COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

February 26, 2016

The Honorable William F. Adolph, Jr., Chairman
House Appropriations Committee
Room 245, Main Capitol Building
PO Box 202165
Harrisburg, PA 17120-2165

Dear Chairman Adolph:

As requested, enclosed are 48 copies of the fiscal year 2016-2017 Public School Employees' Retirement System (PSERS) budget hearing document. This year, in addition to PSERS detailed budget hearing document, PSERS is pleased to provide copies of "PSERS on Point – Budget Report Highlights." This new document summarizes key points from PSERS budget hearing document. Both of these documents will be posted to the publications page on PSERS' website at www.psers.state.us.

Please contact my office at 717-720-4749 if you have any questions or would like additional information about these documents.

Sincerely,

Glen R. Grell
Executive Director

PSERS On Point

Budget Report Highlights

March 7, 2016

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. 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 postemployment healthcare programs, the Premium Assistance Program and the Health Options Program (HOP) for its annuitants.

As of June 30, 2015, the System had:

- Approximately 260,000 active members.
- Approximately 220,000 retirees and beneficiaries.
- 784 participating employers.

PSERS is:

- The 31st largest plan among United States corporate and public pension plans.
- 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.

PSERS Staff and Member Services

Processing and member service highlights for calendar year 2015 are summarized below:

During the past year PSERS staff:

- Processed approximately 10,800 retirement applications.
- Answered approximately 191,000 member calls.
- Responded to 17,000 member emails.
- Held approximately 7,700 consultations with members.
- Processed over 2.5 million monthly payments disbursing approximately $6.3 billion in retirement benefits to members.
- Prepared, generated, and mailed over 250,000 vital tax forms (1099-Rs) to members.
- Continued multi-year technology upgrade to browser-based pension administration system.

Key Points

- The distribution of PSERS' benefit payments in Pennsylvania has a significant economic impact of $10.2 billion annually to state and local communities and supports over 70,000 jobs and generates $1.3 billion in federal, state, and local tax revenues.
- The current plan design results in a modest benefit of approximately $25,000/year for the average member with 75% of members receiving less than $40,000 per year. Six-figure PSERS benefits are rare with fewer than one-half of 1% of PSERS retirees receiving an annual benefit over $100,000.

Progress from Five Years Under Act 120

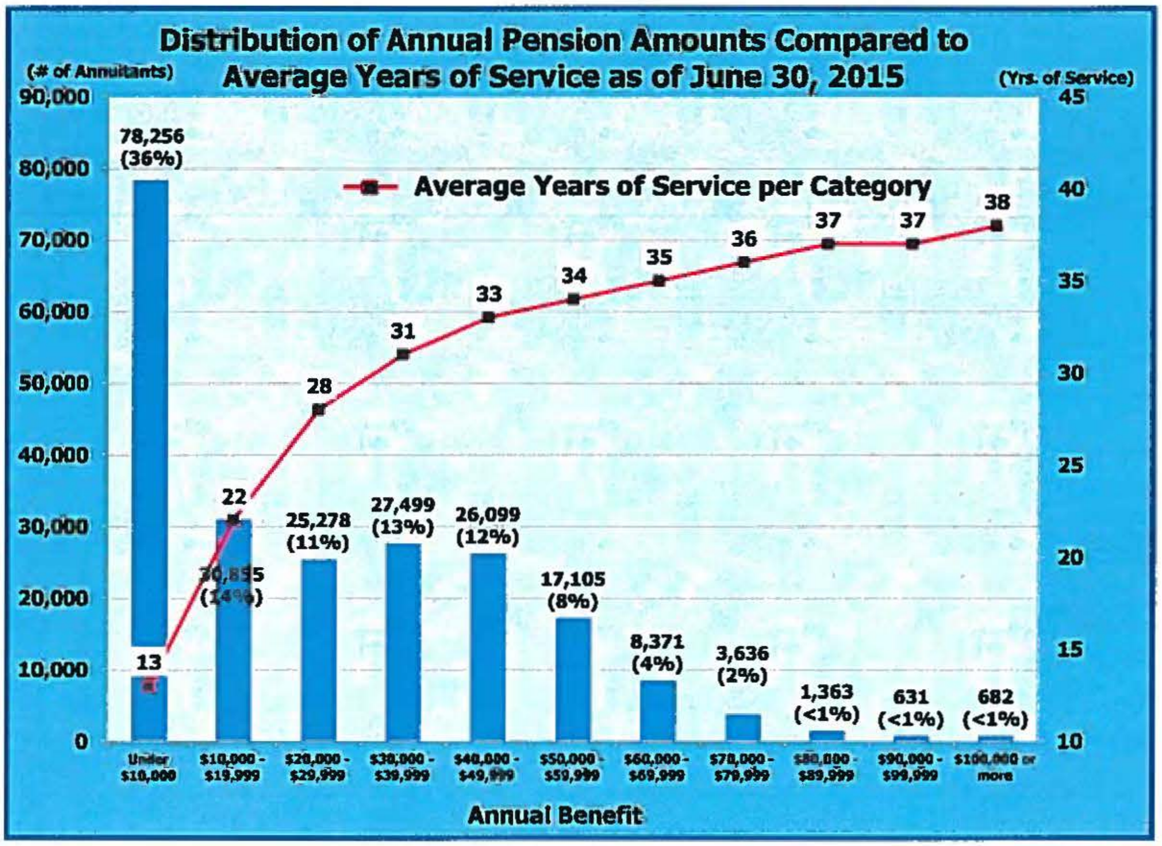
- Employer contributions have increased from 27% of the required actuarial amount in 2010 to 100% on July 1, 2016 and the Act 120 rate collars are no longer in effect.
- For the first time in 15 years, the employer contribution rate for FY2016/17 will provide 100% of the actuarially required rate based on sound actuarial practices and principles. This is the most important factor to improving PSERS' financial strength.
- The annual cost of benefits has declined each year since Act 120's enactment and will continue to decline for years to come. The ongoing cost of current pension service for Act 120 members is less than 3% of payroll which is over 65% less than the cost for pre-Act 120 members.
- PSERS is reaching 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.

