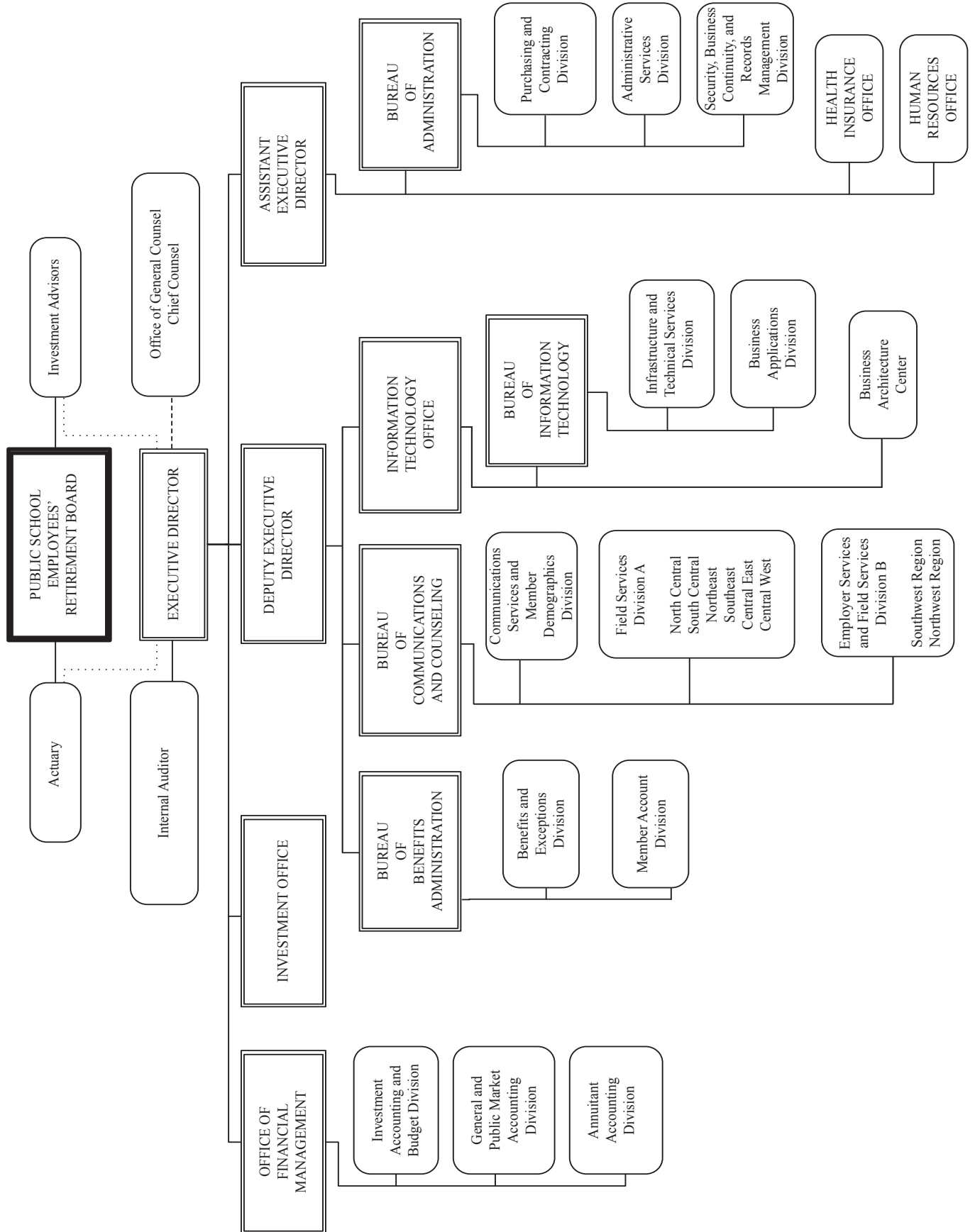
Ambassador Martin J. Silverstein

**PSERS Board Members as of February 10, 2016**



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# Section 1 - PSERS Overview



# Organizational Structure of the Public School Employees' Retirement System

### Executive Office

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

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

### Investment Office

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

### Chief Counsel's Office

This office provides legal services through a team of professional personnel under the Governor's Office of General Counsel. The legal staff is responsible for representing the System in all administrative hearings and other litigation matters and providing counsel in a wide variety of matters including the interpretation of the Retirement Code, form and legality of all System contracts, corporate governance issues and the structure and implementation of the System's varied financial investments.

### Internal Auditor's Office

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

### Office of Financial Management

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

### Deputy Executive Director

The Deputy Executive Director directly oversees the benefit programs for all active and retired members of the System, the development and implementation of the member and employer communications programs and the retirement counseling programs, and the maintenance of agency policies, procedures, and benefit related data. Additionally, this position oversees business and information technology strategic planning, policy development, and implementation.

### Bureau of Benefits Administration

The Bureau of Benefits Administration maintains account data, determines membership and benefits eligibility, and calculates benefits for Pennsylvania public school employees. This bureau provides these functions for all benefits provided by PSERS, except the PSERS Health Options and Premium Assistance Programs.

### Bureau of Communications and Counseling

The Bureau provides services to educate and inform annuitants, members, employers, staff and the public about the benefit related programs and services provided by PSERS, as well as the rights and duties of employers and members in relation to those benefits. Information communicated spans from very detailed and fact-specific explanations and instructions to more general explanations and educational materials. The Bureau includes the Communications Services and Member Demographics Division, two Field Services Divisions, and the Employer Service Center.

### Information Technology Office

This office oversees the Bureau of Information Technology and the Business Architecture Center. It is responsible for strategic information technology planning and policy development, ensuring that information technology plans, projects and policies are aligned with, in support of, and prioritized according to agency needs and requirements as well as those Commonwealth needs and requirements that are consistent with agency needs, and for communicating



### Organizational Structure (continued)

such to the agency's information technology staff. Large information technology contracts and projects are managed by this office. This office is also responsible for understanding, analyzing, documenting, and improving PSERS' processes, information systems, and the relationships among these components so that PSERS is able to: conduct its business consistently and according to established rules; understand each component, its relationship to each of the other components and to PSERS' mission, vision, values and goals; fully, yet quickly analyze and understand the impact of potential change to one or more of these components on the others; more effectively identify inefficient, duplicate, or suspect processes, technologies; account for its processes, information systems and technologies.

#### Business Architecture Center

This center serves as the repository for PSERS' business knowledge and makes that knowledge available and understandable to agency processing and technology staff. The center receives and responds to data queries from agency staff and investigates system, data, or process problems. This center includes staff who collect, analyze, and document PSERS' processes, information systems and data, and perform detailed impact analysis as and when change is proposed. Additionally, staff in this unit coordinate, lead, and track projects and confirm that changes have been applied correctly. They look for opportunities for improvement, lead the development of business requirements, and serve as liaisons between PSERS' end-users and information technology staff. The Systems Support section provides key analytical services to the center and to other bureaus within the organization including specific services such as research, analysis, recommendations for action, and implementation support related to PSERS' information systems, data, or business or management processes.

#### Bureau of Information Technology

This bureau is responsible for planning, coordinating, administering, and implementing information technology resources in accordance with the agency's strategic plans, goals, objectives, and priorities as communicated by PSERS' Chief Information Officer, and for providing operational support for those technologies and initiatives.

#### Assistant Executive Director

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

#### Bureau of Administration

This bureau provides facilities, purchasing and contracting, policies and procedures, business continuity, records management, automotive, mail, imaging, and other administrative services necessary to support agency functions.

#### Human Resources Office

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

#### Health Insurance Office

This office is responsible for all aspects of the PSERS' Health Options Program (HOP) and administering the PSERS annuitant health insurance premium assistance benefits. HOP is a voluntary statewide plan that provides group health insurance coverage for school retirees, their spouses, and eligible dependents.

#### PSERS Regional Offices

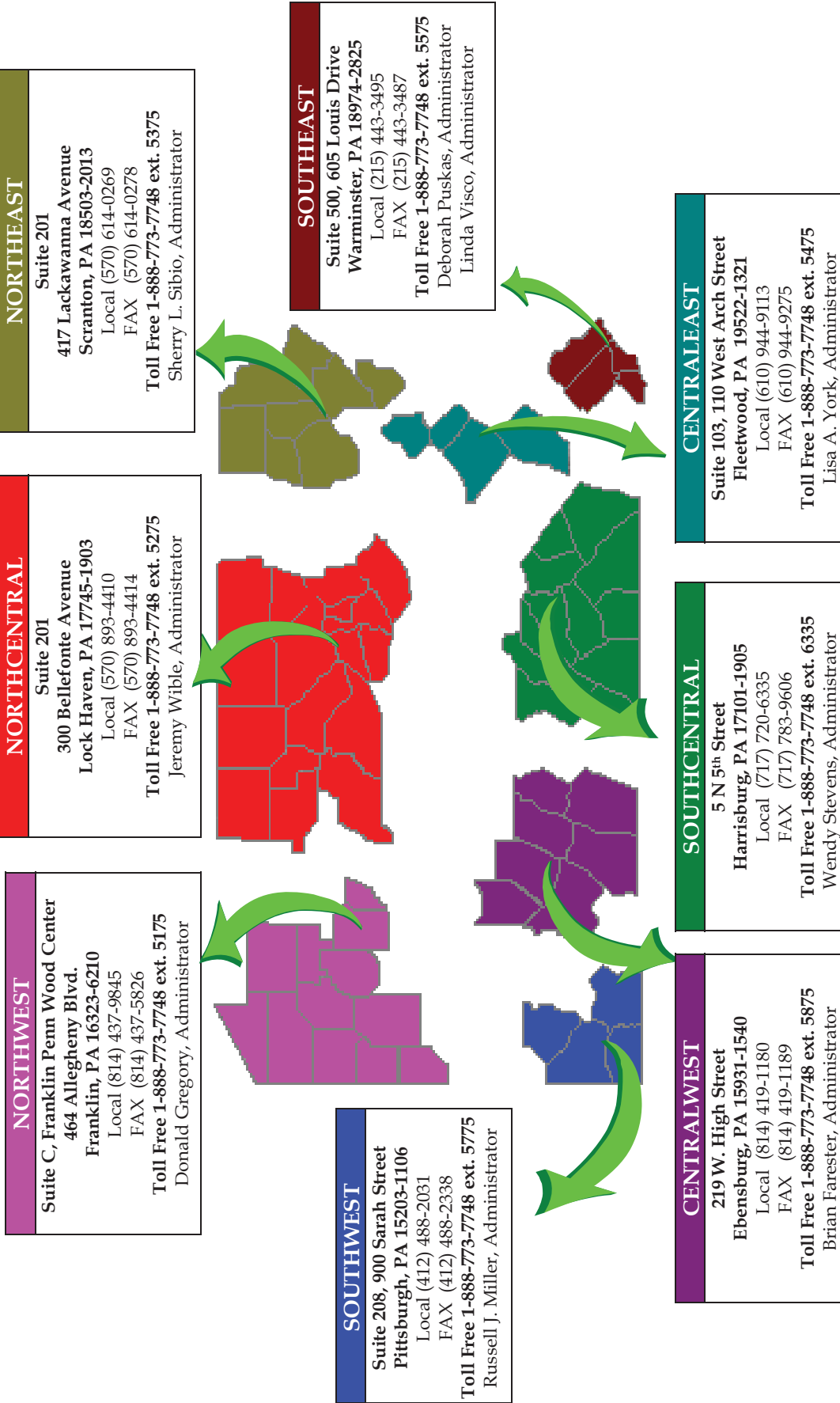
There are eight PSERS Regional Offices strategically located throughout the Commonwealth. The offices provide services to both active and retired PSERS members and 784 employers. Among these services are regularly scheduled retirement counseling meetings and other informational presentations on various topics relating to retirement benefits and programs.

