

## Pennsylvania

Public School Employees' Retirement System

Comprehensive Annual Financial Report
Fiscal Year Ended June 30, 2010

A Component Unit of the Commonwealth of Pennsylvania

# Pennsylvania <br> Public School Employees' Retirement System 

(A Component Unit of the Commonwealth of Pennsylvania)

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# Comprehensive Annual Financial Report <br> for the <br> Fiscal Year Ended June 30, 2010 

Melva S. Vogler<br>Chairman<br>Board of Trustees

Sally J. Turley
Vice Chairman
Board of Trustees

Jeffrey B. Clay<br>Executive Director

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## 1 C

## Public Pension Coordinating Council

## Public Pension Standards Award For Funding and Administration 2009

## Presented to

## Pennsylvania Public School Employees Retirement System

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

Presented by the Public Pension Coordinating Council, a confederation of
National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS)

National Council on Teacher Retirement (NCTR)

Alan H. Winkle
Program Administrator


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## $\pi$ <br> Introductory

## Financial Investment

## Statistical

## Mission Statement



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

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


## Letter of Transmittal

COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Mailing Address<br>PO Box 125<br>Harrisburg PA 17108-0125

Toll-Free - 1-888-773-7748

(1-888-PSERS4U)
Local-717-787-8540
Web Address: www.psers.state.pa.us
November 5, 2010
The Honorable Edward G. Rendell, Governor of Pennsylvania
Members of the General Assembly
Members of the Retirement System
Members of the Boards of PSERS' Employers
Pennsylvania Public School Employees' Retirement System Board of Trustees
Dear Governor Rendell, Legislators, Members, Employer Board members and PSERS Board of Trustees:
We are pleased to present the ninety-first edition of the Comprehensive Annual Financial Report for the Pennsylvania Public School Employees' Retirement System (System, PSERS, Fund) for the year ended June 30, 2010. This report is intended to provide financial, investment, actuarial and statistical information in a single publication. The front cover of this year's CAFR portrays several reference books found in any school library. This is a subtle implication to the long-standing relationship that PSERS shares with the public school institutions in Pennsylvania. The reference book theme carries forward into the CAFR's five section title pages. The management of the System is solely responsible for the accuracy and completion of this report, pursuant to section 24 Pa.C.S. §8502(n) of the Public School Employees' Retirement Code (Retirement Code). The entire report can be downloaded from PSERS' website at www.psers.state.pa.us.

The System was established on July 18, 1917 to provide retirement benefits to public school employees of the Commonwealth of Pennsylvania. The members eligible to participate in the System include all full-time public school employees, part-time hourly public school employees who render at least 500 hours of service in the school year, and part-time per diem public school employees who render at least 80 days of service in the school year in any of the 749 reporting entities in Pennsylvania. As of June 30, 2010, the System had approximately 282,000 active members with an estimated annual active payroll of $\$ 12.8$ billion.

The annuitant membership at June 30, 2010 was comprised of approximately 185,000 retirees and beneficiaries who receive over $\$ 340$ million in pension and healthcare benefits each month. The average yearly benefit paid to annuitants is $\$ 23,466$. The average benefit payment for each benefit type, grouped by years of credited service, is detailed in the Statistical Section of this report.

The System is a governmental cost-sharing multi-employer defined benefit pension plan, to which all members and 749 reporting units contribute. PSERS is administered by a staff of 310. The System is headquartered in Harrisburg, Pennsylvania, and maintains eight field offices in strategic areas of the Commonwealth to enable direct contact with the membership and the System's employers.

PSERS was established by law as an independent administrative board directed by a governing board of trustees (Board) which exercises control and management of the System, including the investment of its assets. PSERS is considered a component unit of the Commonwealth of Pennsylvania as defined by the Governmental Accounting Standards Board (GASB). An annual audit of the System by a certified public accounting firm is required by the Retirement Code. PSERS has contracted with Clifton Gunderson LLP for this audit of its financial statements and has received an unqualified opinion as evidenced in the Independent Auditors' Report in the Financial Section of this report. An unqualified opinion means that PSERS' financial statements fairly present
its financial condition. In addition, no significant findings were noted during the audit and therefore, no management letter was issued. This is the first time in many years that a management letter was not issued by the independent auditors and is reflective of the hard work and dedication of PSERS' staff to continue to improve the internal controls, operations and efficiency of the System.

## Economic Summary

The past fiscal year saw a rebound from the worst economic contraction since the Great Depression. The U.S. Gross Domestic Product (GDP) increased in all four quarters of the fiscal year ended June 30, 2010 (FY 2010) and the U.S. unemployment rate stabilized after increasing significantly in FY 2009. As a result, the Fund experienced positive investment performance in all asset classes except for real estate. For FY 2010 PSERS' investment portfolio generated a rate of return of $14.59 \%$ which resulted in $\$ 6.1$ billion of net investment income. The total net assets of the System increased from $\$ 43.2$ billion to $\$ 45.8$ billion from July 1, 2009 to June 30, 2010. The increase was due to net investment income plus member and employer contributions exceeding the deductions for benefits and administrative expenses.

The Board has continued to fulfill its mission to maintain stability and the long-term optimum value of the Fund. This is evidenced in the long-term growth of the System's assets and the actuarial soundness of the Fund with respect to its funding status. The annualized rate of return for the twenty-five year period ended June 30, 2010 was $8.83 \%$ and exceeded the Fund's long-term investment rate of return assumption during that time period. Of utmost importance to the Board is the assurance that the required reserves are available for payment of retirement benefits. PSERS has maintained its position among the top thirty largest pension systems in the nation.

## Major Initiatives

## Pension Funding

The resolution of the current funding issues facing the System continues to represent the greatest challenge in the history of the System. The employer contribution rate is projected to significantly increase from 5.64 percent in FY 2011 to nearly 29 percent in FY 2013. PSERS continues to work closely with and provide technical assistance to the legislature on this significant issue. During the most recent legislative session, numerous pieces of legislation addressing the pension funding issue were introduced. One bill, HB 2497, passed both the House and Senate and was then sent back to the House for concurrence on Senate amendments in the bill. As of the date of this publication, it is unclear if the House will concur on the Senate amendments.

The pension funding issue also remains a top issue for the PSERS Board. As a consequence of passage of the Fiscal Code Bill (Act 2010-46) that accompanied the Commonwealth's General Fund Budget (Act 2010-1A), the Board met in July 2010 and recertified the employer contribution rate for Fiscal Year 2010-2011. The rate was decreased from $8.22 \%$ down to $5.64 \%$ as directed under the provisions of Act 46 .

Unlike past recertifications of the employer contribution rate by the Board, this recertification was not the result of either a modification of PSERS' funding methodology or any other change made to the Public School Employees' Retirement Code. Therefore, the Board passed a resolution that voiced its concern and stated that the mandated recertification of the employer contribution rate not only fails to address the serious long-term under-funding of PSERS, but increased the unfunded liability of PSERS.

PSERS remains committed to providing all available assistance to the Governor, General Assembly and school employers to resolve the rate spike and future funding issues as soon as possible. For additional information on the funding issues see http://www.psers.state.pa.us/press/pension_funding_issues/index.html.

## Budgetary and Financial Governance

PSERS submits its administrative budget request to the Governor's Office of the Budget each October where it is reviewed and evaluated. Any changes proposed by the Governor's Budget Office are made and a final amount is provided to the Legislature, which passes the final budget and submits it to the Governor for his signing into law. The administrative budget is not funded from the Commonwealth's General Fund, rather from the earnings of the Fund itself. The Commonwealth's Office of Administration continued FY 2009 cost control initiatives into FY 2010 that included a ban on most out-of-state travel, a moratorium on new vehicle purchases, and a freeze on hiring and management salaries. As reflected in the five-year table below, PSERS has also been committed to the prudent use of its funds and managing its annual budget. As a result, PSERS has annually underspent its approved budget, thus keeping more funds available to invest for PSERS' members. In conjunction with the Commonwealth's initiatives the System continually looks for ways to cut costs while maintaining excellent customer service and efficiency of operations. As an example, during FY 2010 postage and printing costs were less than FY 2009. Postage costs were reduced by $20.33 \%$ and printing by $7.62 \%$ as the System continued to look for more efficient ways to communicate with members and employers using the Internet and other electronic means.

| Fiscal Year: | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 |
| :--- | ---: | ---: | ---: | :---: | :---: |
| Administrative <br> Budget* | $\$ 39,539,000$ | $\$ 39,455,000$ | $\$ 40,811,000$ | $\$ 42,068,000$ | $\$ 42,651,600$ |
| Expenditures** | $36,935,084$ | $38,230,663$ | $38,009,568$ | $39,224,000$ | $39,339,480$ |
| Lapse <br> (unspent funds) | $2,603,916$ | $1,224,337$ | $2,801,432$ | $2,844,000$ | $3,312,120$ |
| Percentage <br> Lapsed | $6.6 \%$ | $3.1 \%$ | $6.9 \%$ | $6.8 \%$ | $7.8 \%$ |

*Administrative Budget is net of budgetary reserve of \$229,000 in FY 2009 and \$575,400 in FY 2010.
**Expenditures are those posted to the Commonwealth's accounting system and therefore do not include accruals.
In addition to these savings, during FY 2010, PSERS continued its on going efforts to recover funds from securities class action litigation. The System received $\$ 11.0$ million in settlements from these cases in FY 2010.

## Customer Service

PSERS' efforts to provide complete and accurate retirement benefits in a much timelier manner have continued to be a success. Traditionally, PSERS' retirement benefits had been paid to members in two steps; a reduced initial benefit within about 10 weeks of retirement based on information on file with PSERS at that time, and then a final benefit with retroactive monies within about 18 months of the retirement date using final information. With new processes in place and improved employer reporting, PSERS expects to process $75 \%$ of all retirements in 2010 as one step, enabling staff to only work on a member's account once and providing the full benefit to the member as the initial payment. This reduction in duplicated work has enabled staff to focus on other customer service areas.

In the not so distant past, PSERS had a backlog of more than 34,000 purchase of service applications to be processed. Despite receiving thousands more every year, by December of 2009 the backlog was reduced to 17,600 . As of the date of this publication, there are less than 10,000 left with a goal of having the backlog nearly eliminated as of the close of calendar year 2010. This will provide members with a more accurate portrayal of the service they have accrued.

Due to the system enhancements to enable better and more frequent reporting by employers, all active and inactive members were provided an up-to-date Statement of Account by December 31, 2009. Employers continue to be timely in their reporting which enables PSERS to provide members with a current Statement of Account before the close of each calendar year.

With all of these improvements in place, the next frontier being addressed is reviewing member accounts at periodic milestones and event triggers to ensure each detail of a member's account is accurately portrayed throughout a member's career. Through these kinds of optimizations and enhancements, PSERS is committed to continuing to improve upon the services it provides to members and employers.

## Health Options Program (HOP) Initiatives

The Board authorized an open enrollment for 2011 allowing all PSERS annuitants, survivor annuitants, and the spouse or dependents of annuitants or survivor annuitants to enroll in HOP without a qualifying event. The open enrollment period is from October 1, 2010 to November 15, 2010 for benefit coverage effective January 1, 2011. HOP conducted over 130 open enrollment meetings for 17,000 members across the Commonwealth and in states with large concentrations of PSERS retirees. The meetings informed members about the benefit plans for 2011 and the impact of the Patient Protection and Affordable Care Act on their coverage. The last time the Board authorized an open enrollment was for the 2006 plan year when prescription drug coverage was added to Medicare.

The Board also expanded the number of Medicare Advantage and companion pre-65 managed care plans available through HOP. For the 2011 plan year, the following organizations offer plans to HOP participants: Aetna, Capital Blue Cross/Keystone - Central, Geisinger, Highmark, Independence Blue Cross/Keystone - East, and UPMC. HOP participants may also enroll in the HOP Medical Plan (a supplement to original Medicare), a companion pre-65 Medical Plan, and one of two Medicare prescription drug plans.

The Board continues to expand the capabilities of the HOPbenefits.com website. HOP members and PSERS retirees turning age 65 may access their personalized statement online. Members enrolled in the HOP Medical Plan may also access their personal health information, view claim submissions and payments, and make inquiries online.

## Financial Highlights

The fair value of the System's net assets totaled $\$ 45.8$ billion as of June 30, 2010. The System is the 17th largest state-sponsored public defined benefit pension fund in the nation and the 27th largest among public and corporate pension funds in the nation. More specific information on the System's assets is detailed in the Statements of Plan Net Assets and Management's Discussion and Analysis included in the Financial Section of this report.

One of PSERS' mission critical objectives is the timely and accurate payment of benefits. In FY 2010 PSERS provided $\$ 5.3$ billion in pension and healthcare benefits to its members.

The System's administrative budget request is appropriated by the Pennsylvania General Assembly and funded by the investment income of the System. For FY 2010, the appropriation was $\$ 43.2$ million.

## Funding

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

The results of PSERS' latest published actuarial valuation (as of June 30, 2009) indicated that the rates of contribution payable by the members and employers, when taken together with the current assets of the System, are adequate to fund the actuarial liabilities on account of all benefits payable under the System at that date. The funded status as of the latest actuarial valuation was $79.2 \%$. Additional comparative information on the funded status of PSERS can be found in the Actuarial Section and in the Financial Section of this report.

## Investments

Income from the investment portfolio represents the major source of revenue to the System, accounting for nearly $69 \%$ of total revenues over the twenty-year period from FY 1991 to FY 2010. During FY 2010, net investment income was $\$ 6.1$ billion. The investment portfolio, which is one part of the System's net assets, totaled $\$ 46.5$ billion, at fair value, as of June 30, 2010. For FY 2010, the time-weighted rate of return on the System's investments was $14.59 \%$.

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

## Federal and State Tax Status

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

It should be noted that the Internal Revenue Service (IRS) announced and initiated a renewed focus on the tax qualification of public pension funds in 2008. PSERS is working proactively in conjunction with the State Employees' Retirement System to address this IRS initiative.

## Internal Controls and Reporting

PSERS' management is responsible for and has implemented internal controls designed to provide reasonable assurances for the safeguarding of assets and the reliability of financial records.

This report has been prepared in accordance with accounting principles generally accepted in the United States of America. The System maintains a full accrual accounting system. More specific accounting information is detailed in the Summary of Significant Accounting Policies (Note 2) in the notes to the financial statements found in the Financial Section of this report.

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

## GASB Pension Accounting and Financial Reporting Project (Pension Project)

In 2006 the GASB began a multi-year project to reexamine the current pension accounting standards as detailed in GASB Statements 25 and 27. In March 2009, the GASB issued an Invitation to Comment (ITC) on possible changes to the pension accounting standards. The ITC discussed two alternative approaches that the standards might follow. The first approach was similar to the current standards and the second was based on a market value approach similar to private sector pension accounting.

On June 16, 2010, the GASB issued its Preliminary Views (PV) on proposed changes to accounting and financial reporting standards for state and local government employers that sponsor defined benefit pension plans. The PV is an intermediate step in the GASB Pension Project and reflects the GASB's expectation of significant discussion related to the proposed changes. In the PV, the GASB proposed a middle approach which combines elements of the two alternatives described in the ITC.

The proposed standards in the PV would have a significant impact on pension accounting and financial reporting by employers and would separate the accounting standards from the standards used to determine funding requirements. PSERS provided comments to the GASB on the PV in September 2010 and has collaborated with constituent groups that have also provided comments to the GASB.

Once the GASB reviews the input received in response to the PV, it will issue an Exposure Draft of a new standard on pension accounting which will be followed by the issuance of the new accounting standard that could be effective in 2013. PSERS will continue to monitor the GASB Pension Project very closely to gauge the future impact on its financial governance.

## Professional Services

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

## Other Information

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

## System Awards

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

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PSERS for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2009. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such a comprehensive annual financial report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. PSERS has received a Certificate of Achievement for 27 consecutive years from FY 1983 to FY 2009. A photograph of this award appears in the Introductory Section of this report. Its attainment represents a significant accomplishment by the System, whose Office of Financial Management holds general responsibility for the compilation and validity of the financial data presented in the Comprehensive Annual Financial Report.

The System believes the current report continues to conform to the Certificate of Achievement program requirements and will be submitting this report to GFOA to determine eligibility for the 2010 certificate.

## Public Pension Coordinating Council - Public Pension Standards Award

The Public Pension Coordinating Council has awarded its Public Pension Standards Award to PSERS for 2009. This award is in recognition of meeting professional standards for plan design and administration as set forth in the Public Pension Standards.

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

## Acknowledgements

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

Respectfully submitted,


Jeffrey B. Clay
Executive Director


Brian S. Carl, CPA, CTP<br>Chief Financial Officer

## Administrative Organization PSERS Board of Trustees As of June 30, 2010



Seated, front row: Stacey Connors, designee for Honorable Patrick M. Browne; Sally J. Turley, Vice-Chairman; Melva S. Vogler, Board Chairman and Patricia A. Tozer

Standing, second row: Honorable Robert M. McCord; Honorable Glen R. Grell; Thomas J. Gentzel; Glen S. Galante; Richard N. Rose; Hal Moss; John Raymond, designee for Honorable Shirley M. Kitchen; James M. Sando and Jeffrey B. Clay, PSERS' Executive Director, Board Secretary

Not pictured: Honorable Thomas E. Gluck, Acting Secretary of Education; Honorable Dwight Evans and Tina Byles-Williams

## PSERS Board of Trustees

As of June 30, 2010

Secretary of Education of the Commonwealth of Pennsylvania (ex officio)
Mr. Thomas E. Gluck, Acting
Treasurer of the Commonwealth of Pennsylvania (ex officio)
Honorable Robert M. McCord
Executive Director of the Pennsylvania School Boards Association, Inc. (ex officio)
Mr. Thomas J. Gentzel
Two members appointed by the Governor of the Commonwealth of Pennsylvania
Mr. Hal Moss (term expires 12/31/12)
Ms. Tina Byles-Williams (term expires 12/31/11)
Three members elected from among the certified contributors of the System for a term of three years
Mr. Glen S. Galante (term expires 12/31/12)
Mr. James M. Sando (term expires 12/31/10)
Ms. Melva S. Vogler (term expires 12/31/11)
One member elected from among the noncertified contributors of the System for a term of three years Ms. Patricia A. Tozer (term expires 12/31/12)

One member elected from among the annuitants of the System for a term of three years
Mrs. Sally J. Turley (term expires 12/31/10)
One member elected by the members of Pennsylvania Public School Boards from among their number for a term of three years

Mr. Richard N. Rose (term expires 12/31/11)
Two members appointed by the Speaker of the House from the Pennsylvania House of Representatives, one representing the Majority Party and one representing the Minority Party

Honorable Dwight Evans (term expires 11/30/10)
Honorable Glen R. Grell (term expires 11/30/10)
Two members appointed by the President Pro Tempore of the Pennsylvania Senate, one representing the Majority Party and one representing the Minority Party

Honorable Shirley M. Kitchen (term expires 11/30/12)
Honorable Patrick M. Browne (term expires 11/30/10)

## 2010 Board Committees

As of June 30, 2010

| Appeals / Member Services <br> Ms. Tozer, Chair <br> Mr. Gentzel <br> Senator Kitchen <br> Mr. Moss <br> Mr. Rose <br> Mr. Sando <br> Mrs. Turley | Audit/Budget <br> Mr. Galante, Chair Representative Evans Mr. Gentzel Representative Grell Treasurer McCord Mr. Rose | Bylaws / Policy <br> Representative Grell, Chair <br> Representative Evans <br> Senator Browne <br> Mr. Moss <br> Mr. Sando <br> Mrs. Turley |
| :---: | :---: | :---: |
| Corporate Governance <br> Mr. Sando, Chair Senator Browne Ms. Byles-Williams Mr. Galante Treasurer McCord Mr. Rose | Elections <br> Mr. Moss, Chair Representative Evans Ms. Byles-Williams Senator Kitchen Mr. Gluck Ms. Tozer | Finance <br> Mr. Rose, Chair <br> Committee is comprised of all Board Members |
| Health Care <br> Mrs. Turley, Chair Representative Evans <br> Mr. Galante <br> Mr. Gentzel <br> Representative Grell <br> Ms. Tozer | Personnel <br> Mr. Gentzel, Chair Senator Browne Treasurer McCord Mr. Rose Mr. Sando Mrs. Turley | Technology Steering <br> Treasurer McCord, Chair <br> Ms. Byles-Williams Mr. Galante Mr. Gluck <br> Senator Kitchen Mr. Moss |

NOTE: The chair of the Board of Trustees is a voting ex-Officio member of all Committees
Organizational Chart of the
Public School Employees' Retirement System


## Administrative Staff



Alan H. Van Noord Chief Investment Officer


Jeffrey B. Clay Executive Director


Terrill J. Savidge Deputy Executive Director


Joseph E. Wasiak Assistant Executive Director


Richard R. Spinks Chief Technology Officer


James F. Noone Director of Administration


Maribel La Luz Director of Human Resources


Ginger L. Bucher Director of Benefits Administration


Donald J. Halke, II Internal Auditor


Eugene W. Robison Director of Communications and Counseling


Mark F. Schafer Director of Health Insurance


Deborah L. Garraway Director of Information Management


Frank Ryder Director of Government Relations


Mary E. Geesey Director of Information Technology


Evelyn M. Tatkovski Press Secretary
PSERS REGIONAL OFFICES


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PSERS Headquarters Building


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

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


# Clifton Gunderson lip <br> Certified Public Accountants \& Consultants 

## Independent Auditor's Report

The Board of Trustees
Public School Employees' Retirement System
Harrisburg, Pennsylvania
We have audited the accompanying financial statements of the Public School Employees' Retirement System (PSERS), a component unit of the Commonwealth of Pennsylvania, as of and for the years ended June 30, 2010 and 2009, as listed in the table of contents. These financial statements are the responsibility of PSERS' management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, PSERS' plan net assets as of June 30, 2010 and 2009, and the changes in its plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The Management's Discussion and Analysis and Required Supplemental Schedules of Funding Progress and Employer Contributions (Schedules 1 and 2) are not a required part of the financial statements, but is supplemental information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplemental information. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The Supplemental Schedules 1 through 3 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Supplemental Schedules 1 through 3 have been subjected to the auditing procedures applied in the audit of the basic financial statements, and, in our opinion, are presented fairly, in all material respects, in relation to the basic financial statements taken as a whole.

The Chairman's Report, Introductory Section, Investment Section, Actuarial Section and Statistical Section as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The Chairman's Report and the Introductory, Investment, Actuarial and Statistical Sections have not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.


Baltimore, 3 aryland
September ) ', ) (*

## Management's Discussion and Analysis

Management's Discussion and Analysis (MD\&A) of the Commonwealth of Pennsylvania Public School Employees' Retirement System (PSERS, System, Fund) for the fiscal year ended June 30, 2010, provides a narrative summary of PSERS' financial position and performance, including highlights and comparative data. The MD\&A is presented as required supplemental information to the financial statements and should be read in conjunction with the financial statements, the notes to financial statements and the supplementary schedules.

## Overview of Financial Statements

PSERS is primarily responsible for administering a defined benefit pension plan for public school employees in the Commonwealth of Pennsylvania. PSERS also administers two postemployment healthcare programs, the Health Insurance Premium Assistance Program (PA) and the Health Options Program (HOP), for its annuitants. The financial statements present the financial position and activities for the pension plan and the two postemployment healthcare programs.

The Statements of Plan Net Assets provide a snapshot of the financial position of PSERS at June 30, 2010, including comparative amounts for the prior year.

The Statements of Changes in Plan Net Assets summarize PSERS' financial activities that occurred during the fiscal period from July 1, 2009 to June 30, 2010, including comparative amounts for the prior year.

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

The Required Supplemental Schedules immediately following the notes to financial statements provide two schedules showing historical information concerning the funded status of PSERS and the employer contributions. These schedules emphasize the long-term nature of the pension and premium assistance plans and show the progress of PSERS in accumulating assets sufficient to pay benefits when due.

The remaining supplemental schedules provide additional detailed information concerning the operating expenses, investment expenses and payments to non-investment consultants. All of this supplemental information is
considered useful in understanding and evaluating the financial activities of PSERS.

## Financial Highlights

- The rate of return on investments was $14.59 \%$ for the fiscal year ended June 30, 2010 (FY 2010), $-26.54 \%$ for the fiscal year ended June 30, 2009 (FY 2009) and $-2.82 \%$ for the fiscal year ended, June 30, 2008 (FY 2008).
- PSERS' total plan net assets increased by $\$ 2.6$ billion from $\$ 43.2$ billion at June 30, 2009 to $\$ 45.8$ billion at June 30, 2010. This increase was due to net investment income plus member and employer contributions exceeding the deductions for benefits and administrative expenses. The change in total plan net assets from June 30, 2008 to June 30, 2009 was a decrease in the amount of $\$ 19.5$ billion from $\$ 62.7$ billion at June 30, 2008 to $\$ 43.2$ billion at June 30, 2009. This decrease was due to net investment loss and payment of pension benefits and administrative expenses combined that exceeded member and employer contributions.
- PSERS' funded ratio as of the latest actuarial valuation dated June 30, 2009 decreased from $86.0 \%$ at June 30, 2008 to $79.2 \%$ at June 30, 2009. This decrease is due to experience losses on investment assets, liability losses, assumption changes, and contributions that were less than the normal cost plus interest on the unfunded liability. The funded ratio at June 30, 2007 was $85.8 \%$.
- Total member contributions increased from $\$ 1.09$ billion in FY 2009 to $\$ 1.14$ billion in FY 2010. Total member contributions also increased from FY 2008 to FY 2009. The increases for both periods were due to a slight increase in the average member contribution rate and an increase in the active member payroll. The portion of member contributions for the HOP grew due to increased participation as well as ongoing health insurance rate increases.
- Total employer contributions increased from $\$ 608.4$ million during FY 2009 to $\$ 638.0$ million in FY 2010. This increase is primarily attributable to a slight increase in the total employer contribution rate from $4.76 \%$ in FY 2009 to $4.78 \%$ in FY 2010 and an increase in the active member payroll. Total employer contributions decreased from FY 2008 to FY 2009 which was attributable to a decrease in the


## Management's Discussion and Analysis (continued)

total employer contribution rate from $7.13 \%$ in FY 2008 to $4.76 \%$ in FY 2009.

- Total PSERS' benefit expense increased by $\$ 400$ million from $\$ 4.9$ billion in FY 2009 to $\$ 5.3$ billion in FY 2010. This increase is attributable to the number of new retirements for the year, higher lump sum payments as well as an ongoing increase to the average monthly benefit. New retirements during FY 2010 outpaced those of FY 2009 by approximately $5.0 \%$. Total PSERS' benefit expense remained consistent at $\$ 4.9$ billion in FY 2009 and FY 2008 as higher monthly benefits from an increase in the overall number of retirees and beneficiaries receiving benefits were offset by lower lump sum payments due to a decrease in the number of new retirees in FY 2009.
- Total PSERS' administrative expenses decreased from $\$ 51.3$ million for FY 2009 to $\$ 30.5$ million in FY 2010. This overall decrease is primarily due to the impact of the capitalization of intangible assets as a result of PSERS' implementation of Governmental Accounting Standards Board (GASB) Statement No. 51 Accounting and Financial Reporting for Intangible Assets (See Note 9). There was an increase of almost $\$ 3.0$ million in administrative expenses for HOP due primarily to higher administrative fees for increased program participation. Total PSERS' administrative expenses increased by $\$ 2.0$ million from $\$ 49.3$ million in FY 2008 to $\$ 51.3$ million in FY 2009. Administrative expenses were within PSERS' budgeted amounts for each of the fiscal years.


## Funded Status

PSERS uses an actuarial reserve type of funding that is financed by member contributions, employer contributions and earnings from invested assets. An independent actuarial valuation of PSERS' actuarial assets and liabilities is performed annually. As part of this valuation, the progress toward funding pension obligations of PSERS is measured by comparing the actuarial value of assets to the actuarial accrued liability. This measurement is referred to as the funded ratio or funded status. The most recent actuarial valuation reports that PSERS is $79.2 \%$ funded as of June 30, 2009.

The results of operations for FY 2010 will be reflected in the actuarial valuation for the year ended June 30, 2010. Due to the normal lag time for completion of the actuarial
valuation, the resulting funded status will be available at the end of the 2010 calendar year and will be reported in the financial statements for the fiscal year ended June 30, 2011 (FY 2011). Based on the investment performance for the five-year period ended June 30, 2010, which is below the investment rate of return assumption during that time period, the funded ratio at June 30, 2010 is expected to decrease. PSERS' State Accumulation Account had a negative balance at June 30, 2010 and 2009 (See Note 3). Employer contributions and investment earnings will be used to reduce the deficit in this Account in the future. A twenty-year history of PSERS' funded status follows.


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## Management's Discussion and Analysis (continued)



| Analysis of Plan Net Assets Summary of Plan Net Assets | (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY 2010 |  | Increase (Decrease) |  | FY 2009 |  | Increase <br> (Decrease) |  | FY 2008 |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |
| Receivables | \$ | 1,065,061 | \$ | $(289,940)$ | \$ | 1,355,001 | \$ | $(908,385)$ | \$ | 2,263,386 |
| Investments |  | 46,504,268 |  | 3,160,333 |  | 43,343,935 |  | $(20,548,285)$ |  | 63,892,220 |
| Securities lending collateral pool |  | 1,524,235 |  | $(67,486)$ |  | 1,591,720 |  | $(3,255,279)$ |  | 4,846,999 |
| Capital assets |  | 19,215 |  | 18,685 |  | 530 |  | (135) |  | 665 |
| Total Assets |  | 49,112,779 |  | 2,821,592 |  | 46,291,186 |  | (24,712,084) |  | 71,003,270 |

## Liabilities:

| Payables and other liabilities | 1,751,017 |  | 258,591 |  | 1,492,426 | $(2,005,221)$ | 3,497,647 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Obligations under securities lending | 1,524,234 |  | $(67,486)$ |  | 1,591,720 | (3,255,279) | 4,846,999 |
| Total Liabilities | 3,275,251 |  | 191,105 |  | 3,084,146 | (5,260,500) | 8,344,646 |
| Plan Net Assets | \$ 45,837,527 | \$ | 2,630,487 | \$ | 43,207,040 | \$ (19,451,584) | \$ 62,658,624 |

Summary of Changes in Plan Net Assets

## Additions:

Contributions
Net investment income (loss)
Total Additions

## Deductions:

Benefit expense
Administrative expenses
Total Deductions

Changes in Plan Net Assets $\quad \xlongequal{\$ 2,630,487} \xlongequal{\$ 22,082,071} \xlongequal{\$(19,451,584)} \xlongequal{\$(14,587,504)} \xlongequal{\$(4,864,080)}$

## Page 27

## Management's Discussion and Analysis (continued)

## Investments

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

For FY 2010, PSERS' rate of return on investments was $14.59 \%$ which exceeded PSERS' total fund Policy Index of $10.87 \%$. The Policy Index, which is based on the Board-established asset allocation structure, is a custom benchmark designed to generate a return that meets the actuarial rate of return assumption. Net investment income exceeded $\$ 6.1$ billion in FY 2010 compared to a net investment loss of - $\$ 16.2$ billion in FY 2009 as the U.S. recovered from the worst economic contraction since the Great Depression. In FY 2009 the Fund experienced a $-26.54 \%$ return during a very challenging fiscal year. The U.S. Gross Domestic Product (GDP) increased in all four quarters of FY 2010 and the U.S. unemployment rate stabilized after increasing significantly in FY 2009. Internationally, emerging markets, such as China and India, have largely recovered from the economic downturn while developed markets, such as the United Kingdom and France, have rebounded but have not returned to economic levels prior to the downturn.

The annualized rate of return over the past three and fiveyear periods ended June 30, 2010 was $-6.48 \%$ and $2.99 \%$, respectively. The return for the three-year period trailed the
total fund Policy Index return by 171 basis points while the return for the five-year period exceeded the total fund Policy Index return by 24 basis points. The annualized rate of return for the ten and twenty-five-year periods ended June 30, 2010 was $3.51 \%$ and $8.83 \%$, respectively.

PSERS' long-term actuarial investment rate of return assumption was $8.00 \%$ at June 30, 2010. PSERS' Board of Trustees (Board) decreased the actuarial investment rate of return assumption from $8.50 \%$ to $8.25 \%$ effective for the June 30, 2008 actuarial valuation. The Board also decreased the rate of return assumption further from $8.25 \%$ to $8.00 \%$ for the June 30, 2009 actuarial valuation. The changes made by the Board lowered PSERS' rate of return assumption to the median investment rate of return assumption used by most public pension funds and provided a more realistic outlook on the future earnings potential of the Fund. The $0.5 \%$ decrease in the rate of return assumption allowed PSERS to modify its asset allocation plan during FY 2009 to achieve its new return target with lower overall risk. PSERS continued to monitor and endeavored to reduce risk in its investment portfolio during FY 2010.

The asset distribution of PSERS' investment portfolio at June 30, 2010, 2009 and 2008, at fair value, and including postemployment healthcare assets, is presented in the table at the bottom of the page.

| $\underline{\text { Asset Class }}$ | (Dollar Amounts in Thousands) |  |  |  |  |  |  |  | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2010 | \% |  | 2009 | \% |  | 2008 |  |
| Short-term | \$ | 4,163,515 | 9.0 | \$ | 5,398,729 | 12.5 | \$ | 4,215,171 | 6.6 |
| Fixed income |  | 11,873,202 | 25.5 |  | 11,333,549 | 26.2 |  | 17,984,233 | 28.2 |
| Common and preferred stock |  | 15,316,957 | 32.9 |  | 13,883,372 | 32.0 |  | 27,875,324 | 43.6 |
| Real estate |  | 3,973,873 | 8.6 |  | 3,699,353 | 8.5 |  | 4,951,840 | 7.8 |
| Alternative investments |  | 11,176,721 | 24.0 |  | 9,028,932 | 20.8 |  | 8,865,652 | 13.8 |
| Total | \$ | 46,504,268 | $\underline{100.0}$ | \$ | 43,343,935 | $\underline{100.0}$ | \$ | 63,892,220 | $\underline{100.0}$ |

## Management's Discussion and Analysis (continued)



Short-term investments (cash and cash equivalents) decreased by $\$ 1.2$ billion from $\$ 5.4$ billion at June 30, 2009 to $\$ 4.2$ billion at June 30, 2010. Due to an improved liquidity situation in the financial markets, PSERS was able to substantially reduce its cash management level during FY 2010. Fixed income investments increased by $\$ 600$ million from $\$ 11.3$ billion at June 30, 2009 to $\$ 11.9$ billion at June 30, 2010 mostly due to market value appreciation which was partially offset by allocation reductions. Common and preferred stock investments also increased by $\$ 1.4$ billion from $\$ 13.9$ billion at June 30, 2009 to $\$ 15.3$ billion at June 30, 2010. The upturn in this asset category was mainly the result of positive returns in the domestic and international equity markets which were counteracted to a certain extent by allocation decreases to the asset class. Real estate investments rose by $\$ 300$ million from $\$ 3.7$ billion at June 30, 2009 to $\$ 4.0$ billion at June 30, 2010 as a result of contributions to new and existing partnerships offsetting continuing declines in value of partnership investments. Alternative investments increased by $\$ 2.2$ billion from $\$ 9.0$ billion at June 30, 2009 to $\$ 11.2$ billion at June 30, 2010 due to contributions to new and existing partnerships combined with a recovery of value in partnership portfolio holdings.

Short-term investments (cash and cash equivalents) increased by $\$ 1.2$ billion from $\$ 4.2$ billion at June 30, 2008 to $\$ 5.4$ billion at June 30, 2009. Due to the uncertainties in the equity and fixed income markets, PSERS built up its short-term investment fund during FY 2009. During FY 2009, PSERS brought the management of its short-term investment fund in-house. This fund had been previously managed by the Pennsylvania Treasury Department. Fixed income investments fell by $\$ 6.7$ billion from $\$ 18.0$ billion at June 30, 2008 to $\$ 11.3$ billion at June 30, 2009 because of allocation reductions as well as market value depreciation. Similarly, common and preferred stock investments dropped by $\$ 14.0$ billion from $\$ 27.9$ billion at June 30,

2008 to $\$ 13.9$ billion at June 30, 2009. The decrease was primarily the result of significant deterioration in the domestic and international equity markets in addition to funds being transferred out of the asset class. Real estate investments declined by $\$ 1.3$ billion from $\$ 5.0$ billion at June 30, 2008 to $\$ 3.7$ billion at June 30, 2009 due to substantial market value depreciation which was offset in part by net allocation increases to new and existing real estate partnerships. Alternative investments rose by $\$ 100$ million from $\$ 8.9$ billion at June 30, 2008 to $\$ 9.0$ billion at June 30, 2009 as a result of contributions to new and existing partnerships which were almost entirely negated by the downturn in value of partnership portfolio holdings.

## Securities Lending

Securities lending collateral pool and obligations under securities lending decreased only slightly from $\$ 1.6$ billion at June 30, 2009 to $\$ 1.5$ billion at June 30, 2010. The collateral pool, however, dropped from $\$ 4.8$ billion at June 30,2008 to $\$ 1.6$ billion at June 30, 2009 due to a significant decline in both the number of securities on loan and the market value of those securities for which cash collateral was provided.

The System experienced a net gain of $\$ 8.5$ million from securities lending activities in FY 2010 compared to a net loss of $\$ 26.8$ million in FY 2009. The loss from securities lending activities for FY 2009 was the result of the decline in valuation of certain securities purchased with cash collateral by the lending agent. Absent this factor, the System would have experienced a net gain of $\$ 22.9$ million or almost three times that of FY 2010. After the financial institution collapse in the Fall of 2008, it became increasingly difficult for the lending agent to attain earnings on investing cash collateral in excess of the rates being rebated to the borrowers. This spread fell from 93 basis points in FY 2009 to 35 basis points in FY 2010. Because

## Management's Discussion and Analysis (continued)

of the heightened risk associated with the sudden downturn in the market in FY 2009, restrictions were placed on the lending of particular securities in PSERS' portfolio and the risk profile of the investments permitted in the collateral pool was reduced.

## Contributions

Employer contributions increased from $\$ 608.4$ million in FY 2009 to $\$ 638.0$ million in FY 2010 due to the slight increase in the total employer contribution rate from $4.76 \%$ in FY 2009 to $4.78 \%$ in FY 2010 and an increase in the active member payroll.

Total member contributions increased from $\$ 1.09$ billion in FY 2009 to $\$ 1.14$ billion in FY 2010 due to increases in both the average member contribution rate and active member payroll for pension and increased participation in the HOP. The average member contribution rate for pension increased from $7.29 \%$ in FY 2009 to $7.32 \%$ in FY 2010. Total member contributions increased from $\$ 1.04$ billion in FY 2008 to $\$ 1.09$ billion in FY 2009 as a result
of the increase in the average member contribution rate and total active member payroll for pension and increased participation in the HOP. The average member contribution rate for pension increased from $7.25 \%$ in FY 2008 to $7.29 \%$ in FY 2009. A thirty-year history of PSERS' contribution rates is presented at the bottom of the page.

