## PENNSYLVANIA

## PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

## COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2011

# Pennsylvania <br> Public School Employees’ Retirement System 

(A Component Unit of the Commonwealth of Pennsylvania)

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# Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2011 

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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## INTRODUCTORY

## PSERS EMPLOYEES



## CIRCA 1981

THE 2011 CAFR COVER AND DIVIDERS RECALL THE COVER OF 1981 WHEN PSERS EMPLOYEES SERVED AS THE COVER PHOTOGRAPH.


## Letter of Transmittal

## COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

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

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Local - 717-787-8540
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5 North 5th Street
Harrisburg PA

Web Address: www.psers.state,paus
October 31, 2011

The Honorable Thomas W. Corbett, 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 Corbett, Legislators, Members, Employer Board members and PSERS Board of Trustees:
We are pleased to present the ninety-second edition of the Comprehensive Annual Financial Report (CAFR) for the Pennsylvania Public School Employees’ Retirement System (PSERS, System, or Fund) for the fiscal year ended June 30, 2011 (FY 2011). This report is intended to provide financial, investment, actuarial and statistical information in a single publication. The front cover of this year's CAFR and the divider pages inside show the people that make the System work, PSERS’ staff. This concept is a re-creation from the 1981 CAFR. Staff photos from the 1981 CAFR and from 1921 are included in the Introductory section of this report. Much has changed in the 30 years since this concept was last used, such as the complexity of the System's makeup and the amount of money the System manages; however, PSERS staff's dedication has not changed. The management of the Fund's assets, distribution of retirement benefits, and service to more than 500,000 stakeholders that are referenced in this CAFR are a result of the staff's commitment to the mission of PSERS.

The following table illustrates the tremendous growth of the System from its early beginnings to the present day:

|  | FY 1921 | FY 1981 | FY 2011 |
| :--- | ---: | ---: | ---: |
| Active Members | 41,151 | 214,438 | 279,000 |
| Retirees and Beneficiaries | 538 | 69,740 | 195,000 |
| Monthly Annuitant Payroll | $\$ 11,600$ | Over $\$ 35$ million | Over $\$ 360$ million |
| Average Annual Benefit | $\$ 334$ | $\$ 6,241$ | $\$ 23,895$ |
| Net Asset Value | $\$ 5$ million | $\$ 5.3$ billion | $\$ 51.4$ billion |
| PSERS Staff Complement | 24 | 151 | 310 |

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 the 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 756 reporting entities in Pennsylvania. As of June 30, 2011, the System had approximately 279,000 active members with an estimated annual active payroll of $\$ 12.9$ billion.

The annuitant membership at June 30, 2011 was comprised of approximately 195,000 retirees and beneficiaries who receive over $\$ 360$ million in pension and healthcare benefits each month. The average yearly benefit paid to annuitants is $\$ 23,895$. 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 756 reporting units contribute. PSERS is administered by a staff of 310. The System is headquartered in Harrisburg, Pennsylvania, and has eight field offices in strategic areas of the Commonwealth to enable direct contact with the membership and the System's employers.

PSERS was established by law as an independent administrative board directed by a governing board of trustees (Board) which exercises control and management of the System, including the investment of its assets. PSERS is considered a component unit of the Commonwealth of Pennsylvania as defined by the Governmental Accounting Standards Board (GASB). An annual audit of the System by an independent certified public accounting firm is required by the Retirement Code. PSERS has contracted with 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, a management letter was not issued. This is the second consecutive year 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

During the first half of the fiscal year the U.S. Gross Domestic Product (GDP) continued to improve but the growth quickly tapered off in the second half of the fiscal year as fiscal and monetary supports weakened. The Federal Reserve implemented another round of quantitative easing (a.k.a. QE2) and the unemployment rate fell modestly during FY 2011. Internationally, geopolitical strife in the Middle East and Africa, a massive earthquake and resultant tsunami in Japan and the European debt crisis negatively impacted the economy. Despite the global challenges, investment markets worldwide performed well and PSERS FY 2011 investment return was one of the highest in its history. For FY 2011 PSERS' investment portfolio generated a rate of return of $20.37 \%$ which resulted in $\$ 9.2$ billion of net investment income. The total net assets of the System increased from $\$ 45.8$ billion to $\$ 51.4$ billion from July 1, 2010 to June 30, 2011. 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, 2011 was $8.79 \%$ 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

## Pennsylvania Act 120 of 2010 - Pension Reform

During the past fiscal year dramatic progress was made toward addressing funding issues at PSERS. On November 23, 2010 pension reform legislation, Act 120 of 2010, was signed into law. This legislation included a series of actuarial and funding changes to PSERS and benefit reductions for individuals who become new members of PSERS on or after July 1, 2011.