**PSERS REGIONAL OFFICES**

*Public School Employees' Retirement System of Pennsylvania*

**PSERS FIELD SERVICES DIVISION**

*Serving You in the 21<sup>st</sup> Century*



## Section 1 - PSERS Overview

### Summary of Various Member Service Statistics

PSERS mission to serve our members. Below are highlights of some of the more common services that PSERS provides to its members.

PSERS operates very efficiently. There are only 316 staff serving the needs of over 600,000 members of the System and 784 employers. PSERS staff is dedicated to fulfilling

Benefits Processed (Major)		
Calendar Year	<u>2014</u>	<u>2015</u>
<b>Initial Retirements (1-Step)</b>	9,687	9,677
<b>Initial Retirements (2-Step)</b>	1,056	1,120
<b>Final Retirements (2nd Step of 2-Step)</b>	793	924
<b>Purchases of Service and Corrections for Previously Unreported Service and/or Contributions not Withheld</b>	19,515	19,817
<b>Refunds</b>	4,278	4,569
<b>Deaths</b>	6,606	6,056
<b>Account Verification - non retirements</b>	8,672	13,754
<b>TOTAL</b>	50,607	55,917
<b>Percent of Retirement Paid as 1 Step</b>	90%	90%

Other Member Services (Major)		
Calendar Year	<u>2014</u>	<u>2015</u>
<b>Retirement Estimates</b>	25,106	22,257
<b>Phone Calls Answered</b>	264,505	191,057
<b>E-mails Received</b>	14,328	15,987
<b>E-mails Sent</b>	12,786	16,809
<b>General Information Sessions</b>	198	181
<b>General Information Attendees</b>	10,849	7,689
<b>Exit Counseling Sessions</b>	919	902
<b>Exit Counseling Attendees</b>	7,694	7,748

Member Payment Services for Retirees and Beneficiaries		
Calendar Year	<u>2014</u>	<u>2015</u>
<b>Monthly Payments to Members</b>	2,512,983	2,583,630
<b>Non-recurring Payments to Members</b>	51,287	42,326
<b>Forms 1099-R Produced</b>	244,319	251,822
<b>W4-P Tax Withholding Forms Processed</b>	4,856	4,974
<b>EFT Forms Processed - Direct Deposit</b>	9,263	9,443
<b>ACH Rejects Researched and Reviewed (Direct Deposit Failures)</b>	2,693	3,706
<b>Member Payment Changes Processed</b>	5,061	4,554



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**Economic Impact on Pennsylvania, Member Demographics, and Financial Information**

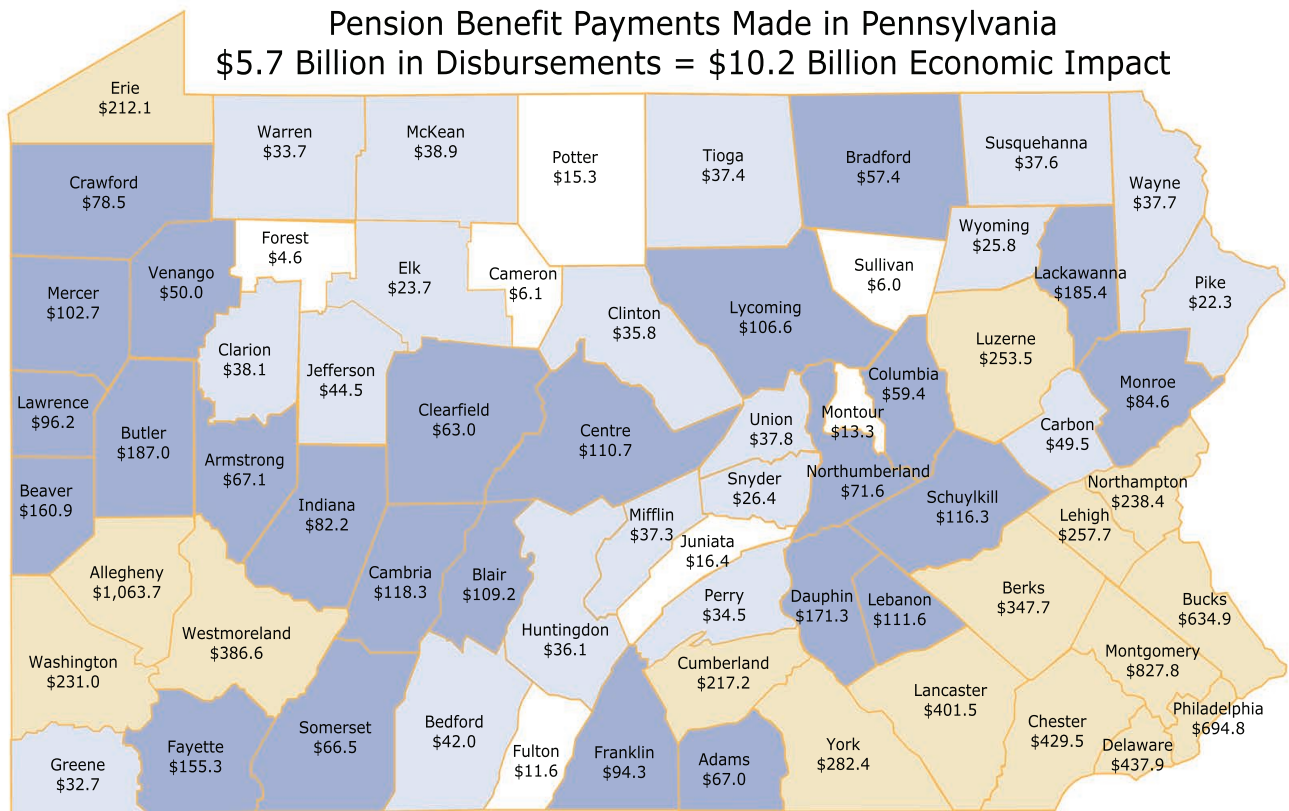
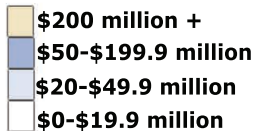
**Economic Impact of Pension Benefits on Pennsylvania**

In calendar year 2015, PSERS pension disbursements to retirees totaled approximately \$6.3 billion. Of this amount, approximately 90%, or \$5.7 billion, went directly into state and local economies. According to a study by the National Institute on Retirement Security (NIRS) this spending expands through the economy as the retiree’s spending becomes another’s income, multiplying the effect of the \$5.7 billion into an economic impact of \$10.2 billion throughout the Commonwealth. Estimates show that the impact of money from PSERS in Pennsylvania includes<sup>1</sup>:

- Economic impact exceeding \$10.2 billion
- Support for over 70,000 jobs that paid \$3.4 billion in wages and salaries
- \$1.3 billion in federal and local tax revenues

Top 10 Counties Based on Economic Impact from Benefit Disbursements (Dollars in Millions)	
Allegheny	\$1,063.7
Montgomery	\$827.8
Philadelphia	\$694.8
Bucks	\$634.9
Delaware	\$437.9
Chester	\$429.5
Lancaster	\$401.5
Westmoreland	\$386.6
Berks	\$347.7
York	\$282.4

**Total Economic Impact from Benefit Disbursements by County for CY 2015 (Dollar amounts in millions)**



<sup>1</sup>Pensionomics. The National Institute on Retirement Security, July 2014

## Section 1 - PSERS Overview

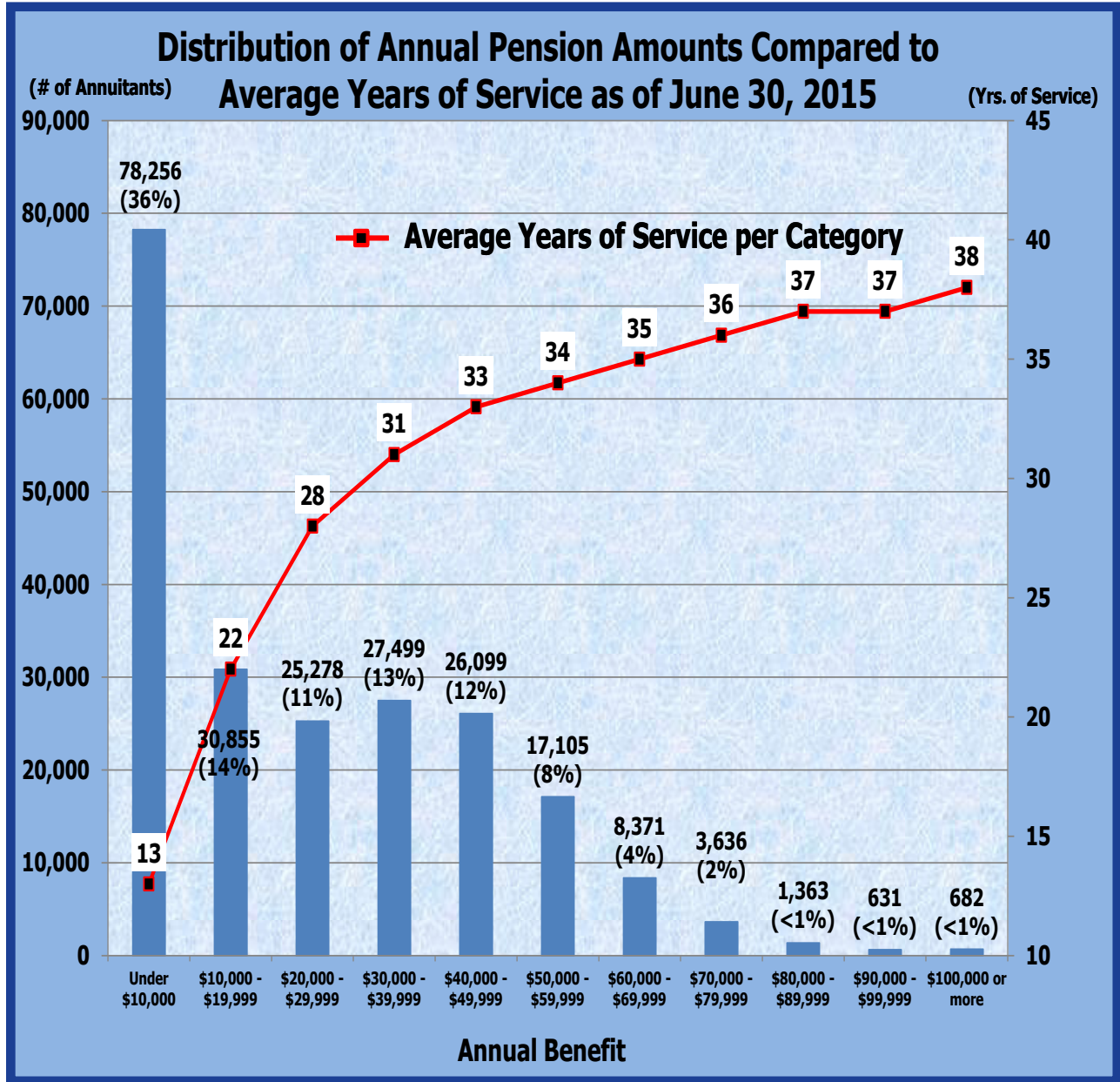
### Member Demographics and Financial Information (continued)