As a result of improved remittances from PSERS' employers during FY 2010, accounts receivable balances for member and employer contributions were slightly lower at June 30, 2010 compared to June 30, 2009 despite increased contributions in FY 2010. Total member and employer accounts receivable at June 30, 2010 were $\$ 450.6$ million compared to $\$ 454.1$ million as of June 30, 2009.


Management's Discussion and Analysis (continued)

## Projected Fiscal Year 2012-2013 (FY 2013)

 Employer Contribution Rate IncreaseThe current funding issue confronting PSERS represents the greatest challenge the Agency has faced in its history. The funding issue, commonly referred to as the "rate spike" or "rate plateau," refers to the significant increase in the projected employer contribution rate in FY 2013 and following years, that is paid by school employers and the Commonwealth to PSERS to fund pension benefits.

The projected rate spike was first reflected in the June 30, 2003 actuarial valuation. This valuation took into consideration the actuarial impact of the pension benefit enhancement enacted in 2001 (Act 9 of 2001), a major downturn in the investment markets between 2001 and 2003, and a series of legislative actions (Act 38 of 2002 and Act 40 of 2003) that changed the basic funding methodologies for PSERS and suppressed the employer contribution rate below the employer normal cost rate and average member contribution rate as displayed in the previous chart on the History of PSERS' Contribution Rates. The employer normal cost is the expected contribution from employers to fund on-going liabilities if all other actuarial assumptions are met and the unfunded liability is zero.

Previously, PSERS' investment returns for the four years ended June 30, 2007 had reduced the projected FY 2013 employer contribution rate by more than $50 \%$, from a high of $27.73 \%$ to a projected rate of $11.23 \%$ as of the June 30, 2007 valuation. Over the past several years, however, the sharp downturn in the economy and financial markets that contributed to the $-26.54 \%$ return for FY 2009 and the $-2.82 \%$ investment return for FY 2008 has essentially eliminated any past progress made in reducing the FY 2013 projected rate increase. Based on the June 30, 2009 actuarial valuation, the projected rate in FY 2013 now exceeds the
original projection of $27.73 \%$ and peaks in excess of $33 \%$ in FY 2015. The majority of the projected FY 2013 rate increase is devoted to the payment of unfunded liabilities that have accumulated since 2001.

Several pieces of legislation have been introduced to address the funding issue. House Bill (HB) 2497, which includes prospective benefits reductions for future new employees, actuarial smoothing techniques, and rate collars to control the level of annual increases in the employer contribution rate, has passed the Pennsylvania House of Representatives. The Pennsylvania Senate passed a modified version of HB2497 and sent the revised bill back to the House. As of the publication date of this report, the bill was waiting for further action in the Pennsylvania House. PSERS will continue to monitor pension legislation and provide analytical and technical support for new bills and/or amendments to existing bills.

## Investment Income

Net investment income (loss) changed by $\$ 22.3$ billion from - $\$ 16.2$ billion in FY 2009 to $\$ 6.1$ billion in FY 2010, which is consistent with the increase in the investment rate of return from $-26.54 \%$ for FY 2009 to $14.59 \%$ for FY 2010. Net investment income (loss) changed by $\$ 14.4$ billion from - $\$ 1.8$ billion in FY 2008 to - $\$ 16.2$ billion in FY 2009, which correlates to the decrease in the investment rate of return from $-2.82 \%$ for FY 2008 to $-26.54 \%$ for FY 2009. As depicted in the following chart, investment earnings provided $69 \%$ of PSERS' funding over the past 20 years. Net investment income (loss) also includes investment expenses as a deduction. The "Total PSERS Benefits and Expenses" section that follows includes an analysis of investment expenses.


## Management's Discussion and Analysis (continued)

## Total PSERS' Benefits and Expenses

The primary source of expense during FY 2010 was for the payment of benefits totaling $\$ 5.3$ billion. The breakdown is $\$ 5.0$ billion for Pension, $\$ 89.9$ million for PA and $\$ 193.3$ million for HOP benefits. The following chart illustrates the significant portion of expenses attributable to benefit payments. Total PSERS' benefit expense increased from $\$ 4.9$ billion in FY 2009 to $\$ 5.3$ billion in FY 2010. This increase is attributable to the number of new retirements for the year, higher lump sum payments, as well as an ongoing increase to the average monthly benefit. As a result of these factors pension benefits payable at June 30, 2010 increased to $\$ 540.0$ million compared to $\$ 345.7$ million at June 30, 2009. New retirements during FY 2010 outpaced the number from FY 2009 by approximately $5.0 \%$. Benefit expenses remained consistent from FY 2008 to FY 2009 due to higher monthly benefits from the increase in the overall number of retirees and beneficiaries being offset by lower lump sum payments due to the decrease in the number of new retirees in FY 2009.

Investment expenses increased by $\$ 44.7$ million from $\$ 477.6$ million in FY 2009 to $\$ 522.3$ million in FY 2010 chiefly due to a rise in management fees in the public market asset classes. The growth in these fees was primarily a result of certain investment managers earning higher performance incentives in FY 2010 than in FY
2009. Investment expenses increased by $\$ 78.5$ million from $\$ 399.1$ million in FY 2008 to $\$ 477.6$ million in FY 2009 mainly due to a rise in management fees in the private market asset classes. The higher fees were essentially the result of new investments made in alternative investment and real estate partnerships during FY 2009 and FY 2008. Investment expenses are reported as a reduction in net investment income (loss) on the Statements of Changes in Plan Net Assets.

Administrative expenses decreased by $\$ 20.8$ million from $\$ 51.3$ million during FY 2009 compared to $\$ 30.5$ million during FY 2010. This decrease was primarily caused by capitalization of previously expensed GASB 51 qualifying costs for computer systems development in the amount of $\$ 23.8$ million. This decrease was partially offset by an increase in costs due to increasing membership within the member funded HOP. Administrative expenses increased by $\$ 2$ million from $\$ 49.3$ million during FY 2008 compared to $\$ 51.3$ million during FY 2009. The increase was attributable to greater costs and increasing membership within the member funded HOP.


## Management's Discussion and Analysis (continued)

## Postemployment Healthcare

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

## Financial Highlights for Postemployment Healthcare

## Health Insurance Premium Assistance (PA)

- Total plan net assets increased by $\$ 11.7$ million in FY 2010 due to Employer contributions exceeding the payment of benefits and associated administrative expenses. The change from June 30, 2008 to June 30,2009 was an increase of $\$ 9.3$ million also due to contributions exceeding expenses.
- Total receivables decreased slightly from $\$ 38.3$ million at June 30, 2009 to $\$ 37.5$ million at June 30, 2010 due to improved employer collections.
- Investments increased from $\$ 67.3$ million at June 30, 2009 to $\$ 79.8$ million at June 30, 2010 due to net cash flows of contributions exceeding expenditures.


## Health Options Program (HOP)

- Total plan net assets increased by $\$ 15.8$ million in FY 2010 primarily due to positive claims experiences serving to increase short-term investments. The change from June 30, 2008 to June 30, 2009 was an increase of $\$ 17.0$ million also due to positive claims experience.
- Total receivables increased from $\$ 9.6$ million at June 30, 2009 to $\$ 13.4$ million at June 30, 2010. The increase is tied primarily to an increase in participation and expected amount due from the Centers for Medicare \& Medicaid Services (CMS) for the 2009 Plan Year.
- Investments increased from $\$ 127.0$ million at June 30, 2009 to $\$ 142.4$ million at June 30, 2010 due to positive claims experiences causing cash flow to exceed expenditures.
- Total liabilities increased 11.5\% from June 30, 2009 to June 30, 2010. The increase is due to increased participation in the program and due to payment timing for an invoice for prescription drug benefits.


## Contributions

- Total employer contributions for PA increased from $\$ 92.5$ million in FY 2009 to $\$ 102.7$ million in FY 2010 due to the increase in employer contribution rate from $0.76 \%$ in FY 2009 to $0.78 \%$ in FY 2010 as well as an increase in the active member payroll.
- Total member and CMS contributions for HOP increased from $\$ 210.4$ million in FY 2009 to $\$ 225.1$ million in FY 2010. This increase is representative of the $7.0 \%$ increase in plan participation.


## Investment Income

- Total investment income for PA decreased from \$1.9 million in FY 2009 to $\$ 0.9$ million in FY 2010. The decrease is due to declining short-term interest rates from FY 2009 to FY 2010.
- Investment income for HOP decreased from $\$ 1.5$ million in FY 2009 to $\$ 0.4$ million in FY 2010. This decrease is due to lower rates of return on short-term investments.


## Benefits and Expenses

- Overall expenses for PA increased from $\$ 85.0$ million in FY 2009 to $\$ 91.9$ million in FY 2010. This increase is primarily due to the increase in number of members receiving premium assistance benefits.
- Overall expenses for HOP increased from $\$ 194.9$ million in FY 2009 to $\$ 209.8$ million in FY 2010. The increase is due to increased participation in the program.


## Management's Discussion and Analysis (continued)

## Summary of Plan Net Assets

## Premium Assistance

(Dollar Amounts in Thousands)

## Assets:

Receivables
Investments
Total Assets

Liabilities
Payables and other liabilities
Total Liabilities

Plan Net Assets

| FY 2010 |  |  |  |  |  |  | FY 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Increase (Decrease) |  | FY 2009 |  | Increase (Decrease) |  |  |  |
| \$ 37,540 | \$ | (787) | \$ | 38,327 | \$ | 9,122 | \$ | 29,205 |
| 79,848 |  | 12,580 |  | 67,268 |  | (132) |  | 67,400 |
| 117,388 |  | 11,793 |  | 105,595 |  | 8,990 |  | 96,605 |


| 557 |  | 76 |  | 481 |  | (339) |  | 820 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 557 |  | 76 |  | 481 |  | (339) |  | 820 |
| \$ 116,831 | \$ | 11,717 | \$ | 105,114 | \$ | 9,329 | \$ | 95,785 |

Summary of Changes in Plan Net Assets

## Additions:

Contributions
Net investment income
Total Additions

## Deductions:

Benefit expenses
Administrative expenses
Total Deductions

Changes in Plan Net Assets

## Summary of Plan Net Assets

Assets:
Receivab

Receivables
Investments
Total Assets

Liabilities:
Payables and other liabilities
Total Liabilities

Plan Net Assets

|  | Y 2010 | Increase (Decrease) |  | FY 2009 |  | Increase (Decrease) |  | FY 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 102,703 | \$ | 10,210 | \$ | 92,493 | \$ | 11,176 | \$ | 81,317 |
|  | 869 |  | (992) |  | 1,861 |  | (894) |  | 2,755 |
|  | 103,572 |  | 9,218 |  | 94,354 |  | 10,282 |  | 84,072 |
|  | 89,911 |  | 6,705 |  | 83,206 |  | $(1,129)$ |  | 84,335 |
|  | 1,944 |  | 125 |  | 1,819 |  | 575 |  | 1,244 |
|  | 91,855 |  | 6,830 |  | 85,025 |  | (554) |  | 85,579 |
| \$ | 11,717 | \$ | 2,388 | \$ | 9,329 | \$ | 10,836 | \$ | $(1,507)$ |

## Health Options Program

(Dollar Amounts in Thousands)

| FY 2010 | (Decrease) |  | FY 2009 |  | (Decrease) |  | FY 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ 13,418 | \$ | 3,844 | \$ | 9,574 | \$ | 3,604 | \$ | 5,970 |
| 142,436 |  | 15,393 |  | 127,043 |  | 12,702 |  | 114,341 |
| 155,854 |  | 19,237 |  | 136,617 |  | 16,306 |  | 120,311 |

## Summary of Changes in Plan Net Assets

## Additions:

Contributions
Net investment income
Total Additions

## Deductions:

Benefit expenses
Administrative expenses
Total Deductions
Changes in Plan Net Assets

| FY 2010 | Increase (Decrease) |  | FY 2009 |  | Increase (Decrease) |  | FY 2008 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ 225,085 | \$ | 14,728 | \$ | 210,357 | \$ | 22,368 | \$ | 187,989 |
| 440 |  | $(1,088)$ |  | 1,528 |  | $(2,760)$ |  | 4,288 |
| 225,525 |  | 13,640 |  | 211,885 |  | 19,608 |  | 192,277 |
| 193,307 |  | 12,272 |  | 181,035 |  | 5,899 |  | 175,136 |
| 16,443 |  | 2,626 |  | 13,817 |  | 1,674 |  | 12,143 |
| 209,750 |  | 14,898 |  | 194,852 |  | 7,573 |  | 187,279 |
| \$ 15,775 | \$ | $(1,258)$ | \$ | 17,033 | \$ | 12,035 | \$ | 4,998 |

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Statements of Plan Net Assets
June 30, 2010 and 2009
(Dollar Amounts in Thousands)

|  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium Assistance |  | Health Options Program |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |
| Receivables: |  |  |  |  |  |  |  |  |
| Members | \$ | 240,569 | \$ | 6,597 | \$ | 40 | \$ | 247,206 |
| Employers |  | 173,258 |  | 30,184 |  | - |  | 203,442 |
| Investment income |  | 252,495 |  | 289 |  | 38 |  | 252,822 |
| Investment proceeds |  | 347,033 |  | - |  | - |  | 347,033 |
| Ctrs for Medicare \& Medicaid Svcs |  | - |  | - |  | 6,231 |  | 6,231 |
| Miscellaneous |  | 748 |  | 470 |  | 7,109 |  | 8,327 |
| Total Receivables |  | 1,014,103 |  | 37,540 |  | 13,418 |  | 1,065,061 |
| Investments, at fair value: |  |  |  |  |  |  |  |  |
| Short-term |  | 3,941,231 |  | 79,848 |  | 142,436 |  | 4,163,515 |
| Fixed income |  | 11,873,202 |  | - |  | - |  | 11,873,202 |
| Common and preferred stock |  | 15,316,957 |  | - |  | - |  | 15,316,957 |
| Real estate |  | 3,973,873 |  | - |  | - |  | 3,973,873 |
| Alternative investments |  | 11,176,721 |  | - |  | - |  | 11,176,721 |
| Total Investments |  | 46,281,984 |  | 79,848 |  | 142,436 |  | 46,504,268 |
| Securities lending collateral pool |  | 1,524,234 |  | - |  | - |  | 1,524,234 |
| Capital assets (net of accumulated depreciation of $\$ 16,641$ ) |  | 19,215 |  | - |  | - |  | 19,215 |
| Total Assets |  | 48,839,536 |  | 117,388 |  | 155,854 |  | 49,112,778 |
| Liabilities: |  |  |  |  |  |  |  |  |
| Accounts payable and accrued expenses |  | 77,048 |  | 361 |  | 1,287 |  | 78,696 |
| Benefits payable |  | 540,011 |  | 196 |  | 16,047 |  | 556,254 |
| Premium advances |  | - |  | - |  | 16,299 |  | 16,299 |
| Investment purchases and other liabilities |  | 1,099,768 |  | - |  | - |  | 1,099,768 |
| Obligations under securities lending |  | 1,524,234 |  | - |  | - |  | 1,524,234 |
| Total Liabilities |  | 3,241,061 |  | 557 |  | 33,633 |  | 3,275,251 |
| Net assets held in trust for pension and postemployment healthcare benefits | \$ | 45,598,475 | \$ | 116,831 | \$ | 122,221 | \$ | 45,837,527 |

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

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## Financial Section

## Statements of Plan Net Assets

June 30, 2010 and 2009
(Dollar Amounts in Thousands)

|  | 2009 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium <br> Assistance |  | Health Options Program |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |
| Receivables: |  |  |  |  |  |  |  |  |
| Members | \$ | 244,327 | \$ | 6,353 | \$ | 30 | \$ | 250,710 |
| Employers |  | 172,099 |  | 31,289 |  | - |  | 203,388 |
| Investment income |  | 362,058 |  | 201 |  | 57 |  | 362,316 |
| Investment proceeds |  | 522,405 |  | - |  | - |  | 522,405 |
| Ctrs for Medicare \& Medicaid Svcs |  | - |  | - |  | 3,339 |  | 3,339 |
| Miscellaneous |  | 6,211 |  | 484 |  | 6,148 |  | 12,843 |
| Total Receivables |  | 1,307,100 |  | 38,327 |  | 9,574 |  | 1,355,001 |
| Investments, at fair value: |  |  |  |  |  |  |  |  |
| Short-term |  | 5,204,418 |  | 67,268 |  | 127,043 |  | 5,398,729 |
| Fixed income |  | 11,333,549 |  | - |  | - |  | 11,333,549 |
| Common and preferred stock |  | 13,883,372 |  |  |  | - |  | 13,883,372 |
| Real estate |  | 3,699,353 |  | - |  | - |  | 3,699,353 |
| Alternative investments |  | 9,028,932 |  |  |  | - |  | 9,028,932 |
| Total Investments |  | 43,149,624 |  | 67,268 |  | 127,043 |  | 43,343,935 |
| Securities lending collateral pool |  | 1,591,720 |  | - |  | - |  | 1,591,720 |
| Capital assets (net of accumulated depreciation of $\$ 10,933$ ) |  | 530 |  | - |  | - |  | 530 |
| Total Assets |  | 46,048,974 |  | 105,595 |  | 136,617 |  | 46,291,186 |
| Liabilities: |  |  |  |  |  |  |  |  |
| Accounts payable and accrued expenses |  | 81,483 |  | 338 |  | 1,575 |  | 83,396 |
| Benefits payable |  | 345,669 |  | 143 |  | 13,182 |  | 358,994 |
| Premium advances |  | - |  | - |  | 15,414 |  | 15,414 |
| Investment purchases and other liabilities |  | 1,034,622 |  | - |  | - |  | 1,034,622 |
| Obligations under securities lending |  | 1,591,720 |  | - |  | - |  | 1,591,720 |
| Total Liabilities |  | 3,053,494 |  | 481 |  | 30,171 |  | 3,084,146 |
| Net assets held in trust for pension and postemployment healthcare benefits | \$ | 42,995,480 | \$ | 105,114 | \$ | 106,446 | \$ | 43,207,040 |

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

## Financial Section

## Statements of Changes in Plan Net Assets <br> Years Ended June 30, 2010 and 2009 <br> (Dollar Amounts in Thousands)

|  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium Assistance |  | Health Options Program |  |  |  |
| Additions: |  |  |  |  |  |  |  |  |
| Contributions: |  |  |  |  |  |  |  |  |
| Members | \$ | 952,047 | \$ | - | \$ | 191,184 | \$ | 1,143,231 |
| Employers |  | 535,331 |  | 102,703 |  | - |  | 638,034 |
| Ctrs for Medicare \& Medicaid Svcs |  | - |  | - |  | 33,901 |  | 33,901 |
| Total contributions |  | 1,487,378 |  | 102,703 |  | 225,085 |  | 1,815,166 |
| Investment income: |  |  |  |  |  |  |  |  |
| From investing activities: |  |  |  |  |  |  |  |  |
| Net appreciation (depreciation) in fair value of investments |  | 5,142,243 |  | $(1,039)$ |  | - |  | 5,141,204 |
| Short-term |  | 19,015 |  | 1,955 |  | 440 |  | 21,410 |
| Fixed income |  | 440,358 |  | - |  | - |  | 440,358 |
| Common and preferred stock |  | 784,431 |  | - |  | - |  | 784,431 |
| Real estate |  | 62,273 |  | - |  | - |  | 62,273 |
| Alternative investments |  | 179,116 |  | - |  | - |  | 179,116 |
| Total investment activity income |  | 6,627,436 |  | 916 |  | 440 |  | 6,628,792 |
| Investment expenses |  | $(522,268)$ |  | (47) |  | - |  | $(522,315)$ |
| Net income from investing activities |  | 6,105,168 |  | 869 |  | 440 |  | 6,106,477 |
| From securities lending activities: |  |  |  |  |  |  |  |  |
| Securities lending income |  | 9,574 |  | - |  | - |  | 9,574 |
| Securities lending expense |  | $(1,063)$ |  | - |  | - |  | $(1,063)$ |
| Net income from securities lending activities |  | 8,511 |  | - |  | - |  | 8,511 |
| Total net investment income |  | 6,113,679 |  | 869 |  | 440 |  | 6,114,988 |
| Total Additions |  | 7,601,057 |  | 103,572 |  | 225,525 |  | 7,930,154 |
| Deductions: |  |  |  |  |  |  |  |  |
| Benefits |  | 4,962,222 |  | 89,911 |  | 193,307 |  | 5,245,440 |
| Refunds of contributions |  | 16,720 |  | - |  | - |  | 16,720 |
| Net transfer to State Employees' |  |  |  |  |  |  |  |  |
| Retirement System |  | 7,015 |  | - |  | - |  | 7,015 |
| Administrative expenses |  | 12,105 |  | 1,944 |  | 16,443 |  | 30,492 |
| Total Deductions |  | 4,998,062 |  | 91,855 |  | 209,750 |  | 5,299,667 |
| Net increase |  | 2,602,995 |  | 11,717 |  | 15,775 |  | 2,630,487 |
| Net assets held in trust for pension and postemployment healthcare benefits: |  |  |  |  |  |  |  |  |
| Balance, beginning of year |  | 42,995,480 |  | 105,114 |  | 106,446 |  | 43,207,040 |
| Balance, end of year | \$ | 45,598,475 | \$ | 116,831 | \$ | 122,221 | \$ | 45,837,527 |

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

## Financial Section

## Statements of Changes in Plan Net Assets Years Ended June 30, 2010 and 2009 <br> (Dollar Amounts in Thousands)

2009

|  | 2009 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium Assistance |  | Health Options Program |  |  |  |
| Additions: |  |  |  |  |  |  |  |  |
| Contributions: |  |  |  |  |  |  |  |  |
| Members | \$ | 911,118 | \$ | - | \$ | 178,801 | \$ | 1,089,919 |
| Employers |  | 515,889 |  | 92,493 |  |  |  | 608,382 |
| Ctrs for Medicare \& Medicaid Svcs |  |  |  | - |  | 31,556 |  | 31,556 |
| Total contributions |  | 1,427,007 |  | 92,493 |  | 210,357 |  | 1,729,857 |
| Investment income: |  |  |  |  |  |  |  |  |
| From investing activities: |  |  |  |  |  |  |  |  |
| Net depreciation in fair value |  |  |  |  |  |  |  |  |
| Short-term |  | 55,161 |  | 2,269 |  | 1,528 |  | 58,958 |
| Fixed income |  | 587,007 |  | - |  | - |  | 587,007 |
| Common and preferred stock |  | 500,001 |  | - |  | - |  | 500,001 |
| Real estate |  | 92,515 |  | - |  | - |  | 92,515 |
| Alternative investments |  | 75,776 |  | - |  | - |  | 75,776 |
| Total investment activity income (loss) |  | $(15,697,361)$ |  | 1,906 |  | 1,528 |  | $(15,693,927)$ |
| Investment expenses |  | $(477,520)$ |  | (45) |  | - |  | $(477,565)$ |
| Net income (loss) from investing activities |  | $(16,174,881)$ |  | 1,861 |  | 1,528 |  | $(16,171,492)$ |
| From securities lending activities: |  |  |  |  |  |  |  |  |
| Securities lending income |  | 55,574 |  | - |  | - |  | 55,574 |
| Securities lending expense |  | $(82,394)$ |  | - |  | - |  | $(82,394)$ |
| Net loss from securities lending activities |  | $(26,820)$ |  | - |  | - |  | $(26,820)$ |
| Total net investment income (loss) |  | $(16,201,701)$ |  | 1,861 |  | 1,528 |  | $(16,198,312)$ |
| Total Additions |  | $(14,774,694)$ |  | 94,354 |  | 211,885 |  | (14,468,455) |
| Deductions: |  |  |  |  |  |  |  |  |
| Benefits |  | 4,639,297 |  | 83,206 |  | 181,035 |  | 4,903,538 |
| Refunds of contributions |  | 20,369 |  | - |  | - |  | 20,369 |
| Net transfer to State Employees' |  |  |  |  |  |  |  |  |
| Retirement System |  | 7,947 |  | - |  | - |  | 7,947 |
| Administrative expenses |  | 35,639 |  | 1,819 |  | 13,817 |  | 51,275 |
| Total Deductions |  | 4,703,252 |  | 85,025 |  | 194,852 |  | 4,983,129 |
| Net increase (decrease) |  | (19,477,946) |  | 9,329 |  | 17,033 |  | (19,451,584) |
| Net assets held in trust for pension and postemployment healthcare benefits: |  |  |  |  |  |  |  |  |
| Balance, beginning of year |  | 62,473,426 |  | 95,785 |  | 89,413 |  | 62,658,624 |
| Balance, end of year | \$ | 42,995,480 | \$ | 105,114 | \$ | 106,446 | \$ | 43,207,040 |

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

## Notes to Financial Statements <br> Years Ended June 30, 2010 and 2009

## 1. Organization and Description of the System

## (A) Organization

The System was established on July 18, 1917, under the provisions of Pamphlet Law 1043, No. 343 as a governmental cost-sharing multiple-employer plan that provides retirement allowances and other benefits to its members. Membership in the System is mandatory for nearly all qualifying public school employees in the Commonwealth of Pennsylvania (Commonwealth). At June 30, 2010, there were 747 participating employers, generally school districts. Membership as of June 30, 2009, the most recent year for which actual amounts are available, is presented in the table at the bottom of this page.

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

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

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

## (B) Pension Plan

## i. Pension Benefits

Under the provisions of the 1975 revision of the Code by the Pennsylvania General Assembly, members are eligible for monthly retirement benefits upon reaching (a) age 62 with at least 1 year of credited service: (b) age 60 with 30 or more years of credited service; or (c) 35 or more years of service regardless of age.

Benefits are generally equal to $2 \%$ or $2.5 \%$, depending upon membership class, of the member's final average salary (as defined in the Code) multiplied by the number of years of credited service. In most cases after completion of five years of service, a member's right to the defined benefit is vested and early retirement benefits may be elected. Under certain features of the System, active members may purchase credit for various types of prior school and nonschool service on a lump-sum, installment purchase basis, or through an actuarially calculated benefit reduction.

Currently employed members:
Vested
185,000
Nonvested
94,000

## Total currently employed members

279,000
Retirees and beneficiaries currently receiving benefits
178,000
Inactive members and vestees entitled to but not receiving benefits
104,000
Total retirees and other members
Total number of members

## Notes to Financial Statements (continued)

| Membership Class T-C | Active members hired before July 22, 1983 | $5.25 \%$ |
| :--- | :--- | :--- |
| Membership Class T-C | Active members hired on or after July 22, 1983 | $\mathbf{6 . 2 5 \%}$ |
| Membership Class T-D | Active members hired before July 22, 1983 | $6.50 \%$ |
| Membership Class T-D | Active members hired on or after July 22, 1983 | $7.50 \%$ |

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

Death benefits are payable upon the death of an active member who has reached age 62 or who has at least five years of credited service. Such benefits are actuarially equivalent to the benefit that would have been effective if the member had retired on the day before death.

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

All members are fully vested in their individual balance in the Members' Savings Account which is described in Note 3. Upon termination of a member's employment in the public school sector, the member's accumulated contributions plus interest are refundable from the Members' Savings Account.

## ii. Contributions

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

Contribution rates for active members are set by law (redefined with the provisions of Act 9 of 2001) and are dependent upon members' class. The contribution rates based on qualified member compensation for virtually all members are presented in the table at the top of this page.

Active members newly hired after July 1, 2001, the effective date of Act 9 of 2001, are automatically Class T-D. The contribution rates for all members in Membership Class T-D were effective January 1, 2002.

The total contribution rate for the employers and the Commonwealth was $4.78 \%$ and $4.76 \%$ of qualified compensation for the years ended June 30, 2010 and 2009, respectively. According to requirements established in Act 29 of 1994, the Commonwealth reimburses school entity employers a portion of the employer contributions paid to the System. The Commonwealth remits employer contributions for employers other than school entities directly to the System. All contributions from employers and the Commonwealth are shown as employer contributions on the Statements of Changes in Plan Net Assets.

A portion of each employer and Commonwealth contribution to the System is set aside for the funding of the Health Insurance Premium Assistance Program (PA). The PA contribution rate is set at a level necessary to establish reserves sufficient to provide PA payments for all participating eligible members for the subsequent fiscal year. The portion of the total contribution rate for employers and the Commonwealth used to fund PA was $0.78 \%$ and $0.76 \%$ for the years ended June 30, 2010 and 2009, respectively.

## Notes to Financial Statements (continued)

## iii. Funding Status and Annual Required Contributions (ARC)

As of June 30, 2009, the most recent actuarial valuation, the plan was $79.2 \%$ funded. The actuarial accrued liability for benefits was $\$ 75.6$ billion, and the actuarial value of assets was $\$ 59.9$ billion, resulting in an unfunded accrued liability of $\$ 15.7$ billion. The covered payroll of active members was $\$ 12.5$ billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was $125.7 \%$.

For fiscal year ended June 30, 2010, the ARC was $\$ 1.93$ billion. The actual employer contributions, net of purchase of service contributions, for fiscal year ended June 30, 2010 was $\$ 527.2$ million resulting in a $27 \%$ contributed rate.

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

## iv. Actuarial Assumptions and Methods

## (a) Funding Method

For purposes of determining pension contributions under the PSERS Code, the entry-age normal actuarial cost method of valuation is used in determining benefit liabilities and normal cost. The outstanding balance of the unfunded accrued liability as of June 30, 2001 and the decrease in the unfunded accrued liability due to the actuarial asset method change provided by Act 38 continue to be amortized over a 10 year period, with level dollar funding, beginning July 1,2002 . The increases in the unfunded accrued liability due to the July 1, 2002 and July 1, 2003 cost-of-living adjustments provided by Act 38 were both recognized at June 30, 2002 and continue to be amortized over a 10 year period, with level dollar funding starting on July 1, 2003 and July 1, 2004, respectively. All other changes in the unfunded accrued liability at June 30, 2001 and June 30, 2002, including the Act 9 benefit changes, are amortized over a 30 year period, with level dollar funding starting on July 1, 2002, and July 1, 2003, respectively. Post June 30, 2002 gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 30 year period with level dollar funding. In addition Act 40 also provided a $4.00 \%$ floor on the employer pension contribution rate.

For purposes of determining the annual required contributions under Governmental Accounting Standards Board Statement No. 25, the same funding method is used as for pension funding, except that (i) the $4 \%$ pension floor is not taken into account and (ii) in fiscal years in which the amortization requirements of the PSERS Code result in an equivalent single amortization period that is longer than the maximum allowable 30 year period specified by GASB 25. The GASB 25 amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period equal to the maximum allowable period specified by GASB 25.

## (b) Asset Valuation Method

For actuarial purposes, assets are valued using a fiveyear moving market average value that will recognize the $8.00 \%$ actuarial expected investment return immediately and spread the difference between actual and expected investment return (beginning with fiscal year ending June 30,2001 ) over a period of five years (as required by Act 2002-38). Previously, PSERS immediately recognized interest and dividends when earned, and recognized realized and unrealized gains and losses on the market value of assets over a three-year period.

## (c) Actuarial Assumptions

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30, 2009, the date of the most recent actuarial valuation include:

- Investment return $-8.00 \%$, includes inflation at $3.25 \%$
- Salary increases $-6.00 \%$, which reflects an allowance for inflation of $3.25 \%$, real wage growth of $1 \%$, and merit or seniority increases of $1.75 \%$
- Amortization method - level dollar funding
- Benefit payments - no postretirement benefit increases assumed in the future
- Multiple Decrement Tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary

The System's actuarial values are calculated separately for retirees and beneficiaries and for active and inactive members. The actuarial present value of benefits to be paid to retirees and beneficiaries currently receiving benefits and deferred survivor beneficiaries, whose benefits have been determined, is calculated using the assumptions noted above. The Annuity Reserve Account with interest credited thereon at an annual rate of $5.50 \%$ is compared to

## Notes to Financial Statements (continued)

the actuarial accrued liability for the remaining lifetimes of the retirees and beneficiaries and any deficiency is then funded by a transfer from the State Accumulation Account. Consequently, all such determined benefits are fully funded.

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

## (C) Postemployment Healthcare Plans

## i. Health Insurance Premium Assistance Program

## (a) Premium Assistance Benefits

The System provides a Health Insurance Premium Assistance Program (PA) for all eligible annuitants who qualify or elect to participate. Under this program, employer contribution rates for PA are established to provide reserves in the Health Insurance Account that are sufficient for the payment of PA benefits for each succeeding year. Effective January 1, 2002, under the provisions of Act 9 of 2001, participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of $\$ 100$ per month or their out-of-pocket monthly health insurance premium. To receive premium assistance, eligible annuitants must obtain their health insurance through either their school employer or the PSERS' Health Options Program.

## (b) Funding Status and Annual Required Contributions

As of June 30, 2009, the most recent actuarial valuation, the plan was $9.1 \%$ funded. The actuarial accrued liability for benefits was $\$ 1.2$ billion, and the actuarial value of assets was $\$ 105.1$ million, resulting in an unfunded accrued liability of $\$ 1.1$ billion. The covered payroll of active members was $\$ 12.5$ billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was $8.4 \%$.

For fiscal year ended June 30, 2010, the ARC was $\$ 117.2$ million. The actual employer contributions for fiscal year
ended June 30, 2010 was $\$ 102.7$ million resulting in an $88 \%$ contributed rate.

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

## (c) Actuarial Assumptions and Methods

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

## ii. Health Options Program

The Health Options Program (HOP) is a PSERS-sponsored voluntary health insurance program for the sole benefit of annuitants of PSERS, spouses of annuitants, survivor annuitants and their dependents who participate in HOP. The HOP is funded exclusively by the premiums paid by its participants for the benefit coverage they elect. HOP offers several health plans. Participants may select among a selffunded Medicare supplement plan, two Medicare Rx plans, and multiple Medicare Advantage plans for those eligible for Medicare. Participants not eligible for Medicare have a choice of a self-funded high deductible indemnity plan and multiple managed care plans. Medicare Advantage and managed care plans are available to retirees residing in the plan's service area. The Medicare Advantage and managed care plans are provided by private insurance companies or managed care organizations and benefits are fully insured.

## Notes to Financial Statements (continued)

The Medicare supplement and high deductible plans are self-funded and claims are adjudicated by a third party administrator. The Medicare Rx Options and the prescription drug benefit of the high deductible plan for those not eligible for Medicare are also self-funded and HOP uses a pharmacy benefits manager to administer the benefits. Effective January 1, 2006, PSERS entered into an Employer/Union Entity contract with the Centers for Medicare and Medicaid Services (CMS) to operate a voluntary Medicare Prescription Drug Plan (PDP). Monthly contributions are received from CMS covering the 43,000 participants in the PDP. An independent actuarial consulting firm sets the rates for the self-funded benefits. The HOP maintains reserves for claims that are incurred but not reported (IBNR) and for claim fluctuation for the self-funded benefit plans. At June 30, 2010 and 2009 PSERS recorded $\$ 10,107,000$ and $\$ 10,423,000$, respectively, in IBNR. The IBNR is included in benefits payable. The PSERS pension fund assets are not available to fund or satisfy obligations of the HOP.

## 2. Summary of Significant Accounting Policies

## (A) Basis of Accounting

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

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

## (B) Investments

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

Directly-owned real estate investments are primarily valued based on appraisals performed by independent appraisers and, for properties not appraised, the present value of the projected future net income stream is used. Real estate owned investments are reported net of related debt borrowed against the market value of the property. As of June 30, 2010 and 2009, \$132,000,000 in line of credit advances were netted against the related property valuation. The line of credit balance is due on March 9, 2012. The line is payable at an interest rate equivalent to the lender's commercial paper rate plus 100 basis points and is collateralized by certain fixed income investments of the System.

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

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

## Notes to Financial Statements (continued)

Investment expenses consist of investment manager fees and those administrative expenses directly related to the System's investment operations. Unsettled investment sales are reported as investment proceeds receivable and unsettled investment purchases are included in investment purchases and other liabilities.

## (C) Capital Assets

Capital assets consist primarily of data processing equipment and software and internally developed computer software qualifying as intangible assets according to GASB 51. Capital assets other than intangible assets are depreciated using the straight-line method over an estimated useful life of seven years. The System amortizes intangible assets using the straight-line method over an estimated useful life of twenty years.

## (D) Benefits Payable

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

## (E) Compensated Absences

The System uses the accrual basis of accounting for measuring vacation leave, sick leave, and other compensated absences liabilities. Employees of the System are paid for accumulated vacation leave upon termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between $30 \%$ and $100 \%$ of sick days available at retirement, up to 163 maximum days paid. As of June 30, 2010 and 2009, $\$ 3,324,000$ and $\$ 3,222,000$, respectively, was accrued for unused vacation and sick leave for the System's employees and included in "Accounts payable and accrued expenses" on the Statements of Plan Net Assets.

## (F) Participant Premium Advances

Premium advances in the fiscal years ended June 30, 2010 and 2009 are for HOP premiums related to health care coverage to be provided in calendar year 2010 and 2009, respectively.

## (G) Federal Income Taxes

The Internal Revenue Service (IRS) issued a determination letter dated March 3, 1978 which stated that the plan and its underlying trust qualify under the provisions of

Section 501(a) of the Internal Revenue Code (IRC) and therefore are exempt from federal income taxes. The plan has been amended since receiving that determination letter. Additionally, the IRS issued a 1982 ruling which concluded that the fund and the board are integral parts of the Commonwealth, and are therefore not subject to federal income tax. In the opinion of management, the System has operated within the terms of the plan and remains qualified under the applicable provisions of the IRC.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) provided for periodic increases in the annual compensation limits for qualified retirement plans. The annual compensation limit for 2009 and 2010 was $\$ 245,000$. EGTRRA also provided for periodic increases in the annual benefit limits for qualified defined benefit plans. The maximum annual defined benefit limit at age 62 for 2009 and 2010 was $\$ 195,000$.

The Pension Protection Act of 2006 allows distributions for a deceased member to be rolled over by a nonspouse beneficiary. The direct trustee-to-trustee transfer is an eligible rollover distribution and is made to an IRA that is treated as an inherited account.

## (H) Risk Management

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

## (I) Reclassifications

Certain 2009 amounts have been reclassified in conformity with the 2010 presentation.

## (J) Members Receivables

Members receivables include an amount for members' obligations to the System for the purchase of service credit of \$157,747,000 and \$164,892,000 at June 30, 2010 and

## Notes to Financial Statements (continued)

2009 , respectively. Members have a variety of options to remit purchase of service payments:

- Remit a lump sum payment.
- Request an installment plan from one to seven years where the member's employer establishes a payroll deduction process. The member's employer then forwards quarterly payments of the withheld amounts to PSERS.
- Accept an actuarial reduction debt through which the amount of the purchase plus accumulated interest will reduce the member's retirement or death benefit.
- Rollover funds from an eligible distribution.