- The largest contributor to the unfunded liability (46%) is the underfunding of the System by the Commonwealth and school employers over the past 15 years. After years of not paying the actuarially required amount due, the Commonwealth and school employers are facing years of high contribution rates to make up for the last 15 years of underfunding.
- PSERS has reduced its investment management fees by $103 million or 18% over the past two fiscal years. In addition, those fees have been well earned by the System's managers who have gained $12.5 billion above their benchmark returns for the Fund, net of fees.
- PSERS' 25-year investment return has consistently outperformed the actuarial investment rate of return even during the period of the Great Recession of 2008-2009.
- PSERS has a 20% lower administrative cost per member than the average cost of 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.
- 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 Members Earn a Modest Benefit

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.



Economic Impact to Pennsylvania: $10.2 Billion

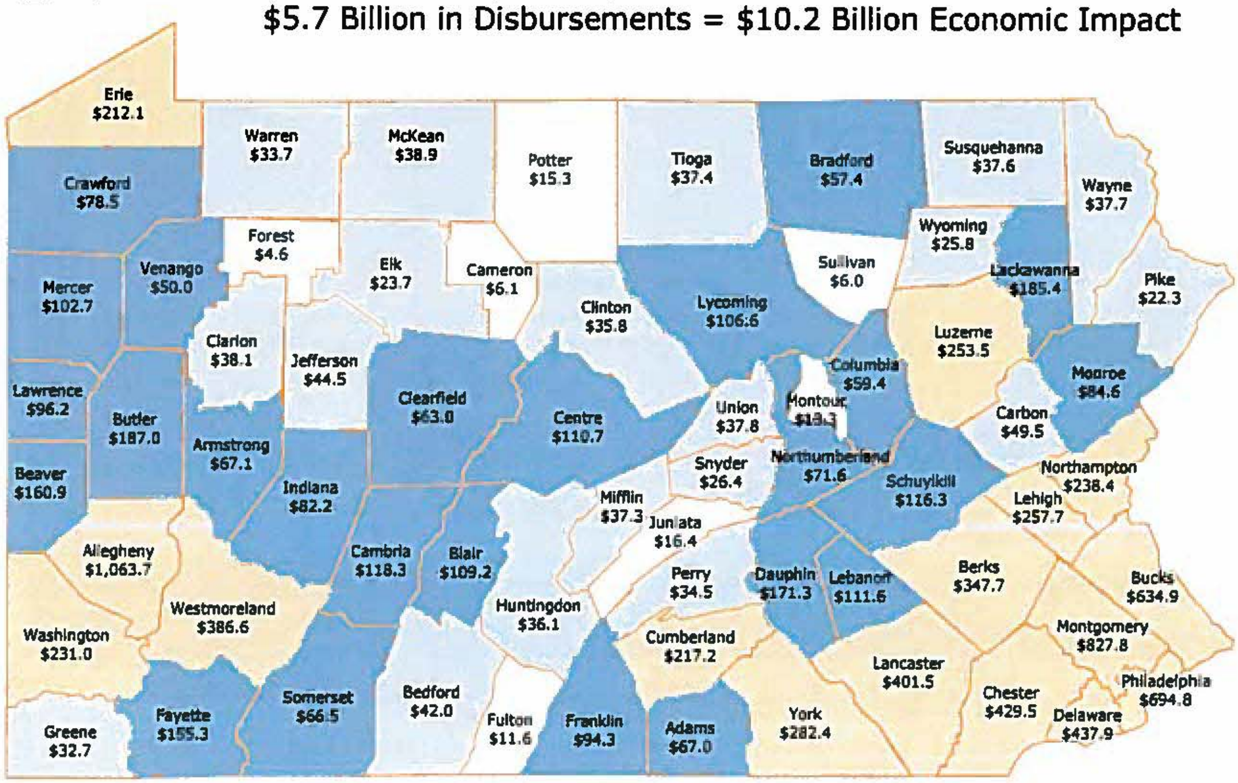
In calendar year 2015, PSERS pension disbursements to retirees totaled approximately $6.3 billion. Of this amount, approximately 90%, or $5.7 billion, went directly into Pennsylvania and local economies. According to a study by the National Institute on Retirement Security (NIRS) this spending expands 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[1]:

- Support for over 70,000 jobs that paid $3.4 billion in wages and salaries.
- $1.3 billion in federal, state 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

$200 million +
$50-$199.9 million
$20-$49.9 million
$0-$19.9 million

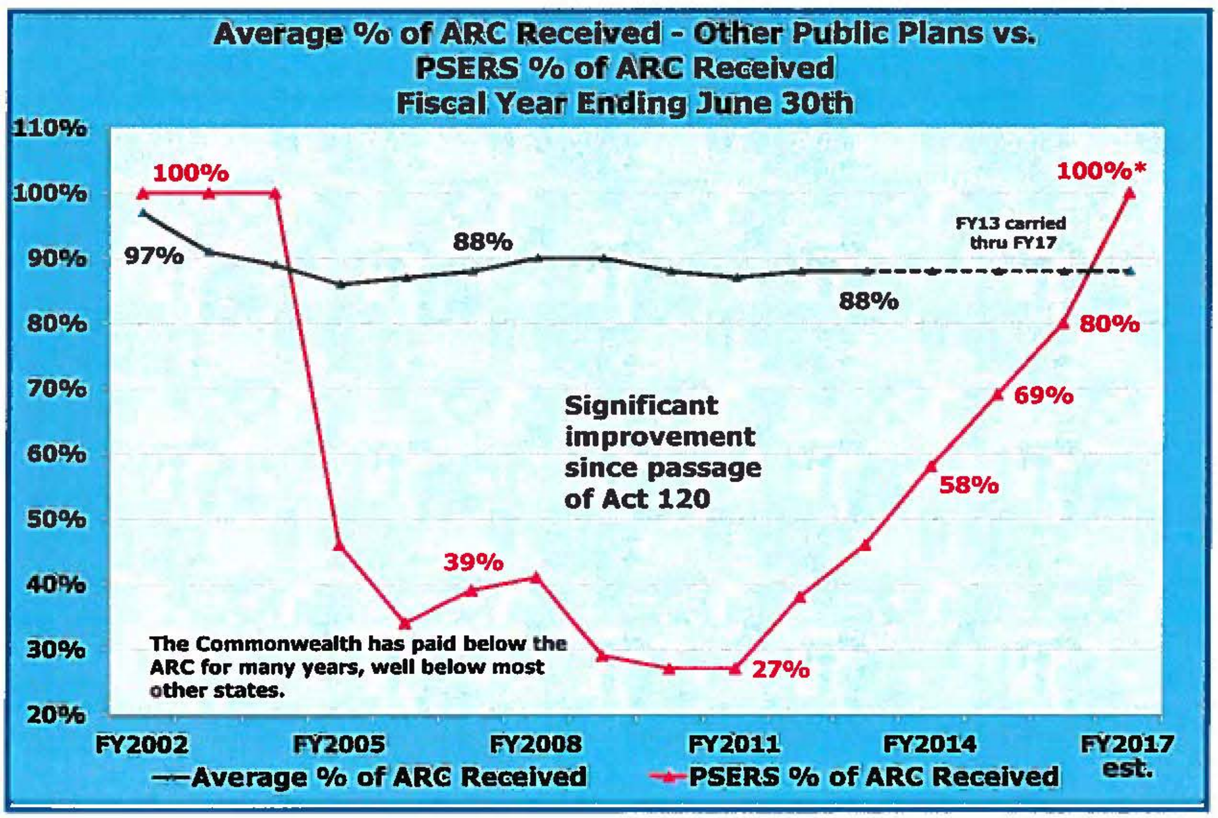
Pension Benefit Payments Made in Pennsylvania
By County for Calendar Year 2015
$5.7 Billion in Disbursements = $10.2 Billion Economic Impact