Act 120 significantly impacted the funding issues at PSERS by:

- Reducing the employer normal cost for new PSERS members hired on or after July 1, 2011 - As a result of the legislation, pension benefits earned by new members will be almost entirely funded by the member and over time the employer normal cost (the actual cost of the benefits being earned) will be dramatically reduced
to nearly $3.00 \%$ as a result of the benefit reductions for new members. The employer normal cost for new members hired under Act 120 is $68 \%$ less than pre-Act 120 members.
- Putting a long-term plan in place to pay off existing pension liabilities - The actuarial changes in Act 120 also put a plan in place to pay off existing pension liabilities. Act 120 addressed the pending employer contribution rate spike projected for FY 2013 by smoothing the projected rate increases over a five to nine year time period. In addition, the benefit reductions and risk sharing provisions for new members on July 1, 2011 and thereafter have created a low employer cost structure for new members and shifted some of the investment risk to the members. PSERS' unfunded liabilities will be paid over a 24 year amortization period.

While Act 120 has slowed the growth of new pension liabilities and has put a long-term plan in place to address PSERS' funding issues, PSERS is aware that difficult budget issues remain for both the Commonwealth and school employers in coming years. PSERS remains committed to providing all available assistance to the Governor, General Assembly and school employers during the implementation of Act 120 and in the future.

A detailed explanation of the Act 120 benefit reductions and actuarial and funding changes can be found in the Management's Discussion and Analysis included in the Financial Section of this report.

## 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 has continued cost control initiatives into FY 2011. As reflected in the five-year table below, PSERS continues to be prudent in its use of funds and managing the annual budget.

| Fiscal Year: | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Administrative Budget* | $\$ 39,455,000$ | $\$ 40,811,000$ | $\$ 42,068,000$ | $\$ 42,651,600$ | $\$ 43,528,000$ |
| Expenditures** | $38,230,663$ | $38,009,568$ | $39,224,000$ | $38,987,602$ | $40,711,000$ |
| Lapse (unspent funds) | $1,224,337$ | $2,801,432$ | $2,844,000$ | $3,663,998$ | $2,817,000$ |
| Percentage Lapsed | $3.1 \%$ | $6.9 \%$ | $6.8 \%$ | $8.6 \%$ | $6.5 \%$ |

*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.
PSERS has annually underspent its approved budget, keeping more funds available to invest for PSERS' members. During FY 2011, PSERS made reductions to overtime and wages, reduced outsourced electronic data processing services, and in conjunction with the Commonwealth's cost control initiatives, continually looks for ways to cut costs while maintaining excellent customer service and efficiency of operations. PSERS' administrative cost per member has been trending downward as it continues to implement efficiencies.

In addition to these savings, during FY 2011, PSERS continued its ongoing efforts to recover funds from securities class action litigation. The System received $\$ 8.7$ million in settlements from these cases in FY 2011.

## Customer Service

In these lean economic times, everyone has to do more with less. The laws, such as the passage of Act 120 of 2010, regarding retirement plans continue to add complexity to PSERS while the workload continues to increase. The increased workload during FY 2011 has impacted every aspect of the System from a $33 \%$ increase in receipt of retirement applications and a $5 \%$ increase in receipt of refund applications to a $4 \%$ increase in the number of calls in and out of the call center. Nearly 300,000 calls were received during this period.

Despite these challenges, PSERS' efforts for increased efficiency have continued to have a tremendous positive impact. Even with these substantial increases in workload, the effort to pay retirement benefits in one step has continued its success, increasing from $75 \%$ in FY 2010 to $86 \%$ in FY 2011. Historically, PSERS had paid retirement benefits 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 18 months of the retirement date using final information. The one-step benefits are being paid in an average of less than four weeks after all the necessary information is received. The direct result of these improved efficiencies is a reduction in duplicated work that enables staff to focus on other customer service areas and process higher volumes without increasing staff size.

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, this backlog has been reduced to fewer than 5,000 , providing members with a more accurate portrayal of the service credit they have accrued.

Through continued system enhancements, PSERS has been able to better serve employers, enable better and more frequent reporting by employers, and for the third year in a row, plans to provide an up-to-date Statement of Account to all active and inactive members by December 31. Address validation improvements have been implemented during FY 2011 enabling PSERS to provide member correspondence quicker and more efficiently. Additionally, as a result of operational improvements, PSERS is able to begin its processing of the annuitant payroll nearly five days later each month. This allows for more timely processing of member requested changes to their W - 4 P federal income tax withholding and/or electronic fund transfers.