Because members have control over the timing of their remittances to the System, many purchase of service receivables extend beyond one year. An estimated $\$ 110,162,000$ of the $\$ 240,569,000$ members pension receivables at June 30, 2010 are expected to be collected by the System subsequent to June 30, 2011. At June 30, 2009, an estimated $\$ 144,278,000$ of the $\$ 244,327,000$ members pension receivables were expected to be collected by the System subsequent to June 30, 2010.

## (K) Adoption of New Accounting Standards

In June 2007 the Governmental Accounting Standards Board issued Statement No. 51, Accounting and Financial Reporting for Intangible Assets. GASB 51 states that intangible assets are subject to all the accounting and financial reporting requirements applicable to other types of capital assets. GASB 51 also offers specialized guidance on certain unique aspects of accounting and financial reporting for intangibles. The System adopted this Statement during the year ended June 30, 2010.

During the year ended June 30, 2010 the System adopted GASB Statement No. 53, Accounting and Financial Reportingfor Derivative Instruments. GASB 53 was issued to address the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments.

## 3. Description of Accounts

The Code requires the System to maintain the following accounts which represent reserves held for future and current benefit payments as follows:

|  | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2010 |  | 2009 |
| Pension: |  |  |  |  |
| State Accumulation Account | \$ | (4,732,711) | \$ | $(5,608,486)$ |
| Members' Savings Account |  | 11,850,031 |  | 11,087,345 |
| Annuity Reserve Account |  | 38,481,155 |  | 37,516,621 |
|  | \$ | 45,598,475 |  | 42,995,480 |
| Postemployment healthcare: |  |  |  |  |
| Health Insurance Account | \$ | 116,831 | \$ | 105,114 |
| Health Insurance Program Account |  | 122,221 |  | 106,446 |
|  | \$ | 239,052 | \$ | 211,560 |

## (A) State Accumulation Account

The State Accumulation Account is credited with the contributions of the Commonwealth and the employers. Additionally, interest earnings of the System (after crediting the Members' Savings Account with 4\% interest and the reserve for retirement with $5.50 \%$ statutory interest) are credited to this account. Each year, the necessary amounts, as determined by the actuary for the payment of retirement, disabilities, and death benefits, are transferred from the State Accumulation Account to the Annuity Reserve Account increasing the reserve credit to the $8.00 \%$ valuation assumption rate determined by the actuary. All administrative expenses necessary for the operation of the System, except for premium assistance and HOP expenses, are paid from the State Accumulation Account.

## (B) Members' Savings Account

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

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

## (C) Annuity Reserve Account

The Annuity Reserve Account represents the amounts transferred from the Members' Savings and State Accumulation Accounts, plus additional contributions made by the Commonwealth and employers for the

## Notes to Financial Statements (continued)

payment of supplemental annuities and cost-of-living increases. All death, disability, and retirement benefits are paid from this account. Annual interest of $5.50 \%$ is credited to the Annuity Reserve Account.

## (D) Health Insurance Account

The Health Insurance Account is credited with contributions of the Commonwealth and the employers for the PA. Effective January 1, 2002, under the provisions of Act 9 of 2001, participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of $\$ 100$ per month or their out-of-pocket monthly health insurance premium. The Health Insurance Account pays all administrative expenses necessary to operate the health insurance premium assistance program.

## (E) Health Insurance Program Account

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

## 4. Investments

## (A) Summary of Investments

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

The Board invests the funds of the System using the Prudent Investor Standard, as articulated in the Code, which means "the exercise of that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the fund, considering the probable income to be derived therefrom as well as the
probable safety of their capital." The Board has adopted its investment policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System.


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## Notes to Financial Statements (continued)

A summary of the fair value of investments at June 30, 2010 and 2009 follows:

|  | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  | 2009 |  |
| Pension investments: |  |  |  |  |
| Short-term: |  |  |  |  |
| PSERS Short-Term Investment Fund | \$ | 3,171,190 | \$ | 4,253,396 |
| Other domestic short-term |  | 544,374 |  | 706,544 |
| International short-term |  | 225,667 |  | 244,478 |
|  |  | 3,941,231 |  | 5,204,418 |
| Fixed income: |  |  |  |  |
| Domestic mortgage-backed securities |  | 3,432,285 |  | 3,740,617 |
| U.S. government and agency obligations |  | 1,619,970 |  | 1,416,505 |
| Domestic corporate and taxable municipal bonds |  | 2,073,324 |  | 2,271,173 |
| Miscellaneous domestic fixed income |  | 343,884 |  | 456,144 |
| Collective trust funds |  | 3,227,846 |  | 2,529,667 |
| International fixed income |  | 1,175,893 |  | 919,443 |
|  |  | 11,873,202 |  | 11,333,549 |
| Common and preferred stock: |  |  |  |  |
| Domestic common and preferred stock |  | 5,247,040 |  | 3,073,854 |
| Collective trust funds |  | 4,486,879 |  | 3,929,724 |
| International common and preferred stock |  | 5,583,038 |  | 6,879,794 |
|  |  | 15,316,957 |  | 13,883,372 |
| Real estate: |  |  |  |  |
| Equity real estate |  | 3,780,406 |  | 3,493,360 |
| Directly-owned real estate |  | 193,467 |  | 205,993 |
|  |  | 3,973,873 |  | 3,699,353 |


| Alternative investments: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Private equity | 6,130,796 |  | 5,047,201 |  |
| Private debt |  | 4,277,438 |  | 3,283,060 |
| Venture capital |  | 768,487 |  | 698,671 |
|  | 11,176,721 |  | 9,028,932 |  |
| Pension investments at fair value | \$ | 46,281,984 | \$ | 43,149,624 |
| Postemployment healthcare investments: Premium Assistance: |  |  |  |  |
|  |  |  |  |  |
| PSERS Short-Term Investment Fund | \$ | 24,908 | \$ | 27,063 |
| Other domestic short-term |  | 54,940 |  | 40,205 |
|  |  | 79,848 |  | 67,268 |
| Health Options Program: |  |  |  |  |
| PSERS Short-Term Investment Fund |  | 85,141 |  | 84,683 |
| Other domestic short-term |  | 57,295 |  | 42,360 |
|  |  | 142,436 |  | 127,043 |
| Postemployment healthcare investments at fair value | \$ | 222,284 | \$ | 194,311 |

## Notes to Financial Statements (continued)

## (B) Deposit and Investment Risk Disclosures

## i. Deposits

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

The System, through its third party administrator, maintains certain bank deposits for the operation of its voluntary HOP. These deposits are not required to be collateralized by statute or policy. These deposits totaled $\$ 57,295,000$ and $\$ 42,360,000$ at June 30, 2010 and 2009, respectively, and are under the custody of M\&T Bank which has an Arating by Standard and Poor's (S\&P) and an A3 rating by Moody's Investor Services (Moody's).

## ii. Investment Risks

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

## (a) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. As of June 30, 2010 and 2009 the System had no single issuer that exceeded 5\% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments were excluded.

## (b) Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the

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

## (c) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating organizations (NRSRO) such as Fitch Investor Services (Fitch), Moody's, and S\&P. Annually, the Board establishes an asset allocation plan. This plan manages the overall credit risk of the fixed income asset class through a clearly defined long-term asset allocation policy. This policy establishes a long-term target allocation of the fixed income asset class at $27.9 \%$ of the investment portfolio. The fixed income target allocation consists of:

- An allocation of $5.0 \%$ of the portfolio has been made to the domestic core plus segment of the fixed income asset class benchmarked to the Barclays Capital U.S. Universal Index. The domestic core plus allocation is composed of primarily investment grade, relatively liquid, public domestic bonds with an overall weighted-average NRSRO credit rating of A or better.
- An allocation of $8.0 \%$ of the portfolio has been made to the high yield and opportunistic segment of the fixed income asset class benchmarked to the Barclays Capital U.S. High Yield Index. The high yield and opportunistic allocation is composed of less liquid public non-investment grade fixed income securities with an overall weighted-average NRSRO credit rating of B- or better.
- An allocation of $5 \%$ of the portfolio has been made to the Treasury Inflation-Protected Securities (TIPS) segment of the fixed income asset class benchmarked to the Barclays Capital U.S. TIPS Index and composed of primarily government issued TIPS with an overall weighted-average NRSRO credit rating of AA or better.


## Notes to Financial Statements (continued)

The portfolio manager is permitted to leverage the portfolio using TIPS total return swaps up to 3:1.

- An allocation of $2.0 \%$ of the portfolio has been made to the global core plus fixed income asset class benchmarked to the Barclays Capital Multiverse Index composed of primarily investment grade, relatively liquid U.S. and non-U.S. public bonds with an overall weighted-average NRSRO credit rating of A or better.
- An allocation of $2.9 \%$ of the portfolio has been made to the emerging markets fixed income asset class benchmarked to the JP Morgan GBI-EM Global Diversified (USD Unhedged) Index composed of primarily investment grade, relatively liquid non-U.S. public bonds with an overall weighted-average NRSRO credit rating of BB- or better.
- An allocation of $5 \%$ of the portfolio has been made to cash benchmarked to the Merrill Lynch U.S. Treasury Bill 0-3 Months Index composed of primarily investment grade, relatively liquid U.S. and non-U.S. public bonds with an overall weighted-average NRSRO credit rating of $\mathrm{A}+$ or better.

The following table discloses aggregate market value by credit quality rating category. Many securities have ratings from more than one NRSRO and sometimes those ratings differ from one NRSRO to another. The data listed below uses the rating (expressed as S\&P equivalent); available from Fitch, Moody's and/or S\&P that indicates the lowest credit quality at June 30, 2010 and 2009.

| Quality Rating | (Dollar Amounts in Thousands) |  |
| :---: | :---: | :---: |
|  | 2010 | 2009 |
|  | Fair Value | Fair Value |
| AAA | \$ 3,347,321 | \$ 4,434,124 |
| AA | 3,891,933 | 5,037,592 |
| A | 844,840 | 888,204 |
| BBB | 860,078 | 812,151 |
| BB and below | 1,153,604 | 895,804 |
| NR* | 3,981,288 | 3,068,343 |
| Total Exposed to Credit Risk | 14,079,064 | 15,136,218 |
| US Government Guaranteed** | 1,957,653 | 1,596,060 |
| Total Fixed Income and Short-Term Investments | \$ 16,036,717 | \$ 16,732,278 |

[^0]For derivatives exposed to credit risk, the table below presents aggregate market value by the least favorable credit rating provided by NRSROs at June 30, 2010 and 2009.

| Quality Rating | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  | 2009 |  |
|  | Fair Value |  | Fair Value |  |
| AA | \$ | 2,176 | \$ | $(12,577)$ |
| A |  | $(197,715)$ |  | 55,355 |
| Total Swaps-Total Return | \$ | $(195,539)$ | \$ | 42,778 |

## (d) Interest Rate Risk

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

Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The higher the duration, the greater the changes in fair value when interest rates change. For example, a duration of 4.0 would mean that, given a 100 -basis point change up/down in rates, a bond's price would move down/up approximately 4.0 percent. PSERS measures interest rate risk using optionadjusted duration, which recognizes the fact that yield changes may change the expected cash flows due to embedded options.


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## Notes to Financial Statements (continued)

At June 30, 2010 and 2009, the System's fixed income portfolio had the following option-adjusted durations by fixed income sector:

| Investment Type | (Dollar Amounts in Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  |  | 2009 |  |  |
|  | Option- <br> Adjusted <br> Duration | Fair Value |  | Option- <br> Adjusted <br> Duration |  | ir Value |
| Domestic mortgage-backed securities | 1.2 | \$ | 3,432,285 | 1.7 | \$ | 3,740,617 |
| U.S. government and agency obligations | 5.1 |  | 1,619,970 | 3.6 |  | 1,416,505 |
| Domestic corporate and taxable municipal bonds | 3.3 |  | 2,073,324 | 3.0 |  | 2,271,173 |
| Miscellaneous domestic fixed income | 0.4 |  | 343,884 | 0.4 |  | 456,144 |
| Fixed income collective trust funds | 4.6 |  | 3,227,846 | 4.3 |  | 2,529,667 |
| International fixed income | 4.0 |  | 1,175,893 | 3.8 |  | 919,443 |
| PSERS Short-Term Investment Fund | 0.1 |  | 3,281,239 | 0.1 |  | 4,365,142 |
| Total fixed income \& Short-Term Investment Funds | 2.6* |  | 15,154,441 | 2.1* |  | 15,698,691 |
| Total adjustments for futures contracts | 0.1** |  | - | 0.1** |  | - |
| Total fixed income \& Short-Term Investment Funds | 2.7** | \$ | 15,154,441 | $2.2 * *$ | \$ | 15,698,691 |

[^1]

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## Notes to Financial Statements (continued)

## (e) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. As part of the System's program to manage risk and enhance returns, the System invests in non-U.S. markets. Investment managers in non-U.S. equity and global
fixed income may hedge their non-U.S. foreign currency exposure back to U.S. dollars. At June 30, 2010 and 2009 PSERS had the following non-U.S. currency exposure:

| Currency | 2010(Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Equity |  | Fixed Income |  | Alternative Investments \& Real Estate |  | Short-Term* |  | Total <br> Fair Value |  |
| Euro | \$ | 718,560 | \$ | 225,174 | \$ | 1,569,466 | \$ | $(1,062,424)$ | \$ | 1,450,776 |
| Japanese yen |  | 1,002,241 |  | 44,154 |  | - |  | 265,647 |  | 1,312,042 |
| British pound sterling |  | 925,069 |  | 27,859 |  | 6,361 |  | $(255,052)$ |  | 704,237 |
| Canadian dollar |  | 449,599 |  | 28,858 |  | 1,635 |  | $(15,744)$ |  | 464,348 |
| Brazil real |  | 106,741 |  | 48,410 |  | - |  | 203,926 |  | 359,077 |
| Hong Kong dollar |  | 331,705 |  | - |  | - |  | 2,235 |  | 333,940 |
| Australian dollar |  | 319,224 |  | 3,230 |  | - |  | $(28,455)$ |  | 293,999 |
| South African rand |  | 124,363 |  | 20,119 |  | - |  | 143,848 |  | 288,330 |
| Indonesian rupian |  | 51,497 |  | 26,481 |  | - |  | 171,451 |  | 249,429 |
| Turkish lira |  | 40,351 |  | 21,626 |  | - |  | 143,646 |  | 205,623 |
| Indian rupee |  | 113,637 |  | - |  | - |  | 76,055 |  | 189,692 |
| Mexican new peso |  | 34,856 |  | 45,167 |  | - |  | 79,731 |  | 159,754 |
| Other non-US currencies |  | 964,616 |  | 121,486 |  | - |  | $(649,128)$ |  | 436,974 |
| Total | \$ | 5,182,459 | \$ | 612,564 | \$ | 1,577,462 | \$ | $(924,264)$ | \$ | 6,448,221 |


| Currency | 2009(Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Equity |  | Fixed Income |  | Alternative Investments \& Real Estate |  | Short-Term* |  | Total <br> Fair Value |  |
| Euro | \$ | 1,047,301 | \$ | 269,565 | \$ | 1,247,221 | \$ | 92,495 | \$ | 2,656,582 |
| Japanese yen |  | 1,254,289 |  | 55,862 |  | - |  | 182,435 |  | 1,492,586 |
| British pound sterling |  | 1,078,529 |  | 31,998 |  | 6,776 |  | 86,898 |  | 1,204,201 |
| Hong Kong dollar |  | 566,206 |  | - |  | - |  | 2,429 |  | 568,635 |
| Australian dollar |  | 347,456 |  | 1,879 |  | - |  | 44,524 |  | 393,859 |
| Swiss franc |  | 378,039 |  | - |  | - |  | $(3,390)$ |  | 374,649 |
| Canadian dollar |  | 407,085 |  | 2,761 |  | 4,304 |  | $(41,540)$ |  | 372,610 |
| South African rand |  | 167,544 |  | - |  | - |  | 51,311 |  | 218,855 |
| Brazil real |  | 124,471 |  | 17,867 |  | - |  | 25,069 |  | 167,407 |
| Indian rupee |  | 109,516 |  | 314 |  | - |  | 44,161 |  | 153,991 |
| Other non-US currencies |  | 886,940 |  | 89,209 |  | - |  | $(63,368)$ |  | 912,781 |
| Total | \$ | 6,367,376 | \$ | 469,455 | \$ | 1,258,301 | \$ | 421,024 | \$ | 8,516,156 |

[^2]
## Notes to Financial Statements (continued)

| Currency | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $2010$ <br> Notional Value |  | Notional Value |  |
| Japanese yen | \$ | 107,111 | \$ | 163,061 |
| British pound sterling |  | 72,823 |  | 154,480 |
| Canadian dollar |  | 27,023 |  | 25,750 |
| Euro |  | 23,146 |  | 172,934 |
| Australian dollar |  | 17,839 |  | 24,077 |
| Malaysian ringgit |  | 1,099 |  | - |
| Total Futures Contracts and Total Return Swaps | \$ | 249,041 | \$ | 540,302 |

At June 30, 2010 and 2009, the System had foreign currency exposures for its derivatives (except for foreign exchange contracts which are included in Note 5) as presented in the table at the top of the page.

## (C) Securities Lending

In accordance with a contract between the Commonwealth and its custodial agent, the System participates in a securities lending program. Under this program, the custodian, acting as the lending agent, loans securities (equities, fixed income and money market instruments) to independent brokers and dealers in exchange for collateral in an amount not less than $102 \%$ of the fair value of any securities loaned except for non-U.S. corporations for which $105 \%$ of the fair value is required. For Euro fixed income debt issues, for which the Commonwealth receives Euros as collateral and international fixed income debt issues denominated in U.S. dollars, the collateral required to be exchanged is in an amount not less than $102 \%$ of the fair value of any securities loaned. Collateral is marked-to-market daily. If the fair value of the collateral held falls below the minimum guidelines for securities loaned, additional collateral is obtained. In lieu of certain approved securities or cash, the borrower may deliver to the lending agent irrevocable bank letters of credit as collateral. If the collateral obtained consists in whole or in part of cash, the lending agent may use or invest the cash in accordance with reinvestment guidelines approved by the System.

As of June 30, 2010 and 2009, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Under the securities lending program, the lending agent provides indemnification to the Commonwealth if the same borrowers fail to return the underlying securities (and the collateral is inadequate to replace the loaned securities) or fail to pay income distributions on them. There were no losses during the fiscal years ended June 30, 2010 and 2009, resulting from a default of the borrowers or the lending agent.

All securities loans can be terminated on demand by either the System or the borrower, although the average term of the loan is one day. There were no term loans as of June 30, 2010 and 2009.

Cash collateral is invested in one of two short-term collateral investment pools, the first of which is denominated in U.S. dollars and the second in Euros. Each collateral investment pool is managed by the lending agent, is segregated from all other clients of the lending agent, and is not subject to custodial credit risk. The System's income from securities lending represents its pro-rata share from participating in the program. The weighted-average maturity of the investments in the pool was 2 days and 15 days at June 30,2010 and 2009, respectively. During the fiscal years ended June 30, 2010 and 2009, the mismatch between the maturities of the investments made with cash collateral and the maturities of the securities loans may have posed some interest rate risk to the System. The System cannot pledge or sell collateral securities received unless the borrower defaults. In the event of a default, the lending agent may use the collateral to replace the loaned securities.

During the fiscal year ended June 30, 2009, certain securities purchased with cash collateral by the lending agent declined significantly in value, resulting in a net loss to the System from the securities lending program. The System acquired new securities for the collateral pool during the fiscal year ended June 30, 2009 to replace the value lost on the securities that had been purchased by the lending agent. As of June 30, 2010, the fair value of loaned securities was $\$ 2,102,233,000$, which includes $\$ 636,236,000$ of loaned securities which are collateralized by securities and irrevocable letters of credit that are not included in the Statements of Plan Net Assets. The fair value of the associated collateral was $\$ 2,239,674,000$ of which $\$ 1,524,234,000$ was cash. As of June 30, 2009, the fair value of loaned securities was $\$ 2,109,420,000$, which includes $\$ 584,108,000$ of loaned securities which are collateralized by securities and irrevocable letters of credit that are not included in the Statements of Plan

## Notes to Financial Statements (continued)

Net Assets. The fair value of the associated collateral was $\$ 2,232,432,000$ of which $\$ 1,591,720,000$ was cash.

## 5. Derivative and Other Similar Investments

The System enters into a variety of financial contracts, which include options and futures. The System also enters into foreign exchange positions, such as forward and spot contracts to obtain or hedge foreign currency exposure; swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts, and U.S. Treasury strips. The System is not a dealer, but an enduser of these instruments. The contracts are used primarily to enhance performance and reduce the volatility of the portfolio. The System is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The System generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The System is exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions.

The notional or contractual amounts of derivatives indicate the extent of the System's involvement in the various types and uses of derivative financial instruments and do not
measure the System's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives. The table presented at the bottom of the page summarizes the aggregate notional or contractual amounts for the System's derivative financial instruments at June 30,2010 and 2009.


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|  | (Dollar Amounts in Thousands) |  |
| :--- | ---: | ---: |
| Futures contracts - long: | $\mathbf{2 0 1 0}$ | 2009 |
| Treasury futures | $\mathbf{4 0 0 , 3 0 2}$ | 460,044 |
| Eurodollar futures | $\mathbf{8 3 , 9 2 2}$ | 245,141 |
| U.S. equity futures | $\mathbf{4 2 4 , 9 6 1}$ | $1,214,777$ |
| Non-U.S. equity futures | $\mathbf{1 5 4 , 4 5 4}$ | 199,432 |
| Commodity futures | $\mathbf{1 , 0 1 5 , 6 3 2}$ | $1,036,767$ |
| Non-U.S. bond futures | $\mathbf{6 9 , 0 6 0}$ | 154,103 |
| Futures contracts - short: |  |  |
| Treasury futures | $\mathbf{2 9 4 , 0 8 9}$ | 304,684 |
| Eurodollar futures | $\mathbf{2 6 3 , 3 7 8}$ | 426,875 |
| U.S. equity futures | $\mathbf{- 2 1 , 6 5 9}$ | 985,490 |
| Commodity futures | $\mathbf{4 0 , 0 3 8}$ | 51,020 |
| Non-U.S. bond futures | $\mathbf{1 1 , 1 4 7 , 2 1 9}$ | 38,411 |
| Foreign exchange forward and spot contracts, gross | $\mathbf{2 , 5 5 5 , 2 4 4}$ | $6,266,360$ |
| Options - calls purchased | $\mathbf{2 , 2 4 1 , 3 7 5}$ | $1,198,018$ |
| Options - puts purchased | $\mathbf{2 , 7 8 4 , 4 0 1}$ | 766,916 |
| Options - calls sold | $\mathbf{2 , 3 7 6 , 8 3 9}$ | 972,583 |
| Options - puts sold | $\mathbf{3 , 9 5 0 , 1 8 5}$ | 827,220 |
| Swaps - total return type |  | $5,041,734$ |

## Notes to Financial Statements (continued)

| $\underline{\text { Derivative Type }}$ | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Change In Fair Value FY 2010 |  | Fair Value at June 30, 2010 |  |
|  | Classification | (Gain)/Loss | Classification | Amount |
| Futures | Investment income | \$ 16,146 | Investment | \$ (16,146) |
| Total return type swaps | Investment income | 195,539 | Investment | $(195,539)$ |
| Options | Investment income | $(2,093)$ | Investment | 2,093 |
| Foreign exchange contracts | Investment income | 4,414 | Investment | $(4,414)$ |
|  | Change In Fair Value FY 2009 |  | Fair Value at June 30, 2009 |  |
| Derivative Type | Classification | (Gain)/Loss | Classification | Amount |
| Futures | Investment income | \$ $(3,060)$ | Investment | \$ 3,060 |
| Total return type swaps | Investment income | $(42,778)$ | Investment | 42,778 |
| Options | Investment income | $(10,713)$ | Investment | 10,713 |
| Foreign exchange contracts | Investment income | 10,398 | Investment | $(10,398)$ |

The fair values of derivative instruments outstanding at June 30, 2010 and 2009 are classified by type and by the changes in fair value of the derivative instrument in the table as presented at the top of the page.

Futures contracts are contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that a counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the System enters into short sales, sales of securities it does not presently own, to neutralize the market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are provided by investment securities pledged as collateral and by cash held by various brokers. Although the System has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The value of securities pledged and the amount of cash held at June 30, 2010 and 2009 represent a restriction on the amount of assets available as of year-end for other purposes.

Option contracts provide the option purchaser with the right, but not the obligation, to buy or sell the underlying security at a set price during a period or at a specified date. The option writer is obligated to buy or sell the underlying security if the option purchaser chooses to exercise the option. The System generally uses exchange listed currency, index, stock, and futures options. The System has authorized an investment manager to write covered
call stock index option spreads up to a notional amount of $\$ 1,500,000,000$. The fair value of option contracts of $\$ 2,093,000$ and $\$ 10,713,000$ at June 30, 2010 and 2009, respectively, is included in the Statements of Plan Net Assets.

Foreign exchange contracts involve an agreement to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. To reduce the risk of counterparty non-performance, the investment managers generally enter into these contracts with institutions regarded as meeting high standards of credit worthiness. The contracts reported below primarily include forwards. The $\$ 11,147,219,000$ of foreign currency contracts outstanding at June 30, 2010 consist of "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currencies of \$5,219,411,000 and "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currencies of $\$ 5,927,808,000$. The $\$ 6,266,360,000$ of foreign currency contracts outstanding at June 30, 2009 consist of "buy" contracts of $\$ 3,609,991,000$ and "sell" contracts of $\$ 2,656,369,000$. The unrealized loss on contracts of $\$(4,414,000)$ and $\$(10,398,000)$ at June 30, 2010 and 2009, respectively, is included in the Statements of Plan Net Assets and represents the fair value of the contracts.

## Notes to Financial Statements (continued)

The following table summarizes the System's foreign exchange contracts by currency at June 30, 2010 and 2009:

| Currency | $2010$ <br> (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Buys | Unrealized Gain/(Loss) | Sells | Unrealized Gain/(Loss) |
| British pound sterling | \$ 586,528 | \$ $(2,641)$ | \$ 851,017 | \$ $(5,525)$ |
| Euro | 539,486 | $(2,917)$ | 1,527,863 | 13,594 |
| Swiss franc | 511,100 | 13,794 | 678,377 | $(26,277)$ |
| Japanese yen | 466,086 | 12,782 | 204,617 | $(5,852)$ |
| Brazil real | 412,989 | 194 | 210,547 | 666 |
| Australian dollar | 405,024 | $(5,533)$ | 368,986 | 3,188 |
| Canadian dollar | 233,343 | $(6,153)$ | 234,936 | 4,381 |
| Turkish lira | 212,278 | $(2,691)$ | 68,574 | 88 |
| South African rand | 200,943 | (271) | 58,571 | (42) |
| Mexican new peso | 199,108 | $(3,426)$ | 120,167 | 56 |
| Indian rupee | 175,622 | 2,612 | 4,563 | 5 |
| Norwegian krone | 171,567 | 2 | 146,774 | 328 |
| Swedish krona | 157,145 | 1,490 | 171,665 | $(2,202)$ |
| New Zealand dollar | 113,680 | (419) | 92,993 | (154) |
| Philippines peso | 92,357 | (614) | 26,114 | (24) |
| South Korean won | 91,801 | $(1,986)$ | 162,813 | 5,823 |
| Indonesian rupian | 89,833 | (162) | 16,661 | (51) |
| Malaysian ringgit | 86,622 | 537 | 34,484 | (609) |
| Other | 473,899 | $(2,675)$ | 948,086 | 6,270 |
| Total | \$ 5,219,411 | \$ 1,923 | \$ 5,927,808 | \$ (6,337) |


| Currency | 2009(Dollar Amounts in Thousands) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Buys |  | Unrealized Gain/(Loss) |  | Sells |  | Unrealized <br> Gain/(Loss) |  |
| Euro | \$ | 1,037,498 | \$ | 13,252 | \$ | 753,084 | \$ | $(17,902)$ |
| Japanese yen |  | 778,940 |  | $(4,948)$ |  | 534,881 |  | $(11,673)$ |
| British pound sterling |  | 336,353 |  | 9,153 |  | 168,219 |  | $(2,059)$ |
| Australian dollar |  | 248,663 |  | 4,874 |  | 127,844 |  | $(1,260)$ |
| Canadian dollar |  | 103,477 |  | $(1,136)$ |  | 137,900 |  | 2,092 |
| South African rand |  | 92,605 |  | 5,664 |  | 43,302 |  | $(2,938)$ |
| Swedish krona |  | 83,837 |  | (163) |  | 111,030 |  | (853) |
| Mexican new peso |  | 83,909 |  | 480 |  | 42,875 |  | $(1,188)$ |
| Norwegian krone |  | 71,057 |  | (321) |  | 64,825 |  | 414 |
| Swiss franc |  | 70,963 |  | (348) |  | 63,140 |  | (559) |
| Hungarian forint |  | 70,488 |  | 2,355 |  | 14,755 |  | (632) |
| Danish krone |  | 70,486 |  | (1) |  | 33,788 |  | 372 |
| Brazil real |  | 59,510 |  | 1,747 |  | 33,353 |  | (596) |
| Chilean peso |  | 52,109 |  | 1,571 |  | 10,416 |  | (586) |
| Indonesian rupian |  | 50,485 |  | (276) |  | 7,167 |  | 33 |
| Philippines peso |  | 44,518 |  | (415) |  | 42,472 |  | (16) |
| Other |  | 355,093 |  | 1,229 |  | 467,318 |  | $(5,764)$ |
| Total |  | 3,609,991 | \$ | 32,717 |  | 2,656,369 |  | $(43,115)$ |

## Notes to Financial Statements (continued)

Swap agreements provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes or interest rates. During the year ended June 30, 2010 and 2009, the System entered into total return type swaps. Under the total return type swap arrangements, the System receives the net return of certain equity securities or indexes in exchange for a short-term rate minus a spread or a predetermined fixed charge. The receivable (payable) on the total return type swap contracts of $\$(195,539,000)$ and $\$ 42,778,000$ at June 30, 2010 and 2009, respectively, is included in the Statements of Plan Net Assets and represents the fair value of the contracts. The contracts have varying maturity dates ranging from August 31, 2010 to August 9, 2011.

The System also invests in mortgage-backed securities (MBS) such as CMOs and MBS forwards to maximize yields. These securities are sensitive to prepayments of mortgages, which may result from a drop in interest rates. The MBS forwards are subject to credit risk in the event of nonperformance by counterparties. The fair value of CMOs at June 30, 2010 and 2009 is $\$ 2,089,780,000$ and $\$ 2,295,709,000$, respectively.

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

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

## 6. Pension Plan for Employees of the System

The System contributes to the Commonwealth's State Employees' Retirement System (SERS), a cost-sharing multiple-employer defined benefit pension plan. SERS provides retirement, death, and disability benefits to plan members and beneficiaries according to Commonwealth statute. SERS issues a publicly available financial report that can be obtained by writing to SERS, 30 N. Third Street, P. O. Box 1147, Harrisburg, Pennsylvania 17108-1147.

The contribution requirements of plan members and the System are mandated by Commonwealth statute. Most SERS plan members are required to contribute $5 \%$ or $6.25 \%$ of their annual covered payroll depending upon service class. The System is required to contribute at an actuarially determined rate.

The rates applied to annual covered payroll were $3.15 \%$ at June 30, 2010, 3.29\% at June 30, 2009 and $3.28 \%$ at June 30, 2008. The System's contributions to SERS for the years ended June 30, 2010, 2009 and 2008 were $\$ 601,000$, $\$ 625,000$ and $\$ 602,000$, respectively, which were equal to the required contributions each year.

## 7. Postemployment Healthcare Plan for Employees of the System

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

Employer costs for retiree healthcare benefits are charged as a component of payroll expenditures on a 'pay-as-yougo' basis. REHP funding is arranged between OA and the Governor's Budget Office. The 2009-2010 employer costs were charged at the rate of $\$ 240 /$ employee/bi-weekly pay period. Plan members who retired after June 30, 2005 contribute to the plan based on a percentage of their final annual gross base salary at the time of retirement. Plan member contribution rates vary based on their REHP enrollment date.

In October 2009, the Commonwealth released an Actuarial Valuation of its Post-Retirement Medical Plan with calculations made as of July 1, 2008 using census data collected as of December 2008 and health care claims costs for calendar 2008. The Valuation for FY 2009 reported overall Annual Required Contributions (ARC) of $\$ 818,510,000$ with the System's allocated ARC of $\$ 3,566,000$. Based on the aggregate REHP qualifying contributions for FY 2009, the net Other Postemployment Benefits (OPEB) liability for the System was $\$ 1,363,000$. For FY 2010, the valuation indicated overall ARC of $\$ 850,440,000$ with the System's allocated ARC of $\$ 3,705,000$. Based on the aggregate REHP qualifying contributions for FY 2010, the net OPEB liability for the System is $\$ 1,460,000$. Therefore, the cumulative 2 year total OPEB liability as of June 30, 2010 is $\$ 2,823,000$. The Actuarial Valuation is available at the Office of the Budget's website: www.budget.state.pa.us.

## Notes to Financial Statements (continued)

## 8. Litigation and Contingencies

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

## 9. Intangible Assets

In compliance with the requirements of GASB 51, the System examined its administrative expense records to determine if any expenditure qualified for intangible asset recognition. It was found that the multi-year initiative to redesign the System's member and pension administration systems qualified for recognition as internally developed computer software under GASB 51 and Commonwealth of Pennsylvania Management Directives.

## (A) Assumptions

In FY 2003, the System began contracting with third parties on a multi-year project to develop a new pension administration system (NPAS) using customized off-theshelf computer software (V3). The System will continue to contractually rely on third parties to reengineer and
upgrade V3 to meet PSERS business requirements. V3 software will have major upgrades over time and will have a finite expected useful life estimated at 20 years. The first release of NPAS was implemented during July 2004, which is the start of the useful life of V3 for amortization purposes.

## (B) Recognition

From FY 2003 through the current FY 2010, it was determined that $\$ 23.8$ million qualifies for recognition under GASB 51 as intangible assets. Amortization for fiscal years prior to FY 2010 was calculated starting in fiscal year ended June 30, 2005 (FY 2005) assuming an estimated useful life period of 20 years. Cumulative amortization through the end of FY 2010 totaled $\$ 5.7$ million.

Recognition of intangible assets and amortization was made during FY 2010 by offset to administrative expenses.


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# Financial Section 

# Required Supplemental Schedule 1 <br> Schedules of Funding Progress* <br> (Unaudited - See Accompanying Auditor's Report) <br> (Dollar Amounts in Millions) 



| Premium Assistance |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) |  | (2) |  | (3) <br> (Funded) <br> Unfunded <br> actuarial <br> accrued <br> liabilities <br> (FAAL) or UAAL <br> (1) - (2) |  | (4) |  | (5) | (6) |
|  |  |  |  |  |  |  |  |  | (FAAL) or |
|  |  |  |  |  |  |  |  |  | UAAL |
|  |  |  |  |  |  |  |  |  | as a |
| Valuation as of June 30 | Actuarial accrued liabilities (AAL) | Actuarial value of assets |  |  |  | Ratio of |  |  | percentage |
|  |  |  |  | assets |  |  | of covered |
|  |  |  |  | to AAL |  | Covered | payroll |
|  |  |  |  | (2) / (1) |  | payroll | (3) / (5) |
| 2009 | \$ 1,159.0 | \$ | 105.1 |  |  | \$ | 1,053.9 | 9.1\% |  | 12,524.6 | 8.4\% |
| 2008 | 1,133.0 |  | 95.8 |  |  |  | 1,037.2 | 8.5\% |  | 11,921.5 | 8.7\% |
| 2007 | 1,058.1 |  | 97.3 |  |  |  | 960.8 | 9.2\% |  | 11,410.3 | 8.4\% |
| 2006 | 1,056.2 |  | 92.8 |  | 963.4 | 8.8\% |  | 11,419.0 | 8.4\% |

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

Each time a new benefit is added which applies to service already rendered, an "unfunded accrued liability" is created. The laws governing PSERS require that these additional liabilities be financed systematically over a period of future years. Also, if actual financial experiences are less favorable than assumed financial experiences, the difference is added to unfunded accrued liabilities.

In an inflationary economy, the value of the dollar is decreasing. In this environment, employees pay in greater dollar amounts, resulting in a dollar increase in unfunded accrued liabilities. This occurs at a time when the actual
substance of these items may be decreasing. Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities divided by active employee payroll provides an index which clarifies understanding. The smaller the ratio of unfunded liabilities to covered payroll, the stronger the system. Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

## Financial Section

## Required Supplemental Schedule 2

Schedules of Employer Contributions
(Unaudited - See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

|  | Pension |  |  |
| :---: | :---: | :---: | :---: |
| Year ended June 30 | Annual <br> Required <br> Contributions | Actual <br> Employer <br> Contributions | Percentage <br> Contributed |
| 2010 | $\$$ |  |  |
| 2009 | $1,928,278$ | $\$$ | $527,212^{*}$ |
| 2008 | $1,761,295$ | $503,227^{*}$ | $27 \%$ |
| 2007 | $1,852,238$ | 753,532 | $41 \%$ |
| 2006 | $1,708,821$ | 659,545 | $39 \%$ |
| 2005 | $1,328,373$ | 456,878 | $34 \%$ |
|  | 945,107 | 431,556 | $46 \%$ |


| Premium Assistance |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Annual <br> Required | Actual <br> Employer <br> Contributions | Percentage <br> Contributed |
|  | $\$$ | 117,187 | $\$$ |

The Board adopted all contribution rates as recommended by the Board's actuary pursuant to the prevailing provisions of the Retirement Code for each year.