[1] *Pensionomics.* The National Institute on Retirement Security, July 2014

Progress from 5 Years Under Act 120

- Since Act 120 of 2010 was passed the Annual Required Contribution (ARC) percentage received has improved significantly from 27% to 80% in the current fiscal year as reflected in the chart below.
- For the first time in 15 years, beginning on July 1, 2016, the employer contribution rate will provide 100% of the actuarially required rate based on sound actuarial practices and principles. This is the most important factor in PSERS financial recovery.
- The annual cost of benefits has declined each year since Act 120's enactment and will continue to decline for years to come. The ongoing cost of current pension service for Act 120 members is less than 3% of payroll which is over 65% less than the cost for pre-Act 120 members.
- The high projected employer contribution rates are <u>not</u> due to the current cost of benefits.
- As of June 30, 2015 there are 48,000 Act 120 members and growing.
- Investment Risk Share-Act 120 members share some of the risk when investments underperform as they are required to contribute more if the Fund's investments perform below the assumed rate of return.

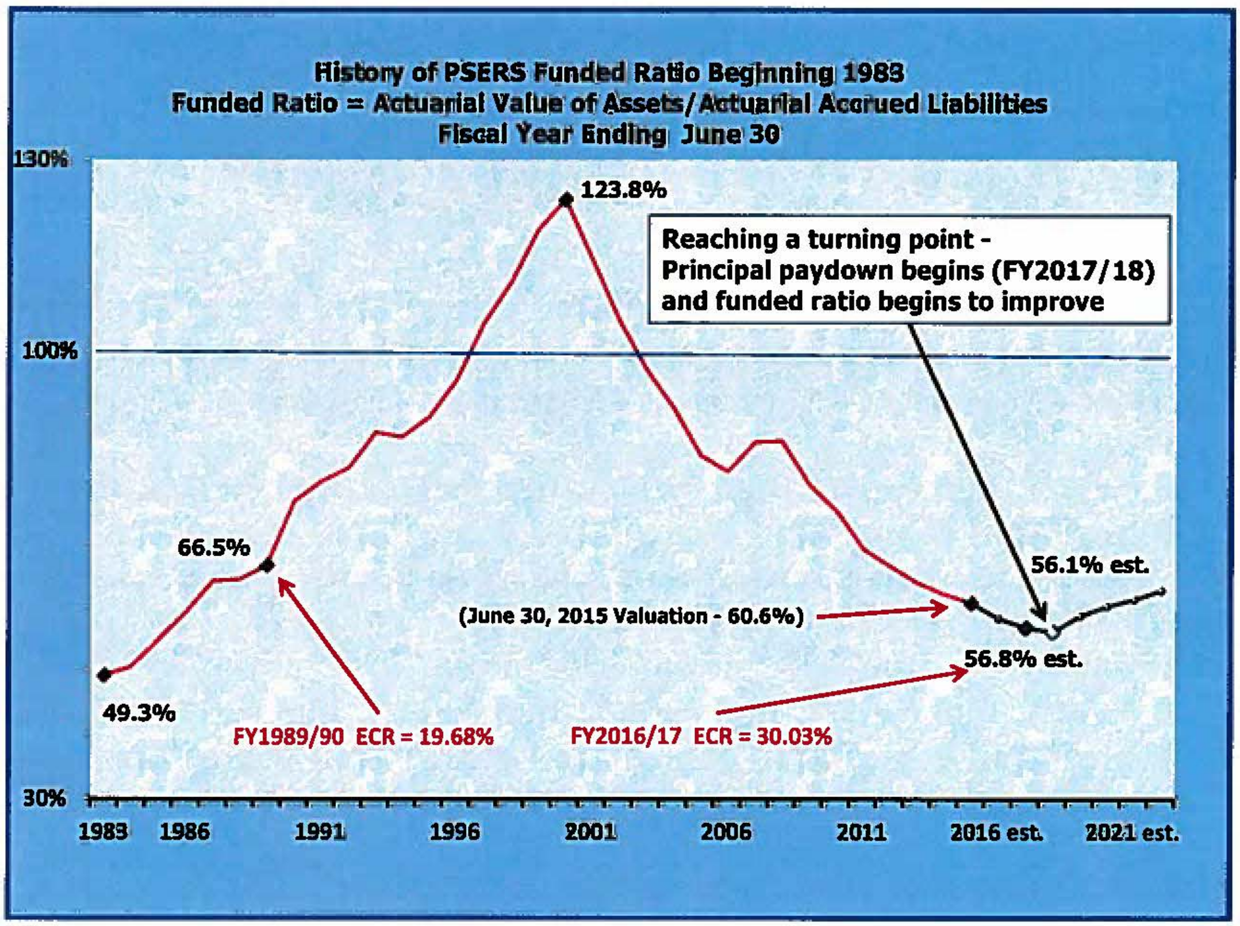


*FY2017 is based on the actuarially required rate calculated by PSERS Actuary.