Members by Type						
Fiscal Year ended <u>June 30</u>	<u>Active Members</u>	<u>Inactive Members</u>	<u>Annuitants, Beneficiaries, and Survivor Annuitants</u>	<u>Total Active/Retired Members</u>	<u>Ratio of Active/ Retired</u>	<u>Total Membership</u>
2015	259,868	137,186	219,775	479,643	1.18 to 1	616,829
2014	263,312	132,564	213,900	477,212	1.23	609,776
2013	267,428	128,650	209,204	476,632	1.28	605,282
2012	273,504	122,286	202,015	475,519	1.35	597,805
2011	279,152	115,102	194,622	473,774	1.43	588,846
2010	282,041	111,931	184,934	466,975	1.53	578,906
2009	279,701	103,805	177,963	457,664	1.57	561,469
2008	272,690	100,803	173,540	446,230	1.57	547,033
2007	264,023	109,186	168,026	432,049	1.57	541,235
2006	263,350	94,071	161,813	425,163	1.62	519,234
<b>Average ratio of annuitants to active members (Public Funds)</b>					1.48*	

\*Based on the 2016 Public Fund Survey prepared by the National Association of State Retirement Administrators (NASRA).

Profile of PSERS' Annuitants, Beneficiaries, and Survivor Annuitants				
Type of Member	Number of Members		Average Annual Benefit	
	<u>6/30/2014</u>	<u>6/30/2015</u>	<u>6/30/2014</u>	<u>6/30/2015</u>
Normal/Early Retirees	194,886	200,161	\$25,889	\$26,030
Survivor Annuitants	10,144	10,509	12,625	13,066
Disability Retirees	<u>8,870</u>	<u>9,105</u>	<u>18,723</u>	<u>19,009</u>
Total	213,900	219,775	\$24,962	\$25,119
Age and Service Profile of All Active Members				
	<u>June 30, 2014</u>	<u>June 30, 2015</u>		
Average Age	44.8	44.9		
Average Years of PSERS Service	11.0	11.1		
Average Annual Compensation	\$47,931	\$48,787		
Class T-E Members				
	<u>June 30, 2014</u>	<u>June 30, 2015</u>		
Number of Members	32,638	41,189		
Average Age	36.6	37.4		
Average Years of PSERS Service	1.0	1.3		
Average Annual Compensation	\$24,016	\$25,086		
Class T-F Members				
	<u>June 30, 2014</u>	<u>June 30, 2015</u>		
Number of Members	5,391	7,280		
Average Age	35.6	36.3		
Average Years of PSERS Service	1.3	1.7		
Average Annual Compensation	\$33,035	34,627		

**Member Demographics and Financial Information (continued)**



**Benefit Summary**

The average System retiree receives \$25,119 on an annual basis, a benefit earned through a career in education.

- Approximately 75% of System retirees receive less than \$40,000 per year in benefits
- Six-figure pensions are rare, with fewer than one-half of 1% of PSERS retirees receiving an annual benefit over \$100,000. Retirees earning over six figures have spent an average of 38 years working in their careers

**Section 1 - PSERS Overview**

**Member Demographics and Financial Information (continued)**

**PSERS Pension Plan Changes in Fiduciary Net Position  
10 Year Cumulative Summary-CALENDAR YEAR  
(Dollar Amounts in Millions)**

	Cumulative 10 Year Total January 1, 2006 - December 31, 2015	
<b>Balance of Pension Net Position (01/01/06)</b>		<b>\$ 55,098</b>
Member Contributions	\$ 9,435	
Employer Contributions	11,912	
Net Investment Income	24,961	
Total Deductions - Benefits & Expenses	(53,260)	
<b>Net Decrease</b>		<b>\$ (6,952)</b>
<b>Balance of Pension Net Position (12/31/15)</b>		<b>\$ 48,146</b>



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## Section 1 - PSERS Overview

### Member Demographics and Financial Information (continued)

<b>PSERS Pension Plan Changes in Fiduciary Net Position</b>	
<b>10 Year Cumulative Summary-FISCAL YEAR</b>	
<b>(Dollar Amounts in Millions)</b>	
	<b>Cumulative 10 Year Total</b>
	<b><u>July 1, 2005 - June 30, 2015</u></b>
<b>Balance of Net Position (07/01/05)</b>	<b>\$ 51,936</b>
Member Contributions	\$ 9,364
Employer Contributions	10,619
Net Investment Income	31,652
Total Deductions - Benefits & Expenses	<u>(51,985)</u>
<b>Net Decrease</b>	<b>\$ <u>(350)</u></b>
<b>Balance of Net Position (6/30/15)</b>	<b>\$ 51,586</b>

<b>Cash Flow</b>			
<b>Fiscal Years Ended in June 30</b>			
<b>(Dollar Amounts in Millions)</b>			
	<b>--- Projected ---</b>		
	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>
Member Contributions	\$ 984	\$ 986	\$ 1,007
Employer Contributions	<u>2,597</u>	<u>3,380</u>	<u>3,996</u>
<b>Total Contributions</b>	<b>\$ 3,581</b>	<b>\$ 4,366</b>	<b>\$ 5,003</b>
<b>Less:</b>			
Pension Benefits	<u>6,200</u>	<u>6,592</u>	<u>6,803</u>
<b>Negative Cash Flow</b>	<b>\$ -2,619</b>	<b>\$ -2,226</b>	<b>\$ -1,800</b>
<b>Beginning of Year Total Assets</b>	<b>\$ 52,980</b>	<b>\$ 51,706</b>	<b>\$ 53,387</b>
<b>Negative Cash Flow (NCF) as a % of Total Assets</b>	<b>-4.9%</b>	<b>-4.3%</b>	<b>-3.4%</b>
<b>Average NCF as a % of Total Assets (Public Funds)</b>	<b>-2.1%*</b>		

\*Based on the 2016 Public Fund Survey prepared by NASRA.

#### **Negative Cash Flow (NCF)**

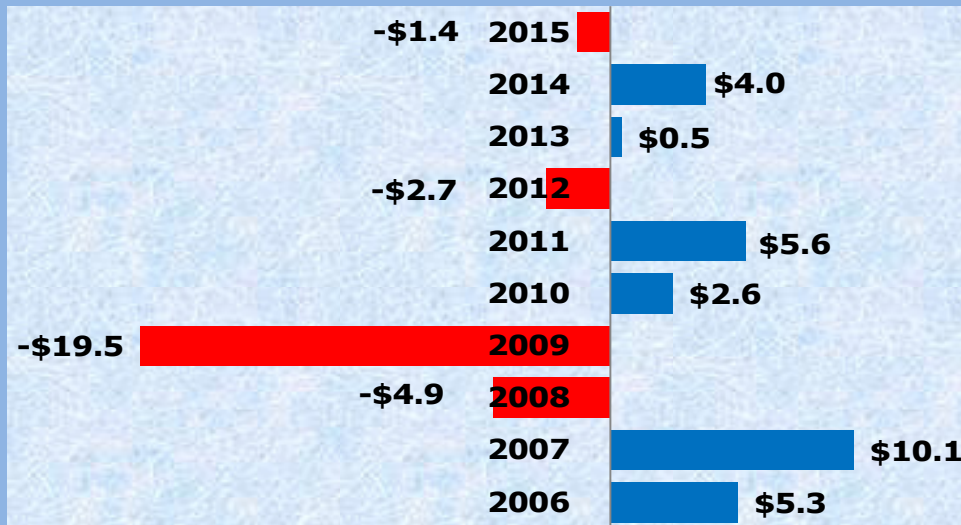
Using data from the table at the top of the page, the last 10 years of contributions and benefit payments resulted in a NCF of -\$32.0 billion (comprised of total deductions less member and employer contributions) during that time period. For the fiscal year ended June 2015, PSERS' NCF percentage is -4.9% which is more than twice the public fund average. PSERS' projected NCF percentage of -3.4% will remain above the public fund average through FY2016/17 due to the System's relatively small asset base. A smaller asset base means a greater percentage of the investment returns are being used to pay benefits.

Consequently, even during years when PSERS meets its investment return assumption, the Fund's assets will grow very slowly until employer contribution rates increase to the level recommended by PSERS' actuary which takes place in FY2016/17. In FY2017/18, contributions will be sufficient to begin to pay down the unfunded liability. This is a major step in the Fund's road to recovery.

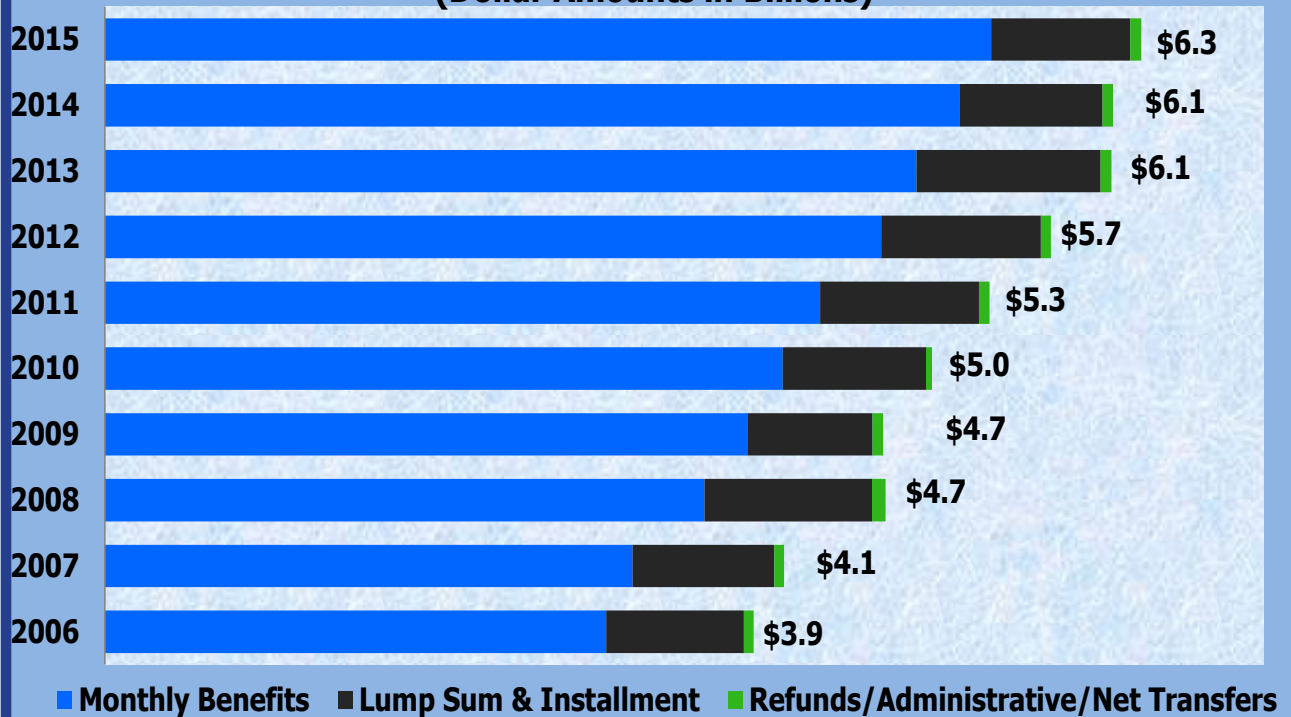
## Section 1 - PSERS Overview

### Member Demographics and Financial Information (continued)

**Net Increase/Decrease to Pension Fiduciary Net Position\***  
**10 Year Trend (Fiscal Year Ended June 30)**  
 (Dollar Amounts in Billions)



**Deductions from Pension Fiduciary Net Position\***  
**10 Year Trend (Fiscal Year ended June 30)**  
 (Dollar Amounts in Billions)



\*Does not include PSERS Postemployment Healthcare Plan Net Position.