# Financial Section 

## Supplemental Schedule 1

## Schedule of Operating Expenses <br> Year Ended June 30, 2010 <br> (Dollar Amounts in Thousands)

|  | Administrative Expenses (1) |  | Investment <br> Expenses (2) |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personnel costs: |  |  |  |  |  |  |
| Salaries \& wages | \$ | 14,972 | \$ | 3,393 | \$ | 18,365 |
| Social security contributions |  | 1,136 |  | 251 |  | 1,387 |
| Retirement contributions |  | 462 |  | 139 |  | 601 |
| Employees' insurance contributions |  | 4,211 |  | 543 |  | 4,754 |
| Other employee benefits |  | 113 |  | 723 |  | 836 |
| Total personnel costs |  | 20,894 |  | 5,049 |  | 25,943 |
| Operating costs: |  |  |  |  |  |  |
| Investment managers' fees |  | - |  | 509,767 |  | 509,767 |
| Custodian fees |  | - |  | 598 |  | 598 |
| Specialized services |  | 20,079 |  | - |  | 20,079 |
| Rental of real estate, electricity |  | 2,108 |  | 183 |  | 2,291 |
| Consultant \& legal fees |  | 1,227 |  | 4,499 |  | 5,726 |
| Treasury and other commonwealth services |  | 1,265 |  | 162 |  | 1,427 |
| Postage |  | 1,052 |  | - |  | 1,052 |
| Contracted maintenance and repair services |  | 280 |  | 14 |  | 294 |
| Office supplies |  | 497 |  | 81 |  | 578 |
| Rental of equipment \& software |  | 862 |  | 234 |  | 1,096 |
| Printing |  | 408 |  | - |  | 408 |
| Travel and training |  | 291 |  | 16 |  | 307 |
| Telecommunications |  | 601 |  | 14 |  | 615 |
| Equipment (non-capital assets) |  | 1,028 |  | 4 |  | 1,032 |
| Miscellaneous expenses |  | 2,809 |  | 1,694 |  | 4,503 |
| Total operating costs |  | 32,507 |  | 517,266 |  | 549,773 |
| Other charges: |  |  |  |  |  |  |
| Capitalized assets (3) |  | $(23,849)$ |  | - |  | $(23,849)$ |
| Depreciation (3) |  | 940 |  | - |  | 940 |
| Total other charges |  | $(22,909)$ |  | - |  | $(22,909)$ |
| Total operating expenses | \$ | 30,492 | \$ | 522,315 | \$ | 552,807 |

(1) Includes administrative expenses of $\$ 1,944$ related to Postemployment Healthcare Premium Assistance and \$16,443 related to Postemployment Healthcare Health Options Program for the fiscal year ended June 30, 2010.
(2) Includes investment expenses of $\$ 47$ related to Postemployment Healthcare Premium Assistance for fiscal year ended June 30, 2010 and does not include $\$ 17,650$ in capitalized broker commissions for the fiscal year ended June 30, 2010.
(3) Depreciation includes amortization of intangible assets. Capitalized assets and depreciation have been adjusted due to the impact of capitalization of intangible assets as a result of PSERS' implementation of Governmental Accounting Standards Board Statement No. 51 Accounting and Financial Reporting for Intangible Assets (See Note 9).

## Financial Section

## Supplemental Schedule 2

Summary of Investment Expenses
Year Ended June 30, 2010
(Dollar Amounts in Thousands)

|  | Assets under <br> management* | Fees |  |
| :---: | ---: | ---: | ---: |
| External management: |  |  |  |
| Domestic equity | $\$$ | 858,000 | $\$$ |
| International equity | $3,307,000$ | 5,284 |  |
| Fixed income | $7,281,000$ | 32,162 |  |
| Real estate | $3,975,000$ | 58,355 |  |
| Alternative investments | $9,362,000$ | 83,687 |  |
| Absolute return | $5,196,000$ | 178,183 |  |
| Commodities | $\mathbf{1 , 7 6 9 , 0 0 0}$ | 137,360 |  |
| Total external management | $\mathbf{3 1 , 7 4 8 , 0 0 0}$ | 14,736 |  |
|  | $\mathbf{1 4 , 2 5 6 , 0 0 0}$ |  |  |
| Total internal management |  | $\mathbf{5 0 9 , 7 6 7}$ |  |
|  | $\mathbf{4 6 , 0 0 4 , 0 0 0}$ | $\$$ | $\mathbf{5 1 7 , 2 1 8}$ |
| Total investment management | $\mathbf{\$}$ |  |  |
| Custodian fees |  | 598 |  |
| Consultant and legal fees |  | $\mathbf{5 2 2 , 3 1 5}$ |  |
| Total investment expenses |  |  |  |

[^3]
## Financial Section

# Supplemental Schedule 3 <br> Schedule of Payments to Non-Investment Consultants <br> Year Ended June 30, 2010 

(Dollar Amounts Greater than $\$ 50,000$ )
Consultant

CoreSource, Inc.

ViTech Systems Group, Inc.
Rx Solutions, Inc.

The Segal Company

Buck Consultants LLC
Independent Pharmaceutical Consultants, Inc.

Clifton Gunderson LLP

2,467,835

## Fees

\$ 11,018,949

3,582,055
2,816,847

716,018
378,275

114,755

## Services Provided

Postemployment healthcare benefits administration and claims adjudication

Pension administration system services
Administration of postemployment healthcare benefits and prescription drug plan

Actuarial services and consulting for HOP and prescription drug plan

Pension benefit actuarial services
Pharmacy benefit consulting services
Financial audit of pension system and postemployment healthcare programs


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## Financial

## Investment

## ACTUARIAI Statistical

## Investment O verview

## Authority and Fiduciary Standard

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

The Prudent Investor Standard, as articulated in the Code, means "the exercise of that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the fund, considering the probable income to be derived therefrom as well as the probable safety of their capital."

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

## Policies and Objectives

The B oard is responsible for the formulation of investment policies for the System. The overall investment objectives of the System are as follows:

Return Objectives - the overall return objective is to realize a return sufficient to achieve funding adequacy on an inflation-adjusted basis. Funding adequacy is achieved when the actuarial market value of assets is at least equal to the System's projected benefit obligations. The System has a return objective of meeting or exceeding the targeted actuarial rate of return (currently $8.0 \%$ ) over the long-term. In addition, the B oard has the following broad objectives:

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

## Risk Objectives

1. The assets of the System shall be diversified to minimize the risk of losses within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location. Failure to do so could impair the System's ability to achieve its funding and long-term investment goals and objectives; and,
2. The System's assets shall be invested so that the probability of investment losses (as measured by the Policy Index) in excess of $15 \%$ in any one year is no greater than $2.5 \%$ (or two standard deviations below the expected return).

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

## Operations

The Board provides oversight of investment activities through the Finance Committee that makes recommendations to the B oard. The Finance Committee generally conducts seven meetings per year and may meet more frequently as needed. Investment Office staff, as well as external investment advisors and Investment Accounting staff, assist the Board in achieving investment objectives and monitoring compliance with investment policies. For the fiscal year ended June 30, 2010, Wilshire Associates Incorporated (Wilshire) served as the general investment consultant to assist the Board in formalizing investment objectives, establishing an asset allocation plan, conducting investment advisor searches, reviewing performance, and commenting on compliance with investment policies. In addition, the Board utilized Aksia LLC as an absolute return consultant, Courtland Partners, Ltd. as a real estate consultant, and Portfolio A dvisors, LLC as an alternative investment consultant. Alternative investments generally consist of investments in private debt, private equity, and venture capital limited partnerships. Investment Office staff implement the investment decisions within the Investment Policy Statement, Objectives and Guidelines regarding asset allocation, security selection, and other objectives directed by the B oard.

The Board employs both external investment management firms and internal investment managers to manage the investment portfolio of the System. At fiscal year end, 43 external public market investment management firms were managing $\$ 16.3$ billion in assets of the System, $\$ 14.3$ billion in assets were managed by the System's internal investment managers, and the remaining $\$ 15.9$ billion in assets were managed by numerous emerging, alternative investment, and real estate managers. The performance of each external investment management firm and each internal manager is monitored quarterly against a pre-established benchmark as well as the performance of its peer group.

## A sset Allocation

The Board reviews the long-term asset allocation targets of the System during the first quarter of each calendar year. The Board will consult with its actuary, consultants, Investment Office staff, and other sources of information it deems appropriate in formulating the asset allocation plan. The B oard believes that the level of risk assumed by the System is largely determined by the B oard's strategic asset allocation plan. The B oard, in determining its long-term asset allocation, shall take the following factors into consideration:

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

In establishing the asset allocation for the System, the Board considers capital market expectations for expected return, volatility, and asset class correlations as prepared by its general investment consultant. The current long-term, top-down asset allocation targets of the B oard are discussed in the following paragraphs.

The long-term target allocation as of June 30, 2010 included an equity target allocation of $28.6 \%$ consisting of publicly traded stocks. Specific targets have been established for U.S. equity exposure ( $12.5 \%$ ) and nonU.S. equity exposure ( $16.1 \%$ ). Within the U.S. equity target, the portfolios are diversified between large, small, and micro capitalization investment managers, and growth and value investment managers. The non-U.S. equity exposure includes both developed and emerging markets portfolios as well as large and small capitalization investment managers.

The fixed income target allocation of $27.9 \%$ consisted of U.S. core fixed income exposure (5.0\%), leveraged Treasury Inflation-Protected Securities exposure (5.0\%), high yield and opportunistic fixed income exposure (8.0\%), emerging markets fixed income exposure (2.9\%), global fixed income exposure (2.0\%), and cash (5.0\%). Historically, PSERS had an allocation of $0.0 \%$ to cash, however, given the known and potential cash flow requirements of the System, the Board, Staff, and Wilshire deemed it prudent to have an allocation to this asset class. Within these categories, all sectors of the bond market are represented.

The real estate target allocation of 8.0\% consisted primarily of limited partnerships. Thetypes of partnerships the System invests in include core, value-added, and opportunistic real estate limited partnerships.

Alternative investments had a target allocation of 20.5\%. The primary vehicle used to invest funds in this asset class is the limited partnership. The partnerships are established by individual management groups that have been selected by the System for the purpose of investing in and managing private equity, venture capital, and unlisted subordinated debt positions on behalf of PSERS and other limited partners.

The absolute return target allocation of $10.0 \%$ consisted primarily of investment managers retained by the System to generate positive returns over time independent of how the equity, fixed income, and commodity markets perform. Strategies implemented to achieve this target include, but are not limited to, global macro, currency, and relative value strategies such as equity long/short. The absolute return program is included in the allocation to generate returns equal to or greater than the targeted actuarial rate of return of 8.0\% and to diversify the System's total portfolio risk.

The commodities target allocation of $5.0 \%$ consisted primarily of commodity futures and commodity and commodity-related publicly traded stocks. Commodities are included in the allocation to diversify the System's total portfolio risk.

## Investment Results

As of June 30, 2010, the fair value of the investment portfolio was $\$ 46.5$ billion, an increase of $\$ 3.2$ billion from last year's value. This increase was due to net investment income ( $\$ 6.1$ billion) less the deductions for benefits and administrative expenses exceeding member and employer contributions ( $\$ 3.5$ billion) plus net changes in other investment assets and liabilities ( $\$ 0.6$ billion). The investment portfolio, as invested, was composed of $28.4 \%$ common and preferred stocks (equity), $27.2 \%$ fixed income investments, 20.4\% alternative investments, $9.1 \%$ real estate, $11.2 \%$ absolute return portfolios, and $3.7 \%$ commodities at June 30, 2010. The table immediately following the Investment Overview illustrates a more detailed description of the investment portfolio's asset classes in dollars and as a percentage of the total investment portfolio.

The past fiscal year saw a rebound in U.S. economic activity from the significant economic contraction during the 2008-2009 fiscal year. The U.S. Gross Domestic Product (GDP) increased by 1.6\%, 5.0\%, $3.7 \%$, and $1.7 \%$ in the third quarter 2009, fourth quarter 2009, first quarter 2010, and second quarter 2010, respectively. The official U.S. unemployment rate (otherwise known as the U3 unemployment rate) hit a cyclical high of $10.1 \%$ in October 2009 but is unchanged from the end of the previous fiscal year at $9.5 \%$. The more encompassing U6 unemployment rate, however, which measures not only people without work seeking full-time employment (U3 unemployment rate) but also counts "marginally attached workers and those working part-time for economic reasons," remains elevated at $16.5 \%$ as of fiscal year end, unchanged from the end of last fiscal year. This past year saw a lot of tail winds for the U.S. economy, including a massive fiscal stimulus program and a strong inventory build by companies, both of which contributed significantly to the GDP figures noted above.

Internationally, the economic conditions are really a tale of two markets. The emerging markets, such as China and India, have weathered the downturn well and their economic activity has bounced back to new highs. Conditions have been strong enough that a number of these countries needed to tighten their monetary policies to keep their economies from overheating. The developed markets, such as the U nited Kingdom and France, have not bounced back nearly as much. These markets continue to have very loose monetary policies due to weaker economic conditions. In general, the emerging market economies are less burdened by debt than the developed world. This scenario was highlighted in the final quarter of the fiscal year when countries such as Portugal, Ireland, Greece, and Spain suffered through a sovereign debt crisis which ultimately required the European Union to agree on a $€ 750$ billion bailout plan that would be available to rescue euro-zone economies that get into financial troubles. A s part of these bailout plans, the countries receiving financial aid would be required to implement austerity measures which will require either increases in taxes or decreases in government spending, both of which will have a negative impact on growth in those countries. It is expected that the grow th will continue to weaken in the developed markets over the next few years as they work to reduce their debts to more sustai nable levels.

There is concern that the U.S. economic rebound which started last year may not be sustainable without considerable additional fiscal and monetary stimulus. The deceleration in U.S. GDP growth over the past two quarters calls into question the durability of this recovery that has been supported by massive deficit spending, inventory rebuilding after the slow down, and low interest rates. The National Bureau of Economic Research (NBER), a private, nonprofit, nonpartisan research organization dedicated to promoting a greater understanding of how the economy works, is the organization that reviews relevant economic indicators and announces when they believe economic expansions and contractions begin and end. NBER recently announced that this current economic contraction began in December 2007 and officially ended in June 2009. NBER, however, noted in their press release that "the committee did not conclude that economic conditions since that month (June 2009) have been favorable or that the economy has returned to normal operating capacity."

While corporations have done a good job of improving their bal ance sheets, the consumer, which represents about $70 \%$ of the U.S. economy, still has a significant amount of consumer and mortgage debt. The U.S. Federal Reserve (the Fed) has already lowered the Federal Funds rate to $0.00 \%$ and has no further room to ease monetary policy through interest rate cuts. This position leaves the Fed with less conventional monetary stimulus tools such as quantitative easing which are blunter and less proven monetary tools than interest rate cuts. The U.S. unemployment rate remains elevated and consumer income is not growing quickly. Consumer confidence, as measured by the University of M ichigan Survey of C onsumer Confidence Sentiment, remains near levels normally seen in recessionary periods. The U.S. federal deficit has grown significantly over the past few years in an effort to support the waning economy. The only ways to bring federal deficits under control are to cut spending or raise taxes, both of which will take money out of consumers' pockets. These represent significant headwinds to consumer spending and growth in the U.S. which could remain in place for a considerable period of time. With short-term interest rates anchored at $0.00 \%$, we anticipate that we will be in a low asset return environment for the foreseeable future, providing further headwinds to income growth.

With the backing of monetary and fiscal stimulus during the past fiscal year, we saw a significant rally in risk assets worldwide which led to positive returns in most asset classes. The M organ Stanley Capital International (M SCI) U.S. Broad M arket Index, a U.S. equity index, returned $14.06 \%$ during the fiscal year. Returns for the first three quarters of the fiscal year were exceptionally strong, posting a 30.08\% return before declining $11.86 \%$ in the fiscal fourth quarter as it had become apparent that the economy was slowing. Foreign markets in U.S. dollar terms also fared well as the M SCI All-Country World (ACW) ex. U.S. Investable M arket Index, an international equity index, returned $11.49 \%$ for the fiscal year. The Venture Economics median return, a benchmark for alternative investments that represents the median performance of the venture capital/private equity industry listed in the Investment B enchmark Reports on Venture Capital and Buy-outs produced by Venture Economics, returned 12.85\% during the fiscal year as these investments were written up to prices comparable to gains in the public equity markets.

Fixed income markets performed very well in this environment as longer-term interest rates fell and investors looked to take advantage of wide credit spreads in search of yield. For the fiscal year, the B arclays U.S. Universal Index, a U.S. fixed income index, was up $10.59 \%$ and the Barclays M ultiverse Index, a global fixed income index, was up $5.54 \%$. Returns in both of these indexes were driven by a flattening yield curve, falling inflation expectations due to the economic contraction, and tightening credit spreads. Where the tightening of credit spreads really had an impact was on lower qual ity credits. The Barclays High Y ield Index returned $26.77 \%$ during the past fiscal year. The B arclays U.S. TIPS Index, an index of U.S. treasury inflation protection securities, driven by falling real yields, returned $9.52 \%$ for the fiscal year.

A ccording to the National Council of Real Estate Investment Fiduciaries (NCREIF) Index, a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only, real estate returned $-9.60 \%$ during the past fiscal year. Index returns are reported on a quarter lag due to the time taken to acquire this information from private market sources, so the returns are for the twelve months ended M arch 31, 2010. Investment performance in the private real estate markets remained weak due to an excess of commercial real estate supply due to the significant contraction in the economy since the end of 2007. The index returns, however, have recently stabilized and have shown positive performance during the past quarter.

A s a result of strong returns from global equities, alternative investments, fixed income, and the absolute return program, the System generated a total return of $14.59 \%$ for the one-year period ended June 30, 2010. This return exceeded the total fund Policy Index return of $10.87 \%$ by 372 basis points. A nnualized total returns for the three-, five-, and ten-year periods ended June 30, 2010 were $-6.48 \%, 2.99 \%$, and $3.51 \%$, respectively. The three-year return ending June 30, 2010 fell short of the total fund Policy Index return by 171 basis points while the five- and ten-year returns ending June 30, 2010 exceeded the total fund Policy Index returns by 24 and 91 basis points, respectively.

Wilshire calculates the total investment return of the System as well as the performance of each external investment management firm and each internal investment manager employed by the B oard to invest the System's assets. Performance is cal culated using a time-weighted return methodology.


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## INVESTMENT SECTION

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

|  | Annualized Total Returns (\%) Net of Fees E nded J une 30, 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 Year | 3 Years | 5 Years | 10 Years |
| PSE R S Total Portfolio | 14.59 | -6.48 | 2.99 | 3.51 |
| Total Fund Policy Index | 10.87 | -4.77 | 2.75 | 2.60 |
| M edian Public Defined B enefit Plan (DBP) Fund Universe (Wilshire D atabase) | 14.06 | -4.89 | 2.81 | 3.13 |
| PSE R S Domestic Stock Portfolios | 18.29 | -10.36 | -1.03 | 0.19 |
| Domestic Equity Policy Index (1) | 15.20 | -9.52 | -0.39 | -0.83 |
| M edian Public DBP Fund U niverse - Domestic Equities (Wilshire D atabase) | 16.48 | -9.42 | -0.39 | -0.38 |
| PSE R S International Stock Portfolios | 15.07 | -8.22 | 5.84 | 3.58 |
| International Equity Policy Index (2) | 11.49 | -9.45 | 4.20 | 2.47 |
| M edian Public DBP Fund Universe - International Equities (Wilshire D atabase) | 11.62 | -12.38 | 1.94 | 1.83 |
| PSE RS Domestic Fixed Income Portfolios | 21.43 | 9.01 | 6.53 | 7.45 |
| Domestic Fixed Income Policy Index (3) | 16.97 | 10.24 | 6.96 | 7.25 |
| M edian Public DBP Fund U niverse - Domestic Bonds (Wilshire Database) | 15.39 | 7.00 | 5.68 | 6.64 |
| PSE RS G lobal Fixed Income Portfolios | 14.43 | 8.33 | 6.12 | 7.22 |
| Global Fixed Income Policy Index (4) | 4.89 | 6.52 | 4.88 | 6.26 |
| M edian Public DBP Fund U niverse - Global B onds (Wilshire Database) | 14.43 | 7.28 | 5.56 | 6.87 |
| PSE RS Commodity Portfolios | 5.93 | -7.81 | N/A | N/A |
| Dow Jones - UBS Commodity Index | 2.75 | -8.36 | N/A | N/A |
| PSE R S Absolute Return Portfolios | 15.60 | N/A | N/A | N/A |
| Benchmark - 8.0\% A nnualized R eturn | 8.00 | N/A | N/A | N/A |
| PSE RS Real Estate (5) | -18.01 | -22.84 | -3.02 | 4.91 |
| Blended Real Estate Index (6) | -9.60 | -4.32 | 4.19 | 7.13 |
| M edian Public DBP Fund Universe - Real Estate (Wilshire Database) | -2.58 | -12.28 | -0.36 | 6.81 |
| PSE R S Alternative Investments (5) | 22.39 | 1.99 | 12.05 | 7.00 |
| Venture Economics M edian Return, Vintage Y ear Weighted | 12.85 | 1.39 | 5.78 | 2.53 |
| M edian Public DBP Fund U niverse - Private Equity (Wilshire D atabase) | 23.82 | 1.46 | 11.93 | 6.00 |

1) $\mathrm{M} \mathrm{SCI} \operatorname{USA}$ Investable M arket Index effective A pril 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2) M SCI All Country W orld (ACW) ex. USA Investable M arket Index effective July 1, 2008; previously was the M SCI ACW ex. U.S. Index. The benchmark was $30 \%$ hedged to the U.S. dollar from July 1, 2006 to M arch 31, 2009; otherwise, the benchmark is unhedged.
3) Returns presented are a blend of the B arclays Capital U.S. Universal Index (27.8\%), Barclays Capital U.S. TIPS Index (Series-L) (27.8\%), and B arclays U.S. High Y ield Index (44.4\%) effective A pril 1, 2010. The weights to these indexes have varied in previous quarters. Prior to A pril 1, 2007, the B arclays Capital A ggregate B ond Index was used in place of the B arclays Capital U.S. Universal Index.
4) Returns presented are a blend of the Barclays Multiverse Index (40.8\%) and the JP M organ Global Bond Index Emerging Markets Global Diversified (USD Unhedged) Index (59.2\%) Between A pril 1, 2007 and M arch 31, 2010, the Barclays M ultiverse Index was used; previous to A pril 1, 2007, the B arclays Global A ggregate B ond Index was used.
5) Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
6) NCREIF Index effective A pril 1, 2010. The NCREIF Index is reported on a one-quarter lag. Previously, returns presented were a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index. Prior to October 1, 2007, the Dow Jones Wilshire Real Estate Securities Index was used in place of the FTSE EPRA/NAREIT Global Real Estate Index.

The System also is involved in a securities lending program administered by The Bank of N ew Y ork M ellon Corporation. This program is designed to provide incremental income to the System by lending securities in the System's portfolio to securities dealers in exchange for either cash collateral, which can be reinvested to generate income, or non-cash collateral plus a cash fee. This program generated $\$ 8.5$ million in net gains during the year.

## Accomplishments

The System continued its efforts to diversify its market exposures during the first quarter of FY 2010 as the allocation to absolute return mandates, an asset class used as a risk diversifier added during the current fiscal year, was fully funded after increasing the target allocation from $7.5 \%$ to $10.0 \%$.

The System continued its multi-year project to implement an independent accounting book of record for the System's investment transactions and holdings. In early FY 2011, the real estate and private market investment portfolios were converted to the System's internal accounting software provided by Financial Control Systems, Inc. The System al so continued to develop various management reports using the internal accounting software.

## M arket Update

Subsequent to the close of FY 2010, the equity markets commenced on a broad rally that started in July 2010 as risk assets rallied on the potential for additional quantitative easing from the Fed. The potential for quantitative easing also caused the U.S. dollar to weaken versus most other foreign currencies on the prospects that the Fed would be printing additional money causing the U.S. dollar to be worth less to foreign investors. As measured by the U.S. Dollar Index, an index which averages the exchange rate between the U.S. dollar and six major world currencies, the value of the U.S. dollar fell by $8.49 \%$ during the quarter ended September 30, 2010. For the quarter ended September 30, 2010, the M SCI U.S. Broad M arket Index was up $11.10 \%$ while the M SCI ACW ex. USA Investable M arket Index was up $16.80 \%$. Fixed income markets also performed well as credit spreads continued to narrow and interest rates remained low. The Barclays U.S. Universal Index was up 2.89\% during the quarter, the Barclays U.S. High Y ield Index was up $6.71 \%$, and the Barclays M ultiverse Index was up $7.37 \%$. Commodities also had a positive return for the quarter as the Dow Jones - UBS Commodity index was up 11.61\%. The System's assets increased by over $\$ 2$ billion during the quarter ended September 30, 2010 as a result of positive investment performance offset partially by benefit payments in excess of member and employer contributions. The estimated return for the quarter was approximately $7.50 \%$.

## Summary

The System had a very good fiscal year ended June 30, 2010 after two consecutive fiscal years with negative total returns. The economy and the markets experienced a significant rebound from the lows encountered during the prior fiscal year. M ost risk assets across the spectrum performed well, allowing the System to generate returns substantially in excess of the actuarial investment rate of return assumption of $8.0 \%$. The System, however, was unable to meet or exceed this assumption for the three-, five-, and ten-year periods ended June 30, 2010. We continue to believe that we are in the midst of a challenging period for asset returns for the reasons discussed above; however, we also believe that the System's asset allocation is structured to generate a long-term return that meets or exceeds the targeted actuarial rate of return assumption of the System.


A Ian H. Van Noord, CFA
Chief Investment Officer

INVESTMENTI SECTION

## Portfolio Summary Statistics

## A sset Allocation

As of J une 30, 2010
(Dollar A mounts in Thousands)

| Pension investments | Fair Value(\$) |  | \% Fair Value |
| :---: | :---: | :---: | :---: |
| Common and preferred stock (Equity): |  |  |  |
| L arge cap stocks | \$ | 3,492,153 | 7.6\% |
| M id and small cap stocks |  | 1,718,720 | 3.8\% |
| Emerging markets stocks |  | 2,189,564 | 4.8\% |
| Total Non-U.S. equity |  | 7,400,437 | 16.2\% |
| L arge cap stocks |  | 3,087,743 | 6.7\% |
| M id and small cap stocks |  | 2,195,506 | 4.8\% |
| M icrocap stocks |  | 298,635 | 0.7\% |
| Total U.S. equity |  | 5,581,884 | 12.2\% |
| Total Common and preferred stock - Asset Allocation B asis |  | 12,982,321 | 28.4\% |
| Fixed income: |  |  |  |
| Investment grade fixed income |  | 5,265,818 | 11.5\% |
| High yield and opportunistic fixed income |  | 2,757,937 | 6.0\% |
| Total U.S. Fixed income |  | 8,023,755 | 17.5\% |
| N on-U.S. core fixed income |  | 989,693 | 2.2\% |
| Emerging markets fixed income |  | 667,666 | 1.4\% |
| Total Non-U.S. Fixed income |  | 1,657,359 | 3.6\% |
| Cash and cash equivalents |  | 2,785,638 | 6.1\% |
| Total Fixed income - Asset Allocation B asis |  | 12,466,752 | 27.2\% |
| R eal estate |  | 4,183,829 | 9.1\% |
| Alternative investments: |  |  |  |
| Private equity |  | 6,124,452 | 13.4\% |
| Private debt |  | 2,446,586 | 5.3\% |
| Venture capital |  | 768,678 | 1.7\% |
| Total Alternative investments - A sset Allocation Basis |  | 9,339,716 | 20.4\% |
| Absolute return |  | 5,126,872 | 11.2\% |
| Commodities |  | 1,679,291 | 3.7\% |
| Total Pension investments - A sset Allocation Basis | \$ | 45,778,781 | 100.0\% |
| N et A sset A llocation A djustment* |  | 503,203 |  |
| Pension investments per Statement of Plan Net A ssets | \$ | 46,281,984 |  |
| Postemployment Healthcare investments | \$ | 222,284 | 100.0\% |

* Includes reclassifications of certain investments betw een asset classes and investment receivableslpayables to adjust the Statement of Plan N et A ssets classification to the basis used to measure A sset A llocation. See the table and graph which follow.


## Comparison of Actual Portfolio Distribution to A sset Allocation Plan <br> As of J une 30, 2010

| Asset Category |  | Plan |  |
| :--- | :---: | :---: | :---: |
|  |  |  | Actual |
| Common and preferred stock (Equity) |  | $28.6 \%$ | $28.4 \%$ |
| Fixed income | $27.9 \%$ | $27.2 \%$ |  |
| Real estate | $8.0 \%$ | $9.1 \%$ |  |
| Alternative investments | $20.5 \%$ | $20.4 \%$ |  |
| Absolute return | $10.0 \%$ | $11.2 \%$ |  |
| Commodities |  | $5.0 \%$ | $3.7 \%$ |
|  | Total | $100.0 \%$ |  |
|  |  |  | $100.0 \%$ |



## Portfolio Distribution 10 Year Trend

(Fair Value - Dollar A mounts in Billions)


The following lists of portfolio detail statistics present the ten largest holdings by descending order of fair value for the largest asset classes. Information on the complete holdings of the System is available by writing to the Public School Employees' Retirement System, Press Secretary, P. O. B ox 125, Harrisburg, PA 17108.

## C ommon and Preferred Stock - Non-U.S. Equity 10 Largest Holdings in Descending Order by Fair Value As of J une 30, 2010 <br> (Dollar A mounts and Shares in Thousands)

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| Nestle SA | 1,529 | 73,992 |
| BHP B illiton L td. | 2,543 | 72,449 |
| HSBC Holdings PLC | 5,575 | 56,161 |
| Royal Dutch Shell PLC | 2,091 | 52,244 |
| Roche Holding A G | 320 | 44,257 |
| Vodafone Group PLC | 21,222 | 44,168 |
| Novartis AG | 766 | 37,361 |
| British A merican Tobacco PLC | 1,105 | 35,300 |
| Siemens AG | 375 | 34,040 |
| BP PLC | 6,701 | $\mathbf{3 1 , 9 6 3}$ |
| Total of 10 Largest Holdings |  | $\mathbf{4 8 1 , 9 3 5}$ |
| Total Non-U.S. Equity - Asset Allocation Basis |  | $\mathbf{7 , 4 0 0 , \mathbf { 4 3 7 }}$ |

## Common and Preferred Stock - U.S. Equity 10 Largest Holdings in Descending Order by Fair Value

As of J une 30, 2010
(Dollar A mounts and Shares in Thousands)

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| Security Capital Preferred Growth | 16,299 | 194,914 |
| Exxon M obil Corporation | 1,984 | 113,222 |
| A pple Computer, Inc. | 368 | 92,613 |
| M icrosoft Corporation | 3,074 | 70,740 |
| Procter \& Gamble Company | 1,149 | 68,896 |
| Johnson \& Johnson | 1,085 | 64,105 |
| IBM | 502 | 61,926 |
| General Electric Company | 4,113 | 59,309 |
| JP M organ Chase \& Company | 1,554 | 56,901 |
| Bank of A merica Corporation | 3,888 | 55,871 |
| Total of 10 Largest H oldings |  | $\mathbf{8 3 8 , 4 9 7}$ |
| Total U.S. Equity - Asset Allocation Basis |  | $\mathbf{5 , 5 8 1 , 8 8 4}$ |

Fixed Income
10 Largest Holdings in Descending Order by Fair Value
As of J une 30, 2010
(Dollar A mounts and Shares in Thousands)

| Description | Maturity <br> Date | Interest <br> Rate <br> (\% ) | Par Value(\$) <br> or No. of <br> Shares | Fair <br> Value (\$) |
| :--- | :---: | ---: | ---: | ---: |
| BlackRock US Extended Core Global A Ipha Fund | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 501 | 651,739 |
| Bridgewater Int'I Inflation-Linked Bond Fund | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 341 | 462,015 |
| Bridgewater U.S. Inflation-Linked Bond Fund | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 238 | 305,999 |
| Bridgewater Pure A Ipha Fund II Ltd. | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 174 | 288,254 |
| U.S. Treasury - Inflation Index | $01 / 15 / 25$ | 2.375 | 174,296 | 193,347 |
| U.S. Treasury - Inflation Index | $01 / 15 / 16$ | 2.000 | 115,326 | 124,417 |
| U.S. Treasury - Inflation Index | $01 / 15 / 26$ | 2.000 | 104,342 | 110,334 |
| U.S. Treasury - Inflation Index | $01 / 15 / 20$ | 1.375 | 87,200 | 89,291 |
| U.S. Treasury - Notes | $08 / 15 / 19$ | 3.625 | 77,050 | 81,474 |
| U.S. Treasury - Inflation Index | $07 / 15 / 16$ | 2.500 | 64,767 | 72,073 |
| Total of 10 Largest Holdings |  |  |  | $\mathbf{2 , 3 7 8 , 9 4 3}$ |
| Total Fixed Income - Asset Allocation B asis |  |  |  | $\mathbf{1 2 , 4 6 6 , \mathbf { 7 5 2 }}$ |

## Absolute R eturn <br> 10 Largest Holdings in Descending Order by Fair Value <br> As of J une 30, 2010 <br> (Dollar A mounts and Shares in Thousands)

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| Brigade L everaged Capital Fund | 712 | 888,283 |
| Bridgewater Pure A lpha Fund II Ltd. | 511 | 854,865 |
| A QR Offshore M ulti-Strategy Fund L td. | 8 | 693,655 |
| BlackR ock Global A scent L td. | 500 | 677,196 |
| First Quadrant Global M acro Fund L td. | 5,511 | 605,556 |
| Brevan Howard Fund, Ltd. | 194 | 355,884 |
| BlackR ock Global Investors Capital Structure Investments Fund Ltd. | 161 | 215,099 |
| PIM CO Global Credit Opportunities Offshore Fund | 150 | 194,150 |
| Boston Company U S M icro Cap Hedge Fund | 118 | $\mathbf{1 9 1 , 1 0 4}$ |
| PIM CO A bsolute Return Strategy V Offshore Fund |  | $\mathbf{1 8 5 , 6 3 5}$ |
| Total of 10 Largest H oldings |  | $\mathbf{4 , 8 6 1 , 4 2 7}$ |
| Total Absolute Return - Asset Allocation Basis | $\mathbf{5 , 1 2 6 , 8 7 2}$ |  |

## Postemployment H ealthcare Investments 10 L argest Holdings in Descending Order by Fair Value <br> As of J une 30, 2010 <br> (Dollar A mounts in Thousands)

| Description | M aturity Date | Interest <br> Rate (\%) | Par Value (\$) | Fair Value (\$) |
| :---: | :---: | :---: | :---: | :---: |
| PSERS Short-Term Investment Fund | Various | Various | 110,049 | 110,049 |
| M \& T B ank Repurchase A greement | 07/01/10 | 0.010 | 21,900 | 21,900 |
| M \& T B ank Repurchase A greement | 07/01/10 | 0.010 | 21,395 | 21,395 |
| M \& T Bank Repurchase A greement | 07/01/10 | 0.010 | 13,894 | 13,894 |
| GNM A Guaranteed REM IC 2004-29 Class B | 08/16/29 | 5.000 | 4,307 | 4,481 |
| FHLM C M ulticlass 2522 Class TB | 11/15/21 | 5.500 | 2,425 | 2,470 |
| FHLM C M ulticlass 2090 Class PK | 10/15/13 | 5.490 | 2,349 | 2,451 |
| FNM A Guaranteed REM IC 2003-24 Class BE | 04/25/17 | 4.500 | 2,149 | 2,199 |
| FHLM C M ulticlass 2633 Class PD | 08/15/16 | 4.500 | 2,000 | 2,071 |
| Capital A uto R eceivables A sset Trust 2007-SN 2 Class A 4 | 05/16/11 | 1.380 | 2,051 | 2,052 |
| Total of 10 L argest H oldings |  |  |  | 182,962 |
| Total System H oldings - Postemployment H ealthcare Investments |  |  |  | 222,284 |

## C omparison of Investment A ctivity Income For Fiscal Years Ended J une 30, 2010 and 2009

(Dollar A mounts in Thousands)

| Investing Activities | 2010 |  |  | 2009 |
| :---: | :---: | :---: | :---: | :---: |
| N et appreciation (depreciation) in fair value of investments | \$ | 5,141,204 | \$ | $(17,008,184)$ |
| Short-term |  | 21,410 |  | 58,958 |
| Fixed income |  | 440,358 |  | 587,007 |
| Common and preferred stock |  | 784,431 |  | 500,001 |
| Real estate |  | 62,273 |  | 92,515 |
| A Iternative investments |  | 179,116 |  | 75,776 |
| Total investment activity income (loss) | \$ | 6,628,792 | \$ | $(15,693,927)$ |



Brokers' fees on equity investment transactions for the fiscal year ended J une 30, 2010 were $\$ 17.7$ million. The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investment transactions directly to the System. During the fiscal year ended June 30, 2010, the System earned $\$ 570,000$ from the commissions recapture program. A list of the brokers receiving fees in excess of $\$ 100,000$ during the fiscal year follows:

## Summary Schedule of Brokers' Fees (C umulative Fiscal Year A mounts Exceeding $\$ \mathbf{1 0 0 , 0 0 0}$ ) Fiscal Year Ended J une 30, 2010

| Broker Name | Fees Paid (\$) | Broker Name | Fees Paid (\$) |
| :---: | :---: | :---: | :---: |
| Jones \& A ssociates | 2,000,016 | SG Securities | 242,545 |
| Goldman Sachs \& Company | 1,534,280 | J efferies \& Company Incorporated | 228,177 |
| Instinet Corporation | 880,125 | Cantor, Fitzgerald \& Company | 218,379 |
| Credit Suisse | 854,678 | ITG Securities | 194,797 |
| M errill Lynch | 866,825 | BNY Convergex | 181,832 |
| UBS Securities | 844,994 | Edelweiss Capital Limited | 177,343 |
| K night Securities | 742,400 | B-Trade Services, LLC | 165,188 |
| Citigroup | 645,482 | Exane Securities | 146,466 |
| JP M organ Chase \& Company | 578,069 | ABNAMRO | 138,759 |
| Deutsche Bank | 536,690 | Royal Bank of Scotland | 120,608 |
| M organ Stanley \& Company | 517,746 | Credit A gricole Cheuvreux | 119,269 |
| M acquaries Equities | 485,632 | Daiwa Securities | 109,863 |
| N omura Securities International | 406,039 | N orthland Securities Incorporated | 102,458 |
| Credit Lyonnais Securities | 337,536 | Cazenove Incorporated | 101,003 |
| Liquidnet Incorporated | 245,135 |  |  |

## Professional Consultants External Investment Advisors <br> As of J une 30, 2010

## Absolute Return M anagers

- A corn Derivatives M anagement Corporation
- AQR Capital M anagement, LLC
- BlackR ock Financial M anagement, Inc.
- Boston Company A sset M anagement, LLC (The)
- Brevan Howard M aster Fund, Ltd.
- Bridgewater A ssociates, LP
- Brigade Leveraged Capital Structures Offshore, Ltd.
- First Quadrant, LP
- FX Concepts, LLC
- L azard A sset M anagement, LLC
- Pacific Investment $M$ anagement Company
- Pareto Investment M anagement, Ltd.


## U.S. Style-Oriented Small Cap Equity M anagers

- Emerald A dvisers, Inc.
- First Pacific Advisors, Inc.


## U.S. M icro Cap Equity M anagers

- Donald Smith \& Company, Inc.
- NorthPointe C apital, LLC
- Oberweis A sset M anagement, Inc.
- Thomson Horstmann \& Bryant, Inc.
- Turner Investment Partners, Inc.


## Publicly-Traded Real Estate Securities M anager

- Security Capital Research \& M anagement, Inc.


## Non-U.S. Large C ap Equity M anagers

- Baillie Gifford Overseas, Ltd.
- BlackRock Financial M anagement, Inc.
- M arathon A sset M anagement LLP
- M artin Currie, Inc.
- M ercator A sset M anagement, LP


## Active C urrency Program M anager

- Pareto Investment M anagement, Ltd.