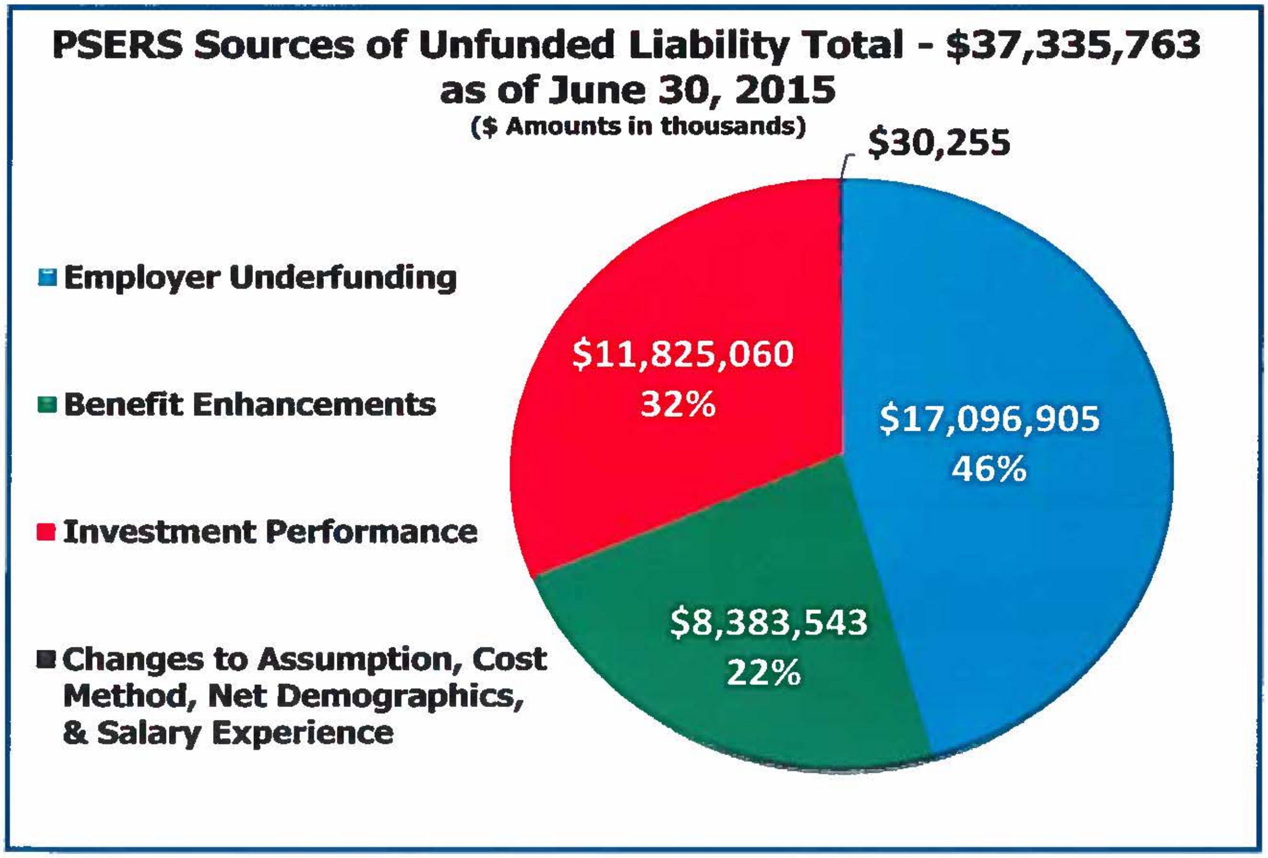
Reaching a Turning Point

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. The funded status is directly impacted by the amount of contributions received by the Fund.

- Funded Status: 60.6% as of June 30, 2015.
- PSERS is reaching a turning point under Act 120. 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.
- The decrease in the funded status since 2000 is primarily the result of funding and benefit changes enacted in Act 9 of 2001, Act 38 of 2002, and Act 40 of 2003 which resulted in employers underfunding PSERS and an increase in benefit payments; the Great Recession of 2008-2009; and funding collars in Act 120 of 2010 which have continued the employer underfunding of the system.
- A history of PSERS' funded ratio beginning in 1983 and six-year projection of PSERS' funded ratio is shown below:



Employer Underfunding - Largest Source of Unfunded Liability



- As demonstrated by the chart above, the largest single reason (46%) for the unfunded liability is the underfunding of the System by the Commonwealth and school employers over the past 15 years.
- The portion of the liability resulting from investment performance was significantly impacted by the Great Recession of 2008-2009.
- Benefit enhancements include the impact of Act 9, cost of living increases, and early retirement incentives.

Prudently Managing Investment Fees and Expenses

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.