With all of these improvements in place, the next customer service enhancement being addressed is reviewing member accounts at periodic milestones and event triggers to ensure each detail of a member's account is accurately portrayed prior to the member applying for retirement. Through these kinds of optimizations and enhancements, PSERS is committed to improve the services it provides to members and employers.

## Financial Highlights

The fair value of the System's net assets totaled $\$ 51.4$ billion as of June 30, 2011. The System is the 16th 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 2011 PSERS provided $\$ 5.6$ 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 2011, the appropriation was $\$ 43.5$ 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, 2010) 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 $75.1 \%$. 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 $72 \%$ of total revenues over the twenty-year period from FY 1992 to FY 2011. During FY 2011, net investment income was $\$ 9.2$ billion. The investment portfolio, which is one part of the System's net assets, totaled $\$ 51.8$ billion, at fair value, as of June 30, 2011. For FY 2011, the time-weighted rate of return on the System's investments was 20.37\%.

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, which is based on the Board-established asset allocation structure that seeks to generate a return that meets the actuarial rate of return assumption); and (ii) invest the assets to maximize returns for the level of risk taken. The risk objectives are to (i) diversify the assets of the System to minimize the risk of losses within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location; and (ii) invest the assets so that the probability of investment losses (as measured by the Policy Index) in excess of $15.0 \%$ in any one year is no greater than $2.5 \%$ (or two standard deviations below the expected return). Additional information on the System's investments is contained in the Investment Section of this report.

## 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 continues to work 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.

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

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

In 2006, GASB began a multi-year project to reexamine the current pension accounting standards as detailed in GASB Statements 25 and 27. In March 2009, 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 , 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 was an intermediate step in the GASB Pension Project and reflects GASB's expectation of significant discussion related to the proposed changes. In the PV, 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 GASB on the PV in September 2010 and has collaborated with constituent groups that have also provided comments to GASB.

After considering the comments they received from the PV, GASB issued two Exposure Drafts (ED) to further refine the Pension Project. The first ED entitled Financial Reporting for Pension Plans an amendment of GASB Statement No. 25, would amend the financial reporting by state and local governmental pension plans. The second ED entitled Accounting and Financial Reporting for Pensions an amendment of GASB Statement No. 27, would amend the financial reporting by state and local governments whose employees are provided with pensions. In October 2011, PSERS provided comments to GASB with regard to both EDs individually and collectively with constituent groups and completed participation in GASB's field test of the EDs.

Once GASB reviews the input received in response to the EDs and field tests, it will issue the new accounting standards 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, 2010. 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 28 consecutive years from FY 1983 to FY 2010. 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 2011 certificate.

## Institutional Investor 2011 Large Public Plan of the Year Award

In midsummer 2011, PSERS was named the "2011 Large Public Plan of the Year" during the 9th annual Hedge Fund Industry Awards presented by Institutional Investor. PSERS beat out three other states (California, Texas, and Massouri) to earn the award. A photograph of this award appears in the Introductory Section.

PSERS was recognized as a large public pension fund that excelled in its innovation, achievements and contributions to the Hedge Fund industry during 2010. PSERS directly invests in hedge funds that are SEC registered institution-al-grade managers that provide transparency and liquidity to PSERS. PSERS hedge fund investments are part of its Absolute Return program, which has contributed greatly to PSERS recent superior investment performance. For FY 2011 the Absolute Return program returned 13.18\%.

## Public Pension Coordinating Council Public Pension Standards Award

The Public Pension Coordinating Council has awarded its Public Pension Standards Award to PSERS for 2010. 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
Chief Financial Officer


## Certificate of Achievement for Excellence in Financial Reporting

Presented to
Pennsylvania Public School Employees' Retirement System

For its Comprehensive Annual
Financial Report for the Fiscal Year Ended

June 30, 2010
A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to Associationt units and public employee retirement government units and puensive annual financial systems whose compren achieve the highest repor (CAFs) accounting standards in governme reporting.
and financial


## D C

## Public Pension Coordinating Council

## Public Pension Standards Award For Funding and Administration 2010

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

## 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
- Clearlycommunicating members'andemployers'rights
- and responsibilities, and
- Effectively managing the resources of the System


## Administrative Organization PSERS Board of Trustees As of October 31, 2011



Seated, front row: Honorable Robert M. McCord; Kelly Powell Logan, designee for Ronald Tomalis, Secretary of Education; Sally J. Turley, Vice-Chairman; Melva S. Vogler, Board Chairman; Patricia A. Tozer and Bernard Gallagher, designee for Honorable Joseph F. Markosek.