## Section 1 - PSERS Overview

### Statement of Fiduciary Net Position December 31, 2015 (Dollar Amounts in Thousands)

	2015			
	Postemployment Healthcare			Totals
	Pension	Premium Assistance	Health Options Program	
<b>Assets:</b>				
Receivables:				
Members	\$ 314,259	\$ 3,426	\$ 54	\$ 317,739
Employers	1,466,690	50,083	-	1,516,773
Investment income	76,220	217	29	76,466
Investment proceeds	1,340,795	-	-	1,340,795
CMS Part D and prescriptions	-	-	55,386	55,386
Interfund	14,328	-	-	14,328
Miscellaneous	323	1,052	-	1,375
<b>Total Receivables</b>	<b>3,212,615</b>	<b>54,778</b>	<b>55,469</b>	<b>3,322,862</b>
Investments, at fair value:				
Short-term	2,909,309	79,948	202,958	3,192,215
Fixed income	4,770,535	-	-	4,770,535
Common and preferred stock	9,823,813	-	-	9,823,813
Collective trust funds	12,647,760	-	-	12,647,760
Real estate	4,996,958	-	-	4,996,958
Alternative investments	10,441,303	-	-	10,441,303
<b>Total Investments</b>	<b>45,589,678</b>	<b>79,948</b>	<b>202,958</b>	<b>45,872,584</b>
Securities lending collateral pool	1,939,108	-	-	1,939,108
Capital assets (net of accumulated depreciation \$27,122)	22,845	-	-	22,845
<b>Total Assets</b>	<b>50,764,246</b>	<b>134,726</b>	<b>258,427</b>	<b>51,157,399</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	147,207	265	1,313	148,785
Benefits payable	198,733	-	20,112	218,845
Participant premium advances	-	-	25,076	25,076
Investment purchases and other liabilities	337,279	896	-	338,175
Obligations under securities lending	1,939,108	-	-	1,939,108
Interfund payable	-	14,328	-	14,328
<b>Total Liabilities</b>	<b>2,622,327</b>	<b>15,489</b>	<b>46,501</b>	<b>2,684,317</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>\$ 48,145,770</b>	<b>\$ 119,237</b>	<b>\$ 211,926</b>	<b>\$ 48,476,933</b>

## Section 1 - PSERS Overview

### Statement of Changes in Fiduciary Net Position Six Months Ended December 31, 2015 (Dollar Amounts in Thousands)

	2015			
	Postemployment Healthcare			Totals
	Pension	Premium Assistance	Health Options Program	
<b>Additions:</b>				
Contributions:				
Members	\$ 460,195	\$ -	\$ -	\$ 460,195
Employers	1,504,914	53,383	-	1,558,297
<b>Total contributions</b>	<b>1,965,109</b>	<b>53,383</b>	<b>-</b>	<b>2,018,492</b>
Participant premiums	-	-	149,385	149,385
Centers for Medicare & Medicaid Services premiums	-	-	43,318	43,318
Investment income:				
From investing activities:				
Net appreciation (depreciation) in fair value of investments	(2,657,255)	(149)	-	(2,657,404)
Short-term	5,277	284	122	5,683
Fixed income	78,659	-	-	78,659
Common and preferred stock	134,659	-	-	134,659
Collective trust funds	1,217	-	-	1,217
Real estate	157,976	-	-	157,976
Alternative investments	162,394	-	-	162,394
<b>Total investment activity income (loss)</b>	<b>(2,117,073)</b>	<b>135</b>	<b>122</b>	<b>(2,116,816)</b>
Investment expenses	(208,509)	-	-	(208,509)
<b>Net income (loss) from investing activities</b>	<b>(2,325,582)</b>	<b>135</b>	<b>122</b>	<b>(2,325,325)</b>
From securities lending activities:				
Securities lending income	5,895	-	-	5,895
Securities lending expense	(589)	-	-	(589)
<b>Net income from securities lending activities</b>	<b>5,306</b>	<b>-</b>	<b>-</b>	<b>5,306</b>
<b>Total net investment income (loss)</b>	<b>(2,320,276)</b>	<b>135</b>	<b>122</b>	<b>(2,320,019)</b>
<b>Total Additions</b>	<b>(355,167)</b>	<b>53,518</b>	<b>192,825</b>	<b>(108,824)</b>
<b>Deductions:</b>				
Benefits	3,055,150	53,971	142,940	3,252,061
Refunds of contributions	9,440	-	-	9,440
Administrative expenses	19,994	953	16,869	37,816
<b>Total Deductions</b>	<b>3,084,584</b>	<b>54,924</b>	<b>159,809</b>	<b>3,299,317</b>
<b>Net increase (decrease)</b>	<b>(3,439,751)</b>	<b>(1,406)</b>	<b>33,016</b>	<b>(3,408,141)</b>
<b>Net position restricted for pension and postemployment healthcare benefits:</b>				
<b>Balance, beginning of year</b>	<b>51,585,521</b>	<b>120,643</b>	<b>178,910</b>	<b>51,885,074</b>
<b>Balance, end of period</b>	<b>\$ 48,145,770</b>	<b>\$ 119,237</b>	<b>\$ 211,926</b>	<b>\$ 48,476,933</b>

## The Actuarial Process and Pension Plan Funding

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

### Actuarial Process

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

Effective with the June 30, 2011 actuarial valuation, PSERS adopted several new demographic and economic assumptions as a result of the five-year Experience Study completed by PSERS' actuary. PSERS' investment rate of return assumption was changed from 8.00% to 7.50%, the Salary Growth Assumption was changed from 6.00% to 5.50%, and new mortality tables were adopted. The latest five-year Experience Study is currently underway, the results of which may lead to further changes in the June 30, 2016 actuarial valuation.

### Funding

The plan is funded through three sources: (1) employer contributions; (2) member contributions; and, (3) investment earnings. As depicted in the chart at the bottom of the page, for the twenty-year period ended June 30, 2015 investment earnings provided 69% of PSERS' funding followed by 15% from members while employers contributed 16%.

### Employer Contributions

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

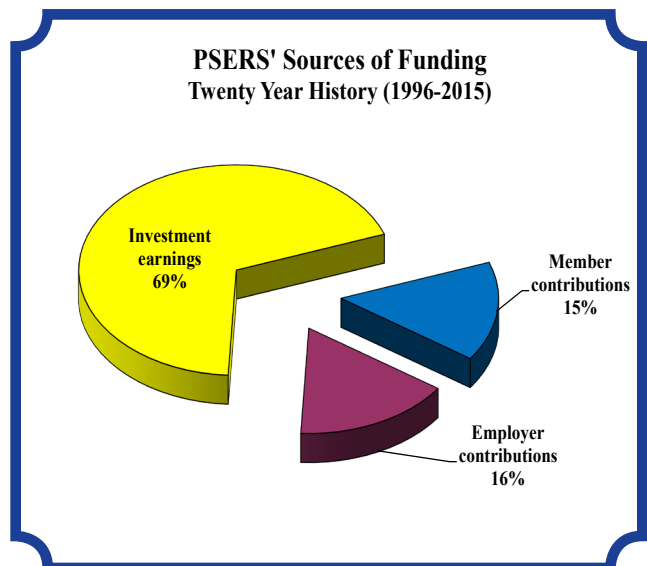
The total employer contribution rate for the fiscal year ended June 30, 2015 was 21.40%, including 0.90% for healthcare premium assistance. The total employer contribution rate for the fiscal year ending June 30, 2016 is 25.84%. This rate consists of a 25.00% pension rate (FY2014/15 pension rate of 20.50% plus the Act 120 4.50% collar) plus the healthcare premium assistance contribution of 0.84%. The FY2016/17 employer contribution rate is 30.03%. This rate consists of a 29.20% pension rate plus the healthcare premium assistance contribution of 0.83%. FY2016/17 will be the first fiscal year to which the Act 120 rate collars do not apply. The Board of Trustees certified this rate, which was calculated in accordance with the provisions of Act 120 of 2010, at their December 2015 meeting.

For the fiscal year ended June 30, 2015, PSERS' employer contributions totaled \$2.714 billion, which includes \$117 million for healthcare premium assistance. For the fiscal year ending June 30, 2016 the estimate for employer contributions is \$3.380 billion, reflective of the 25.84% contribution rate. The contribution rate for the fiscal year ending June 30, 2017 is 30.03% resulting in an employer contribution estimate of \$3.996 billion.

### Member Contributions

Members of the Public School Employees' Retirement System who, prior to Act 9 of 2001, contributed to the Retirement Fund at the rate of 6.25% of their gross compensation, began contributing 7.50% in January of 2002, if they elected the higher retirement benefits. Members who contributed at the rate of 5.25% began contributing 6.50% if they elected the higher retirement benefits under Act 9 of 2001.

In accordance with Act 120 of 2010, any employee who becomes a member after June 30, 2011 is a Class T-E member or, alternatively, can elect to become a Class T-F member. The base contribution rate for Class T-E members is 7.50% of compensation. The base contribution rate



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

for Class T-F members is 10.30% of compensation. The average contribution rate payable by the members for the current year (FY2015/16) is 7.49%.

Pursuant to Act 120, Class T-E and Class T-F members are subject to a “shared risk” employee contribution rate. The member contribution rate will stay within the specified range allotted for Class T-E or Class T-F, but could increase or decrease every three years starting July 1, 2015 depending on investment performance. Members now share a portion of the investment risk of the Fund giving PSERS a defined contribution element. As a result of the Fund’s 8.66% three year return through June 30, 2014 exceeding the investment performance hurdle mandated by Act 120, the member rate did not change. The next investment performance measurement period for Class T-E and T-F members will end on June 30, 2017.

PSERS members contributed \$985 million for pension contributions for FY2015. Total member contributions are estimated to be \$986 million for the fiscal year ending June 30, 2016 and \$1.007 billion for the fiscal year ending June 30, 2017.