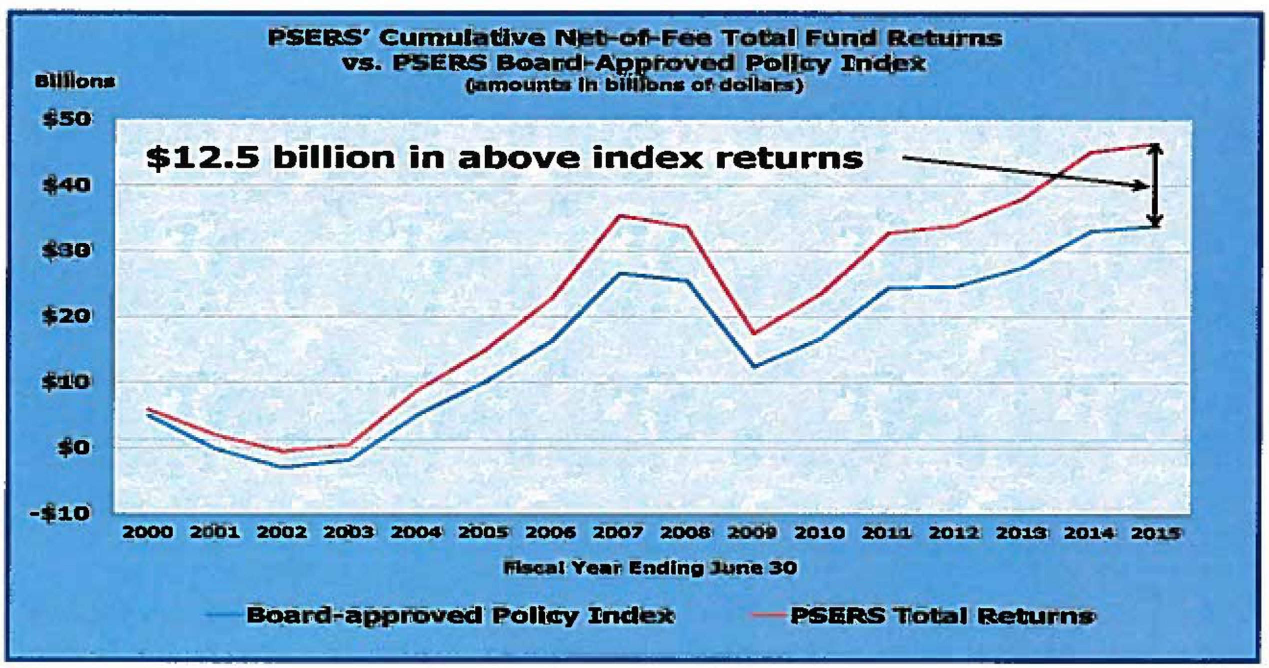
Reduction of $103 million or 18% over past 2 years: FY 2012/13 $558 million
FY 2013/14 $482 million
FY 2014/15 $455 million

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' professional internal staff.

PSERS continues to work with the Administration to look for ways to reduce investment fees in the future by increasing internal investment staff to bring additional asset classes in-house to be managed 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.

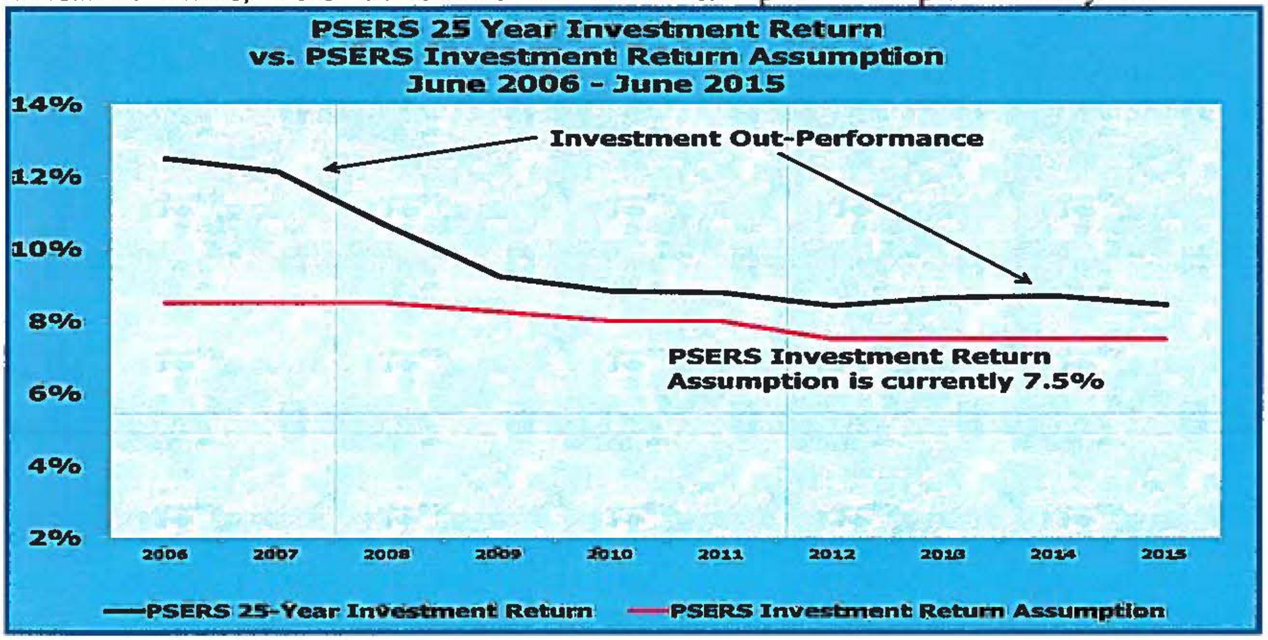
PSERS' active management process has generated and continues to generate significant excess risk-adjusted, net of fee returns relative to the passive benchmarks.

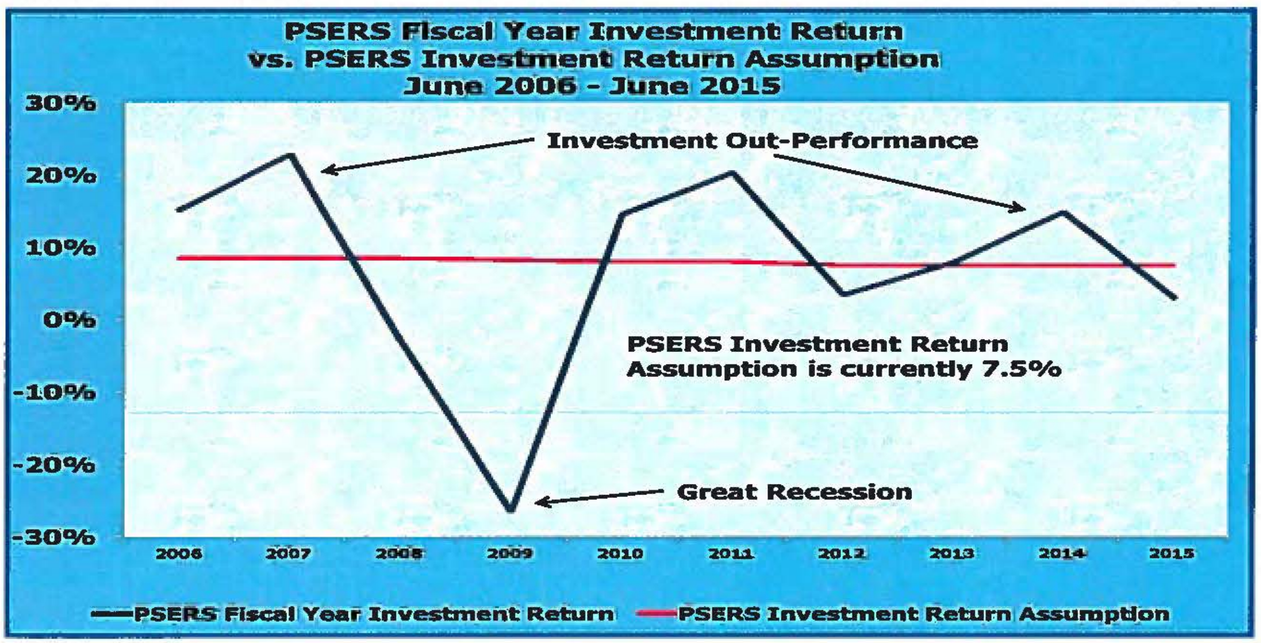
The chart below demonstrates that over the past 16 fiscal years, PSERS has earned $12.5 billion in additional investment returns above the Board-approved Policy Index, net of fees.