## Professional C onsultants (Continued)

## Non-U.S. Small C ap Equity M anagers

- A cadian A sset M anagement, Inc.
- Batterymarch Financial M anagement, Inc.
- GlobeFlex Capital, LP
- M under Capital M anagement
- Oberw eis A sset M anagement, Inc.
- Pyramis Global A dvisors, Inc.
- Wasatch A dvisors, Inc.


## Non-U.S. E merging M arkets Equity M anagers

- B atterymarch Financial M anagement, Inc.
- B oston Company A sset M anagement, LLC (The)
- Templeton Investment Counsel, LLC
- Wasatch A dvisors, Inc.
- Wellington M anagement Company, LLP
- William Blair \& Company, LLC


## E nhanced Commodity Index M anagers

- Credit Suisse A sset M anagement, LLC
- NB A Iternative Fund M anagement, LLC


## Full Discretion C ommodity M anagers

- DB Advisors
- Schroders Investment M anagement N orth A merica, Inc.
- Wellington M anagement Company, LLP


## U.S. C ore Plus Fixed Income M anagers

- A berdeen A sset M anagement, Inc.
- BlackRock Financial M anagement, Inc.
- Pacific Investment M anagement Company
- Western A sset M anagement Company


## U.S. High Yield Fixed Income M anager

- M acK ay-Shields Financial Corporation


## G lobal C ore Plus Fixed Income M anagers

- A berdeen A sset M anagement, Inc.
- Fischer Francis Trees \& Watts, Inc.
- Rogge Global Partners


## E merging M arkets Debt M anagers

- Stone H arbor Investment Partners, LP
- Franklin Templeton Investments


## G lobal Treasury Inflation - Protected Securities M anager

- Bridgewater A ssociates, Inc.


## Credit Opportunities M anagers

- BlackR ock M ortgage (Offshore) Investors, LP
- Brookfield Investment M anagement, Inc.
- LBC Credit Partners II, LP
- M ariner Investment Group, LLC
- Oaktree L oan Fund 2x, LP
- Sankaty Credit Opportunities IV, LP
- Sankaty M anaged A ccount (PSERS), LP
- Sankaty M iddle M arket Opportunities Fund, LP
- TCW Credit Opportunities Fund, LP


## Real Estate Advisors

- Charter Oak A dvisors, Inc.
- GF M anagement, Inc.
- Grandbridge Real E state Capital, LLC
- Grosvenor Investment M anagement U.S., Inc.
- L\&B Realty Advisors, LLP


## Real Estate Partnerships

- A pollo European Real Estate Fund III, LP
- A pollo Real Estate Finance Corporation
- AREFIN Co-Invest Corporation
- AvalonB ay Value A dded Fund I \& II, LP
- Avenue R eal Estate Fund Parallel, LP
- Beacon Capital Strategic Partners V, LP
- Berwind Investment Partnership IV, V \& VI, LP
- Blackstone R eal Estate Partners V \& VI.TE.1, LP
- Blackstone R eal Estate Partners Europe III, LP
- BPG Co-Investment Partnership, LP
- Broadway Partners Real Estate Fund II \& III, LP
- Cabot Industrial Value Fund III, LP
- Carlyle Europe Real Estate Partners III-A, LP
- Carlyle Realty Partners III, IV \& V, LP
- Centerline Diversified Risk CM BS Fund II, LLC
- Centerline High Y ield CM BS Fund III, LLC
- Centerline Real Estate Special Situations M ortgage Fund, LLC
- Cornerstone Patriot Fund, LP
- CS Strategic Partners IV RE, LP
- CSFB Strategic Partners II \& III RE, LP
- DLJ Real Estate C apital Partners II, III \& IV, LP
- DRA Growth and Income Fund VI, LLC
- Fillmore West Fund, LP
- Five A rrows R ealty Securities V, LP
- Fortress Investment Fund I, IV \& V, LP
- Hines U.S. Office Value A dded Fund, LP
- JPM CB Strategic Property Fund
- Legg M ason Real Estate Capital I \& II, Inc.
- Lehman B rothers R eal Estate I, II \& III, LP
- LEM Real Estate M ezzanine Fund II, LP
- LF Strategic Realty Investors I \& II, LLC
- Lubert-A dler R eal Estate Fund II, III, IV, V \& V I, LP
- M adison $M$ arquette Retail Enhancement F und, LP


## Professional C onsultants (C ontinued)

- M GPA A sia Fund III, LP
- MGPA Europe Fund III, LP
- M organ Stanley Real Estate Fund II, LP
- M organ Stanley Real Estate Fund IV Special Domestic, LP
- M organ Stanley Real Estate Fund IV, V \& V I Special International, LP
- M organ Stanley Real Estate Fund V Special U.S., LP
- M organ Stanley Real Estate Fund VII Global, LP
- O'Connor N orth A merican Property Partners I \& II, LP
- Paladin R ealty L atin A merica Investors III, LP
- Peabody Global Real Estate Partners, LP
- Prime Property Fund, LLC
- PRISA
- ProLogis North A merican Industrial Fund, LP
- RCG Longview Debt Fund IV, LP
- RCG Longview Equity Fund, LP
- RREEF America REIT II, Inc.
- Stockbridge R eal E state Fund I, II \& III, LP
- Strategic Partners Value Enhancement Fund, LP
- UBS (US) Trumbull Property Fund, LP
- Westbrook Real Estate Fund I, LP
- W hitehall Street R eal Estate V, VI, V II \& V III, LP
- William E. Simon \& Sons Realty Partners, LP


## Farmland Advisor

- Prudential A gricultural Group


## Private Equity/Venture C apital Partnerships

- ABS Capital Partners II, LP
- Actis Emerging M arkets 3, LP
- A dams Capital M anagement, LP
- A isling Capital Partners II \& III, LP
- Allegheny New M ountain Partners, LP
- A pax Europe VII, LP
- Baring A sia Private Equity Fund III \& IV, LP
- BG M edia Investors, LP
- Blue Point Capital Partners (B) I \& II, LP
- Bridgepoint Capital II Partnership, LP
- Bridgepoint Europe IA , IIA , IIIA \& IV, LP
- Bruckmann, R osser, Sherrill \& Company, LP
- Capital International Private Equity Fund V, LP
- Catterton Growth Partners, LP
- Catterton Partners V \& VI, LP
- Cinven Fund (Fourth), LP (The)
- Clarity Partners I \& II, LP
- Co-Investment 2000 F und, LP (The)
- Co-Investment Fund II, LP (The)
- Credit Suisse First B oston Equity Partners, LP
- Credit Suisse First B oston International Equity Partners, LP
- Crestview Capital Partners I \& II, LP
- Cross A tlantic Technology Fund I \& II, LP
- CSFB Strategic Partners II, III-B \& III-V C, LP
- CS Strategic Partners Fund IV \& IV-VC, LP
- CVC Capital Partners A sia Pacific III, LP
- CVC European Equity Partners V, LP
- Deutsche European Partners IV, LP
- DLJ M erchant B anking Partners III, LP
- DLJ Strategic Partners, LP
- Dubin Clark Fund II, LP
- Edgewater Growth Capital Partners, LP
- Edgewater Private Equity Fund III, LP
- Edison Venture Fund III, LP
- Evergreen Pacific Partners I \& II, LP
- First Reserve Fund XI \& XII, LP
- Franklin Capital A ssociates III, LP
- Furman Selz Investors II \& III, LP
- Graham Partners Investments (B), LP
- Green Equity Investors II, LP
- Greenpark International Investors III, LP
- Greenwich Street Capital Partners II, LP
- Halifax Capital Partners, LP
- Heritage Fund I, LP
- HSBC Private Equity Fund 6, LP
- Irving Place Capital Partners II \& III, LP
- Jefferies Capital Partners IV, LP
- Jefferson Partners Fund IV (PA ), LP
- K BL Healthcare Ventures, LP
- KKR 2006 Fund, LP
- KRG Capital Fund II, III \& IV, LP
- Landmark Equity Partners II, III, IV, V, XIII \& XIV, LP
- Landmark M ezzanine Partners, LP
- Lehman B rothers Communications Investors, LP
- Lehman B rothers M erchant B anking Partners II, LP
- Lexington Capital Partners I, LP
- Lindsay, Goldberg \& B essemer, LP
- LLR Equity Partners I, II \& III, LP
- Milestone Partners II \& III, LP
- M organ Stanley Dean Witter C apital Partners IV, LP
- Navis A sia Fund V, LP
- NEPA Venture Fund II, LP
- New M ountain Partners I \& III, LP
- New York Life Capital Partners, I, II, III \& IV, LP
- N ordic Capital V II Beta, LP
- Novitas Capital I \& II, LP
- P/A Fund (The)
- PAI Europe III, IV \& V, LP
- Palladium Equity Partners II-A , LP
- Partners Group Secondary 2008, LP
- Permira IV, LP
- Perseus-Soros BioPharmaceutical Fund, LP
- Platinum Equity Capital Partners-A I \& II, LP
- PNC Equity Partners I \& II, LP
- Providence Equity Partners VI, LP
- Psilos Group Partners III, LP
- Quadrangle Capital Partners I \& II, LP
- Quaker BioVentures I \& II, LP
- SCP Private Equity Partners I \& II, LP
- StarV est Partners I \& II, LP
- Sterling Capital Partners, LP
- Sterling Venture Partners, LP
- TDH III, LP
- Tenaya Capital IV-P \& V, LP
- TL VentureIII, LP
- TPG Partners II, V \& VI, LP
- Trilantic Capital Partners IV, LP
- U.S. Equity Partners II, LP
- Wicks Communications \& M edia Partners, LP


## Professional C onsultants (C ontinued)

- Willis Stein \& Partners, LP


## Private Debt Partnerships

- Avenue A sia Special Situations Fund II, III \& IV, LP
- Avenue Europe Special Situations F und, LP
- Avenue Special Situations Fund II, III, IV \& V, LP
- Cerberus Institutional Partners, LP (Series Two, Three and Four)
- Gleacher M ezzanine Fund I \& II, LP
- Gold Hill Venture Lending 03-A, LP
- GSC Partners CDO Investors III \& IV, LP
- GSC Recovery II \& III, LP
- NYLIM M ezzanine Partners Parallel Fund I \& II, LP
- OCM Opportunities Fund VII \& VII-B, LP
- Versa Capital Fund I \& II, LP
- Windjammer Senior Equity Fund III, LP


## Public M arket E merging Investment Program

 M anagers- AH Lisanti Capital Growth, LLC
- A tivo Capital M anagement, LLC
- Biondo Group, LLC (The)
- Conestoga Capital A dvisors
- Denali A dvisors, LLC
- EDMP,Inc.
- Hanseatic M anagement Services, Inc.
- Harvest Fund A dvisors, LLC
- Hellman, Jordan M anagement Company, Inc.
- John Hsu Capital Group, Inc.
- Opus Capital Group, LLC
- Piedmont Investment Advisors, LLC
- Pugh Capital M anagement, Inc.
- Shah C apital M anagement, Inc.
- Westwood Global Investments, LLC
- Zacks Investment M anagement, Inc.


## Alternative Investment C onsultant

- Portfolio Advisors, LLC


## Custodian and Securities Lending A gent

- The Bank of New York M ellon Corporation


## Investment Accounting A pplication Service Provider

- Financial Control Systems, Inc.


## Investment E valuator and General Investment

## Consultant

- WilshireA ssociates, Inc.


## Proxy Voting Agent

- Glass, Lewis \& Co., LLC


## Real E state I nvestment C onsultant

- Courtland Partners, L td.


## Hedge Fund C onsultant

- Aksia, LLC



## Financial <br> $\square$

ACTUARI AL

## Statistical

January 15, 2010

The Retirement B oard
Public School Employees'
Retirement System of Pennsylvania
P.O. Box 125

Harrisburg, Pennsylvania 17108

## Ladies and Gentlemen:

This report presents the results of the annual actuarial valuation of the Public School Employees' Retirement System of Pennsylvania (Retirement System or PSERS) as of June 30, 2009.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2009, including pension and survivor benefits, and as required by the Public School Employees' Retirement Code, 24 Pa. C.S. $\S 8101$ et. seq. (Retirement Code) is the basis for the contribution rate for fiscal year 2010/2011.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees. As adopted by the B oard of Trustees at their J anuary 2009 meeting, the valuation interest rate was changed to $8.25 \%$ for the June 30,2008 valuation and to $8.00 \%$ for all future valuation years.

The actuarial assumptions and methods for financial reporting meet the parameters set forth in Governmental Accounting Standards B oard (GASB) Statements No. 25, 43, and 50, and are unchanged from the prior valuation. The actuarial assumptions and methods for GASB 25 disclosure are the same as for pension funding, except that in fiscal years in which the amortization requirements of the Retirement Code result in an equivalent single amortization period that is longer than 30 years, the GASB 25 amortization payment will be determined based on 30 -year level-dollar funding. The Health Insurance funding provisions of the Retirement Code differ from the GASB 43 disclosure retirements. For funding purposes the actuarial liability equals the assets in the health insurance account, and a contribution is determined that will assure the solvency of the account through the third fiscal year following the valuation date. For purposes of GASB 43 disclosure the Health Insurance actuarial liability and normal cost requirements have been determined under the entry age actuarial cost method, with 30 -year level dollar funding. (The entry age actuarial cost method meets the GASB 43 parameters for determining actuarial liability and normal cost, and is the cost method specified by the Retirement Code for the PSERS pension plan.)

## ACTUARIAL SECTION

## Assets and M embership Data

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

## Funding A dequacy

The valuation results determine that the employer contribution rate for fiscal year 2010/2011 is $8.22 \%$. A s of June 30, 2009, the total funded ratio of the plan (for Pensions and Health Insurance combined) is $79.2 \%$, based on the accrued liability and actuarial value of assets cal culated under the funding requirements of Section 8328 of the Retirement C ode.

## Financial Results and Membership Data

D etailed summaries of the financial results of the valuation and membership data used in preparing the val uation are shown in the val uation report. The actuary prepared supporting schedules included in the A ctuarial and Statistical Section of the PSER S ComprehensiveA nnual Financial Report (CAFR), and also prepared the trend data schedules included in the Financial Section of the CAFR.

The report does not take into account any changes in U.S. equity prices and bond yields that have occurred after the valuation date. Taking these into account may significantly change the market and actuarial value of assets shown. The effect of these events on any funded ratios shown, and on Retirement System calculations, is not known. Retirement System funding and financial accounting rules generally prohibit reflection of changes in assets and underlying economic conditions that occur after the valuation date.

Qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the A ctuarial Standards B oard. The qualified actuaries are members of theA merican A cademy of A ctuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice.

Respectfully submitted,

$J$ anet Cranna, FSA, M AAA, EA Principal, Consulting A ctuary


Dana Spangher, FSA, M AAA, EA Principal, Consulting A ctuary


Edward Quinn, MAAA, EA
Director, Retirement A ctuary

## ACTUARIAL SECTION

## Executive Summary

This report presents the actuarial valuation as of June 30, 2009 for the Public School Employees' Retirement System of Pennsylvania.

The principal valuation results include:

- The employer contribution rate for fiscal year 2010/2011, which is $8.22 \%$.
- The total funded ratio of the plan determined as of June 30, 2009 under the funding requirements of Section 8328 of the Retirement Code, which is $79.2 \%$ based on the accrued liability and the actuarial value of assets for Pensions and Health Insurance as of that date.
- The determination of the actuarial experience as of June 30, 2009, which is a loss of $\$ 4.6$ billion.
- A nnual disclosures as of June 30,2009 as required by Statements No. 25, 43, and 50 of the Governmental A ccounting Standards B oard.

The valuation was completed based upon membership and financial data submitted by the R etirement System. Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are included in the valuation report. The actuary prepared supporting schedules included in the A ctuarial and Statistical Section of the PSERS Comprehensive A nnual Financial Report (CAFR), and also prepared the trend data schedules included in the Financial Section of the CAFR.

## C hanges Since L ast Year

## Legislative and Administrative Changes

There were no legislative or administrative changes since the prior valuation.

The benefit provisions and contribution provisions are summarized in Table 13.

## Actuarial Assumptions and M ethods

As adopted by the B oard of Trustees at their J anuary 2009 meeting, the valuation interest rate was changed to $8.00 \%$ for the June 30,2009 valuation.

The actuarial assumptions and methods are outlined in Table 12.

## Contribution Rates

The results of the valuation as of June 30, 2009 determine the employer contribution rate for fiscal year 2010/2011. The calculated employer contribution rate for the 2010/2011 fiscal year is $8.22 \%$, and the B oard of Trustees certified this rate at their December 2009 meeting.

The average contribution rate payable by the members is $7.34 \%$. Effective J anuary 1, 2002, the employee contribution rate for members who elected to have prior school service and intervening military service converted to Class T-D service increased by $1.25 \%$. However, anyone who enrolls (or re-enrolls) in PSERS on or after July 1,2001 is automatically a member of Class T-D with regard to all subsequent school service and subsequent intervening military service, with a member rate equal to $7.50 \%$. The average member contribution rate of $7.34 \%$ is a pay-weighted average of member rates that vary based on date of hire and based on Class T-D membership.

## Reasons for Change in the Rate Calculated by the Actuary

The employer contribution rate cal culated by the actuary increased from 4.78\% for fiscal year 2009/2010 to 8.22\% for fiscal year 2010/2011. The reconciliation of the employer contribution rates by source is as follows:

- FY 2009/2010 rate after adjustment for pension floor
4.78\%
- A djustment due to effect of $4 \%$ floor on FY 2010 pension contribution
- FY 2009 /2010 rate prior to adjustment for
pension floor
- Increase due to change in normal rate 0.00
- Net decrease due to payroll growth and liability experience
- Increase due to actuarial loss on assets
- Increase due to change in interest rate from $8.25 \%$ to $8.00 \%$
- Decrease due to change in health insurance contribution rate
- FY 2010/2011 employer contribution rate


## ACTUARIAL SECTION

## Summary of Principal Results

Summarized below are the principal financial results for the Public School Employees' Retirement System based upon the actuarial valuation as of June 30, 2009. Comparable results from the June 30, 2008 valuation are also shown.

| Item | June 30, 2009 | J une 30, 2008 |
| :---: | :---: | :---: |
| Demographics |  |  |
| A ctive M embers |  |  |
| - Number | 279,701 | 272,690 |
| - Average A nnual Pay | \$ 44,779 | \$ 43,718 |
| A nnuitants |  |  |
| - Number | 177,963 | 173,540 |
| - Average A nnual B enefit Payment | \$ 22,456 | \$ 21,963 |
| Contribution Rates (as a Percentage of Payroll) | (Fiscal Y ear 2010/2011) | (Fiscal Y ear 2009/2010) |
| Employer Contribution Rate: |  |  |
| - Total Pension Contribution R ate | 7.58\% | 4.00\% |
| - Health Insurance Contribution Rate | 0.64 | 0.78 |
| - Total Contribution Rate Calculated by A ctuary | 8.22\% | 4.78\% |
| - Total Contribution Rate Certified by Board | **8.22\% | 4.78\% |
| M ember Average Contribution R ate |  |  |
| - Total Rate | $\frac{7.34}{15.56 \%}$ | $\frac{7.32}{12.10 \%}$ |
| Actuarial Funded Status* |  |  |
| - A ccrued Liability | \$ 75,625.9 M il | \$ 70,941.4 M il |
| - A ctuarial Value of A ssets | 59,886.7 | 61,017.9 |
| - U unfunded A ccrued Liability | \$ 15,739.2 | \$ 9,923.5 |
| - Funded Ratio | 79.2\% | 86.0\% |

*Pensions and Health Insurance combined
** In July 2010 the PA General A ssembly passed Fiscal Code Bill (Act 2010-46) that accompanied the Commonwealth's General Fund Budget (A ct 2010-1A ). A s a result the PSERS B oard met in July 2010 and recertified the employer contribution rate for Fiscal Year 2010-2011. The rate was decreased from $8.22 \%$ to $5.64 \%$ as directed under the provisions of Act 46 .

## ACTUARIAL SECTION

## Five-Year History of Principal Financial Results

Five-Year History of Contribution Rates
(As a \% of Payroll)

|  |  | Employer Contributions |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | M ember <br> Contributions | Normal Cost | Unfunded A ccrued <br> Liability | Health <br> Insurance | Total* |
|  |  | $8.08 \%$ | $(0.50) \%$ | $0.64 \%$ | $8.22 \%$ |
| $2009 / 2010$ |  | 7.35 | $(3.72)$ | 0.78 | 4.78 |
| $2008 / 2009$ | 7.29 | 6.68 | $(3.37)$ | 0.76 | 4.76 |
| $2007 / 2008$ | 7.25 | 6.68 | $(0.24)$ | 0.69 | 7.13 |
| $2006 / 2007$ | 7.21 | 6.62 | $(0.95)$ | 0.74 | 6.46 |

* Certified by the B oard.

The following chart shows a five-year history of employer contribution rates:
Five-Year History of Employer Contribution Rates


## ACTUARIAL SECTION

## Funded Ratio

The financing objective of the Retirement System is to:

- Fully fund all current costs based on the normal contribution rate determined under the funding method; and
- Liquidate the unfunded accrued liability based on the amortization schedules as required by the Retirement Code, i.e., a schedule of 10 or 30 years for each change in the unfunded accrued liability according to Act 40 .

The total contribution rate of $8.22 \%$ of payroll payable by employers, when taken together with the contributions payable by the members, current assets, and expected future asset returns, is sufficient to achieve the financing objective.

The Retirement System's total funded ratio on this funding basis is measured by comparing the actuarial value of assets (based on a 5 -year moving average market value) with the accrued liability. The accrued liability for pensions is the present value of benefits accumulated to date under the Retirement System's funding method and reflects future pay increases for active employees. The accrued liability for Health Insurance equals the assets in the Health Insurance account.

On this basis, the R etirement System's total funded ratio (for Pensions and Health Insurance combined) is $79.2 \%$ as of June 30, 2009. This funded ratio is based on an actuarial value of assets of $\$ 59.9$ billion and an accrued liability of $\$ 75.6$ billion. The funded ratio for Pensions al one is also $79.2 \%$ as of J une 30, 2009, based on an actuarial value of assets of $\$ 59.8$ billion, and an accrued liability of $\$ 75.5$ billion.

## Reasons for Change in the Total F unded Ratio

The total funded ratio decreased from $86.0 \%$ as of June 30 , 2008 to $79.2 \%$ as of June 30, 2009. This decrease is primarily due to asset losses that occurred during the year and the additional actuarial liability due to the change in the valuation interest rate from $8.25 \%$ to $8.00 \%$. There were additional losses due to contributions that were less than the normal cost plus one year's interest on the June 30, 2008 unfunded accrued liability. These losses were partially offset by a net actuarial experience gain.

Five-Year History of Total Funded Ratio*
(\$ A mounts in M illions)

| Valuation as of <br> June 30 | A ccrued <br> Liability | A ctuarial Value <br> of A ssets | Unfunded <br> A crrued <br> Liability | Funded Ratio |
| :---: | :---: | :---: | :---: | :---: |
| 2009 | $\$ 75,625.9$ | $\$ 59,886.7$ | $\$ 15,739.2$ | $79.2 \%$ |
| 2008 | $70,941.4$ | $61,017.9$ | $9,923.5$ | 86.0 |
| 2007 | $66,593.1$ | $57,155.1$ | $9,438.0$ | 85.8 |
| 2006 | $64,720.1$ | $52,557.5$ | $12,162.6$ | 81.2 |
| 2005 | $61,226.6$ | $51,219.3$ | $10,007.3$ | 83.7 |

[^4]The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

Five-Year History of Accrued Liability and Actuarial Value of Assets


The following chart shows a ten-year history of the total funded ratio for Pensions and Health Insurance:

Ten-Year History of Total Funded Ratio (2000-2009)


## GASB No. 25 Disclosure

Statement No. 25 of the Governmental A ccounting Standards B oard (GASB) established reporting standards for the annual financial reports of defined benefit pension plans. The Retirement System complied with Statement No. 25 beginning with the June 30,1996 valuation. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the Retirement System's financial statements.

The "schedule of funding progress" shows historical trend information about the Retirement System's actuarial value of pension assets, the actuarial accrued liability for pensions and the unfunded actuarial accrued liability for pensions. The actuarial funded ratio for pensions is measured by comparing the actuarial value of pension assets (based on a 5 -year moving average market value) with the accrued liability for pensions. The accrued liability is the present value of pension benefits accumulated to date under the Retirement System's funding method and reflects future pay increases for active employees. On this basis, the R etirement System's funded ratio for pensions is $79.2 \%$ as of June 30, 2009. This funded ratio is based on an actuarial value of pension assets of $\$ 59.8$ billion and an accrued liability for pensions of $\$ 75.5$ billion. See Table 7 for more detail.

The schedule of employer contributions shows historical trend information about the GASB A nnual Required Contribution (ARC) for pensions, and the percentage of the ARC contributed to the Retirement System. The pension contribution requirements of the Retirement Code differ from the GASB disclosure requirements. A $s$ a result, there may be different determinations of contribution requirements for GASB accounting purposes and for State funding purposes. For GASB accounting purposes, the A RC equals the employer normal cost for pensions plus an amount that will amortize the unfunded actuarial accrued liability for pensions over a period no longer than 30 years. (For years ending on or before June 30, 2006, the maximum amortization period for the GASB ARC was 40 years.) A though the employer normal cost for GASB accounting equals the PSERS normal cost for funding, section 8328 of the Retirement C ode specifies different amortization periods for different portions of the unfunded accrued liability - each change in the unfunded accrued liability is amortized over either a 10 or 30-year period - as well as a $4 \%$ floor on the employer pension rate. Therefore, the resulting equivalent single amortization period may be any number of years. Table 8a presents the GASB 25 schedule of employer contributions.

## GASB No. 43 Disclosure

GASB Statement No. 43 establi shed reporting standards for the annual financial reports of postemployment benefit plans other than pension plans, and these reporting requirements apply to the PSERS health insurance premium assistance plan. The Retirement System complied with Statement No. 43 beginning with the June 30,2006 valuation. The statement requires disclosure of the "schedule of funding progress" and the "schedule of employer contributions" in the Retirement System's financial statements.

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

The GASB 43 schedule of funding progress, presented in Table 7, shows that as of June 30, 2009, the heal th insurance assets were $\$ 105,114,000$, measured on a market value basis, while the GASB 43 health insurance liabilities were $\$ 1,159,055,000$, resulting in a funded ratio of $9.1 \%$.

The GASB 43 schedule of employer contributions first applies to fiscal year 2006/2007, and is presented in Table 8b.

## ACTUARIAL SECTION

## R ate of Return

The investment return of the trust fund (i.e. total return including both realized and unrealized gains and losses) for fiscal years 2004/2005 through 2008/2009 is shown in the table below. The return based on the actuarial value of assets used for determining annual contribution rates is also shown.

The rate of return on market value reflects the investment earnings on the market value of assets from the beginning of the fiscal year to the end of the fiscal year. The actuarial assets are the assets recognized for valuation purposes. A ctuarial assets are based on a smoothed market value that spreads the difference between the actual and expected return over a period of five years. The rate of return on the actuarial value of assets is a measure of the increase in the actuarial value of assets from the beginning of the fiscal year to the end of the fiscal year.

| Fiscal Y ear | Rate of Return B ased on |  |
| :---: | :---: | :---: |
|  | M arket Value* | A ctuarial Value |
| $2008 / 2009$ | $-26.5 \%$ | $3.5 \%$ |
| $2007 / 2008$ | -2.8 | 12.4 |
| $2006 / 2007$ | 22.9 | 13.9 |
| $2004 / 2005$ | 15.3 | 7.9 |

[^5]
## ACTUARIAL SECTION

## TABLE 1

## SUMMARY OF RESULTS OF ACTUARIAL VALUATION AS OF JUNE 30, 2009

(\$ A mounts in Thousands)

| Item | June 30, 2009 |  | June 30, 2008 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| M ember Data |  |  |  |  |  |
| 1. Number of M embers |  |  |  |  |  |
| a) Active M embers |  | 279,701 |  | 272,690 |  |
| b) Inactive M embers and V estees |  | 103,805 |  | 100,803 |  |
| c) A nnuitants, B eneficiaries and Survivor A nnuitants |  | 177,963 |  | 173,540 |  |
| d) Total |  | 561,469 |  | 547,033 |  |
| 2. A nnualized Salaries | \$ | 12,524,593 | \$ | 11,921,469 |  |
| 3. A nnual A nnuities | \$ | 3,996,288 | \$ | 3,811,499 |  |
| Valuation Results |  |  |  |  |  |
| 4. Present V alue of Future Pension B enefits |  |  |  |  |  |
| a) A ctive M embers | \$ | 57,954,419 | \$ | 53,857,049 |  |
| b) Inactive $M$ embers and $V$ estees |  | 930,887 |  | 941,679 |  |
| c) A nnuitants, B eneficiaries and Survivor A nnuitants |  | 37,112,318 |  | 34,617,953 |  |
| d) Total | \$ | 95,997,624 | \$ | 89,416,681 |  |
| 5. Present V alue of Future Pension Normal Cost |  |  |  |  |  |
| a) A ctive $M$ embers | \$ | 9,879,309 | \$ | 9,090,223 |  |
| b) Employer |  | 10,597,579 |  | 9,480,821 |  |
| c) Total | \$ | 20,476,888 | \$ | 18,571,044 |  |
| 6. Pension A ccrued Liability |  |  |  |  |  |
| a) A ctive $M$ embers (4a)- (5c) | \$ | 37,477,531 | \$ | 35,286,005 |  |
| b) Inactive $M$ embers and $V$ estees |  | 930,887 |  | 941,679 |  |
| c) A nnuitants, B eneficiaries and Survivor A nnuitants |  | 37,112,318 |  | 34,617,953 |  |
| d) Total | \$ | 75,520,736 | \$ | 70,845,637 |  |
| 7. Heal th Insurance A ssets for Premium A ssistance | \$ | 105,114 | \$ | 95,785 |  |
| 8. Total A ccrued Liability for Funding (6) + (7) | \$ | 75,625,850 | \$ | 70,941,422 |  |
| 9. A ctuarial V alue of A ssets | \$ | 59,886,689 | \$ | 61,017,942 |  |
| 10. Funded Status (9) / (8) |  | 79.2 \% |  | 86.0 | \% |
| 11. Unfunded A ccrued Liability (8) - (9) | \$ | 15,739,161 | \$ | 9,923,480 |  |
| 12. Total Normal Cost R ate |  | 15.42 \% |  | 14.67 | \% |
| 13. M ember Contribution R ate |  | 7.34 \% |  | 7.32 | \% |
| 14. Employer Normal Cost R ate (12) - (13) |  | 8.08 \% |  | 7.35 | \% |
| E mployer Annual Funding Requirement |  | 2010/2011 |  | 2009/2010 |  |
| 15. Employer Contribution Rate Calculated by A ctuary |  |  |  |  |  |
| a) Normal |  | 8.08 \% |  | 7.35 | \% |
| b) Unfunded A ccrued Liability |  | (0.50) |  | (3.72) |  |
| c) Preliminary Pension R ate |  | 7.58 \% |  | 3.63 | \% |
| d) Preliminary Pension R ate with 4\% Floor |  | 7.58 |  | 4.00 |  |
| e) Health Insurance |  | 0.64 |  | 0.78 |  |
| f) Total R ate |  | 8.22 \% |  | 4.78 | \% |

# ACTUARIAL SECTION 

## TABLE 2

## SUMMARY OF SOURCES OF EMPLOYER CONTRIBUTION RATE AS OF JUNE 30, 2009

(\$ Amounts in Thousands)

|  | Funding <br> Period <br> (Years) | $\begin{gathered} \text { Beginning } \\ \text { July } 1 \\ \hline \hline \end{gathered}$ |  | Initial <br> Liability |  | 7/1/2009 Outstanding Balance |  | Annual <br> Amount | ment Percent * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Amortization of: |  |  |  |  |  |  |  |  |  |
| a) 2001 Fresh Start Unfunded Base | 10 | 2002 | \$ | $(9,137,130)$ | \$ | $(3,858,968)$ | \$ | $(1,499,028)$ | (11.09)\% |
| b) 2001 Asset Method Change (Act 38) | 10 | 2002 |  | $(4,638,306)$ |  | $(1,958,938)$ |  | $(760,956)$ | (5.63)\% |
| c) Other 2001 Changes | 30 | 2002 |  | 7,570,507 |  | 6,656,353 |  | 642,168 | 4.75 \% |
| d) 2002 Changes | 30 | 2003 |  | 3,014,171 |  | 2,890,790 |  | 274,704 | 2.03 \% |
| e) 2002 COLA | 10 | 2003 |  | 463,795 |  | 251,220 |  | 75,928 | 0.56 \% |
| f) 2003 COLA | 10 | 2004 |  | 754,524 |  | 533,466 |  | 133,746 | 0.99 \% |
| g) 2003 Changes | 30 | 2004 |  | 3,229,593 |  | 3,336,953 |  | 312,757 | 2.32 \% |
| h) 2004 Changes | 30 | 2005 |  | 2,903,093 |  | 3,034,742 |  | 280,869 | 2.08 \% |
| i) 2005 Changes | 30 | 2006 |  | 3,765,745 |  | 3,978,527 |  | 363,995 | 2.69 \% |
| j) 2006 Changes | 30 | 2007 |  | 812,226 |  | 866,473 |  | 78,440 | 0.58 \% |
| k) 2007 Changes | 30 | 2008 |  | (3,870,741) |  | $(4,165,943)$ |  | $(373,502)$ | (2.76)\% |
| 1) 2008 Changes | 30 | 2009 |  | $(347,095)$ |  | $(375,730)$ |  | $(33,388)$ | (0.25)\% |
| m) 2009 Changes | 30 | 2010 |  | 4,550,216 |  | 4,550,216 |  | 436,519 | 3.23 \% |
| Total Amortization Payments |  |  |  |  | \$ | 15,739,161 | \$ | $(67,748)$ | (0.50)\% |
| 2. Employer Normal Cost Rate |  |  |  |  |  |  |  |  | 8.08\% |
| 3. Preliminary Pension Rate (1) + (2) |  |  |  |  |  |  |  |  | 7.58 \% |
| 4. Preliminary Pension Rate with 4\% Floor -- Maximum of (3) and 4\% |  |  |  |  |  |  |  |  | 7.58 \% |
| 5. Health Insurance Rate |  |  |  |  |  |  |  |  | 0.64 \% |
| 6. Final Total Employer Contribution Rate Calculated by Actuary (4) + (5) |  |  |  |  |  |  |  |  | 8.22 \% |

[^6]TABLE 3
determination of health insurance contribution rate for fiscal year 2010/2011
(\$ A mounts in Thousands)


[^7]
## SUMMARY OF MARKET VALUE OF PLAN ASSETSAS OF JUNE 30, 2009

(\$ A mounts in Thousands)

## M arket V alue

1. $M$ arket $V$ alue of $A$ ssets as of J une 30, 2008
2. Contributions During Fiscal 2008/2009
3. Disbursements During Fiscal 2008/2009
\$ 62,569,211
1,519,500
$4,750,819$
4. Investment Return During Fiscal 2008/2009
a) Investment R eturn (N et of Investment Expenses)
b) A dministrative Expenses
c) Investment Return A fter Expenses (a) - (b)
5. $M$ arket $V$ alue of $A$ ssets as of J une 30, 2009
$(1)+(2)-(3)+(4 c)$
6. R ate of $R$ eturn (per W ilshire)
\$ $(16,199,840)$
37,458
\$ $(16,237,298)$
\$ 43,100,594
(26.54)\%

## Asset Allocation by Account

1. M embers' Savings A ccount
2. A nnuity Reserve A ccount
3. State A ccumulation A ccount
4. Health Insurance A ccount
\$ 11,087,345
$37,112,318$
$(5,204,183)$

105,114
\$ 43,100,594

## ACTUARIAL SECTION

TABLE 5
DERIVATION OF ACTUARIAL VALUE OF ASSETSAS OF JUNE 30, 2009*
(\$ A mounts in Thousands)

1. $M$ arket $V$ alue of $A$ ssets as of June 30, 2009
\$ 43,100,594
2. Determination of Deferred Gain (Loss)

| Fiscal Y ear | Return on A ssets |  |  |  | Deferred A mount |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | A ctual | Expected | Difference | \% Deferred |  |
| 2008/2009 | \$ $(16,237,298)$ | \$ 4,900,688 | \$ (21,137,986) | 80\% | \$ (16,910,389) |
| 2007/2008 | $(1,816,980)$ | 4,728,472 | $(6,545,452)$ | 60\% | $(3,927,271)$ |
| 2006/2007 | 12,658,871 | 4,359,054 | 8,299,817 | 40\% | 3,319,927 |
| 2005/2006 | 7,901,068 | 4,242,878 | 3,658,190 | 20\% | 731,638 |
|  |  |  |  |  | \$ (16,786,095) |
| 3. A ctuarial V alue of A ssets (1) - (2) |  |  |  |  | \$ 59,886,689 |
| 4. A ctuarial R ate of Return ** |  |  |  |  | 3.54\% |

* The amounts reported include assets for both Pensions and Health Insurance.
** The actuarial rate of return is the investment return based on the change in the actuarial value of assets from the J une 30, 2008 valuation to the J une 30, 2009 valuation.