Standing, second row: John Raymond, designee for Honorable Lawrence M. Farnese; Hal Moss; James M. Sando; Beth Winters, designee for Thomas J. Gentzel; Richard N. Rose; Honorable Glen R. Grell; Honorable Patrick M. Browne; and Jeffrey B. Clay, PSERS'Executive Director, Board Secretary

Not pictured: Glen S. Galante

## PSERS Board of Trustees

Secretary of Education of the Commonwealth of Pennsylvania (ex officio)
Mr. Ronald J. Tomalis

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 for a term of three years

Mr. Hal Moss (term expires 12/31/12)
Vacant

Three members elected from among the Active 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 12/31/13)
Ms. Melva S. Vogler (term expires 12/31/11)

One member elected from among the Active Non-Certified 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 12/31/13)

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 Joseph F. Markosek (term expires 11/30/12)
Honorable Glen R. Grell (term expires 11/30/12)

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

Honorable Lawrence M. Farnese (term expires 11/30/12)
Honorable Patrick M. Browne (term expires 11/30/12)

## 2011 Board Committees

As of October 31, 2011

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

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

## INTRODUCTORY SECTION

## 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 Intal Antr


Eugene W. Robison Director of Communications and Counseling


Deborah L. Garraway Director of Information Management


Mary E. Geesey Director of Information Technology


Mark F. Schafer Director of Health Insurance


Frank Ryder Director of Government Relations


Evelyn M. Tatkovski Press Secretary
PSERS REGIONAL OFFICES


## INTRODUCTORY SECTION

## 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.

## FINANCIAL




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## 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, 2011 and 2010, 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, 2011 and 2010, 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 Supplementary 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. Supplementary Schedules 1 through 3 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Supplementary 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 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 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, Maryland
September 21, 2011

## 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, 2011 (FY 2011), provides a narrative summary of PSERS' financial position and performance, including highlights and comparative data. The MD\&A is presented as required supplementary information to the financial statements and should be read in conjunction with the financial statements, the notes to financial statements, and the supplementary schedules.

## Overview of Financial Statements

PSERS is primarily responsible for administering a defined benefit pension plan for public school employees in the Commonwealth of Pennsylvania. PSERS also administers two postemployment healthcare programs, the Health Insurance Premium Assistance (PA) Program 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, 2011, 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, 2010 to June 30, 2011, 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 Supplementary 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 supplementary schedules provide additional detailed information concerning the operating expenses, investment expenses and payments to non-investment consultants. All of this supplementary information is
considered useful in understanding and evaluating the financial activities of PSERS.

## Financial Highlights

- The rate of return on investments was $20.37 \%$ for fiscal year ended June 30, 2011, 14.59\% for the fiscal year ended June 30, 2010 (FY 2010) and $-26.54 \%$ for the fiscal year ended June 30, 2009 (FY 2009).
- PSERS' total plan net assets increased by $\$ 5.6$ billion from $\$ 45.8$ billion at June 30, 2010 to $\$ 51.4$ billion at June 30, 2011. This increase was due in large part 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, 2009 to June 30, 2010 was an increase in the amount of $\$ 2.6$ 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.
- PSERS' funded ratio as of the latest actuarial valuation dated June 30, 2010 decreased from $79.2 \%$ at June 30, 2009 to $75.1 \%$ at June 30, 2010. 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, 2008 was $86.0 \%$.
- Total member contributions increased from $\$ 1.14$ billion in FY 2010 to $\$ 1.24$ billion in FY 2011. The increase was 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 $\$ 638.0$ million during FY 2010 to $\$ 747.8$ million in FY 2011. This increase was primarily attributable to an increase in the total employer contribution rate from $4.78 \%$ in FY 2010 to $5.64 \%$ in FY 2011 and an increase in the active member payroll. Total employer contributions increased from FY 2009 to FY 2010 which was also attributable to a slight increase in the total employer contribution rate from $4.76 \%$ in FY 2009 to $4.78 \%$ in FY 2010


## Management's Discussion and Analysis (continued)

and an increase in the active member payroll in FY 2010.