**Investment Returns**

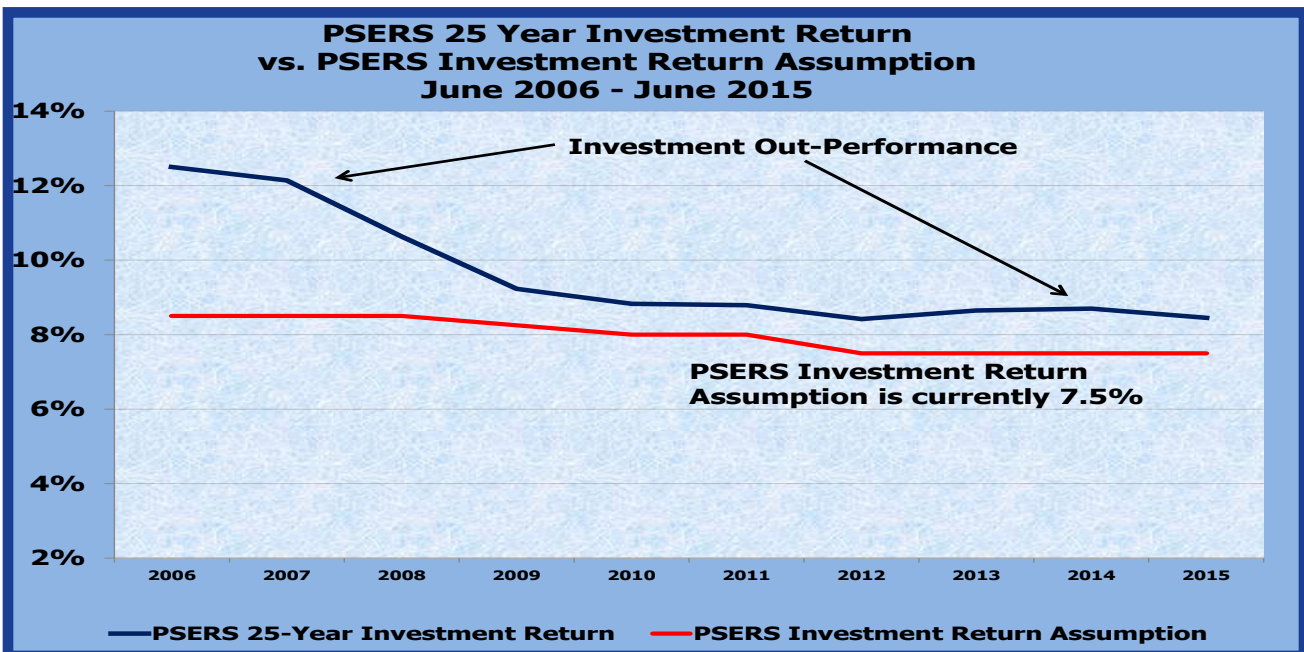
The investment rates of return (net of fees) for the fiscal years ended June 30, 2015 and June 30, 2014 were 3.04% and 14.91%, respectively. The annualized rates of investment return for the three, five and ten-year periods ended June 30, 2015 were 8.52%, 9.73%, and 6.31% respectively. Over the past 25 years ended June 30, 2015, the Fund earned an annualized rate of return of 8.45% which exceeded the

Fund’s long term investment rate of return assumption during that time period.

Due to PSERS’ investment performance and lower than projected employer payroll, over the past three fiscal years a number of long-term pension funding projections have improved, including:

- Total employer contribution dollars through FY2046 are projected to decrease by \$9.2 billion.
- The pension debt or the unfunded accrued liability (UAL) at June 30, 2015 is \$1.4 billion less than projected three years ago.
- The peak UAL dollar amount projected for FY2018 is \$522 million less than what was projected three fiscal years ago.
- The annual employer cost for benefits for current service (the “employer normal cost”) continues to decrease. It decreased from 8.66% in FY 2012/13 to 8.31% projected in FY2016/17 as more new members join the system under the reduced benefit structure of Act 120 of 2010.

PSERS’ 25-year return, as shown in the chart at the bottom of the page, has consistently outperformed the actuarial investment rate of return. Throughout much of the 1990s and 2000s PSERS’ investment performance exceeded its investment rate of return assumption which resulted in the large cumulative outperformance in 2006 and 2007 in the chart below. This outstanding long-term investment performance resulted in declining employer contribution rates and/or contribution rates lower than the annual normal cost of benefits for most of those two decades. Even after



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

the Great Recession of 2008-2009, PSERS' long-term returns continued to exceed the return assumption.

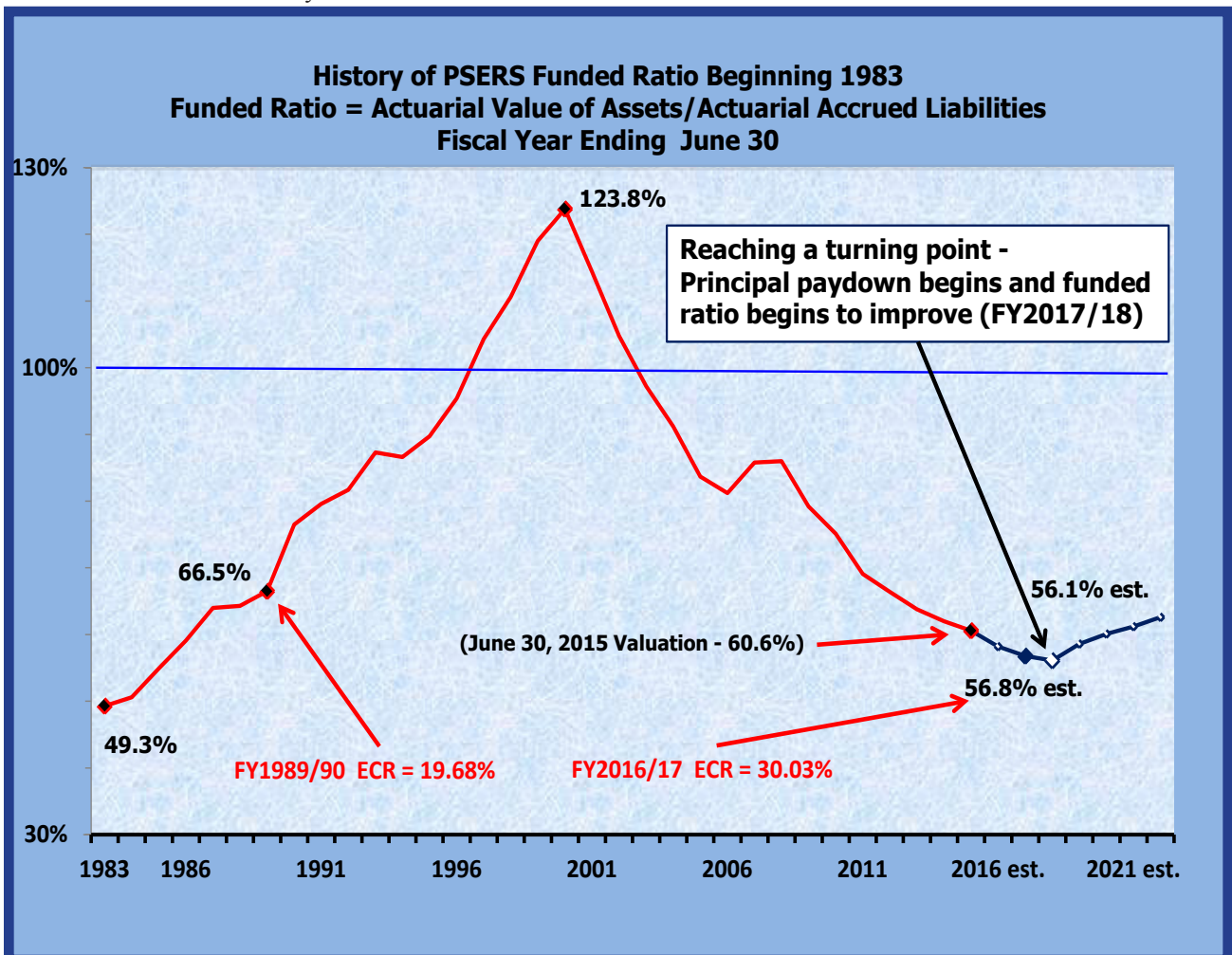
**Funded Status**

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

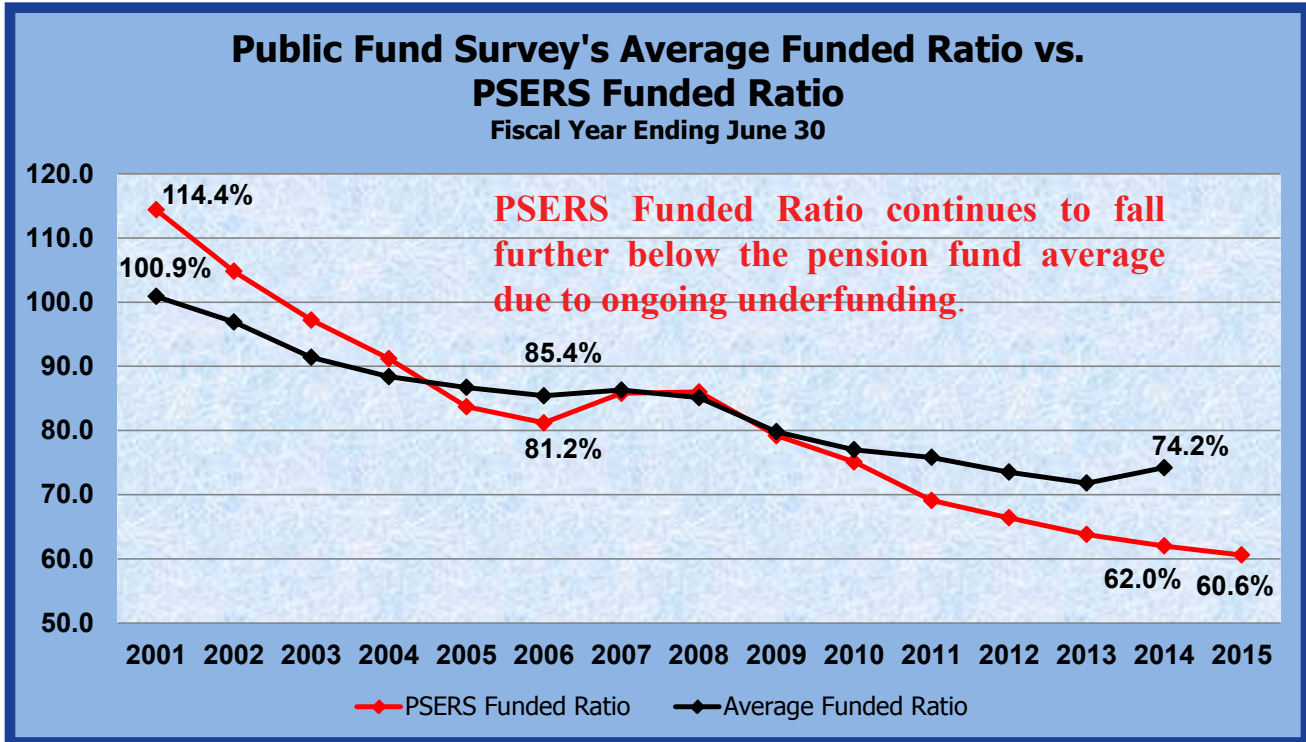
**Key Facts**

- Funded Status: 60.6% as of June 30, 2015
- Funded Status: 62.0% as of June 30, 2014
- The decrease in FY2015 is primarily due to the actuarial value of assets loss that occurred during the year as a result of the 10 year asset smoothing used for actuarial valuation purposes and the continued underfunding of PSERS by its employers. As a result of the rate collar provisions of Act 120, employers underfunded PSERS by \$0.9 billion in FY2015.