## ACTUARIAL SECTION

TABLE 6
ANALY SIS OF CHANGE IN UNFUNDED ACCRUED LIABILITY AS OF JUNE 30, 2009*
(\$ A mounts in Thousands)

| Item | A mount |  |
| :---: | :---: | :---: |
| 1. Unfunded A ccrued Liability at J une 30, 2008 | \$ | 9,923,480 |
| 2. Interest Credit to J une 30, 2009 |  | 844,364 |
| 3. Contributions Toward Unfunded A ccrued Liability |  | $(421,101)$ |
| 4. Expected Unfunded A ccrued Liability at June 30, 2009 $(1)+(2)-(3)$ | \$ | 11,188,945 |
| 5. A ctual U nfunded A ccrued Liability at J une 30, 2009 | \$ | 15,739,161 |
| 6. Increase (Decrease) from Expected (5) - (4) | \$ | 4,550,216 |
| 7. Reasons for Increase (Decrease) |  |  |
| (a) Experience (Gains) Losses |  |  |
| (i) Loss from Investment Return on A ctuarial $V$ alue of A ssets | \$ | 2,800,622 |
| (ii) Loss from New Entrants and Pickups |  | 310,489 |
| (iii) Gain from Salary Increases Less than Expected |  | $(225,166)$ |
| (iv) Loss from M ortal ity Experience |  | 90,538 |
| (v) Gain from V ested Termination Experience (R etirement/D isability/Termination) |  | $(71,915)$ |
| (vi) Gain from Non-vested Termination Experience |  | $(215,117)$ |
| (vii) L oss from D ata/M iscellaneous |  | 75,133 |
| Subtotal | \$ | 2,764,584 |
| (b) Change in A ssumption | \$ | 1,785,632 |
| (c) Grand Total | \$ | 4,550,216 |

[^8]
## ACTUARIAL SECTION

TABLE 7

## SChedule of funding progress for pensions*

GASB STATEMENT NO. 25 DISCLOSURE
(\$ A mounts in Thousands)

| Valuation as of June 30 |  | Actuarial Value of Assets |  |  |  | Unfunded <br> Actuarial <br> Accrued <br> Liability | Funded <br> Ratio |  | Covered Payroll | Unfunded <br> Accrued <br> Liability as a Percentage of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | \$ | 59,781,575 | \$ | 75,520,736 | \$ | 15,739,161 | 79.2 \% | \$ | 12,524,593 | 125.7 \% |
| 2008 |  | 60,922,157 |  | 70,845,637 |  | 9,923,480 | 86.0 |  | 11,921,469 | 83.2 |
| 2007 |  | 57,057,838 |  | 66,495,870 |  | 9,438,032 | 85.8 |  | 11,410,257 | 82.7 |
| 2006 |  | 52,464,726 |  | 64,627,361 |  | 12,162,635 | 81.2 |  | 11,419,049 | 106.5 |
| 2005 |  | 51,122,156 |  | 61,129,444 |  | 10,007,288 | 83.6 |  | 10,527,668 | 95.1 |
| 2004 |  | 51,949,622 |  | 56,978,143 |  | 5,028,521 | 91.2 |  | 10,030,705 | 50.1 |

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


## SCHEDULE OF FUNDING PROGRESS FOR POSTEM PLOYMENT BENEFITS OTHER THAN PENSIONS* <br> GASB STATEMENT NO. 43 DISCLOSURE

(\$ A mounts in Thousands)

| Valuation <br> as of <br> June 30 | Actuarial <br> Value of <br> Assets | Actuarial <br> Accrued <br> Liability | Unfunded <br> Actuarial <br> Accrued <br> Liability | Funded <br> Ratio | Unfunded <br> Covered <br> Payroll | Accrued <br> Liability as a <br> Percentage of <br> Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 2009 | $\$$ | 105,114 | $\$$ | $1,159,055$ | $\$$ | $1,053,941$ |
| 2008 | 95,785 | $1,133,011$ | $1,037,226$ | $9.1 \%$ | $\$ 8$ | $12,524,593$ |
| 2007 | 97,292 | $1,058,092$ | 960,800 | 9.2 | $11,921,469$ | $8.4 \%$ |
| 2006 | 92,777 | $1,056,154$ | 963,377 | 8.8 | $11,410,257$ | 8.7 |

[^9]
# ACTUARIAL SECTION 

TABLE 8a
SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR PENSIONS
GASB STATEMENT NO. 25 DISCLOSURE
(\$ A mounts in Thousands)

| Fiscal <br> Year <br> Ended <br> June 30 | Annual <br> Required <br> Contribution | Actual <br> Employer <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 2009 | $\$$ | $1,761,295$ | $\$$ |
| 2008 | $1,852,238$ | 503,227 | $29 \%$ |
| 2007 | $1,708,821$ | 753,532 | 41 |
| 2006 | $1,328,373$ | 659,545 | 39 |
| 2005 | 945,107 | 456,878 | 34 |
| 2004 | 321,091 | 431,556 | 46 |
|  |  | 321,091 | 100 |

The Annual Required Contribution (ARC) presented above was determined as part of the actuarial valuation as of two years prior to the dates indicated (i.e., the ARC for the fiscal year ended June 30, 2009 was determined by the valuation completed as of June 30, 2007 which was based on an $8.50 \%$ interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:
Actuarial Cost Method:
Amortization Method:
Remaining Amortization Period:
Asset Valuation Method:
Actuarial Assumptions:

- Investment Rate of Return *
8.00\%
- Projected Salaried Increases * 6.00\%
* Includes Inflation at:
3.25\%

TABLE 8b
SCHEDULE OF EM PLOYER CONTRIBUTIONS FOR POSTEM PLOYMENT BENEFITS OTHER THAN PENSIONS
GASB STATEMENT NO. 43 DISCLOSURE
(\$ A mounts in Thousands)

| Fiscal <br> Year <br> Ended <br> June 30 | Annual <br> Required <br> Contribution | Actual <br> Employer <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
|  |  | 109,531 | $\$$ |
| 2009 | $\$$ | 92,493 | $84 \%$ |
| 2008 | 101,352 | 81,317 | 80 |
| 2007 | 94,970 | 86,763 | 91 |

The fiscal year ended June 30, 2009 Annual Required Contribution (ARC) presented above was determined as part of the actuarial valuation as of two years prior to the date indicated (i.e., the ARC for the fiscal year ended June 30, 2009 was determined by the valuation completed as of June 30, 2007, which was based on an $8.50 \%$ interest rate.) Prior to that, the ARC was determined as part of the actuarial valuation as of one year prior to the dates indicated.

Additional information as of the latest actuarial valuation follows:

| Valuation Date: | $6 / 30 / 2009$ |
| :--- | ---: |
| Actuarial Cost Method: | Entry Age |
| Amortization Method: | Level dollar open |
| Remaining Amortization Period: | 30 Years |
| Asset Valuation Method: | Market |
|  |  |
| Actuarial Assumptions: | $8.00 \%$ |
| - Investment Rate of Return * | $6.00 \%$ |
| - Projected Salaried Increases * |  |
| * Includes Inflation at: | $3.25 \%$ |

TABLE 9
SOLVENCY TEST
COM PARATIVE SUMMARY OF ACCRUED LIABILITY AND ACTUARIAL VALUE OF ASSETS
(\$ A mounts in Thousands)
PENSIONS

| V aluation as of June 30 | (1) <br> Active <br> M ember Contributions | (2) <br> Retirees and Beneficiaries | (3) <br> A ctive M ember Employer Financed | A ctuarial V alue of A ssets | Portion of A ccrued Liability Covered by V aluation A ssets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | \$ 11,087,345 | \$ 37,112,318 | \$ 27,321,073 | \$ 59,781,575 | 100 \% | 100 \% | 42 \% |
| 2008 | 10,532,683 | 34,617,953 | 25,695,001 | 60,922,157 | 100 | 100 | 61 |
| 2007 | 10,183,433 | 31,603,788 | 24,708,649 | 57,057,838 | 100 | 100 | 62 |
| 2006 | 9,571,668 | 29,117,164 | 25,938,529 | 52,464,726 | 100 | 100 | 53 |
| 2005 | 9,116,347 | 27,051,245 | 25,058,989 | 51,219,293 | 100 | 100 | 60 |
| 2004 | 8,755,109 | 24,482,234 | 23,885,657 | 52,094,479 | 100 | 100 | 79 |

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

| V aluation as of June 30 | (1) <br> Active <br> M ember Contributions | (2) <br> Retirees and Beneficiaries | (3) <br> A ctive M ember Employer Financed | A ctuarial $V$ alue of A ssets | Portion of A ccrued Liability Covered by $V$ aluation A ssets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | \$ 0 | \$ 759,891 | \$ 399,164 | \$ 105,114 | N/A | 14 \% | 0 \% |
| 2008 | 0 | 749,070 | 383,941 | 95,785 | N/A | 13 | 0 |
| 2007 | 0 | 684,677 | 373,415 | 97,292 | N/A | 14 | 0 |
| 2006 | 0 | 684,435 | 371,719 | 92,777 | N/A | 14 | 0 |

TABLE 10
HISTORY AND PROJECTION OF CONTRIBUTION RATES AND FUNDED RATIOS¹

| Fiscal Y ear Ending $J$ une | Appropriation Payroll (thousands) | Contribution Rates ${ }^{2}$ |  |  |  |  |  |  | Funded Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | E mployee | Employer Normal Cost | Employer Unfunded Liability | Preliminary Employer Pension | Final <br> Employer <br> Pension | Employer Health Insurance | Total Employer |  |
| 2000 | \$ 8,939,598 | 5.72 \% | 6.40 \% | (2.04) \% | 4.36 \% | 4.36 \% | 0.25 \% | 4.61 \% | 123.8 \% |
| 2001 | 9,414,884 | 5.77 | 6.29 | (4.65) | 1.64 | 1.64 | 0.30 | 1.94 | 114.4 |
| $2002{ }^{3}$ | 9,378,944 | 6.43 | 5.63 | (6.05) | (0.42) | 0.00 | 1.09 | 1.09 | 104.8 |
| $2003{ }^{4}$ | 9,652,881 | 7.10 | 7.20 | (10.03) | 1.00 | 0.18 | 0.97 | 1.15 | 97.2 |
| 2004 | 10,030,705 | 7.08 | 7.25 | (4.27) | 2.98 | 2.98 | 0.79 | 3.77 | 91.2 |
| $2005{ }^{5}$ | 11,062,589 | 7.12 | 7.48 | (7.10) | 0.38 | 4.00 | 0.23 | 4.23 | 83.7 |
| 2006 | 11,505,093 | 7.16 | 7.61 | (4.28) | 3.33 | 4.00 | 0.69 | 4.69 | 81.2 |
| $2007{ }^{6}$ | 11,821,951 | 7.21 | 6.62 | (0.95) | 5.67 | 5.72 | 0.74 | 6.46 | 85.8 |
| 2008 | 12,881,244 | 7.25 | 6.68 | (0.24) | 6.44 | 6.44 | 0.69 | 7.13 | 86.0 |
| 2009 | 12,500,000 | 7.29 | 6.68 | (3.37) | 3.31 | 4.00 | 0.76 | 4.76 | 79.2 |
| $2010{ }^{7}$ | 12,899,000 | 7.32 | 7.35 | (3.72) | 3.63 | 4.00 | 0.78 | 4.78 | 73.4 |
| $2011{ }^{7}$ | 13,510,000 | 7.34 | 8.08 | (0.50) | 7.58 | 7.58 | 0.64 | 8.22 | 66.8 |
| 2012 | 13,920,859 | 7.37 | 8.02 | 1.85 | 9.87 | 9.87 | 0.72 | 10.59 | 58.3 |
| 2013 | 14,345,321 | 7.38 | 8.00 | 20.50 | 28.50 | 28.50 | 0.72 | 29.22 | 54.2 |
| 2014 | 14,797,664 | 7.40 | 7.96 | 23.42 | 31.38 | 31.38 | 0.71 | 32.09 | 55.1 |
| 2015 | 15,280,148 | 7.42 | 7.93 | 24.97 | 32.90 | 32.90 | 0.70 | 33.60 | 56.7 |
| 2016 | 15,794,512 | 7.43 | 7.91 | 24.68 | 32.59 | 32.59 | 0.68 | 33.27 | 58.5 |
| 2017 | 16,341,270 | 7.44 | 7.89 | 24.18 | 32.07 | 32.07 | 0.67 | 32.74 | 60.5 |
| 2018 | 16,926,735 | 7.45 | 7.87 | 23.54 | 31.41 | 31.41 | 0.65 | 32.06 | 62.6 |
| 2019 | 17,557,664 | 7.46 | 7.85 | 22.78 | 30.63 | 30.63 | 0.64 | 31.27 | 64.7 |
| 2020 | 18,232,076 | 7.46 | 7.84 | 21.97 | 29.81 | 29.81 | 0.61 | 30.42 | 66.8 |
| 2021 | 18,948,040 | 7.47 | 7.82 | 21.15 | 28.97 | 28.97 | 0.59 | 29.56 | 68.9 |

1. The projection of contribution rates is based on the assumption that there are no changes in demographic assumptions, no changes in benefit provisions, and no actuarial gains or losses other than gains or losses on the actuarial value of assets that result from recognizing currently deferred gains or losses on the market value of assets.
2. In general, the Preliminary Employer Pension Rate equals the sum of the rates for the Employer Normal Cost and the Unfunded Liability; and the Final Employer Pension Rate is the greater of the Preliminary Pension Rate and any Pension Rate Floor stated in the Retirement Code. The Total Employer Rate is the sum of the Final Employer Pension R ate and the Employer Health Insurance Rate.
3. For fiscal years ending on or before J une 30, 2002, there was no floor specified in the Retirement Code, but the Final Employer Pension R ate could not be less than 0\%, since money can only be removed from the trust for purposes allowed by the Retirement Code.
4. A ct 2002-38 amended the Retirement Code to place a permanent 1\% floor on the Employer Pension Rate, but also provided that the Total Employer R ate for the year ending J une 30, 2003 could not exceed $1.15 \%$, resulting in a $0.18 \%$ Final Employer Pension Rate (the Total Employer Rate of $1.15 \%$ minus the $0.97 \%$ Employer H ealth Insurance Rate).
5. A ct 2003-40 amended the Retirement Code to increase the Employer Pension Rate Floor from $1 \%$ to $4 \%$.
6. Revised actuarial assumptions based on a five-year experience review ending J une 30,2005 were used to determine the contributions for the fiscal year ending J une 30, 2007. Since the benefit changes under Act 2001-9 had not been in effect throughout the entire period covered by the study the Board decided, at its December 2005 meeting, to delay making any changes to the retirement rate assumptions until further data became available. The 5.72\% Final Employer Pension Rate equals the 6.46\% Total Employer Rate certified by the B oard at that meeting, minus the $0.74 \%$ Employer Health Insurance Rate. The $5.67 \%$ Preliminary Employer Pension Rate equals the sum of the Employer Normal Cost and Unfunded Liability rates. The Normal Cost and Unfunded Liability rates were calculated by the actuary in J anuary 2006, based on the package of assumptions adopted at the December 2005 meeting.
7. The Board at its J anuary 2009 meeting adopted to reduce the interest rate from $8.50 \%$ to $8.25 \%$ for the J une 30,2008 valuation and to $8.00 \%$ thereafter.

## ACTUARIAL SECTION

TABLE 11

## HISTORY AND PROJECTION OF ANNUITANTS, BENEFICIARIES, SURVIVOR ANNUITANTS AND ACTIVE MEMBERS

| Valuation as of June 30 | New Annuitants <br> During the Year | Annuitant Deaths During the Year | Annuitants at End of Year | Beneficiaries and Survivor Annuitants at End of Year | Total Annuitants, Beneficiaries and Survivor Annuitants | Active Members |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2000 |  |  | 127,404 | 6,654 | 134,058 | 234,210 |
| 2001 |  |  | 125,880 | 6,836 | 132,716 | 243,311 |
| 2002 |  |  | 134,300 | 7,114 | 141,414 | 242,616 |
| 2003 |  |  | 138,383 | 7,310 | 145,693 | 246,700 |
| 2004 |  |  | 143,997 | 7,555 | 151,552 | 247,901 |
| 2005 |  |  | 148,727 | 7,792 | 156,519 | 255,465 |
| 2006 |  |  | 153,757 | 8,056 | 161,813 | 263,350 |
| 2007 |  |  | 159,760 | 8,266 | 168,026 | 264,023 |
| 2008 |  |  | 165,091 | 8,449 | 173,540 | 272,690 |
| 2009 |  |  | 169,919 | 8,044 | 177,963 | 279,701 |
| 2010 | 15,634 | 4,666 | 180,887 | 8,590 | 189,477 | 279,701 |
| 2011 | 12,845 | 4,808 | 188,924 | 9,099 | 198,023 | 279,701 |
| 2012 | 12,936 | 5,014 | 196,846 | 9,566 | 206,412 | 279,701 |
| 2013 | 12,870 | 5,226 | 204,490 | 10,003 | 214,493 | 279,701 |
| 2014 | 12,674 | 5,422 | 211,742 | 10,414 | 222,156 | 279,701 |
| 2015 | 12,137 | 5,618 | 218,261 | 10,812 | 229,073 | 279,701 |
| 2016 | 11,747 | 5,823 | 224,185 | 11,200 | 235,385 | 279,701 |
| 2017 | 11,634 | 6,019 | 229,800 | 11,582 | 241,382 | 279,701 |
| 2018 | 11,431 | 6,211 | 235,020 | 11,965 | 246,985 | 279,701 |
| 2019 | 11,405 | 6,406 | 240,019 | 12,346 | 252,365 | 279,701 |

* The number for the first year of the projection reflects the assumption that all Active members age 74 and above,
and that all vested inactive members who have reached superannuation age retire immediately. and that all vested inactive members who have reached superannuation age retire immediately.


# ACTUARIAL SECTION 

## TABLE 12

## DESCRIPTION OF ACTUARIAL ASSUM PTIONS AND METHODS <br> A SSUM PTIONS

Interest Rate: $8.00 \%$ per annum, compounded annually (adopted as of June 30, 2009). The components are $3.25 \%$ for inflation and $4.75 \%$ for the real rate of return. A ctuarial equivalent benefits are determined based on 4\% (since 1960).

Separation from Service: Illustrative rates of assumed separation from service are shown in the following table. (Rates of non-vested withdrawal, of death, and of disability were adopted as of June 30, 2005; other rates were adopted as of J une 30, 2000):

| Age | A nnual Rate of: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non-Vested Withdrawal | Vested Withdrawal* |  | Death | Disability | Early Retirement** | Superannuation Retirement |
|  |  | Less Than 10 Years of Service | 10 or M ore Y ears of Service |  |  |  |  |
|  | M ales |  |  |  |  |  |  |
| 25 | 12.40\% | 5.50\% | 1.40\% | .042\% | .024\% |  |  |
| 30 | 10.00 | 3.00 | 1.40 | . 057 | . 024 |  |  |
| 35 | 11.00 | 3.00 | 1.10 | . 062 | . 100 |  |  |
| 40 | 11.00 | 3.00 | . 80 | . 072 | . 180 |  |  |
| 45 | 11.00 | 3.00 | . 50 | . 100 | . 180 |  |  |
| 50 | 11.00 | 3.00 | 1.78 | . 152 | . 280 |  | 24.00\% |
| 55 | 10.50 | 3.00 | 3.50 | . 252 | . 430 | 10.00\% | 24.00 |
| 60 | 10.00 | 2.40 | 4.50 | . 467 | . 580 | 10.00 | 28.00 |
| 65 |  |  |  | . 870 | . 100 |  | 20.00 |
| 69 |  |  |  | 1.335 | . 100 |  | 20.00 |
|  | F emales |  |  |  |  |  |  |
| 25 | 14.10\% | 9.50\% | 4.00\% | .019\% | .040\% |  |  |
| 30 | 14.10 | 7.50 | 4.00 | . 023 | . 040 |  |  |
| 35 | 14.10 | 5.50 | 2.00 | . 031 | . 080 |  |  |
| 40 | 10.90 | 3.50 | 1.00 | . 043 | . 130 |  |  |
| 45 | 10.90 | 3.00 | . 55 | . 061 | . 180 |  |  |
| 50 | 10.90 | 3.00 | 1.50 | . 085 | . 250 |  | 10.00\% |
| 55 | 10.90 | 3.00 | 3.00 | . 146 | . 480 | 10.00\% | 10.00 |
| 60 | 10.90 | 3.50 | 5.90 | . 284 | . 480 | 15.00 | 25.00 |
| 65 |  |  |  | . 561 | . 160 |  | 28.00 |
| 69 |  |  |  | . 866 | . 160 |  | 20.00 |

* Vested Withdrawal - At least 5 years service but not eligible for Early or Superannuation retirement.
** Early Retirement - Age 55 with 25 years service, but not eligible for Superannuation retirement.
Death after Retirement: The Uninsured Pensioners 1994 M ortality Table (UP94) with mortality improvements projected 10 years, and with age set back one year for males and females, adopted in 2005, are used to project mortality for healthy annuitants and for dependent beneficiaries. Special mortality tables based on PSERS' experience are used for disability retirements. (The 1995 George B. B uck M ortal ity Tables, rated forward one year for males and unadjusted for females, adopted in 2000, are used to determine actuarial equivalent benefits.)


## ACTUARIAL SECTION

Table 12 (C ontinued)
Salary Increase: Effective average of $6 \%$ per annum, compounded annually (adopted as of June 30,2005 ). The components are $3.25 \%$ for inflation, $1 \%$ for real wage growth and $1.75 \%$ for merit or seniority increases. Representative values are as follows:

| A ge | Annual Rate of <br> Salary Increase |
| :---: | :---: |
| 20 | $12.00 \%$ |
| 30 | 9.00 |
| 40 | 7.00 |
| 50 | 4.75 |
| 55 | 4.50 |
| 60 | 4.25 |
| 65 | 4.25 |
| 70 | 4.25 |

## MISCELLANEOUS

Option 4 Elections: $100 \%$ of members are assumed to elect a refund of contributions and a reduced annuity.

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

## Health Insurance

Elections: $66 \%$ of eligible retirees are assumed to elect premium assistance.

Administrative Expenses: A ssumed equal to $2 \%$ of contributions made during the year.

## METHODS

C alculations: The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system, and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Asset Valuation M ethod: A five-year moving market average value of assets that recognizes the $8.00 \%$ ( $8.25 \%$ prior to J une 30,2009 and $8.50 \%$ prior to J une 30,2008 ) actuarial expected investment return immediately and spreads the difference between the actual return on the market value of assets and the expected return on the actuarial value of assets over a period of five years (adopted as of June 30, 2001).

Actuarial Cost M ethod for Pension Funding: Entry A ge Normal Cost M ethod (modified slightly as of June 30, 2005 to use a pay-weighted average normal contribution rate). The results of each June 30 valuation normally determine the employer contribution rate for the second succeeding fiscal year. The outstanding balance of the unfunded accrued liability as of June 30, 2001 and the decrease in the unfunded accrued liability due to the actuarial asset method change provided by Act 38 continue to be amortized over a 10-year period, with level dollar funding, beginning July 1 2002. The increases in the unfunded accrued liability due to the July 1, 2002 and July 1, 2003 cost-of-living adjustments provided by Act 38 were both recognized at June 30, 2002 and continue to be amortized over a 10 -year period, with level dollar funding starting on July 1, 2003 and July 1,2004 , respectively. All other changes in the unfunded accrued liability at J une 30, 2001 and June 30, 2002 - including the Act 9 benefit changes - are amortized over a 30 -year period, with level dollar funding starting on July 1, 2002, and J uly 1, 2003, respectively. Post June 30, 2002 benefit changes for active members and retirees are amortized over a 10-year period with level dollar funding. Post June 30, 2002 gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 30 -year period with level dollar funding. A ct 40 also provided a $4.00 \%$ floor on the employer pension rate.

## ACTUARIAL SECTION

## Actuarial Cost M ethod for GASB 25 A ccounting for

Pensions: Same as for pension funding, except that in fiscal years in which the amortization requirements of the Retirement Code result in an equivalent single amortization period that is longer than the maximum allowable period specified by GA SB 25 (40 years for fiscal years ending on or before June 30, 2006; and 30 years for subsequent fiscal years), the GA SB 25 amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period equal to the maximum allowable period specified by GASB 25.

## Actuarial Cost M ethod for Health Insurance Funding:

The actuarial liability equals the assets in the health insurance account, and the results of the June 30 valuation determine the contribution rate for the second succeeding fiscal year. The rate so determined is the rate necessary to establish reserves sufficient to cover administrative expenses and provide premium assistance payments for all participating eligible annuitants during the third fiscal year that follows the valuation date.

A ctuarial C ost M ethod for G ASB 43 Accounting for Health Insurance: The actuarial liability is determined under the entry age actuarial cost method, and the A nnual Required Contribution (ARC) for the second fiscal year that follows the valuation date is equal to the entry age normal cost for heal th insurance plus an amount that will amortize the entry age unfunded actuarial liability for health insurance over a period of 30 years.

## DATA

Census and A ssets: The valuation was based on members of the Retirement System as of J une 30, 2009 and does not take into account future members. All census data was supplied by the R etirement System and was subject to reasonable consistency checks. The actuary adjusts the data to account for service and pay earned by members on or before the valuation that is not reported by the Retirement System until after the actuarial valuation is performed. A sset data was supplied by the Retirement System.

TABLE 13
SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS

## MEMBERSHIP

For valuation purposes, all employees are considered to be full coverage. All employees who become members on and after J anuary 1, 1966 are members of the dual coverage group. Dual coverage members contribute to both PSERS and to Social Security.

BENEFITS
Superannuation Annuity
Eligibility

A mount
A ge 62, or age 60 with 30 years of service, or 35 years of service regardless of age.
$2.5 \%$ of final average salary times years of school service and intervening military service. 2\% of final average salary for non-school service and for members who do not elect Class T-D coverage. M inimum of $\$ 100$ per year of service. "Final average salary" means the highest average annual salary for any 3 years of service.

A nnual salary is subject to a limit of $\$ 200,000$, as adjusted under Section 401(a)(17). As of June 30, 2009, the adjusted limit is $\$ 230,000$.

For members who elect coverage under Class T-D, the maximum benefit is equal to the limit established by Section 415 of the Internal Revenue Code.

## E arly Retirement Annuity

Eligibility
A mount

A ge 55 with 25 years of service.
A ccrued benefit as of date of retirement, reduced $1 / 4 \%$ for each month by which commencement of payments precedes Superannuation A ge.

For members who elect coverage under Class T-D, the maximum benefit is equal to the limit established by Section 415 of the Internal Revenue Code.

## Withdrawal Annuity

Eligibility $\quad 5$ years of service.
A mount
A ccrued benefit deferred to superannuation retirement age or an actuarially reduced benefit payable immediately. A ctuarially equival ent benefits are based on 4\% interest and the 1995 George B. Buck mortality tables, rated forward one year for males and unadjusted for females.

## Disability Annuity

Eligibility
A mount
5 years of service.
The standard single life annuity if
the total number of credited service is greater than 16.667, otherwise the standard single life annuity multiplied by the lesser of the following ratios: ( $Y * / Y$ ) or ( $16.667 / Y$ ) where $Y$ is the number of years of credited service and $Y *$ is the total years of credited service if the member were to continue as a school employee until superannuation retirement age (or at current age, if later). M inimum of $\$ 100$ per year of service.

## Return of Contributions

Eligibility Death or separation from service and member does not qualify for other benefits.

A mount Refund of accumulated deductions includes interest (less annuity payments received prior to death in the case of a retired member).

## Death Benefit

Eligibility Death of an active member or vestee who was eligible to receive an annuity.

A mount $\quad$ The present value of the annuity that would have been effective if the member retired on the day before death. Option 1 (see next page) assumed payable if no other option elected.

## Normal and Optional F orms of Benefits

Normal Form: Life annuity with a guaranteed payment equal to member contributions with interest.
Option 1: $\quad$ Reduced benefit with refund of balance of present value of annuity at retirement over payments received. If balance is less than $\$ 5,000$, benefit is paid in lump sum; otherwise, beneficiary may elect annuity and/or lump sum.

Option 2: Joint and $100 \%$ survivorship annuity.
Option 3: Joint and $50 \%$ survivorship annuity.
Option 4: Benefit of equivalent actuarial value, including lump sum payment of member contributions.

## Health C are Premium Assistance

Eligibility Retired members who:
(a) have $241 / 2$ or more years of service, or
(b) are disability annuitants, or
(c) have 15 or more years of service and who both terminated school service and retired after attaining superannuation age and
(d) participate in the PSERS health options program or in an employer-sponsored health insurance program.
A mount Participating eligible annuitants receive health insurance premium assistance payments from the Health Insurance A ccount equal to the lesser of $\$ 100$ per month or the actual monthly premium. All administrative expenses necessary to operate the health insurance premium assistance program are to be funded by the Health Insurance A ccount. The Health Insurance A ccount is credited with contributions of the Commonwealth and the employers.

## CONTRIBUTIONS

By Members Members who elected coverage under Class T-D and who were most recently enrolled prior to July 22, 1983 contribute at a rate of $6^{1} / 2 \%$ of compensation, while members who elected coverage under Class T-D and who were most recently enrolled on or after July 22, 1983 contribute at a rate of $7 \frac{1}{2} \%$ of compensation. M embers who did not elect coverage under Class T-D and who were most recently enrolled prior to July 22, 1983 contribute at a rate of $51 / 4 \%$ of compensation, while members who did not elect coverage under Class T-D and who were most recently enrolled on or after July 22, 1983 and prior to July 1,2001 contribute at a rate of $61 / 4 \%$ of compensation. A nyone who enrolls or re-enrolls on or after July 1, 2001 automatically has coverage under class T-D for subsequent school service and subsequent intervening military service, and must contribute at a rate of $71 / 2 \%$ of compensation. Reduction in rate for a joint coverage member: $40 \%$ of Social Security tax, exclusive of disability and medical coverage portion.

By Commonwealth and School Districts

B alance of required contribution determined as normal contribution, accrued liability contribution, supplemental annuity contribution, experience adjustment factor and premium assistance contribution, is funded by the Commonwealth and the School Districts.

## ACTUARIAL SECTION

## TABLE 14

## SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2009

(\$ A mounts in Thousands)

ACTIVE MEMBERS *

| Item | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| Number of Members | 75,892 | 203,809 | 279,701 |
| Annual Salaries** | $\$$ | $3,841,116$ | $\$$ |
| Average Age *** | 44.4 | $8,683,477$ | $\$$ |
| Average Service $* * *$ | 11.2 | 44.7 | 44.6 |

* Excludes 103,805 inactive members and vestees.
** The salaries shown in the table above represent an annual rate of pay for the year ended June 30, 2009 for members who were in active service on June 30, 2009.
*** Average completed years of age and service.

ANNUITANTS AND BENEFICIARIES

| Item | Number | Annual <br> Annuities* |  | Average Annuities |  | Average Age |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annuitants (Normal, Early and Withdrawal) | 162,206 | \$ | 3,786,453 | \$ | 23,343 | 69.8 |
| Survivors and Beneficiaries | 8,044 |  | 79,117 |  | 9,836 | 76.0 |
| Disabled Annuitants | 7,713 |  | 130,718 |  | 16,948 | 63.1 |
| Total | 177,963 | \$ | 3,996,288 | \$ | 22,456 | 69.8 |

\# The annuities shown in the table above represent the annual amount payable as of July 1, 2009 for participants who were in payment on June 30, 2009.

## ACTUARIAL SECTION

## EXHIBIT I

ACTIVE MEMBERSHIP DATA AS OF JUNE 30, 2009
NUMBER AND AVERAGEANNUAL SALARY

| Age | Service |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |  |
| Under 25 | 9,816 | 40 |  |  |  |  |  |  |  | 9,856 |
|  | \$29,755 | \$31,693 |  |  |  |  |  |  |  | \$29,763 |
| 25-29 | 22,062 | 6,916 |  |  |  |  |  |  |  | 29,023 |
|  | \$38,142 | \$48,524 | \$37,810 |  |  |  |  |  |  | \$40,615 |
| 30-34 | 10,503 | 14,102 | 3,905 | 38 |  |  |  |  |  | 28,548 |
|  | \$35,593 | \$51,508 | \$58,932 | \$45,548 |  |  |  |  |  | \$46,660 |
| 35-39 | 9,870 | 8,228 | 11,188 | 2,521 | 67 |  |  |  |  | 31,874 |
|  | \$27,882 | \$49,650 | \$61,644 | \$68,025 | \$45,430 |  |  |  |  | \$48,563 |
| 40-44 | 11,400 | 7,062 | 6,207 | 6,344 | 2,113 | 72 |  |  |  | 33,198 |
|  | \$23,699 | \$39,555 | \$56,075 | \$69,048 | \$68,596 | \$46,867 |  |  |  | \$44,699 |
| 45-49 | 11,113 | 8,967 | 6,237 | 4,108 | 4,995 | 1,824 | 135 |  |  | 37,379 |
|  | \$22,561 | \$33,006 | \$44,546 | \$60,116 | \$70,016 | \$66,205 | \$43,734 |  |  | \$41,410 |
| 50-54 | 8,409 | 8,241 | 7,732 | 5,198 | 4,573 | 5,096 | 3,773 | 103 |  | 43,125 |
|  | \$23,503 | \$32,944 | \$41,292 | \$52,421 | \$63,062 | \$72,334 | \$73,102 | \$45,527 |  | \$46,339 |
| 55-59 | 5,520 | 5,356 | 5,638 | 5,563 | 5,233 | 3,546 | 6,752 | 2,273 | 26 | 39,907 |
|  | \$23,524 | \$33,286 | \$42,018 | \$51,144 | \$59,278 | \$68,459 | \$77,872 | \$80,051 | \$47,947 | \$52,409 |
| 60-64 | 3,274 | 2,772 | 2,530 | 2,659 | 2,800 | 1,921 | 1,242 | 1,182 | 278 | 18,658 |
|  | \$20,442 | \$30,332 | \$38,032 | \$45,206 | \$51,342 | \$58,440 | \$66,428 | \$80,259 | \$80,973 | \$44,128 |
| Over 64 | 2,466 | 1,520 | 1,091 | 855 | 773 | 557 | 421 | 221 | 229 | 8,133 |
|  | \$14,637 | \$21,555 | \$27,635 | \$34,105 | \$39,126 | \$40,252 | \$42,200 | \$52,802 | \$75,317 | \$27,974 |
| Total | 94,433 | 63,204 | 44,573 | 27,286 | 20,554 | 13,016 | 12,323 | 3,779 | 533 | 279,701 |
|  | \$28,952 | \$41,353 | \$50,028 | \$57,340 | \$61,803 | \$66,855 | \$73,665 | \$77,581 | \$76,932 | \$44,779 |

## ACTUARIAL SECTION

## EXHIBIT II

THE NUM BER AND AVERAGE ANNUALANNUITY AS OF JUNE 30, 2009
RETIRED ON ACCOUNT OF SUPERANNUATION, EARLY RETIREMENT AND THOSE IN RECEIPT OF WITHDRAWAL ANNUITIES

| Age | Years of Service |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |  |
| Under 50 |  | 2,694 | 1,145 | 366 | 116 | 19 |  |  |  | 4,340 |
|  |  | \$835 | \$1,934 | \$4,584 | \$9,566 | \$14,953 |  |  |  | \$1,730 |
| 50-54 |  | 798 |  |  | 253 |  |  | 6 |  | 2,730 |
|  |  | \$1,380 | \$1,821 | \$4,455 | \$10,029 | \$20,884 | \$32,112 | \$35,219 |  | \$5,101 |
| 55-59 |  | 691 | 1,917 | 1,034 | 817 | 1,404 | 5,936 | 2,412 | 3 | 14,214 |
|  |  | \$4,243 | \$2,249 | \$6,121 | \$15,336 | \$32,034 | \$45,524 | \$54,047 | \$60,065 | \$33,187 |
| 60-64 | 365 | 831 | 3,135 | 2,243 | 2,068 | 3,245 | 11,982 | 9,816 | 218 | 33,903 |
|  | \$7,402 | \$3,694 | \$3,269 | \$9,141 | \$19,068 | \$29,914 | \$41,171 | \$54,349 | \$59,654 | \$35,767 |
| 65-69 | 706 | 1,271 | 3,138 | 3,152 | 2,998 | 3,754 | 9,397 | 6,189 | 715 | 31,320 |
|  | \$3,700 | \$3,376 | \$4,367 | \$9,050 | \$15,752 | \$24,788 | \$34,785 | \$46,722 | \$60,252 | \$27,091 |
| 70-74 | 750 | 1,026 | 2,787 | 2,740 | 3,101 | 3,499 | 5,131 | 3,870 | 929 | 23,833 |
|  | \$1,386 | \$2,615 | \$3,939 | \$7,419 | \$12,270 | \$20,001 | \$29,530 | \$37,680 | \$47,554 | \$20,332 |
| 75-79 | 760 | 1,031 | 2,550 | 2,499 | 2,880 | 3,168 | 3,564 | 2,609 | 1,105 | 20,166 |
|  | \$4,004 | \$2,067 | \$3,458 | \$6,347 | \$11,009 | \$17,438 | \$25,965 | \$35,543 | \$42,255 | \$17,295 |
| 80-84 | 778 | 979 | 2,344 | 2,482 | 2,623 | 2,466 | 2,094 | 1,641 | 748 | 16,155 |
|  | \$5,772 | \$1,732 | \$3,346 | \$6,276 | \$10,939 | \$16,650 | \$22,635 | \$29,621 | \$39,715 | \$13,932 |
| 85-89 | 766 | 670 | 1,527 | 1,657 | 1,442 | 1,360 | 956 | 996 | 335 | 9,709 |
|  | \$6,411 | \$1,785 | \$3,344 | \$6,003 | \$9,963 | \$14,419 | \$19,106 | \$23,988 | \$33,638 | \$11,182 |
| Over 89 | 270 | 483 | 1,007 | 902 | 836 | 746 | 549 | 648 | 395 | 5,836 |
|  | \$3,850 | \$1,983 | \$3,749 | \$6,592 | \$10,147 | \$13,633 | \$18,457 | \$21,967 | \$26,494 | \$11,173 |
| Total | 4,395 | 10,474 | 20,503 | 17,544 | 17,134 | 19,821 | 39,700 | 28,187 | 4,448 | 162,206 |
|  | \$4,514 | \$2,130 | \$3,352 | \$7,226 | \$13,079 | \$21,936 | \$35,592 | \$45,356 | \$44,644 | \$23,343 |

## ACTUARIAL SECTION

## EXHIBIT III

THE NUMBER AND AVERAGE ANNUALANNUITY AS OF JUNE 30, 2009
BENEFICIARIES AND SURVIVOR ANNUITANTS

| Age | Years of Service |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |  |
| Under 50 | 82 | 32 | 28 | 33 | 27 | 23 | 9 | 11 | 245 |
|  | \$7,817 | \$1,716 | \$3,461 | \$5,076 | \$7,100 | \$12,755 | \$16,412 | \$11,832 | \$7,034 |
| 50-54 | 69 | 21 | 26 | 24 | 18 | 15 | 16 | 10 | 199 |
|  | \$9,356 | \$1,934 | \$2,799 | \$5,769 | \$9,116 | \$20,814 | \$11,913 | \$12,710 | \$8,500 |
| 55-59 | 123 | 23 | 26 | 38 | 40 | 68 | 38 | 11 | 367 |
|  | \$14,768 | \$3,629 | \$4,191 | \$6,544 | \$12,778 | \$13,646 | \$16,317 | \$8,607 | \$12,020 |
| 60-64 | 172 | 36 | 30 | 40 | 58 | 138 | 120 | 25 | 619 |
|  | \$16,059 | \$2,736 | \$4,009 | \$6,098 | \$11,464 | \$15,549 | \$19,099 | \$14,316 | \$14,031 |
| 65-69 | $190$ | 56 | 68 | 59 | 64 | 156 | $148$ | 36 | 777 |
|  | $\$ 15,068$ | \$3,240 | \$5,155 | \$7,039 | \$11,683 | \$17,356 | \$20,687 | \$15,556 | \$14,012 |
| 70-74 | 220 | 100 | 84 | 85 | 85 | 160 | 153 | 72 | 959 |
|  | \$11,504 | \$2,995 | \$4,527 | \$7,641 | \$11,143 | \$14,149 | \$19,150 | \$18,767 | \$11,838 |
| 75-79 | 247 | 112 | 133 | 126 | 117 | 206 | 173 | 105 | 1,219 |
|  | \$9,665 | \$2,883 | \$4,309 | \$6,627 | \$9,020 | \$12,695 | \$14,768 | \$20,900 | \$10,286 |
| 80-84 | $330$ | $149$ | $136$ | $154$ | $162$ | $183$ | $229$ | 102 | $1,445$ |
|  | $\$ 7,465$ | $\$ 2,633$ | $\$ 3,940$ | \$6,506 | $\$ 8,726$ | $\$ 11,174$ | \$11,996 | \$16,733 | \$8,516 |
| 85-89 | 249 | 149 | 136 | 128 | 143 | 146 | 240 | 100 | 1,291 |
|  | \$6,382 | \$2,384 | \$3,627 | \$5,517 | \$7,299 | \$9,552 | \$11,011 | \$12,714 | \$7,356 |
| Over 89 | 142 | 110 | 77 | 80 | 72 | 112 | 178 | 152 | 923 |
|  | \$4,485 | \$2,099 | \$3,507 | \$5,169 | \$7,226 | \$7,028 | \$9,063 | \$10,223 | \$6,528 |
| Total | 1,824 | 788 | 744 | 767 | 786 | 1,207 | 1,304 | 624 | 8,044 |
|  | \$10,052 | \$2,614 | \$4,035 | \$6,284 | \$9,236 | \$12,835 | \$14,417 | \$14,980 | \$9,836 |