Long Term Investment Performance Consistently Outperforms

The assets of the System are invested to maximize the returns for the level of risk taken. The charts below display PSERS 25 Year Investment Return for each of the past 10 fiscal years and Fiscal Year Investment Returns, versus PSERS Investment Return Assumption for the past 10 fiscal years.

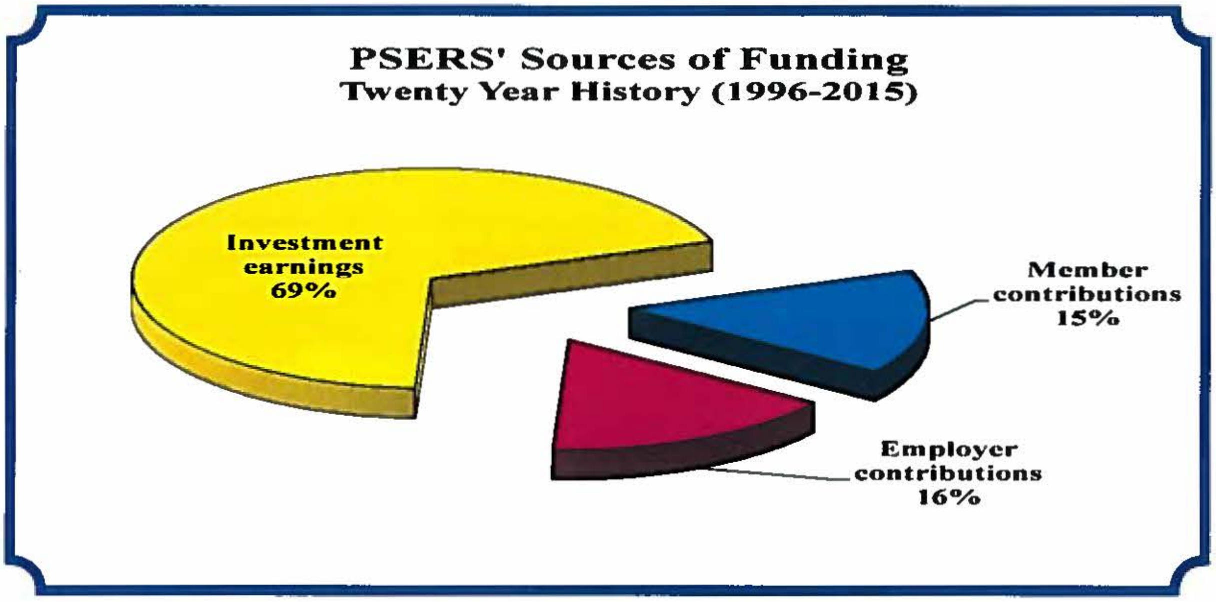




- The 25 year investment return has exceeded the investment return assumption over the last ten years including the Great Recession.
- As depicted in the chart above, PSERS' one-year investment return has remained above the investment return assumption for the majority of the past ten fiscal years. The notable exception is the period of the Great Recession from December 2007 through June 2009 which resulted in the largest decrease in stock market performance since the Great Depression.

Investment Earnings are PSERS' Largest Source of Funding

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



PSERS Investments in Pennsylvania

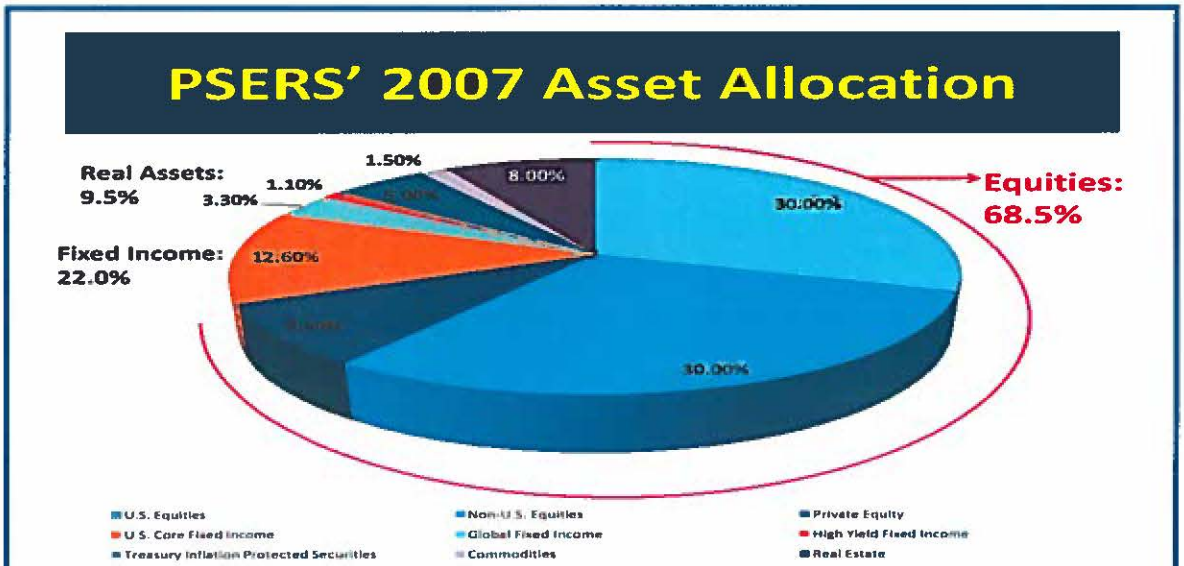
- PSERS has shown a strong commitment to Pennsylvania by having assets managed by firms based in Pennsylvania or by firms with offices in Pennsylvania. In FY 2015, investment manager fees paid to external firms managing PSERS' assets from offices located in Pennsylvania amounted to $29.7 million, or 6.9% of the total external investment manager fees.