- The decrease in the funded status since 2000 is the result of several factors including: the unfavorable investment markets from FY2001 to FY2003 and FY2008 to FY2009; funding changes enacted in Act 38 of 2002 and Act 40 of 2003 which resulted in employers underfunding PSERS; the adoption of new demographic and economics assumptions in FY2008, FY2009 and FY2011; funding collars in Act 120 of 2010 which have continued the employer underfunding of the system; and, actuarial liability losses.
- A history of PSERS' funded ratio beginning in 1983 and six-year projection of PSERS' funded status is shown below.
- As a result of legislated contribution increases under Act 120, PSERS is reaching a turning point. In FY2017/18 principal payment on the unfunded liability begins and PSERS' funded ratio is projected to slowly improve after declining for many years.



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



A comparison of PSERS funded ratio to the public fund projected weighted average funding ratio provided by the National Association of State Retirement Administrators (NASRA) is charted above. A lower than average funded ratio is an important factor because it signifies a smaller than average asset base. A smaller asset base means a greater percentage of the investment returns are being used to pay benefits, and results in a very slow growth of assets.

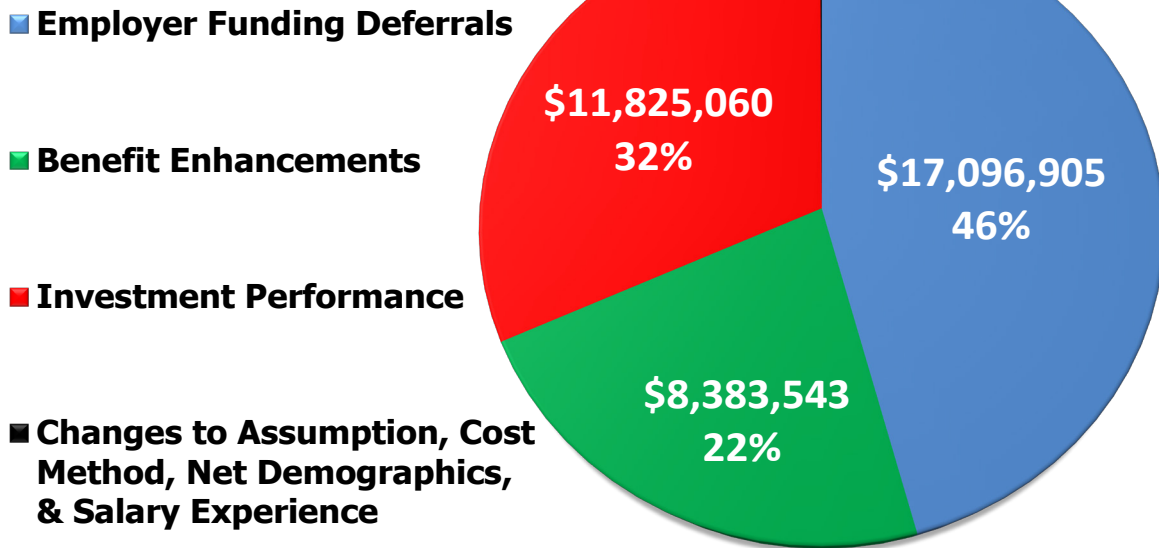
Besides market performance, other factors that affect a plan’s funding level include contributions made relative to those that are required; changes in benefit levels; changes in actuarial assumptions, and rates of employee salary growth (*Public Fund Survey*, 2016).

On July 1, 2016 PSERS employer contribution rate will provide 100% of the actuarially required rate. This is the first major step needed for PSERS funded ratio to begin to improve.



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

**PSERS Sources of Unfunded Liability Total - \$37,335,763  
as of June 30, 2015  
(\$ Amounts in thousands)**



**Sources of Unfunded Liability**

The System's total funded ratio (for Pensions and Health Insurance combined) is 60.6% as of June 30, 2015. This funded ratio is based on an actuarial value of assets of \$57.36 billion and an accrued liability of \$94.70 billion which equates to a \$37.34 billion unfunded liability. The pie-chart above depicts the sources of the unfunded liability. The largest sources of unfunded liability in order of magnitude are employer funding deferrals (46%), investment performance (32%), and benefit enhancements (22%), which include Act 9, cost of living increases and early retirement incentives.

For many years PSERS' outstanding investment performance compensated for unfunded benefit enhancements and employer funding deferrals. The Great Recession had a negative impact upon the System's long-term investment performance. Without the higher investment out-performance to compensate, the employer funding deferrals and benefit enhancements have significantly increased PSERS' unfunded liability. Nearly seventy percent of PSERS' June 30, 2015 unfunded liability is due to employer funding deferrals and benefit enhancements, both of which are not a result of the defined benefit plan design.

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

### **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 PSERS' Comprehensive Annual Financial Report. In June 2015, PSERS prepared three audited schedules as recommended by the American Institute of Certified Public Accountants (AICPA) and posted them to the Employer page of PSERS' website. These three schedules, the Schedule of Employer Allocations, the Schedule of Pension Amounts by Employer, and Amortization Schedules of Deferred Inflows and Outflows further assist employers in implementing Statement No. 68.

## Employer Contribution Rate

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

### Employer Contribution Rate Statistics

- Highest historical ECR (FY2015/16) 25.84%
- Lowest historical ECR (FY2001/02) 1.09%
- Ten yr. avg. ECR (2006/07 to 2015/16) 11.40%
- Twenty yr. avg. ECR (1996/97 to 2015/16) 8.04%
- Thirty yr. avg. ECR (1986/87 to 2015/16) 10.78%
- Adopted ECR (FY2016/17) 30.03%

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

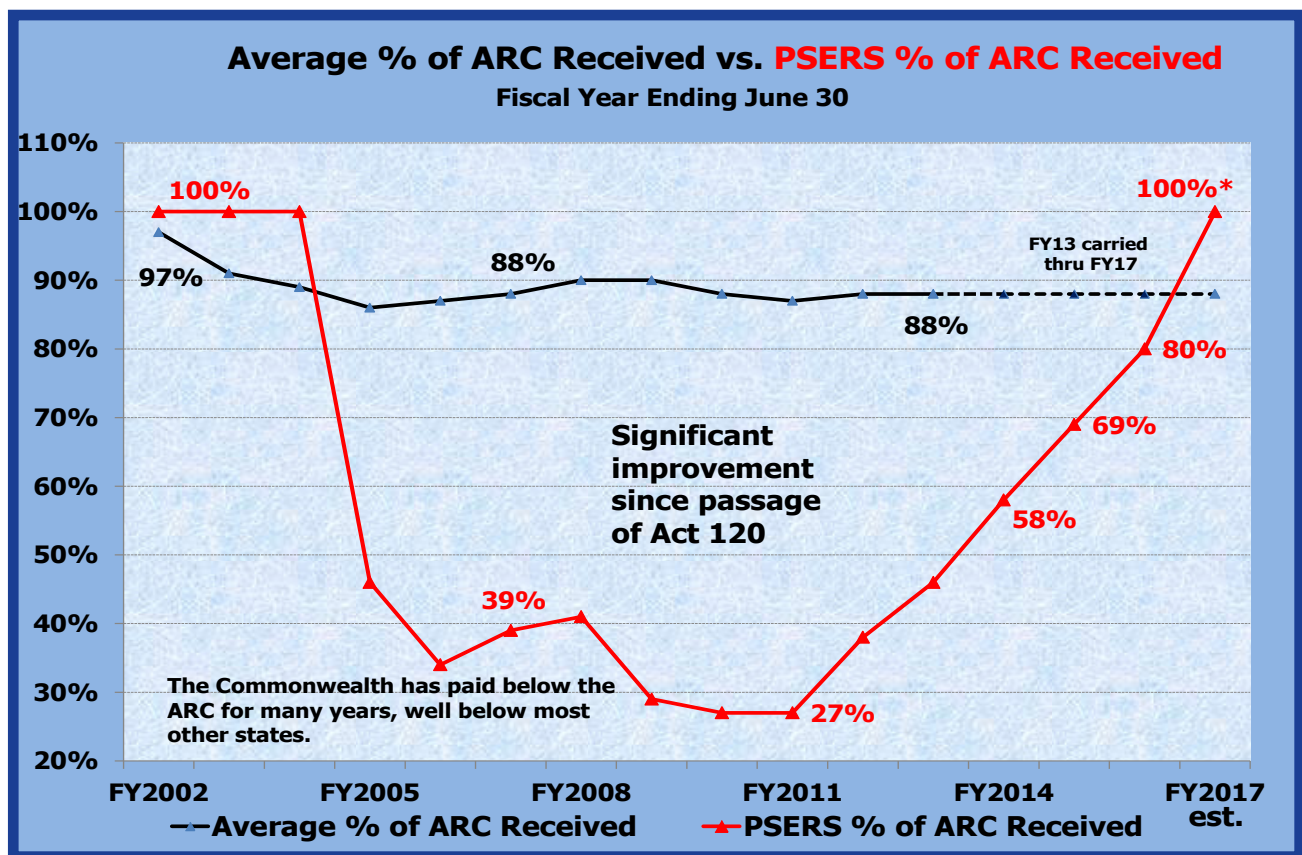
As depicted in the chart below, the gradual rate increases under Act 120 are moving PSERS to the 100% ARC goal. Rate increases implemented so far have moved the ARC from a low of 27% in FY2010/11 to 80% in FY2015/16. The funding provisions of Act 120 are working.

PSERS' Board certified an employer contribution rate of 30.03% for FY2016/17 in compliance with Act 120. This is the first time in 15 years PSERS contribution rate provides 100% of the actuarially required rate based on sound actuarial practices and principles and will exceed the average ARC percentage of 88% for public funds based on the 2015 Public Fund Survey prepared by NASRA.