## ACTUARIAL SECTION

## EXHIBIT IV

THE NUMBER AND AVERAGE ANNUAL ANNUITY AS OF JUNE 30, 2009
RETIRED ON ACCOUNT OF DISABILITY

| Age | Years of Service |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |  |
| Under 50 |  | 242 | 145 | 90 | 37 | 12 |  |  |  | 526 |
|  |  | \$11,504 | \$14,032 | \$20,412 | \$25,284 | \$26,131 |  |  |  | \$15,028 |
| 50-54 |  | 214 | 177 | 151 | 127 | 99 | 13 | 1 |  | 782 |
|  |  | \$10,048 | \$12,521 | \$16,491 | \$25,098 | \$37,413 | \$45,176 | \$29,573 |  | \$18,312 |
| 55-59 |  | 284 | 298 | 258 | 255 | 328 | 160 |  |  | 1,583 |
|  |  | \$9,388 | \$11,950 | \$17,499 | \$24,134 | \$36,229 | \$47,983 |  |  | \$23,030 |
| 60-64 |  | 292 | 329 | 303 | 333 | 384 | 207 | 3 | 1 | 1,852 |
|  |  | \$7,464 | \$10,087 | \$13,722 | \$22,632 | \$30,818 | \$42,852 | \$42,642 | \$1,755 | \$20,516 |
| 65-69 |  | 198 | 281 | 242 | 242 | 178 | 49 | 2 |  | 1,192 |
|  |  | \$5,730 | \$8,116 | \$10,568 | \$17,167 | \$26,066 | \$33,816 | \$47,699 |  | \$13,858 |
| 70-74 |  | 129 | 182 | 159 | 128 | 91 | 25 | 2 |  | 716 |
|  |  | \$5,517 | \$7,033 | \$8,663 | \$14,078 | \$20,517 | \$29,012 | \$42,997 |  | \$10,963 |
| 75-79 |  |  | 133 | 128 | 89 | 46 | 7 | 1 |  | 490 |
|  |  | \$3,921 | \$5,954 | \$8,837 | \$13,010 | \$20,079 | \$22,730 | \$43,179 |  | \$9,274 |
| 80-84 |  | 69 | 107 | 47 | 69 | 42 | 6 | 1 | 1 | 342 |
|  |  | \$3,877 | \$5,874 | \$8,267 | \$12,527 | \$17,214 | \$24,289 | \$24,751 | \$54,601 | \$9,056 |
| 85-89 |  | 40 | 37 | 25 | 25 | 17 | 8 | 2 |  | 154 |
|  |  | \$3,854 | \$6,743 | \$7,382 | \$10,338 | \$15,288 | \$18,540 | \$35,460 |  | \$8,609 |
| Over 89 |  |  |  | 14 | 8 | 8 | 10 |  |  | 76 |
|  |  | \$3,246 | \$4,856 | \$8,794 | \$10,031 | \$16,327 | \$21,642 |  |  | \$9,288 |
| Total |  | 1,566 | 1,713 | 1,417 | 1,313 | 1,205 | 485 | 12 | 2 | 7,713 |
|  |  | \$7,934 | \$9,619 | \$13,241 | \$19,901 | \$30,081 | \$41,529 | \$39,812 | \$28,178 | \$16,948 |

## EXHIBIT V

ANNUITANT AND BENEFICIARY MEMBERSHIP DATAAS OF JUNE 30, 2009
NUMBER AND AVERAGE ANNUAL BENEFIT EXCLUDES PARTIAL LUMPSUM PAYMENTS

| Age Last Birthday | Number | Annual Benefit (Thousands) | Average Annual Benefit |
| :---: | :---: | :---: | :---: |
| Annuitants (Normal, Early and Withdrawal) |  |  |  |
| Under 60 | 21,284 | \$ 493,158 | \$ 23,170 |
| 60-64 | 33,903 | 1,212,609 | 35,767 |
| 65-69 | 31,320 | 848,505 | 27,091 |
| 70-74 | 23,833 | 484,580 | 20,332 |
| 75-79 | 20,166 | 348,765 | 17,295 |
| Over 79 | 31,700 | 398,836 | 12,582 |
| Total | 162,206 | \$...3,786,453 | \$ 23, . 3 , 34 |
| Survivors and Beneficiaries |  |  |  |
| Under 60 | 811 | \$ 7,826 | \$ 9,650 |
| 60-64 | 619 | 8,685 | 14,031 |
| 65-69 | 777 | 10,887 | 14,012 |
| 70-74 | 959 | 11,352 | 11,838 |
| 75-79 | 1,219 | 12,538 | 10,286 |
| Over 79 | 3,659 | 27,829 | 7,606 |
| Total | 8,044 | \$ 79,117 | \$ 9, 9, 836 |
| Disabled Annuitants |  |  |  |
| Under 60 | 2,891 | \$ 58,681 | \$ 20,298 |
| 60-64 | 1,852 | 37,996 | 20,516 |
| 65-69 | 1,192 | 16,519 | 13,858 |
| 70-74 | 716 | 7,849 | 10,963 |
| 75-79 | 490 | 4,544 | 9,274 |
| Over 79 | 572 | 5,129 | 8,967 |
| Total | 7,713 | \$ 130,718 | \$ 16,948 |
| Grand Total Average Annual Benefit | 177,963 | \$ 3,996,288 | \$ 22,456 |

## ACTUARIAL SECTION

## EXHIBIT VI

## 10 Y EAR HISTORY OF MEMBERSHIP DATA

| Valuation <br> as of <br> June 30 | Number of <br> Active <br> Members | Percentage <br> Change in <br> Membership | Total Annual <br> Payroll <br> (Thousands) | Percentage <br> Change in <br> Payroll |
| :---: | :---: | ---: | ---: | ---: |
| 2009 | 279,701 | $2.57 \%$ | $\$$ | $12,524,593$ |
| 2008 | 272,690 | $3.28 \%$ | $11,921,469$ | $5.06 \%$ |
| 2007 | 264,023 | $0.26 \%$ | $11,410,257$ | $4.48 \%$ |
| 2006 | 263,350 | $3.09 \%$ | $11,419,049$ | $8.08 \%)$ |
| 2005 | 255,465 | $3.05 \%$ | $10,527,668$ | $4.95 \%$ |
| 2004 | 247,901 | $0.49 \%$ | $10,030,705$ | $3.91 \%$ |
| 2003 | 246,700 | $1.68 \%$ | $9,652,881$ | $2.92 \%$ |
| 2002 | 242,616 | $(0.29 \%)$ | $9,378,944$ | $(0.38 \%)$ |
| 2001 | 243,311 | $3.89 \%$ | $9,414,884$ | $5.32 \%$ |
| 2000 | 234,210 | $4.79 \%$ | $8,939,598$ | $8.39 \%$ |

10 YEAR HISTORY OF MEMBERSHIP DATA THE NUMBER AND ANNUAL ANNUITIES OF ANNUITANT AND SURVIVOR ANNUITANT MEMBERS

| Year <br> Ended <br> June 30 | Number |  | Annual Annuities (Millions) |  | Average <br> Annual <br> Annuities | Additions* | Annual <br> Annuities* <br> (Millions) | Deletions* | Annual Annuities* (Millions) | Percentage Change in Membership | Percentage Change in Annuities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 | 177,963 | \$ | 3,996.3 | \$ | 22,456 | 9,651 \$ | 314.9 | 5,228 \$ | 74.4 | 2.55\% | 4.85\% |
| 2008 | 173,540 |  | 3,811.5 |  | 21,963 | 10,911 | 345.3 | 5,397 | 73.9 | 3.28\% | 8.18\% |
| 2007 | 168,026 |  | 3,523.4 |  | 20,970 | 10,612 | 307.5 | 4,399 | 56.0 | 3.84\% | 7.60\% |
| 2006 | 161,813 |  | 3,274.5 |  | 20,236 | 10,637 |  | 5,343 |  | 3.38\% | 8.16\% |
| 2005 | 156,519 |  | 3,027.6 |  | 19,343 | 10,050 |  | 5,083 |  | 3.28\% | 8.20\% |
| 2004 | 151,552 |  | 2,798.2 |  | 18,464 | 10,526 |  | 4,667 |  | 4.02\% | 9.94\% |
| 2003 | 145,693 |  | 2,545.1 |  | 17,469 | 9,079 |  | 4,800 |  | 3.03\% | 13.20\% |
| 2002 | 141,414 |  | 2,248.3 |  | 15,899 | 13,003 |  | 4,305 |  | 6.55\% | 20.10\% |
| 2001 | 132,716 |  | 1,872.0 |  | 14,105 | 3,140 |  | 4,482 |  | -1.00\% | 0.00\% |
| 2000 | 134,058 |  | 1,880.6 |  | 14,028 | 5,923 |  | 4,734 |  | 0.89\% | 2.73\% |

[^10]

## Investment

Statistical

## Statistical Section Narrative

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

## Financial Trends

The Schedule of Trend Data provides key financial, actuarial, and demographic information for a ten-year period ended J une 30, 2010.

The Schedules of Total Changes in Pension Plan Net Assets and Total Changes in Postemployment $H$ ealthcare Plans Net Assets show the historical combined effects of the additions and deductions of the plans' net assets over the ten-year period ended J une 30, 2010.

The graphs of Additions to Pension Plan Net Assets and Additions to Postemployment H ealthcare Plans Net A ssets provide visual details of the additions to the plans' net assets over the ten-year period ended June 30, 2010.

The graphs of Deductions from Pension Plan Net Assets and Deductions from Postemployment Healthcare Plans Net Assets provide visual details of the deductions from the plans' net assets over the ten-year period ended June 30, 2010.

## Revenue C apacity

The Schedules of Pension Investment Income, Premium Assistance Investment Income, and Health Options Program Investment Income provide a ten-year perspective on the System's largest source of revenue, Net Investment Income, over the ten-year period ended June 30, 2010.

## Demographic and Economic Information

The Schedule of Summary Membership Data provides general populations and statistics relating to the System's active membership over the ten-year period ended June 30, 2009.

The Schedule of Summary Annuity D ata provides general populations and statistics relating to the System's annuitants over the ten-year period ended June 30, 2009.

The Components of Total Contribution Rate Schedule provides a long-term historical perspective of the actuarially required contribution rates to the System's members and employers.

The Schedule of Pension Benefit and Refund Deductions from Plan Net Assets provides summary statistics by payment type relating to retirement and refunds over the ten-year period ended J une 30, 2010.

The Schedule of Average Monthly Pension Benefit Payments provides summary statistics of monthly average pension benefits and counts of recipients, by payment type, grouped in five-year increments of member credited service over the ten-year period ended J une 30, 2009.

The Schedule of Average Monthly Pension Benefit Payments by Type provides summary statistics of monthly average pension benefits and counts of recipients, by payment type, grouped in five-year increments of member credited serviceover theten-year period ended J une 30,2009.

The Schedules of Average Monthly Pension Benefit Payments and Average Final Average Salary provides summary statistics of average monthly pension benefits and postemployment healthcare benefits, counts of recipients with benefit effective dates within the designated fiscal year, and the recipients' average final average salary grouped in five-year increments of member credited service over the ten-year period ended June 30, 2009.

## Operating Information

The list of Ten Largest Employers shows the System's ten largest employers in terms of reported annual salaries during FY 2010 and the Schedule of Employers provides the full list of PSERS' employers.
Schedule of Trend Data
(Dollar A mounts in Thousands)*

| For years ended J une 30 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contribution Rates: |  |  |  |  |  |  |  |  |  |  |
| Total Pension\% | 4.00 | 4.00 | 6.44 | 5.72 | 4.00 | 4.00 | 2.98 | . 18 | 0.00 | 1.64 |
| Health Care I nsurance PremiumAssistance\% | . 78 | . 76 | . 69 | . 74 | . 69 | . 23 | . 79 | . 97 | 1.09 | . 30 |
| Total Employe \% | 4.78 | 4.76 | 7.13 | 6.46 | 4.69 | 4.23 | 3.77 | 1.15 | 1.09 | 1.94 |
| Average Member \% | 7.32 | 7.29 | 7.25 | 7.21 | 7.16 | 7.12 | 7.08 | 7.10 | 6.43 | 5.77 |
| Contributions: |  |  |  |  |  |  |  |  |  |  |
| Member - Pension \$ | 952,047 | 911,118 | 879,598 | 855,322 | 827,647 | 788,310 | 783,691 | 752,110 | 662,561 | 579,850 |
| Member - HOP \$ | 191,184 | 178,801 | 159,563 | 144,185 | 155,199 | 167,199 | 160,731 | 145,197 | 143,006 | 141,875 |
| Employer - Pension \$ | 535,331 | 515,889 | 753,532 | 659,545 | 456,878 | 431,556 | 321,091 | 20,831 | 539 | 158,193 |
| Employer - Heal th Care Insurance Premium Assistance $\$$ | 102,703 | 92,483 | 81,317 | 86,763 | 74,065 | 26,252 | 85,631 | 95,625 | 108,911 | 27,523 |
| CMS \$ | 33,901 | 31,556 | 28,426 | 27,789 | 13,941 |  |  |  |  |  |
| AverageAnnual Member Compensation \$ * | 45,344 | 44,779 | 43,718 | 43,217 | 43,361 | 41,210 | 40,463 | 39,128 | 38,658 | 38,695 |
| Market Value of Assets \$ | 45,761,000 | 43,101,000 | 62,569,000 | 67,438,000 | 57,328,000 | 52,033,534 | 48,484,506 | 42,446,826 | 43,576,553 | 48,143,327 |
| A ctuarial Value of Assets \$ | \# | 59,886,700 | 61,018,000 | 57,155,000 | 52,558,000 | 51,219,300 | 52,094,500 | 52,900,500 | 54,296,400 | 54,830,300 |
| Accrued A ctuarial Liability \$ | \# | 75,629,900 | 70,941,000 | 66,593,000 | 64,720,000 | 61,129,444 | 56,978,143 | 54,313,328 | 51,693,207 | 47,870,922 |
| Funded Ratio \% | \# | 79.2 | 86.0 | 85.8 | 81.2 | 83.7 | 91.2 | 97.2 | 104.8 | 114.4 |
| Total Beneits \& Refunds \$ | 5,269,175 | 4,931,854 | 4,941,681 | 4,320,440 | 4,115,865 | 3,877,842 | 3,497,365 | 3,102,684 | 2,913,163 | 2,297,332 |
| Average Pension \$ * | 23,466 | 22,456 | 21,963 | 20,970 | 20,236 | 19,343 | 18,464 | 17,469 | 15,899 | 14,105 |
| Annuitants \& Beneficiaries | 184,934 | 177,963 | 173,540 | 168,026 | 161,813 | 156,519 | 151,552 | 145,693 | 141,414 | 132,716 |
| Active Members | 282,041 | 279,701 | 272,690 | 264,023 | 263,350 | 255,465 | 247,901 | 246,700 | 242,616 | 243,311 |

Schedule of Total Changes in Pension Plan NetAssets
10 Year Trend
(Dollar A mounts in Thou
(Dollar A mounts in Thousands)

| Additions to Plan Net Aspets |  |  |  |  | Dechuctions from Plan Net Assets |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended June 30 | Member Contributions | Employer Contributions | Net Investment Income | Total Additions | Monthly Benefits | Lump-Sum and Instal Iment | Refunds of Contributions | Administrative* | Net Transfers** | Total Deductions | Net Increase/ (Decrease) |
| 2010 | \$ 952,047 | \$ 535,331 | \$ 6,113,679 | \$ 7,601,057 | \$ 4,095,334 | \$ 866,888 | \$ 16,720 | \$ 12,105 | \$ 7,015 | \$ 4,998,062 | \$ 2,602,995 |
| 2009 | 911,118 | 515,889 | $(16,201,701)$ | (14,774,694) | 3,885,286 | 754,011 | 20,369 | 35,639 | 7,947 | 4,703,252 | $(19,477,946)$ |
| 2008 | 879,598 | 753,532 | $(1,782,628)$ | $(149,498)$ | 3,623,652 | 1,012,688 | 28,713 | 35,863 | 17,157 | 4,718,073 | $(4,867,571)$ |
| 2007 | 855,322 | 659,545 | 12,694,327 | 14,209,194 | 3,189,004 | 855,431 | 18,180 | 35,239 | 6,010 | 4,103,864 | 10,105,330 |
| 2006 | 827,647 | 456,878 | 7,935,586 | 9,220,111 | 3,030,297 | 830,361 | 16,330 | 35,391 | 8,462 | 3,920,841 | 5,299,270 |
| 2005 | 788,310 | 431,556 | 6,076,482 | 7,296,348 | 2,947,749 | 692,089 | 16,233 | 32,670 | 10,859 | 3,699,600 | 3,596,748 |
| 2004 | 783,691 | 321,091 | 8,242,008 | 9,346,790 | 2,692,485 | 559,939 | 14,767 | 40,014 | 16,315 | 3,323,520 | 6,023,270 |
| 2003 | 752,110 | 20,831 | 1,020,733 | 1,793,674 | 2,404,697 | 485,495 | 13,943 | 34,293 | 12,116 | 2,950,544 | (1,156,870) |
| 2002 | 662,561 | 539 | $(2,525,633)$ | $(1,862,533)$ | 2,111,941 | 595,184 | 14,858 | 29,756 | 9,434 | 2,761,173 | $(4,623,706)$ |
| 2001 | 579,850 | 158,193 | $(3,847,949)$ | $(3,109,906)$ | 1,914,062 | 176,228 | 22,369 | 31,335 | 10,867 | 2,154,861 | $(5,264,767)$ |

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

[^11]
## Additions to Pension Plan Net Assets

10 Year Trend
(Dollar A mounts in Billions)


Deductions from Pension Plan Net A ssets
10 Year Trend
(Dollar A mounts in Billions)

Schedule of Total Changes in Postemployment Healthcare Plans Net Assets
(Dollar Amounts in Thousands)

| Additions to Plan Net Assets |  |  |  | Dechuctions from Plan Net Assets |  |  | Net Incremse/(Decreses) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Encled J une 30 | Employer Contributions | $\begin{gathered} \text { Net } \\ \text { I nvestment } \\ \text { I ncome } \end{gathered}$ | $\begin{aligned} & \text { Total } \\ & \text { Additions } \end{aligned}$ | Beneits | Administrative | Total Dectuctions |  |
| 2010 | 102,703 | 869 | \$ 103,572 | \$ 89,911 | \$ 1,944 | \$ 91,855 | \$ 11,717 |
| 2009 | 92,493 | 1,861 | 94,354 | 83,206 | 1,819 | 85,025 | 9,329 |
| 2008 | 81,317 | 2,755 | 84,072 | 84,335 | 1,244 | 85,579 | $(1,507)$ |
| 2007 | 86,763 | 2,573 | 89,336 | 82,031 | 2,790 | 84,821 | 4,515 |
| 2006 | 74,065 | 2,850 | 76,915 | 79,298 | 1,977 | 81,275 | $(4,360)$ |
| 2005 | 26,252 | 2,369 | 28,621 | 74,465 | 1,876 | 76,341 | (47,720) |
| 2004 | 85,631 | 1,591 | 87,222 | 71,098 | 1,714 | 72,812 | 14,410 |
| 2003 | 95,625 | 1,138 | 96,763 | 67,688 | 1,932 | 69,620 | 27,143 |
| 2002 | 108,911 | 1,573 | 110,484 | 51,738 | 1,814 | 53,552 | 56,932 |
| 2001 | 27,523 | 2,512 | 30,035 | 33,894 | 997 | 34,891 | $(4,856)$ |

Health Options Program

| Additionsto Plan Net Assets |  |  |  |  | Dechuctions from Plan Net Assets |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended J une 30 | Member Contributions | CMS Contributions | Net I nvestment Income | Total Additions | Benefits | Administrative | Total Dechuctions | Net I ncrease/ (Decrease) |
| 2010 | \$ 191,184 | \$ 33,901 | \$ 440 | \$ 225,525 | \$ 193,307 | \$ 16,443 | \$ 209,750 | \$ 15,775 |
| 2009 | 178,801 | 31,556 | 1,528 | 211,885 | 181,035 | 13,817 | 194,852 | 17,033 |
| 2008 | 159,563 | 28,426 | 4,288 | 192,277 | 175,136 | 12,143 | 187,279 | 4,998 |
| 2007 | 144,185 | 27,789 | 5,821 | 177,795 | 169,784 | 12,453 | 182,237 | $(4,442)$ |
| 2006 | 155,199 | 13,941 | 4,203 | 173,343 | 151,117 | 11,261 | 162,378 | 10,965 |
| 2005 | 167,199 | - | 2,646 | 169,845 | 136,447 | 8,099 | 144,546 | 25,299 |
| 2004 | 160,731 | - | 1,005 | 161,736 | 142,761 | 7,474 | 150,235 | 11,501 |
| 2003 | 145,197 | - | 596 | 145,793 | 118,745 | 6,053 | 124,798 | 20,995 |
| 2002 | 143,006 | - | 1,035 | 144,041 | 130,008 | 3,803 | 133,811 | 10,230 |
| 2001 | 141,875 | - | 1,724 | 143,599 | 139,912 | 2,522 | 142,434 | 1,165 |

Statistical Section

## Additions to Postemployment H ealthcare Plans Net A ssets

 10 Year Trend(Dollar A mounts in M illions)
Premium A ssistance


## Health Options Program



# Statistical Section 

## Deductions from Postemployment H ealthcare Plans Net A ssets

## 10 Year Trend

(Dollar A mounts in M illions)
Premium A ssistance


## Health Options Program


Schedule of Pension I nvestment I ncome
10 Year Trend
(Dollar Amounts in Thou

| For years ended J une 30 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2008 | 2002 | 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment I Income |  |  |  |  |  |  |  |  |  |  |
| From investing activities |  |  |  |  |  |  |  |  |  |  |
| Net appreciation (clepreciation) in fair value of investments | \$5,142,243 | \$(17,007,821) | \$ $(3,763,649)$ | \$ 10,457,473 | \$ 5,969,223 | \$ 4,463,930 | \$ 6,874,420 | \$ $(170,101)$ | \$ $(3,776,589)$ | \$ (5,137,879) |
| Investment Income | 1,485,193 | 1,310,460 | 2,331,266 | 2,524,655 | 2,154,654 | 1,789,078 | 1,544,159 | 1,354,835 | 1,397,457 | 1,409,966 |
| Total investment activity income (loss) | 6,627,436 | (15,697,361) | $(1,432,383)$ | 12,982,128 | 8,123,877 | 6,253,008 | 8,418,579 | 1,184,734 | (2,379,132) | (3,727,913) |
| Investment experses | (522,268) | $(477,520)$ | $(399,098)$ | (313,726) | $(211,247)$ | $(192,629)$ | (191,267) | (179,033) | $(162,755)$ | $(143,663)$ |
| Net income (loss) from investing activities | 6,105,168 | (16,174,881) | $(1,831,481)$ | 12,668,402 | 7,912,630 | 6,060,379 | 8,227,312 | 1,005,701 | $(2,541,887)$ | $(3,871,576)$ |
| Fromsearities lencingactivities: |  |  |  |  |  |  |  |  |  |  |
| Securitieslending income | 9,574 | 55,574 | 319,107 | 419,762 | 270,447 | 125,882 | 46,075 | 43,870 | 57,391 | 147,852 |
| Securities lending expense | $(1,063)$ | (82,394) | $(270,254)$ | $(393,837)$ | $(247,491)$ | $(109,779)$ | (31,379) | (28,838) | $(41,137)$ | $(124,225)$ |
| Net income (loss) from securities lending activities | 8.511 | $(26,820)$ | 48,853 | 25,925 | 22,956 | 16,103 | 14,696 | 15,032 | 16,254 | 23,627 |
| Total net investment income (loss) | \$6,113,679 | \$(16,201,701) | \$(1,782,628) | \$12,694,327 | \$7,935,586 | \$ 6,076,482 | \$8,242,008 | \$ 1,020,733 | \$ $(2,525,633)$ | \$ (3,847,949) |

Schedule of Premium Assistance I nvestment I ncome 10 Year Trend
(Dollar Amounts in Thousands)

| For years endedJ une 30 | 2010 |  | 2009 |  | 2008 |  | 2007 |  | 2006 |  | 2005 |  | 2004 |  | 2003 |  | 2002 |  | 2001 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I nvestment Income: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From investing activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| in fair value of investments | \$ | $(1,039)$ | \$ | (363) | \$ | 268 | \$ | 88 | \$ | (480) | \$ | $(2,218)$ | \$ | $(3,003)$ |  | $(2,405)$ |  | (564) | \$ | 260 |
| Investment I ncome |  | 1,955 |  | 2,269 |  | 2,525 |  | 2,517 |  | 3,362 |  | 4,635 |  | 4,627 |  | 3,566 |  | 2,159 |  | 2,274 |
| Total investment activity income |  | 916 |  | 1,906 |  | 2,793 |  | 2,605 |  | 2,882 |  | 2,417 |  | 1,624 |  | 1,161 |  | 1,595 |  | 2,534 |
| Investment expenses |  | (47) |  | (45) |  | (38) |  | (32) |  | (32) |  | (48) |  | (33) |  | (23) |  | (22) |  | (22) |
| Total net investment income | \$ | 869 | \$ | 1,861 | \$ | 2,755 | \$ | 2,573 | \$ | 2,850 | \$ | 2,369 | \$ | 1,591 | \$ | 1,138 | \$ | 1,573 | \$ | 2,512 |

Schedule of Heelth Options Program I nvestment I ncome


Schedule of Summary M embership Data 10 Year Trend *

| For year ended J une 30 | M ale |  |  |  | Female |  |  | Total Number of Active Members |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Age | Average Service |  | verage Annual Salaries | Average Age | Average Service | Average <br> Annual <br> Salaries |  |
| 2009 | 44.4 | 11.2 | \$ | 50,613 | 44.7 | 10.3 | \$ 42,606 | 279,701 |
| 2008 | 44.5 | 11.4 |  | 49,818 | 44.7 | 10.4 | 41,440 | 272,690 |
| 2007 | 44.5 | 11.7 |  | 49,220 | 44.7 | 10.5 | 40,958 | 264,023 |
| 2006 | 44.6 | 12.0 |  | 49,153 | 44.7 | 10.7 | 41,155 | 263,350 |
| 2005 | 44.9 | 12.6 |  | 47,416 | 45.0 | 11.0 | 38,832 | 255,465 |
| 2004 | 45.1 | 13.0 |  | 47,103 | 45.1 | 11.1 | 37,901 | 247,901 |
| 2003 | 45.1 | 13.5 |  | 45,947 | 45.0 | 11.2 | 36,465 | 246,700 |
| 2002 | 45.2 | 14.0 |  | 45,182 | 44.9 | 11.3 | 36,073 | 242,616 |
| 2001 | 45.5 | 14.6 |  | 45,686 | 44.9 | 11.6 | 35,852 | 243,311 |
| 2000 | 45.2 | 14.4 |  | 45,049 | 44.6 | 11.3 | 35,331 | 234,210 |

* A ctuarial Valuation for year ended June 30, 2009 is most current valuation completed at publication date.

Schedule of Summary Annuity Data 10 Year Trend *
$\left.\begin{array}{ccrr}\begin{array}{c}\text { For year } \\ \text { ended } \\ \text { June 30 }\end{array} & \begin{array}{c}\text { Number } \\ \text { of }\end{array} & \begin{array}{c}\text { Total } \\ \text { Annuitants \& } \\ \text { Beneficiaries }\end{array} & \begin{array}{c}\text { Annual } \\ \text { Annuities ** }\end{array}\end{array} \begin{array}{c}\text { Average } \\ \text { Annual } \\ \text { Annuity }\end{array}\right]$

[^12]** Total A nnual A nnuities dollar amounts expressed in thousands.

## C omponents of Total C ontribution R ate

(In Percentages)

| Employer Year | Employer Payroll |  | Employer Contribution |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M ember Contribution (Average) | Normal Requirement (A) | (Funded) / Unfunded A ccrued Liability (B) | Employer Pension Rate | Health Insurance Premium A ssistance Contribution (C) | Total Employer Rate | Grand Total Contribution Rate |
| 2009-2010 | \$ 12,899,000 | 7.32 | 7.35 | (3.72) | 4.00 | 0.78 | 4.78 | 12.10 |
| 2008-2009 | 12,402,782 | 7.29 | 6.68 | (3.37 | 4.00 | 0.76 | 4.76 | 12.05 |
| 2007-2008 | 11,921,469 | 7.25 | 6.68 | (0.24) | 6.44 | 0.69 | 7.13 | 14.38 |
| 2006-2007 | 11,410,257 | 7.21 | 6.62 | (0.95) | 5.72 | 0.74 | 6.46 | 13.67 |
| 2005-2006 | 11,419,049 | 7.16 | 7.61 | (4.28) | 4.00 | 0.69 | 4.69 | 11.85 |
| 2004-2005 | 11,062,589 | 7.12 | 7.48 | (7.10) | 4.00 | 0.23 | 4.23 | 11.35 |
| 2003-2004 | 10,030,705 | 7.08 | 7.25 | (4.27) | 2.98 | 0.79 | 3.77 | 10.85 |
| 2002-2003 | 9,652,881 | 7.10 | 7.20 | (10.03) | 0.18 | 0.97 | 1.15 | 8.25 |
| 2001-2002 | 9,378,944 | 6.43 | 5.63 | (6.05) | 0.00 | 1.09 | 1.09 | 7.52 |
| 2000-2001 | 9,414,884 | 5.77 | 6.29 | (4.65) | 1.64 | 0.30 | 1.94 | 7.71 |
| 1999-2000 | 8,939,598 | 5.72 | 6.40 | (2.04) | 4.36 | 0.25 | 4.61 | 10.33 |
| 1998-1999 | 8,247,602 | 5.69 | 6.33 | (0.44) | 5.89 | 0.15 | 6.04 | 11.73 |
| 1997-1998 | 8,091,481 | 5.65 | 6.44 | 2.17 | 8.61 | 0.15 | 8.76 | 14.41 |
| 1996-1997 | 7,745,001 | 5.62 | 6.44 | 3.56 | 10.00 | 0.60 | 10.60 | 16.22 |
| 1995-1996 | 7,616,585 | 5.59 | 6.43 | 4.67 | 11.10 | 0.62 | 11.72 | 17.31 |
| 1994-1995 | 7,378,342 | 5.55 | 6.43 | 4.18 | 10.61 | 0.45 | 11.06 | 16.61 |
| 1993-1994 | 6,885,337 | 5.51 | 7.34 | 5.58 | 12.92 | 0.25 | 13.17 | 18.68 |
| 1992-1993 | 6,348,565 | 5.48 | 7.90 | 5.84 | 13.74 | 0.50 | 14.24 | 19.72 |
| 1991-1992 | 6,098,222 | 5.46 | 8.00 | 6.40 | 14.40 | 0.50 | 14.90 | 20.36 |
| 1990-1991 | 5,744,798 | 5.69 | 8.28 | 10.90 | 19.18 | - | 19.18 | 24.87 |

The total contribution rate is the total of the employer and member rates actuarially required for the funding of PSERS' pension and postemployment health insurance premium assistance benefits.

The total employer rate is comprised of a normal requirement, an accrued liability requirement and a post-employment heal thcare insurance premium assistance requirement.
(A ) The normal requirement portion is the percentage of compensation necessary to fund any prospective pension benefits payable to the member.
(B) The total funded / unfunded accrued liability portion is the percentage of compensation necessary to fund past pension benefit enhancements, cost-of-living adjustments and other actuarial gains and losses.
(C) The postemployment heal thcare insurance premium assistance portion is the percentage of compensation necessary to fund the postemployment health insurance premium assistance program established under the provisions of Act 23-1991.

Employer Payroll is the estimated or actual aggregate employer salaries used in the actuarial val uation that determined the employer contribution rates for the employer years.
Schedule of Pension Benefit and Refund Deductions from Plan Net Assets

|  | Retirements* |  |  |  |  |  |  |  |  | Refuncls |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For year encled J une 30 | Normal | Early | Disability | Pension Lump Sum Benefits | Death | Beneficiary | Survivor | Transfers | Total <br> Pension <br> Benefits <br> Dechuctions | Refunds | Total Pension Benefits and Refund Dectuctions |
| 2010 | \$ 2,273,819 | \$ 1,600,435 | \$ 136,174 | \$ 733,333 | \$ 52,409 | \$ 109,656 | \$ 56,396 | \$7,015 | \$ 4,969,237 | \$ 16,720 | \$ 4,985,957 |
| 2009 | 2,110,018 | 1,538,421 | 130,820 | 666,827 | 53,695 | 86,164 | 53,352 | 7,947 | 4,647,244 | 20,369 | 4,667,613 |
| 2008 | 4,636,340 | ** | ** | ** | ** | ** | ** | 17,157 | 4,653,497 | 28,713 | 4,682,210 |
| 2007 | 4,044,435 | ** | ** | ** | ** | ** | ** | 6,010 | 4,050,445 | 18,180 | 4,068,625 |
| 2006 | 3,860,658 | ** | ** | ** | ** | ** | ** | 8,462 | 3,869,120 | 16,330 | 3,885,450 |
| 2005 | 3,639,838 | ** | ** | ** | ** | ** | ** | 10,859 | 3,650,697 | 16,233 | 3,666,930 |
| 2004 | 3,252,424 | ** | ** | ** | ** | ** | ** | 16,315 | 3,268,739 | 14,767 | 3,283,506 |
| 2003 | 2,890,192 | ** | ** | ** | ** | ** | ** | 12,116 | 2,902,308 | 13,943 | 2,916,251 |
| 2002 | 2,707,125 | ** | ** | ** | ** | ** | ** | 9,434 | 2,716,559 | 14,858 | 2,731,417 |
| 2001 | 2,090,290 | ** | ** | ** | ** | ** | ** | 10,867 | 2,101,157 | 22,369 | 2,123,526 |

* Data presented in Normal column for years 2001 to 2008 are aggregate amounts for all Retirement Types.
** Data for these years is not readi ly avail able in the format adopted for the years ended J une 30, 2009 and 2010

Schedule of Average M onthly Pension Benefit Payments ** Grouped by Years of Credited Service 10 Year Trend

|  | Years of C redited Service |  |  |  |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | < 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 |  | 40+ |  |  |
| Fiscal year ended J une 30, 2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 4,395 | 10,474 | 20,503 | 17,544 | 17,134 | 19,821 | 39,700 | 28,187 |  | 4,448 |  | 162,206 |
|  | \$ 376 | \$ 178 | \$ 279 | \$ 602 | \$ 1,090 | \$ 1,828 | \$ 2,966 | \$ 3,780 | \$ | 3,720 |  | 1,945 |
| Disability | - | 1,566 | 1,713 | 1,417 | 1,313 | 1,205 | 485 | 12 |  | 2 |  | 7,713 |
|  | - | \$ 661 | \$ 802 | \$ 1,103 | \$ 1,658 | \$ 2,507 | \$ 3,461 | \$ 3,318 | \$ | 2,348 |  | 1,412 |
| Beneficiary and Survivor |  | 1,824 | 788 | 744 | 767 | 786 | 1,207 | 1,304 |  | 624 |  | 8,044 |
|  | \$ | \$ 838 | \$ 218 | \$ 336 | \$ 524 | \$ 770 | \$ 1,070 | \$ 1,201 | \$ | 1,248 |  | 820 |
| Fiscal year ended J une 30, 2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| N ormal and Early | 4,054 | 9,541 | 20,539 | 17,450 | 16,748 | 19,166 | 38,331 | 27,318 |  | 4,509 |  | 157,656 |
|  | \$ 355 | \$ 165 | \$ 270 | \$ 584 | \$ 1,032 | \$ 1,733 | \$ 2,904 | \$ 3,732 | \$ | 3,629 |  | 1,896 |
| Disability | - | 1,468 | 1,664 | 1,364 | 1,280 | 1,178 | 466 | 14 |  | 1 |  | 7,435 |
|  | - | \$ 876 | \$ 949 | \$ 1,205 | \$ 1,854 | \$ 2,714 | \$ 3,707 | \$ 3,681 | \$ | 4,550 |  | 1,595 |
| Beneficiary and Survivor | 789 | 402 | 964 | 874 | 879 | 917 | 1,381 | 1,522 |  | 721 |  | 8,449 |
|  | \$ 1,127 | \$ 121 | \$ 223 | \$ 347 | \$ 533 | \$ 783 | \$ 1,083 | \$ 1,223 | \$ | 1,255 |  | 817 |
| Fiscal year ended J une 30, 2007 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,812 | 8,675 | 20,554 | 17,448 | 16,304 | 18,664 | 37,422 | 25,100 |  | 5,382 |  | 152,361 |
|  | \$ 54 | \$ 149 | \$ 256 | \$ 553 | \$ 971 | \$ 1,662 | \$ 2,821 | \$ 3,574 | \$ | 3,488 |  | 1,820 |
| Disability | - | 1,437 | 1,689 | 1,370 | 1,307 | 1,154 | 430 | 11 |  | 1 |  | 7,399 |
|  | - | \$ 595 | \$ 770 | \$ 1,044 | \$ 1,569 | \$ 2,476 | \$ 3,466 | \$ 3,576 | \$ | 4,550 |  | 1,356 |
| B eneficiary and Survivor | 94 | 430 | 1,025 | 930 | 936 | 980 | 1,453 | 1,628 |  | 790 |  | 8,266 |
|  | \$ 47 | \$ 119 | \$ 218 | \$ 342 | \$ 530 | \$ 768 | \$ 1,075 | \$ 1,201 | \$ | 1,234 | \$ | - 767 |
| Fiscal year ended J une 30, 2006 |  |  |  |  |  |  |  |  |  |  |  |  |
| N ormal and Early | 2,723 | 7,810 | 20,380 | 17,198 | 15,979 | 18,140 | 35,227 | 23,660 |  | 5,465 |  | 146,582 |
|  | \$ 53 | \$ 147 | \$ 249 | \$ 537 | \$ 945 | \$ 1,611 | \$ 2,747 | \$ 3,474 | \$ | 3,397 |  | 1,756 |
| Disability | - | 1,375 | 1,655 | 1,339 | 1,261 | 1,136 | 398 | 10 |  | 1 |  | 7,175 |
|  | - | \$ 579 | \$ 750 | \$ 1,023 | \$ 1,510 | \$ 2,429 | \$ 3,422 | \$ 3,549 | \$ | 4,550 |  | 1,320 |
| Beneficiary and Survivor | 88 | 413 | 1,000 | 902 | 911 | 951 | 1,404 | 1,572 |  | 815 |  | 8,056 |
|  | \$ 47 | \$ 116 | \$ 212 | \$ 327 | \$ 516 | \$ 742 | \$ 1,027 | \$ 1,154 | \$ | 1,182 |  | 739 |
| Fiscal year ended J une 30, 2005 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,654 | 7,117 | 20,423 | 17,022 | 15,827 | 17,732 | 33,402 | 21,971 |  | 5,615 |  | 141,763 |
|  | \$ 67 | \$ 147 | \$ 244 | \$ 523 | \$ 921 | \$ 1,561 | \$ 2,669 | \$ 3,326 | \$ | 3,278 |  | 1,679 |
| Disability | 8 | 1,321 | 1,641 | 1,281 | 1,232 | 1,113 | 357 | 10 |  | 1 |  | 6,964 |
|  | \$ 1,301 | \$ 550 | \$ 723 | \$ 975 | \$ 1,464 | \$ 2,377 | \$ 3,340 | \$ 3,546 | \$ | 4,550 |  | 1,271 |
| Beneficiary and Survivor | 79 | 400 | 976 | 881 | 876 | 913 | 1,322 | 1,530 |  | 814 |  | 7,791 |
|  | \$ 47 | \$ 110 | \$ 204 | \$ 316 | \$ 496 | \$ 709 | \$ 987 | \$ 1,075 | \$ | 1,099 | \$ | 700 |