- PSERS' investments employ approximately 35,000 Pennsylvania residents with a payroll of $828 million as illustrated in the table below:

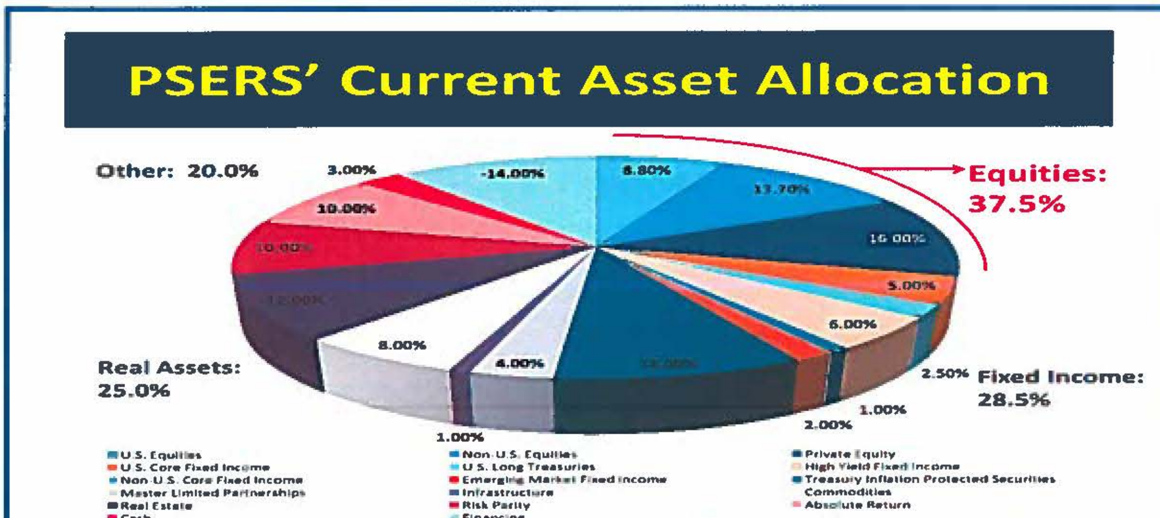
Asset Class	*Total PA Market Value (PSERS' Portion)*	*Total PA Market Value (Total Invested)*	*# of People Employed*	*Payroll*
U.S. Equities	$ 175.7	$ 175.7	*	$ *
Fixed Income	61.5	61.5	*	*
Private Real Estate	79.8	2,327.4	290	6.8
Private Markets:				
Venture Capital	121.4	408.9	3,419	77.9
Private Equity	1,073.1	13,512.5	22,492	535.7
Private Debt	201.7	1,689.7	8,426	207.6
Total	$ 1,713.2	$ 18,176.0	34,627	$ 828.0

PSERS Increased Diversification After 2008 Financial Crisis

- Why? Until 2016-17 employers were not paying the ARC leading to Negative Cash Flow (NCF);
  - A large NCF provides no time to recover from large market draw downs (fund needs over $456 million per month to pay member benefits).
  - Needed to reduce volatility.
- PSERS allocation since the 2008 financial crisis is much more diversified.
  - PSERS lowered Equity exposure.
  - PSERS added diversifying investment exposures, including Hedge Funds, Commodities, Treasury Inflation - Protected Securities and Infrastructure (including Master Limited Partnerships).