## Act 120 of 2010

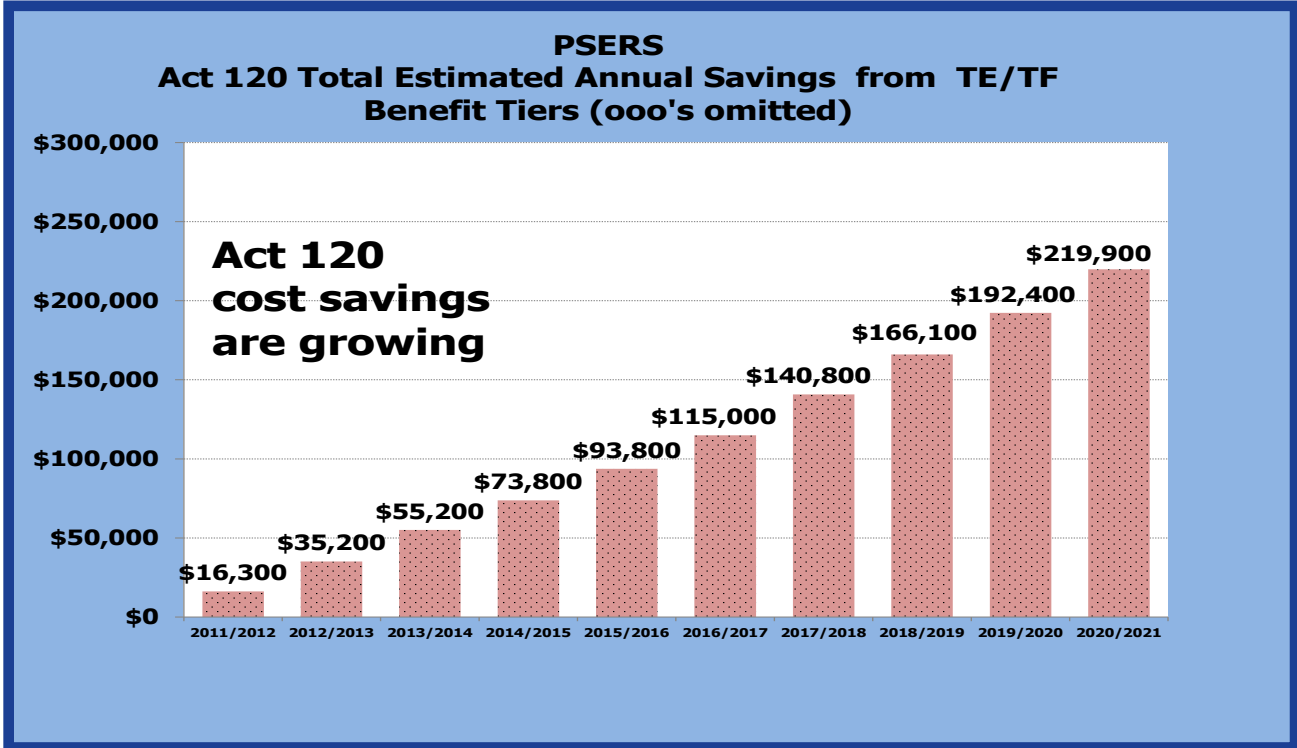
### Progress on Funding Issue

PSERS is in the 5th year of a multi-year phase in of Act 120 of 2010. Act 120 provided historic pension reform and made dramatic progress toward addressing funding issues



\*FY2017 is based on the actuarially required rate calculated by PSERS Actuary.

**Employer Contribution Rate**  
(continued)



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

For school employees who became new members of PSERS on or after July 1, 2011, there are two new classes; Class T-E and T-F. Members hired since the passage of Act 120 now total over 48,000 and account for 19% of the total active membership.

**Class T-E**

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

**Class T-F**

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

Class T-E and T-F members share some of the risk when investments underperform. As a result of the Fund’s 8.66% three year return through June 30, 2014 exceeding the investment performance hurdle mandated by Act 120, the member rate has not changed. The next three year

investment performance measurement period for T-E/T-F members that could increase the member rate by .5% ends June 30, 2017.

The total estimated savings of the T-E/T-F Benefit Tiers is illustrated in the chart at the top of the page. As the membership grows, the annual savings from the low T-E/T-F cost structures also increases and allows a greater portion of employer contributions to go towards paying the unfunded liability. Cumulative savings through June 30, 2015 were \$180.5 million.

As of June 30, 2015, 7,280 or 15.0% of new members elected Class T-F and 41,189 or 85.0% of new members remained in Class T-E. As indicated, Class T-F members maintain the higher 2.5% pension multiplier but contribute at a higher member contribution rate than Class T-E members.

## Section 1 - PSERS Overview

### Employer Contribution Rate (continued)

#### Funding/Actuarial Changes Summary

##### Funding Changes - Employer Contributions

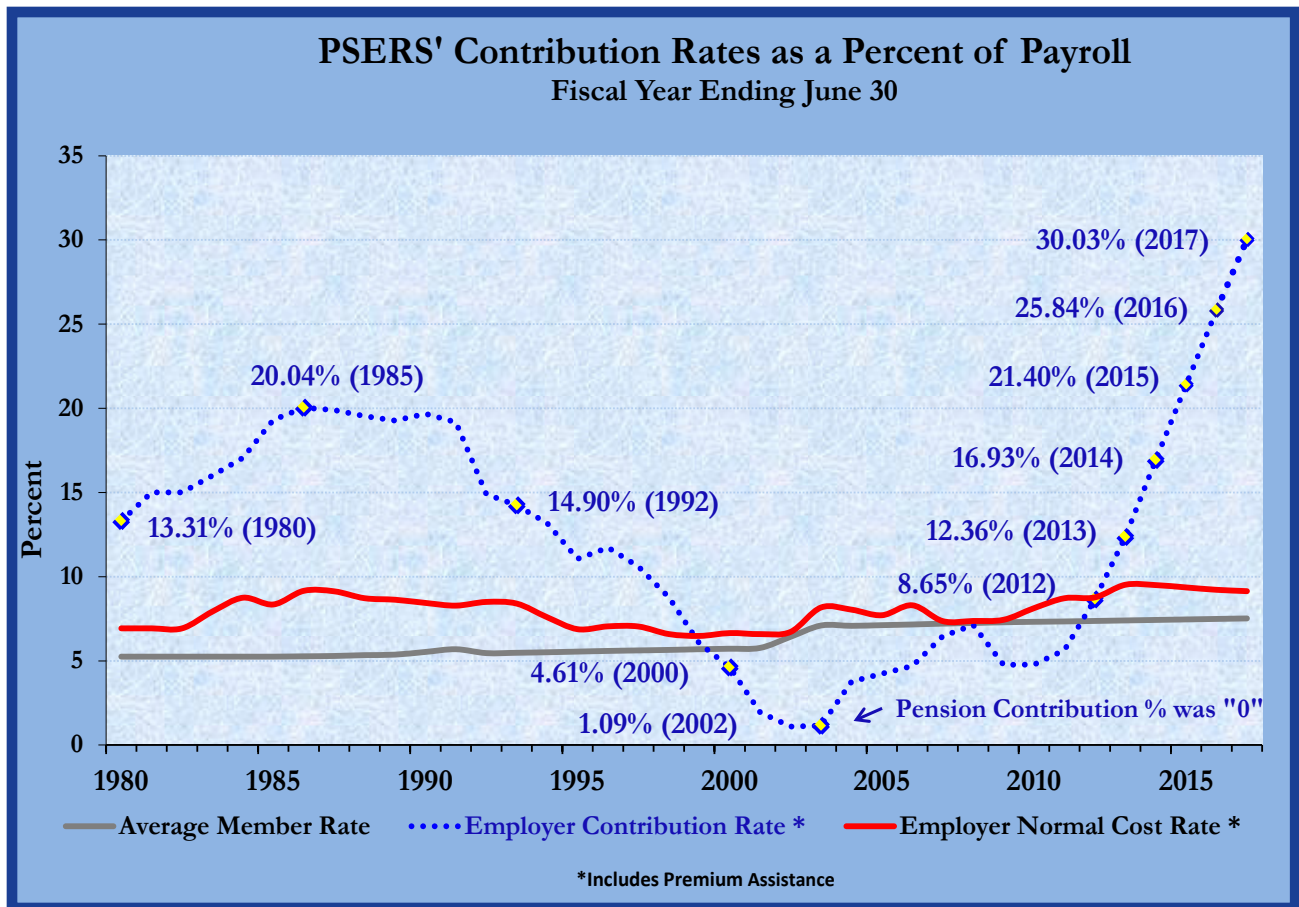
Act 120 of 2010 also suppressed the employer contribution rate by using rate caps in future years to keep the rate from rising too high, too fast for budgetary purposes.

The rate caps have limited the amount the pension component of the employer contribution rate could increase over the prior year's rate as follows:

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

The rate cap remains at 4.5% until the rate cap no longer applies, i.e. the rise in the employer contribution rate is less than the rate cap in effect at that time. PSERS Board has approved a total employer contribution rate of 30.03% comprised of a pension contribution rate of 29.20% for FY2016/17 which represents an increase of 4.20% over the FY2015/16 rate of 25.00% and a healthcare rate of 0.83%. This is the first fiscal year since the implementation of Act 120 in which the actuarially calculated increase is less than the 4.5% rate cap. As a result the rate caps are no longer needed.

PSERS' average member rate, employer contribution rate and normal cost for the past thirty-six years are presented in the graph on the bottom of the page. The "employer normal cost" is the amount needed from the school employers to fund the benefits earned by the active members for that year. The normal cost does not include payments for unfunded liability.