** A ctuarial valuation for year ended June 30,2009 is the most current valuation completed at the publication date.

## Schedule of Average M onthly Pension Benefit Payments G rouped by Years of C redited Service 10 Year Trend (C ontinued)

|  | Years of Credited Service |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |  |
| Fiscal year ended J une 30, 2004 |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 3,111 | 6,585 | 20,407 | 16,821 | 15,637 | 17,285 | 31,443 | 20,313 | 5,699 | 137,301 |
|  | \$ 224 | \$ 148 | \$ 240 | \$ 509 | \$ 901 | \$ 1,516 | \$ 2,592 | \$ 3,191 | \$ 3,198 | \$ 1,602 |
| Disability | 24 | 1,256 | 1,589 | 1,205 | 1,225 | 1,083 | 305 | 8 | 1 | 6,696 |
|  | \$ 873 | \$ 527 | \$ 700 | \$ 937 | \$ 1,435 | \$ 2,342 | \$ 3,212 | \$ 3,227 | \$ 4,550 | \$ 1,229 |
| Beneficiary and Survivor | 123 | 408 | 946 | 861 | 830 | 881 | 1,235 | 1,444 | 826 | 7,554 |
|  | \$ 224 | \$ 107 | \$ 196 | \$ 303 | \$ 465 | \$ 680 | \$ 944 | \$ 997 | \$ 1,042 | \$ 658 |
| Fiscal year ended J une 30, 2003 |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,762 | 6,165 | 20,389 | 16,688 | 15,509 | 16,761 | 29,365 | 18,553 | 5,813 | 132,005 |
|  | \$ 131 | \$ 149 | \$ 236 | \$ 496 | \$ 879 | \$ 1,463 | \$ 2,501 | \$ 3,021 | \$ 3,104 | \$ 1,516 |
| Disability | 20 | 1,182 | 1,524 | 1,167 | 1,198 | 1,011 | 268 | 7 | 1 | 6,378 |
|  | \$ 749 | \$ 505 | \$ 673 | \$ 903 | \$ 1,397 | \$ 2,267 | \$ 3,044 | \$ 3,035 | \$ 4,550 | \$ 1,176 |
| Beneficiary and Survivor | 111 | 396 | 916 | 857 | 815 | 827 | 1,166 | 1,379 | 842 | 7,309 |
|  | \$ 180 | \$ 104 | \$ 190 | \$ 287 | \$ 452 | \$ 654 | \$ 889 | \$ 941 | \$ 979 | \$ 622 |
| Fiscal year ended J une 30, 2002 |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,443 | 5,891 | 20,446 | 16,670 | 15,398 | 16,430 | 27,659 | 17,341 | 5,925 | 128,203 |
|  | \$ 46 | \$ 146 | \$ 227 | \$ 472 | \$ 830 | \$ 1,367 | \$ 2,302 | \$ 2,737 | \$ 2,849 | \$ 1,378 |
| Disability | - | 1,137 | 1,487 | 1,144 | 1,172 | 940 | 208 | 8 | 1 | 6,097 |
|  | - | \$ 472 | \$ 630 | \$ 827 | \$ 1,308 | \$ 2,067 | \$ 2,598 | \$ 2,901 | \$ 4,174 | \$ 1,060 |
| B eneficiary and Survivor | 89 | 398 | 891 | 835 | 783 | 796 | 1,112 | 1,347 | 862 | 7,113 |
|  | \$ 52 | \$ 98 | \$ 184 | \$ 277 | \$ 430 | \$ 625 | \$ 821 | \$ 889 | \$ 924 | \$ 588 |
| Fiscal year ended J une 30, 2001 |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,399 | 5,345 | 20,007 | 16,211 | 14,889 | 15,100 | 25,230 | 14,975 | 5,952 | 120,108 |
|  | \$ 42 | \$ 137 | \$ 205 | \$ 424 | \$ 759 | \$ 1,213 | \$ 2,145 | \$ 2,381 | \$ 2,605 | \$ 1,221 |
| Disability | - | 1,097 | 1,444 | 1,098 | 1,112 | 857 | 159 | 5 | 1 | 5,773 |
|  | - | \$ 432 | \$ 576 | \$ 767 | \$ 1,220 | \$ 1,895 | \$ 2,054 | \$ 2,809 | \$ 4,174 | \$ 948 |
| Beneficiary and Survivor | 82 | 397 | 867 | 801 | 745 | 749 | 1,044 | 1,281 | 868 | 6,834 |
|  | \$ 53 | \$ 95 | \$ 177 | \$ 268 | \$ 419 | \$ 604 | \$ 782 | \$ 845 | \$ 884 | \$ 562 |
| Fiscal year ended J une 30, 2000 |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | * | * | * | * | * | * | * | * | * | 121,812 |
|  | * | * | * | * | * | * | * | * | * | \$ 1,215 |
| Disability | * | * | * | * | * | * | * | * | * | 5,592 |
|  | * | * | * | * | * | * | * | * | * | \$ 923 |
| B eneficiary and Survivor | * | * | * | * | * | * | * | * | * | 6,654 |
|  | * | * | * | * | * | * | * | * | * | \$ 541 |

[^13]
## Schedule of Average M onthly Pension Benefit Payments and Average Final Average Salary *

|  | Years of Credited Service |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |
| Fiscal year ended J une 30, 2009 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 259 | 1,213 | 857 | 753 | 835 | 902 | 1,959 | 1,757 | 165 |
| Final Average Salary | \$18,802 | \$27,718 | \$31,600 | \$39,456 | \$48,973 | \$61,459 | \$71,256 | \$76,947 | \$77,351 |
| M onthly B enefit | \$ 106 | \$ 230 | \$ 556 | \$ 1,063 | \$ 1,726 | \$ 2,764 | \$ 3,915 | \$ 4,834 | \$ 5,343 |
| Fiscal year ended J une 30, 2008 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 253 | 1,304 | 903 | 857 | 798 | 1,038 | 2,318 | 1,936 | 139 |
| Final Average Salary | \$18,146 | \$26,404 | \$31,479 | \$38,271 | \$47,220 | \$57,595 | \$70,232 | \$75,942 | \$75,041 |
| M onthly Benefit | \$ 104 | \$ 210 | \$ 556 | \$ 1,010 | \$ 1,647 | \$ 2,551 | \$ 3,863 | \$ 4,775 | \$ 5,164 |
| Fiscal year ended J une 30, 2007 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 274 | 1,348 | 920 | 884 | 836 | 1,163 | 2,702 | 2,105 | 142 |
| Final Average Salary | \$17,233 | \$26,678 | \$29,390 | \$38,155 | \$45,934 | \$56,810 | \$68,962 | \$73,165 | \$77,381 |
| M onthly B enefit | \$ 85 | \$ 231 | \$ 502 | \$ 1,011 | \$ 1,591 | \$ 2,534 | \$ 3,800 | \$ 4,604 | \$ 5,421 |
| Fiscal year ended J une 30, 2006 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 256 | 1,184 | 816 | 889 | 788 | 1,063 | 2,654 | 1,908 | 132 |
| Final Average Salary | \$16,172 | \$25,512 | \$28,360 | \$35,156 | \$43,902 | \$54,791 | \$66,976 | \$72,236 | \$75,847 |
| M onthly B enefit | \$ 88 | \$ 222 | \$ 475 | \$ 947 | \$ 1,536 | \$ 2,467 | \$ 3,725 | \$ 4,571 | \$ 5,255 |
| Fiscal year ended J une 30, 2005 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 199 | 931 | 770 | 867 | 711 | 1,121 | 2,903 | 2,234 | 166 |
| Final Average Salary | \$16,899 | \$24,980 | \$28,573 | \$35,081 | \$42,144 | \$53,664 | \$66,212 | \$70,328 | \$73,362 |
| M onthly B enefit | \$ 85 | \$ 232 | \$ 519 | \$ 938 | \$ 1,488 | \$ 2,436 | \$ 3,684 | \$ 4,454 | \$ 5,096 |
| Fiscal year ended J une 30, 200 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 171 | 804 | 753 | 736 | 702 | 989 | 2,647 | 1,849 | 141 |
| Final A verage Salary | \$15,913 | \$22,502 | \$27,392 | \$33,361 | \$40,589 | \$52,181 | \$62,708 | \$68,374 | \$69,609 |
| M onthly B enefit | \$ 79 | \$ 229 | \$ 505 | \$ 861 | \$ 1,503 | \$ 2,376 | \$ 3,480 | \$ 4,339 | \$ 4,916 |
| Fiscal year ended J une 30, 2003 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 150 | 641 | 669 | 628 | 590 | 894 | 2,130 | 1,383 | 124 |
| Final Average Salary | \$14,079 | \$22,793 | \$25,867 | \$32,917 | \$37,832 | \$50,223 | \$62,936 | \$66,993 | \$66,185 |
| M onthly Benefit | \$ 69 | \$ 250 | \$ 458 | \$ 865 | \$ 1,368 | \$ 2,279 | \$ 3,484 | \$ 4,266 | \$ 4,704 |
| Fiscal year ended J une 30, 2002 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 171 | 775 | 1,067 | 938 | 1,102 | 1,622 | 2,998 | 2,696 | 310 |
| Final Average Salary | \$13,116 | \$21,376 | \$26,805 | \$32,646 | \$38,066 | \$49,993 | \$60,427 | \$64,811 | \$63,227 |
| M onthly Benefit | \$ 68 | \$ 215 | \$ 436 | \$ 835 | \$ 1,370 | \$ 2,291 | \$ 3,302 | \$ 4,181 | \$ 4,488 |
| Fiscal year ended J une 30, 200 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 94 | 156 | 586 | 385 | 317 | 293 | 183 | 162 | 29 |
| Final Average Salary | \$12,667 | \$20,056 | \$24,857 | \$29,082 | \$35,472 | \$43,359 | \$52,445 | \$67,708 | \$70,915 |
| M onthly Benefit | \$ 66 | \$ 335 | \$ 346 | \$ 595 | \$ 1,053 | \$ 1,579 | \$ 2,338 | \$ 3,500 | \$ 3,994 |
| Fiscal year ended J une 30, 2000 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 104 | 237 | 876 | 608 | 679 | 793 | 613 | 719 | 108 |
| Final Average Salary | \$13,326 | \$17,458 | \$24,500 | \$29,866 | \$35,886 | \$45,953 | \$53,891 | \$62,629 | \$61,327 |
| M onthly Benefit | \$ 52 | \$ 260 | \$ 328 | \$ 598 | \$ 1,047 | \$ 1,698 | \$ 2,408 | \$ 3,279 | \$ 3,461 |

[^14]
## Schedule of Average M onthly Premium Assistance Benefit Payments and Average Final Average Salary *

|  | Years of C redited Service |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ |
| Fiscal year ended J une 30, 2009 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 33 | 202 | 353 | 555 | 1,324 | 1,273 | 129 |
| Final Average Salary |  | \$30,120 | \$44,926 | \$44,889 | \$49,416 | \$62,449 | \$72,314 | \$76,742 | \$79,676 |
| M onthly B enefit |  | \$ 100 | \$ 96 | \$ 99 | \$ 98 | \$ 97 | \$ 95 | \$ 96 | \$ 97 |
| Fiscal year ended J une 30, 2008 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 36 | 242 | 336 | 609 | 1,686 | 1,435 | 114 |
| Final Average Salary |  | \$31,419 | \$41,391 | \$41,714 | \$49,709 | \$59,708 | \$70,486 | \$75,903 | \$72,718 |
| M onthly B enefit |  | \$ 97 | \$ 100 | \$ 99 | \$ 99 | \$ 97 | \$ 95 | \$ 95 | \$ 96 |
| Fiscal year ended J une 30, 2007 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 29 | 36 | 271 | 370 | 741 | 1,986 | 1,609 | 101 |
| Final Average Salary |  | \$36,165 | \$39,981 | \$37,907 | \$46,781 | \$59,682 | \$69,722 | \$73,808 | \$78,288 |
| M onthly Benefit |  | \$ 9 | \$ 99 | \$ 98 | \$ 99 | \$ 96 | \$ 93 | \$ 93 | \$ 98 |
| Fiscal year ended J une 30, 2006 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 35 | 29 | 288 | 343 | 713 | 1,931 | 1,491 | 113 |
| Final Average Salary |  | \$27,700 | \$40,994 | \$37,316 | \$43,608 | \$56,647 | \$68,662 | \$72,726 | \$74,851 |
| M onthly B enefit |  | \$ 97 | \$ 100 | \$ 97 | \$ 98 | \$ 98 | \$ 93 | \$ 92 | \$ 92 |
| Fiscal year ended J une 30, 2005 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 42 | 265 | 297 | 751 | 2,143 | 1,759 | 136 |
| Final Average Salary |  | \$31,231 | \$32,470 | \$37,651 | \$41,099 | \$56,000 | \$68,328 | \$71,690 | \$74,802 |
| M onthly Benefit |  | \$ 78 | \$ 99 | \$ 100 | \$ 97 | \$ 94 | \$ 89 | \$ 87 | \$ 94 |
| Fiscal year ended J une 30, 2004 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 33 | 44 | 232 | 322 | 661 | 1,974 | 1,536 | 116 |
| Final Average Salary |  | \$27,158 | \$35,190 | \$34,821 | \$43,361 | \$54,435 | \$64,237 | \$69,087 | \$69,369 |
| M onthly B enefit |  | \$ 99 | \$ 98 | \$ 100 | \$ 100 | \$ 96 | \$ 95 | \$ 93 | \$ 96 |
| Fiscal year ended J une 30, 2003 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 27 | 28 | 197 | 249 | 586 | 1,666 | 1,159 | 101 |
| Final Average Salary |  | \$33,030 | \$35,265 | \$36,195 | \$38,325 | \$53,729 | \$63,796 | \$68,781 | \$66,844 |
| M onthly Benefit |  | \$ 99 | \$ 100 | \$ 96 | \$ 100 | \$ 99 | \$ 95 | \$ 94 | \$ 97 |
| Fiscal year ended J une 30, 2002 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 21 | 36 | 267 | 442 | 1,086 | 2,303 | 2,353 | 250 |
| Final Average Salary |  | \$27,002 | \$32,137 | \$35,038 | \$38,346 | \$52,710 | \$61,955 | \$65,753 | \$64,852 |
| M onthly Benefit |  | \$ 99 | \$ 100 | \$ 100 | \$ 100 | \$ 100 | \$ 96 | \$ 97 | \$ 100 |
| Fiscal year ended J une 30, 2001 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 26 | 32 | 83 | 111 | 167 | 121 | 132 | 21 |
| Final Average Salary |  | \$27,630 | \$26,677 | \$32,285 | \$38,393 | \$44,936 | \$55,171 | \$68,457 | \$78,476 |
| M onthly Benefit |  | \$ 100 | \$ 100 | \$ 99 | \$ 96 | \$ 100 | \$ 97 | \$ 100 | \$ 100 |
| Fiscal year ended J une 30, 2000 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 15 | 34 | 161 | 266 | 499 | 440 | 622 | 87 |
| Final Average Salary |  | \$26,697 | \$32,572 | \$30,371 | \$35,750 | \$48,035 | \$55,597 | \$63,594 | \$61,737 |
| M onthly Benefit |  | \$ 100 | \$ 100 | \$ 100 | \$ 100 | \$ 98 | \$ 100 | \$ 98 | \$ 98 |

[^15]
## Ten L argest E mployers

(B ased on reported members' salaries) (Dollar A mounts in Thousands)

|  | Employer | Total Reported Salaries (FY 2010) |  | Percentage of Total Salaries compared to Salaries from All Employers |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Philadelphia School District | \$ | 1,249,659 | 9.64\% |
| 2. | Pittsburgh School District |  | 290,313 | 2.24 |
| 3. | Central Bucks School District |  | 138,200 | 1.07 |
| 4. | North Penn School District |  | 111,295 | 0.86 |
| 5. | Allentown City School District |  | 106,418 | 0.82 |
| 6. | Council Rock School District |  | 102,290 | 0.79 |
| 7. | Reading School District |  | 99,512 | 0.77 |
| 8. | B ethlehem A rea School District |  | 96,475 | 0.74 |
| 9. | Lower M erion School District |  | 95,168 | 0.73 |
| 10. | Pennsbury School District |  | 94,419 | 0.73 |

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

## Schedule of Employers

School Districts

A
A bington H eights
A bington
A lbert Gallatin
A liquippa
Allegheny Valley
Allegheny-Clarion Valley
A llentown City
A ltoona A rea
A mbridge A rea
A nnville-Cleona
A ntietam
A pollo-Ridge
A rmstrong
A thens A rea
A ustin A rea
A vella A rea
A von Grove
Avonworth

B
B ald Eagle A rea
B aldwin-W hitehall
Bangor A rea
Beaver A rea
B edford A rea
Belle Vernon A rea
Bellefonte A rea
Bellwood-A ntis
B ensalem Township
B enton A rea
Bentworth
Berlin B rothersvalley
Bermudian Springs
Berwick A rea
$B$ ethel Park
$B$ ethlehem A rea
B ethlehem-C enter
Big B eaver Falls A rea
Big Spring
Blackhawk
Blacklick Valley
Blairsville-Saltsburg
Bloomsburg A rea
Blue M ountain
Blue Ridge
B oyertown A rea
B radford A rea
Brandywine Heights A rea
B rentwood B orough
Bristol Borough
Bristol Township
Brockway A rea
Brookville A rea
Brownsville A rea
B urgettstown A rea
B urrell
Butler A rea

C
C̄alifornia A rea
Cambria Heights
Cameron County
Camp Hill
Canon-M cM illan
Canton A rea
Carbondale A rea
Carlisle A rea
Carlynton
Carmichaels A rea
C atasauqua A rea
Centennial
Central Bucks
Central Cambria
Central Columbia
Central Dauphin
Central Fulton
Central Greene
Central Valley
Central York
Chambersburg A rea
Charleroi A rea
Chartiers Houston
Chartiers Valley
Cheltenham Township
Chester-U pland
Chestnut Ridge
Chichester
Clairton City
Clarion A rea
Clarion-L imestoneA rea
Claysburg-Kimmel
Clearfield A rea
Coatesville A rea
Cocalico
Colonial
Columbia B orough
Commodore Perry
Conemaugh Township A rea
Conemaugh Valley
Conestoga Valley
Conewago Valley
Conneaut
Connellsville A rea
Conrad Weiser A rea
Cornell
Cornwall-Lebanon
Corry A rea
Coudersport A rea
Council Rock
Cranberry A rea
Crawford Central
Crestwood
Cumberland Valley
Curwensville A rea

D
Dallas
Dallastown A rea
Daniel BooneA rea
DanvilleA rea
Deer Lakes
Delaware Valley
D erry A rea
Derry Township
Donegal
Dover A rea
Downingtown A rea
Dubois A rea
Dunmore
Duquesne City

E
Ēast ĀIlegheny
East Lycoming
East Penn
East Pennsboro A rea
E ast Stroudsburg A rea
Eastern L ancaster County
Eastern Lebanon County
Eastern York
Easton A rea
Elizabeth Forward
Elizabethtown A rea
Elk Lake
Ellwood City A rea
Ephrata A rea
Erie City
Everett A rea
Exeter Township

F
Fairfield A rea
Fairview
Fannett M etal
Farrell A rea
Ferndale A rea
Fleetwood A rea
Forbes R oad
Forest A rea
Forest City Regional
Forest Hills
Fort Cherry
Fort LeB oeuf
Fox Chapel A rea
Franklin A rea
Franklin Regional
Frazier
Freedom A rea
Freeport A rea

Schedule of E mployers (Continued)

G
Galeton A
Garnet Valley
Gateway
General M cL ane
Gettysburg A rea
Girard
Glendale
Governor M ifflin
Great Valley
Greater J ohnstown
Greater L atrobe
Greater Nanticoke A rea
Greencastle-A ntrim
Greensburg Salem
Greenville A rea Greenwood
Grove City A rea
H
Halifax A rea
Hamburg A rea
Hampton Township
Hanover A rea
Hanover Public
Harbor Creek
Harmony A rea
Harrisburg City
Hatboro-Horsham
Haverford Township
Hazl eton A rea
Hempfield A rea
Hempfield
Hermitage
Highlands
Hollidaysburg A rea
Homer-Center
Hopew ell A rea
Huntingdon A rea
Indiana Area
Interboro
Iroquois
Jamestown Area
Jeannette City
Jefferson-M organ
Jenkintown
Jersey Shore A rea
Jim Thorpe A rea
Johnsonburg A rea
Juniata County
Juniata Valley

K
$\overline{\mathrm{K}}$ aneA $\overline{\text { rea }}$
K arns City A rea
K ennett Consolidated
K eystone Central
K eystone Oaks
K eystone
K iski A rea
K utztown A rea
L

Lakeland
Lake-Lehman
Lakeview
L ampeter-Strasburg
L ancaster
Laurel Highlands
L aurel
Lebanon
Leechburg A rea
Lehighton A rea
Lewisburg A rea
Ligonier Valley
Line M ountain
Littlestown A rea
Lower Dauphin
Lower M erion
Lower M oreland Township
Loyalsock Township
M
Ma------------------
ahanoy A rea
M anheim Central
M anheim Township
$M$ arion Center A rea
M arple N ewtown
$M$ ars A rea
M cGuffey
M cK eesport A rea
M echanicsburg A rea
M ercer A rea
M ethacton
M eyersdale A rea
M id Valley
M iddletown A rea
M idd-West
M idland Borough
M ifflin County
M ifflinburg A rea
M illcreek Township
M illersburg A rea
MillvilleA rea

Milton A rea
M inersville A rea
M ohawk A rea
$M$ onessen
M oniteau
M ontgomery A rea
M ontour
M ontoursville A rea
M ontrose A rea
M oon A rea
M orrisville Borough
M oshannon Valley
M ount C armel A rea
M ount Pleasant A rea
M ount Union A rea
M ountain View
Mt. Lebanon
$M$ uhlenberg
M uncy
N
-
N azareth A rea
N eshaminy
N eshannock Township
New Brighton A rea
New Castle A rea
New Hope-Solebury
New K ensington-A rnold
Newport
N orristown A rea
N orth A llegheny
N orth Clarion County
N orth East
North Hills
N orth Penn
N orth Pocono
N orth Schuylkill
N orth Star
N orthampton A rea
N ortheast B radford
N ortheastern Y ork
N orthern B edford County
N orthern Cambria
N orthern Lebanon
N orthern Lehigh
N orthern Potter
N orthern Tioga
N orthern York County
N orthgate
N orthwest A rea
N orthw estern Lehigh
N orthw estern
Norwin

## Schedule of E mployers (Continued)

| 0 | R |
| :---: | :---: |
| Ōctorara Área | Radnor Towship |
| Oil City A rea | Reading |
| Old Forge | Red Lion A rea |
| Oley Valley | Redbank Valley |
| Oswayo Valley | Reynolds |
| Otto-Eldred | Richland |
| Owen J Roberts | Ridgway A rea |
| Oxford A rea | Ridley |
|  | Ringgold |
| P | Riverside Beaver County |
| Palisādes | Riverside Riverview |
| Palmerton A rea | R ochester A rea |
| Palmyra A rea | Rockwood A rea |
| Panther ValleyParkland | R ose Tree M edia |
|  | S |
| Pen A rgyl A rea | S---------- |
| Penn Cambria | Saint Clair A rea |
| Penn Hills | Saint M arys A rea |
| Penn $M$ anor | Salisbury Township |
| Penncrest | Salisbury-Elk Lick |
| Penn-D elco | Saucon Valley |
| Pennridge | Sayre A rea |
| Penns M anor | Schuylkill Haven A rea |
| Penns Valley A rea | Schuylkill Valley |
| Pennsbury | Scranton |
| Penn-Trafford | Selinsgrove A rea |
| Pequea Valley | Seneca Valley |
| Perkiomen Valley | Shade Central City |
| Peters Township | Shaler A rea |
| Philadel phia City | Shamokin A rea |
| Philipsburg-Osceola A rea | Shanksville-Stonycreek |
| Phoenixville A rea | Sharon City |
| Pine Grove A rea | Sharpsville A rea |
| Pine-Richland | Shenandoah Valley |
| Pittsburgh | Shenango A rea |
| Pittston A rea | Shikellamy |
| Pleasant Valley | Shippensburg A rea |
| Plum B orough | Slippery Rock A rea |
| Pocono M ountain | Smethport A rea |
| PortA llegany | Solanco |
| Portage A rea | Somerset A rea |
| Pottsgrove | Souderton A rea |
| Pottstown | South A Ilegheny |
| Pottsville A rea | South Butler County |
| Punxsutawney A rea | South Eastern |
| Purchase Line | South Fayette Township South M iddleton |
|  | South Park |
| Q | South Side A rea |
| Quaker Valley | South Western |
| Quakertown Community | South Williamsport A rea |
|  | Southeast Delco |
|  | Southeastern G reene |
|  | Southern Columbia A rea |
|  | Southern Fulton |

Southern Huntingdon County
Southern Lehigh
Southern Tioga
Southern York County
Southmoreland
Spring Cove
Spring Grove A rea
Springfield
Springfield Township
Spring-Ford A rea
State College A rea
Steel Valley
Steelton-Highspire
Sto-Rox
Stroudsburg A rea
Sullivan County
Susquehanna Community
Susquehanna Township
Susquenita

T

Tamaqua A rea
Titusville A rea
Towanda A rea
Tredyffrin-Easttown
Trinity A rea
Tri-Valley
Troy A rea
Tulpehocken A rea
Tunkhannock A rea
Turkeyfoot Valley A rea
Tuscarora
Tussey M ountain
Twin Valley
Tyrone A rea

U
Ū niōn Ā rea
Union City A rea
Union
Uniontown A rea
Unionville-Chadds Ford
United
U pper A dams
U pper Darby
U pper Dauphin A rea
U pper Dublin
U pper M erion A rea
U pper M oreland Township
U pper Perkiomen
U pper Saint Clair

Schedule of E mployers (Continued)

V
-
Valley Grove
Valley View

W
W̄ālenpaupack $\overline{\mathrm{A}}$ rea
Wallingford-Swarthmore
Warren County
Warrior Run
Warwick
Washington
Wattsburg A rea
Wayne Highlands
Waynesboro A rea
Weatherly A rea
Well sboro A rea
West Allegheny
West Branch A rea
West Chester A rea
West G reene
West Jefferson Hills
West M iddlesex A rea
West M ifflin A rea
West Perry
West Shore
West Y ork A rea

Western Beaver County
Western Wayne
Westmont Hilltop
Whitehall -Coplay
Wilkes-B arre A rea
Wilkinsburg B orough
William Penn
Williams Valley
Williamsburg Community
Williamsport A rea
Wilmington A rea
Wilson A rea
Wilson
Windber A rea
Wissahickon
Woodland Hills
Wyalusing A rea
Wyoming A rea
Wyoming Valley West
Wyomissing A rea
Y
Yōrk City
York Suburban
Yough

## Area Vocational Technical Schools

A. W. B eattie C areer Center

A dmiral Peary AVTS
B eaver County AVTS
B edford County Technical Center
Berks CTC
Bethlehem AVTS
Bucks County Technical High School
Butler County AVTS
Carbon Career \& Technical Institute
C areer Institute of Technology
Center for Technical Studies of M ontgomery County
Central PA Institute of Science \& Technology
Central Westmoreland CTC
Clarion County Career Center
Clearfield County CTC
Columbia-M ontour AVTS
Crawford County CTC
CTC of L ackawanna County
Cumberland-Perry AVTS
Dauphin County Technical School
Delaware County AV TS
Eastern Center for A rts \& Technology
Eastern Westmoreland CTC
Erie County Technical School
Fayette County AV TS
Forbes R oad CTC
Franklin County CTC
Fulton County AVTS
G reater Altoona CTC

G reater J ohnstown AVTS
Greene County CTC
Huntingdon Co CTC
Indiana County Technology Center
J efferson County-DuB ois AV TS
Lancaster County CTC
Law rence County CTC
Lebanon County CTC
Lehigh Career \& Technical Institute
Lenape Tech
Lycoming CTC
M ercer County Career Center
M iddle Bucks Institute of Technology
M ifflin-J uniata CTC
M on Valley CTC
M onroe Career \& Tech Inst
N orth Fayette Co AVTS
N orth M ontco Tech Career Center
N orthern Tier Career Center
N orthern Westmoreland CTC
Northumberland County AVTS
Parkway West CTC
Reading-M uhlenberg CTC
Schuylkill Technology Centers
Somerset County Technology Center
Steel Center AVTS
SUN A rea CTC
Susquehanna County CTC
U pper Bucks County AVTS
Venango Technology Center

West Side AV TS
Western A rea CTC
Western Center for Technical Studies
Wilkes-B arre CTC
York Co School of Technology

## Intermediate Units

Allegheny \#3
A ppalachia \#8U
A rin \#28
Beaver Valley 27
Berks County \#14
Blast \#17
Bucks County \#22
Capital A rea \#15
Carbon-Lehigh \#21
Central \#10
Central Susquehna \#16
Chester County \#24
Colonial \#20
Delaware County \#25

Bloomsburg U niversity
Bucks County Community College
Butler County Community College
California U niversity
Cheyney University
Clarion University Of Pennsylvania
Community College Of A llegheny County
Community College Of Beaver County
Community College Of Philadelphia
Delaware County Community College
East Stroudsburg U niversity
Edinboro University
Education Resource
Harrisburg A rea Comunity College
Indiana University
Kutztown University

Berks County Earned Income Tax Bureau
Department of Corrections - Commonwealth of Pennsylvania
Department of Education-Commonweal th of Pennsylvania
L ancaster County A cademy
Overbrook School for the Blind
Pennsylvania School Boards A ssociation

21St Century Cyber C S
A chievement House C S
Ad Prima C S
A gora C S
Alliance For Progress C S
A ntonia Pantoja C harter School
A rchitecture and Design C S
A rise A cademy Charter High School
Avon Grove C S
B ear Creek Community C S
Beaver A rea A cademic C S
Belmont C S

Intermediate Unit \#1
L ancaster-Lebanon \#13
Lincoln \#12
Luzerne \#18
M idwestern \#4
M ontgomery County \#23
N ortheastern Educational \#19
N orthwest Tri-County \#5
Pittsburgh-M t Oliver \#2
Riverview \#6
Schuylkill \#29
Seneca Highlands \#9
Tuscarora \#11
Westmoreland \#7

## C olleges / Universities

Lehigh Carbon Community College
Lock Haven U niversity
Luzerne County Community College
M ansfield University
M illersville University
M ontgomery County Community College
N orthampton County A rea Community College
Penn State University
Pennsylvania College Of Technology
Reading A rea Community College
Shippensburg U niversity
Slippery Rock University
State System Of Higher Education
West Chester University
Westmoreland County Community College

## Other

Pennsylvania School for the Deaf
Thaddeus Stevens College of Technology Western Pennsylvania School for the Blind Western Pennsylvania School for the Deaf York A dams A cademy

## C harter Schools (C S)

Boys Latin of Philadel phia C S
Bucks County M ontessori C S
Career Connections C S
Central Pennsylvania Digital Learning Foundation C S
Centre Learning Community C S
Chester County Family A cademy C S
Christopher Columbus C S
City Charter High School
Collegium C S
Commonwealth Connections A cademy C S
Community A cademy of Philadelphia C S
Crispus A ttucks Y outhbuild C S

Schedule of E mployers (Continued)
Center for Student Learning C S at Pennsbury
Delaware Valley C S
Discovery C S
Dr. Robert K etterer C S
Eastern University A cademy C S
Environmental C S at Frick Park
Erin Dudley Forbes C S
Eugenio M aria de Hostos Community Bilingual C S
Evergreen Community C S
Family C S
Fell C S
First Philadelphia C S for Literacy
Folk Arts-Cultural Treasures C S
Franklin Towne C harter Elementary School
Franklin Towne C S
Freire C S
Global Leadership A cademy C S
Graystone A cademy C S
Green Woods C S
Hardy Williams A cademy C S
Helen Thackston C S
Hope C S
Imani Education Circle C S
IM HOTEP Institute C S
Independence C S
Infinity C S
Keystone Education Center C S
K hepera C S
Kipp A cademy C S
Kipp West Philadelphia Preparatory C S
La A cademia; The Partnership C S
Laboratory C S
Lehigh Valley A cademy Regional C S
Lehigh Valley C S for the Performng A rts
Lincoln C S
Lincoln Leadership A cademy C S
Lincoln Park Performing Arts C S
$M$ anchester A cademic C S
M ariana Bracetti A cademy C S
M aritime A cademy C S
M astery Charter High School
M astery CS - Pickett Campus
M astery CS - Shoemaker Campus
M astery CS - Thomas Campus
M ath Civics and Sciences C S
M athmatics,Science \& Technology Commmunity C S
M ontessori Regional C S
M ulti-Cultural A cademy C S
New Foundations C S
New Hope A cademy
New M edia Technology C S
Nittany Valley C S
Northside Urban Pathways C S
Northwood A cademy C S
Nueva EsperanzaA cademy C S
Pan A merican A cademy C S
Pennsylvania Learners Online Regional Cyber C S
Pennsylania Leadership C S
Pennsylvania Cyber C S
Pennsylvania Distance Learning C S
Pennsylvania Virtual C S
People for People C S
Perseus House C S of Excellence
Philadel phia A cademy C S

Philadelphia Electrical \& Technology Charter High School
Philadelphia Harambee Institute of Science and
Technology C S
Philadel phia M ontessori C S
Philadelphia Performing A rts C S
Planet A bacus C S
Pocono M ountain C S
Preparatory Charter of M athematics, Science, Technology and C areers School
Propel C S - Homestead
Propel C S - M cK eesport
Propel C S - M ontour
Propel-East C S
Renaissance A cademy-Edison C S
Richard A Ilen Preparatory C S
Robert Benjamin Wiley Community C S
Roberto Clemente C S
Russell Byers C S
SankofaA cademy C S
Sankofa F reedom A cademy C S
School Lane C S
Seven Generations C S
Souderton C S Collaborative
Spectrum C S
Sugar Valley Rural C S
SUSQ-CYBERCS
Sylvan H eights Science C S
Tacony A cademy C S
Tidioute Community C S
Truebright Science A cademy C S
Tuscarora Blended Learning C S
Universal Institute C S
Urban League of Pittsburgh C S
Vida C S
Wakisha C S
Walter D Palmer Leadershp Learning Partnershp C S
West Oak Lane C S
West Philadelphia A chievement Charter Elementary School
Wissahickon C S
Wonderland C S
World Communications C S
Young Scholars C S
Young Scholars of Central Pennsylvania C S


[^0]:    * Not Rated securities include $\$ 3,227,846$ and $\$ 2,529,667$ in collective trust funds at June 30, 2010 and 2009, respectively.
    ** Comprised of U.S. government and agency obligations explicitly guaranteed by the U.S. government and not considered to have credit risk.

[^1]:    * The option-adjusted duration of 2.6 and 2.1 at June 30, 2010 and 2009, respectively, for the total fixed income and Short-Term Investment Funds is calculated by weighting the option-adjusted duration of each investment type by market value.
    ** Fixed income investment managers enter into futures contracts to adjust the durations of their portfolios as a whole rather than any particular investment type within the portfolio. In total, the futures contracts have adjusted PSERS' total fixed income and Short-Term Investment Funds duration upward by 0.1 at June 30, 2010 and 2009.

[^2]:    * Includes investment receivables and payables

[^3]:    * Net asset value of investments at June 30, 2010; investments are classified on an asset allocation basis.

[^4]:    * For Pensions and Health Insurance (under the funding provisions of the Retirement Code)

[^5]:    * M arket Value Rate of return provided by Wilshire A ssociates Incorporated, PSERS investment consultant.

[^6]:    * Based on Estimated Employer Payroll for Fiscal Year Ending 2011 of \$ 13,510,000.

[^7]:    Notes:

    1. Current estimates of fiscal 2009/2010 membership payroll and administrative expenses, and of fiscal 2010/2011 administrative expenses, were provided by PSERS staff.
    2. $66 \%$ of eligible annuitants are assumed to elect coverage.
    3. Premium Assistance payments equal $\$ 100$ per month per eligible annuitant.
[^8]:    * The amounts reported include liabilities for Pensions only.

[^9]:    * The amounts reported above include assets and liabilities for Health Insurance Premium Assistance. The health insurance liabilities for GASB 43 disclosure have been calculated under the entry age normal cost method, which provides liabilities that differ from those determined under the funding requirements of the Retirement Code.

[^10]:    * The annual annuities added and deleted are for the annuitants and survivor annuitants who were added and deleted. Changes in annuities for continuing payees may also occur due to finalization of benefit calculations and due to the commencement of supplemental annuity payments.

[^11]:    ** Net transfers to the Commonwealth of Pennsylvania State Empl oyees' Retirement System

[^12]:    * Actuarial Valuation for year ended June 30, 2009 is most current valuation completed at publication date.

[^13]:    * Data for these years not available in the format adopted for years ending June 30, 2001 through 2009.

[^14]:    * A ctuarial valuation for year ended June 30, 2009 is the most current valuation completed at the publication date.

[^15]:    * A ctuarial valuation for year ended June 30, 2009 is the most current valuation completed at the publication date..