PSERS' asset allocation in 2007 was similar to a 60/40 allocation

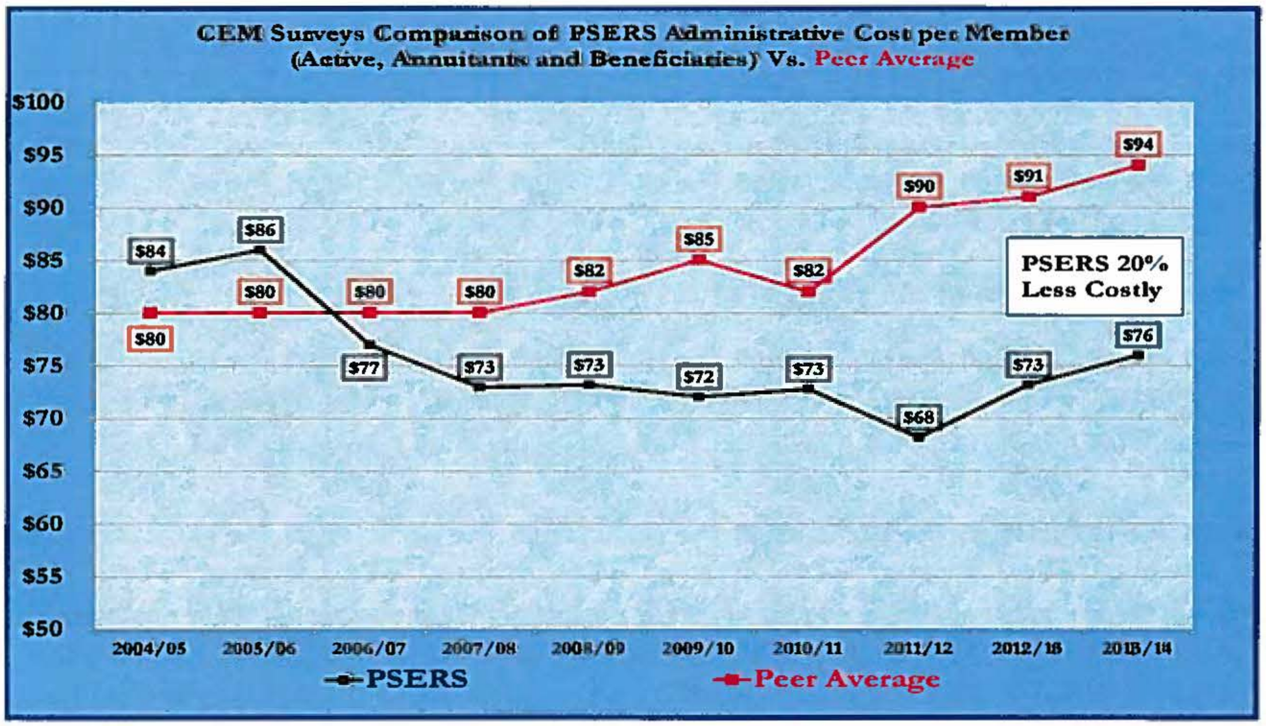


PSERS has a well-diversified asset allocation that provides protection from economic downturns. PSERS takes much less equity risk today than it did in 2007.

PSERS Administrative Costs are Significantly Below Peers

Administrative Budget

PSERS continues to be prudent in its use of funds and managing its annual budget. The administrative budget is not funded from the Commonwealth's General Fund, rather from the earnings of the Fund itself. 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 of 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.



PSERS Budget Summary

PSERS' Fiscal Year 2016/2017 budget submission contains an Administrative budget request of $45,115,000. PSERS also manages non-appropriated funds that cover expenses for the Directed Commissions, Health Insurance Account, Health Options Program, and Investment Related Expenses. PSERS' FY2016/2017 budgets, including non-appropriated funds, total $71,411,000.

Appropriation	Governor's Recommended Budget (000s)
Administrative	$45,115
Directed Commissions	2,000
Health Insurance Account (HIA)	2,293
Health Options Program	3,366
Investment Related	18,637
TOTAL	$71,411

Actuarial and Financial Governance

Actuarial Governance - Five Year Experience Study in Progress

Section 8502(j) of the Retirement Code requires the System's actuary to make an actuarial investigation into the mortality, service, and compensation experience of the members and beneficiaries covered under the System at least once in each five-year period.

- All major actuarial assumptions will be reviewed and adjusted, as necessary,
- Actuarial Assumptions are generally categorized into two groups:
  - Demographic Assumptions: these include
    - Disability
    - Termination
    - Retirement
    - Death (pre-and post-retirement)
  - Economic Assumptions: these include
    - Investment Return
    - Inflation
    - Salary increases

The prior study was concluded in March 2011 and the current study is scheduled to be presented to the PSERS Board in summer 2016. It is unknown at this time if changes in assumptions will increase or decrease future costs.

Financial Governance and Disclosure

Both internal and external checks and balances exist in order to ensure complete and transparent adherence to all applicable laws, regulations, and accounting requirements. Financial information as well as internal controls are subject to regular audit by the System's Internal Audit Department. SB & Company, LLC, an independent certified public accountant, audits the System's financial statements annually. Buck Consultants, LLC, an actuarial consulting firm, completes the Fund's actuarial valuation annually. Every five years a detailed audit of the System's actuarial methods and assumptions is completed by a different outside actuary. The System consistently receives clean audits and there have been no significant findings and recommendations for many years. Additionally, PSERS regularly receives awards and certificates of achievement from the Government Finance Officers Association and the Public Pension Coordinating Council for meeting standards of excellence in financial reporting and for meeting all professional standards for plan funding and administration.

AON Hewitt, an investment consulting firm, independently calculates the Fund's investment performance on a quarterly basis and provides counsel to the Board on asset allocation, the asset liability study, and other investment-related matters.

PSERS Provides Significant Staff Resources and Technical Assistance for Legislative and Executive Branch Pension Policy Proposals

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 on plan design elements of legislative proposals. 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 dollars in outside actuarial fees in 2015. PSERS legal staff also drafted hundreds of pages of draft legislation for numerous pension policy proposals.

PSERS staff worked cooperatively with all four Caucuses and Executive Branch Officials on numerous pension policy proposals during 2015. Details on the following pension policy proposals can be found on the General Assembly website at www.legis.state.pa.us. Summaries of some of the proposed pension policy proposals and their impact on PSERS follow:

Senate Bill 1, Printer #: 1132 Prime Sponsor: Senator Corman – This bill establishes a Side-by Side Hybrid plan that consists of a Defined Contribution (DC) benefit and the existing Defined Benefit (DB) structure with a new Cash Balance tier for new members. The new hybrid plan is optional for pre-2016 active members and also modifies future benefit entitlements of current members.

Senate Bill 1071, Printer #: 1481 Prime Sponsor: Senator Browne - This bill establishes a hybrid benefit tier, which includes DB and DC components, for new members. Current members would be ineligible to participate in the new hybrid benefit tier. The bill also modifies the future benefit entitlements of current members.

Senate Bill 1082, Printer #: 1460 Prime Sponsor: Senator Browne - This bill establishes a hybrid benefit tier, which includes DB and DC contribution components for new members. Current members would be ineligible to participate in the new hybrid benefit tier. This bill also modifies the future benefit entitlements of current members and further modifies the actuarial funding requirements of PSERS by tapering the employer contribution rate collars for Fiscal Year 2016-2017.

House Bill 727, Printer #: 1555 Prime Sponsor: Representative Kampf – This bill establishes a mandatory DC plan for new members hired on or after July 1, 2016.

House Bill 900, Printer #: 1569 Prime Sponsor: Representative McGinnis – This bill requires the unfunded actuarial accrued liabilities of PSERS to be funded in equal dollar installments over a period of 20 years, beginning July 1, 2015.

PSERS staff also provided technical information and cost data for various pension proposals that were under consideration by the Executive Branch and four caucuses including the use of pension obligation bonds and a stacked hybrid plan. PSERS will continue to cooperate in its role as a technical expert and provide factual information to support efforts in determining effective pension policy.