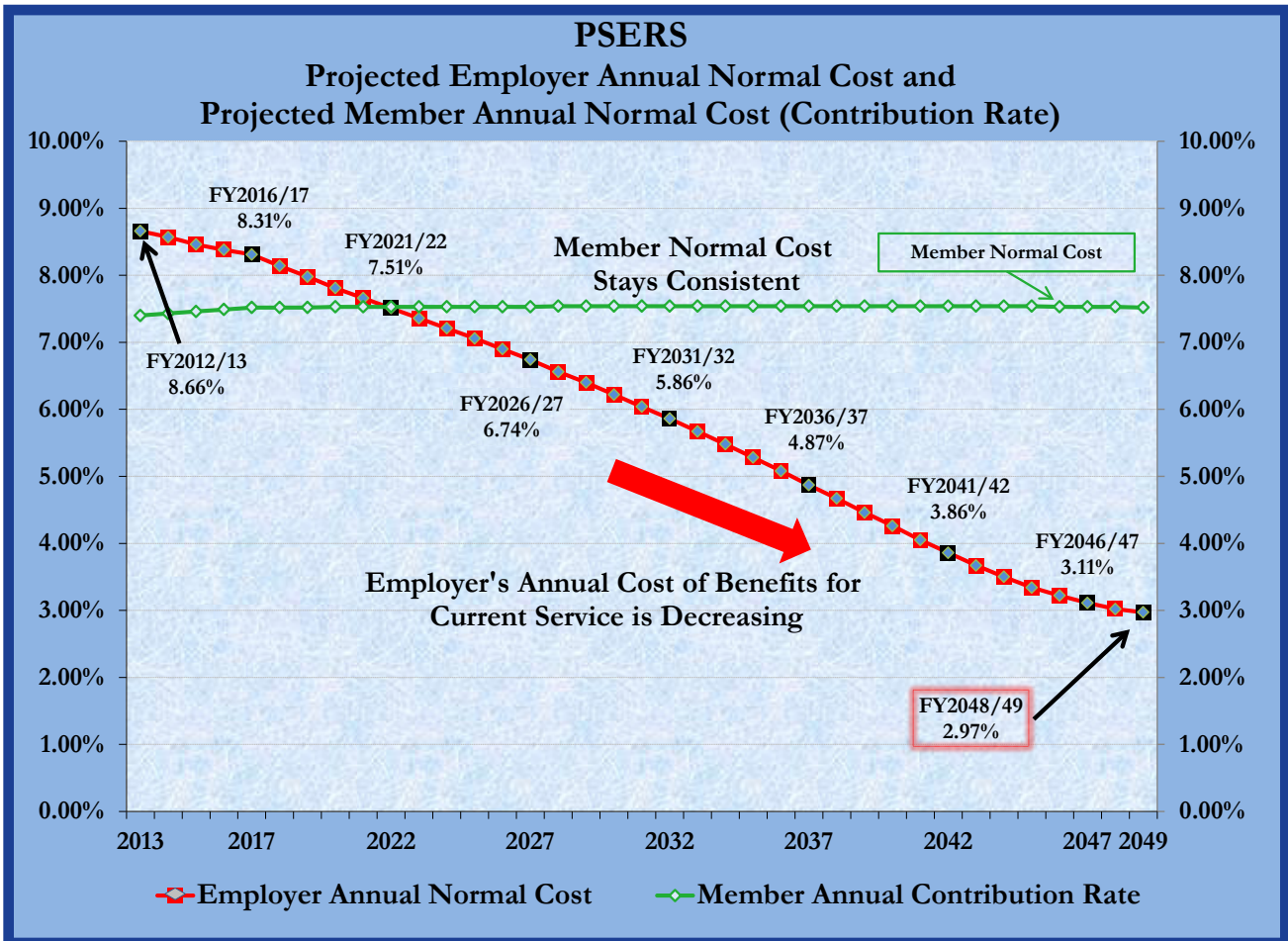


**Employer Contribution Rate  
(continued)**

**Act 120 Employer Costs**

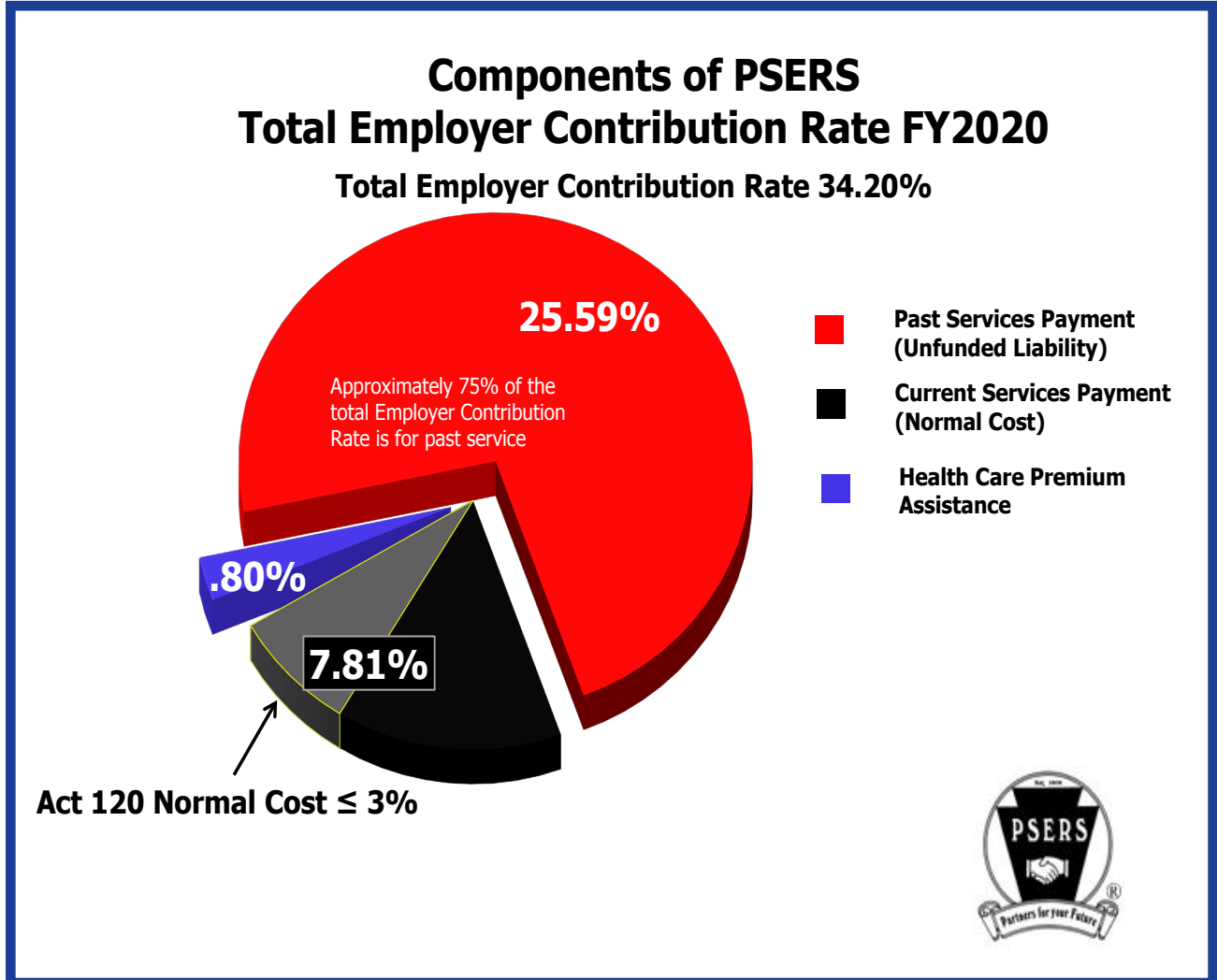
The cost structure of PSERS' new members under Act 120 is low and the shared risk provisions shift a portion of the investment risk to active members giving PSERS a defined contribution element. Essentially, Act 120 provides the members with a defined benefit plan, which is both adequate and secure, and provides the employers with a low cost employee pension benefit funded in large part by the members who have also assumed some of the investment risk.

As the chart below depicts, the employer normal cost decreases over time as Act 120 members replace retiring pre-Act 120 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. This represents a significant cost reduction for the employers. As illustrated in the chart below, the employer normal cost is projected to be 2.97% in FY2048/49 when nearly all active employees will be Act 120 members.



## Employer Contribution Rate (continued)

The chart below displays the components of PSERS' projected employer contribution rate in FY2019/20 when it is expected to hit its near term peak of 34.20%. At that point in time, the majority of the rate, approximately 75%, is dedicated toward paying the cost of past service.



### Employer Contribution Rate (continued)

#### Legislative Pension Proposal Assistance

Throughout 2015, PSERS staff was actively engaged in providing actuarial data, legislative analyses and related technical information to members of the General Assembly and Executive Branch Officials on a range of pension policy proposals while remaining policy neutral. PSERS incurred over \$490,000 in outside actuarial services from PSERS' actuary solely for numerous pension policy proposals during 2015.

PSERS staff also spent hundreds of hours on multiple variations of pension policy proposals. The cost work performed internally by PSERS staff saved hundreds of thousands of dollars in outside actuarial fees in 2015. PSERS legal staff also drafted hundreds of pages of draft legislation for numerous pension policy proposals.

PSERS will continue to cooperate with the General Assembly in its role as a technical expert in providing fact-based information to support efforts in determining effective pension policy. As in the past, PSERS will assist in drafting technically correct provisions and providing input on funding and operational aspects of various proposals, while remaining policy neutral on plan design elements of legislative proposals.

#### Recap

The Commonwealth and school employers have benefited over the past 15 years by the long term underfunding of PSERS while the employer contribution rate was lower than the actuarially required rate. Bond rating agencies have reduced Pennsylvania's bond rating five times over the past few years and the pension underfunding was noted as one of the reasons for the reductions. Act 120 has significantly reduced the employer's annual cost of benefits for future new members via benefit reductions, but a significant unfunded liability for service already rendered by active members still remains to be paid. To address the underfunding, Act 120 also included rate collars designed to systematically increase the employer contribution rate over several years to raise the funding to actuarially required levels.

At its December 2015 meeting, PSERS Board of Trustees certified an annual contribution rate of 30.03% for FY2016/17 which continues to put PSERS on the path towards proper funding. For the first time in 15 years, the FY 2016/17 employer contribution rate provides 100% of the actuarially required rate based on sound actuarial practices and principles. After July 1, 2016, no additional pension debt will be added due to underfunding. The elimination of the annual underfunding of the System should be viewed as credit positive by the rating agencies. After FY2016/17 future contribution rates begin to level off which will

reduce budgetary pressure on the Commonwealth and school districts in FY2017/18 and beyond. Future employer contribution rates will remain elevated for many years to compensate for 15 years of underfunding and to fully pay down the unfunded liability.

#### Turning Point

In FY2017/18, principal pay down of PSERS' unfunded liability begins and PSERS' funded ratio is projected to slowly improve after declining steadily since FY2001. This turning point represents a major step forward in PSERS' financial recovery.



## Section 1 - PSERS Overview

### Consultants' Fees (\$100,000 and Over)

The following benefit, investment, information technology and financial professional service firms were under contract to provide services to PSERS during the fiscal year ended June 30, 2015.

<b>Investment and Pension Fund Administration Consultants</b>		
<b><u>Firm</u></b>	<b><u>Services Provided</u></b>	<b><u>Consultant Fee</u></b>
Greenhill Cogent, LP	Private market consulting	\$ 7,215,590
ViTech Systems Group, Inc.	Pension administration system services	\$ 5,500,000 *
Portfolio Advisors, LLC	Private market consulting	\$ 1,606,984
Aksia LLC	Hedge fund investment consulting	\$ 700,000
AonHewitt	General investment consulting	\$ 660,819
Financial Control Systems, Inc.	Investment accounting application service provider	\$ 633,750
Buck Consultants LLC	Pension benefit actuarial services	\$ 604,766
Courtland Partners, Ltd.	Real estate investment consulting	\$ 260,000
Glass, Lewis & Co., LLC	Proxy voting	\$ 169,949

<b>Health Options and Premium Assistance Program Consultants</b>		
<b><u>Firm</u></b>	<b><u>Services Provided</u></b>	<b><u>Consultant Fee</u></b>
CoreSource, Inc.	Postemployment healthcare benefits administration and claims adjudication	\$ 20,942,589 *
Rx Solutions, Inc.	Administration of postemployment healthcare benefits and prescription drug plan	\$ 5,335,571 *
The Segal Company, Inc.	Actuarial services and consulting for the Health Options Program and prescription drug plan	\$ 2,840,288 *
Independent Pharmaceutical Consultants, Inc.	Pharmacy benefit consulting services	\$ 542,877 *
		*
Healthways, Inc.	Administration of Silver Sneakers Fitness Program	\$ 317,355 *

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



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## **Legislation**

### **PSERS Related Legislation Enacted during Calendar Year 2015**

The following legislative activities occurred during 2015:

#### **Act 93 of 2015**

On December 28, 2015, Governor Wolf signed into law House Bill Number 1332, Printer's Number 1814, as Act 93 of 2015. This legislation amends the Retirement Codes of the Public School Employees' Retirement System (PSERS) and the State Employees' Retirement System (SERS) to ensure that PSERS and SERS will remain a tax-qualified 401(a) governmental plan under the Internal Revenue Code (IRC).

#### **Act 4A of 2015**

On July 2, 2015, Governor Wolf signed into law Senate Bill Number 816, Printer's Number 1081. This legislation makes an appropriation in the amount of \$44,011,000 from the Public School Employees' Retirement Fund to provide for the administrative expenses of PSERS for the fiscal year July 1, 2015 to June 30, 2016.

#### **Pension Reform Proposals**

Throughout 2015, the PSERS staff was actively engaged in providing actuarial data, legislative analyses and related technical information to members of the General Assembly and Executive Branch Officials on a range of pension reform proposals. PSERS incurred \$490,000 in actuarial consulting fees to analyze and provide financial information to the General Assembly, Administration, and PERC in connection with multiple legislative proposals.



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