- Total PSERS' benefit expense increased by $\$ 300$ million from $\$ 5.3$ billion in FY 2010 to $\$ 5.6$ billion in FY 2011. 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 2011 outpaced those of FY 2010 by approximately $25 \%$. 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.
- Total PSERS' administrative expenses increased from $\$ 30.5$ million for FY 2010 to $\$ 57.7$ million in FY 2011. This overall increase 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, in FY 2010. This adjustment resulted in a \$23.8 million reduction in FY 2010. Total PSERS' administrative expenses in FY 2009 were $\$ 51.3$ million.

| Summary of Plan Net Assets | Analysis of Plan Net Assets (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | FY 2011 | Increase <br> (Decrease) |  | FY 2010 |  | Increase <br> Decrease) |  | FY 2009 |
| Assets: |  |  |  |  |  |  |  |  |  |
| Receivables |  | \$ 1,174,557 | \$ 109,496 |  | 1,065,061 | \$ | $(289,940)$ | \$ | 1,355,001 |
| Investments |  | 51,829,164 | 5,324,896 |  | 46,504,268 |  | 3,160,333 |  | 43,343,935 |
| Securities lending collateral pool |  | 761,805 | $(762,429)$ |  | 1,524,234 |  | $(67,486)$ |  | 1,591,720 |
| Capital assets |  | 21,029 | 1,814 |  | 19,215 |  | 18,685 |  | 530 |
| Total Assets |  | 53,786,555 | 4,673,777 |  | 49,112,778 |  | 2,821,592 |  | 46,291,186 |
| Liabilities: |  |  |  |  |  |  |  |  |  |
| Payables and other liabilities |  | 1,591,569 | $(159,448)$ |  | 1,751,017 |  | 258,591 |  | 1,492,426 |
| Obligations under securities lending |  | 761,805 | $(762,429)$ |  | 1,524,234 |  | $(67,486)$ |  | 1,591,720 |
| Total Liabilities |  | 2,353,374 | $(921,877)$ |  | 3,275,251 |  | 191,105 |  | 3,084,146 |
| Plan Net Assets |  | 51,433,181 | \$5,595,654 |  | 45,837,527 | \$ | 2,630,487 |  | 43,207,040 |
| Summary of Changes in Plan Net Assets |  |  |  |  |  |  |  |  |  |
| Additions: |  |  |  |  |  |  |  |  |  |
| Contributions | \$ | 2,023,554 | \$ 208,388 | \$ | 1,815,166 | \$ | 85,309 | \$ | 1,729,857 |
| Net investment income (loss) |  | 9,247,092 | 3,132,104 |  | 6,114,988 |  | 22,313,300 |  | $(16,198,312)$ |
| Total Additions |  | 11,270,646 | 3,340,492 |  | 7,930,154 |  | 22,398,609 |  | $(14,468,455)$ |
| Deductions: |  |  |  |  |  |  |  |  |  |
| Benefit expense |  | 5,617,247 | 348,072 |  | 5,269,175 |  | 337,321 |  | 4,931,854 |
| Administrative expenses |  | 57,745 | 27,253 |  | 30,492 |  | $(20,783)$ |  | 51,275 |
| Total Deductions |  | 5,674,992 | 375,325 |  | 5,299,667 |  | 316,538 |  | 4,983,129 |
| Changes in Plan Net Assets |  | \$ 5,595,654 | \$2,965,167 |  | 2,630,487 |  | 22,082,071 |  | $(19,451,584)$ |

## Management's Discussion and Analysis (continued)

## 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 $75.1 \%$ funded as of June 30,2010 . The funded ratio decreased from $79.2 \%$ as of June 30, 2009 due to a decrease in the actuarial value of assets, which is based on a ten-year smoothing period, and an increase in the actuarial accrued liability.

The results of operations for FY 2011 will be reflected in the actuarial valuation for the year ended June 30, 2011. Due to the normal lag time for completion of the actuarial valuation, the resulting funded status will be available at the end of the 2011 calendar year and will be reported in the financial statements for the fiscal year ending June 30, 2012 (FY 2012). Based on the investment performance for the seven-year period ended June 30, 2011, which is below the investment rate of return assumption during that time period, the funded ratio at June 30, 2011 is expected to decrease. FY 2011 is the second year of a five year transition from five-year to ten-year smoothing of actuarial assets. PSERS' State Accumulation Account had a negative balance at June 30, 2011 and 2010 (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 is shown at the bottom of the page.

## PSERS' Funded Ratio Funded Ratio = Actuarial Value of Assets / Actuarial Accrued Liability



## 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.

Domestically, the first half of the fiscal year saw a continued pickup in the U.S. Gross Domestic Product (GDP). The growth quickly tapered off in the second half of the fiscal year as fiscal and monetary supports weakened. The unemployment rate fell modestly during FY 2011, while the U.S. Federal Reserve implemented another round of quantitative easing (a.k.a. QE2) in an effort to further stimulate the economy. Internationally, the news was driven by the geopolitical strife in the Middle East and Africa, a massive earthquake and resultant tsunami in Japan, and the European debt crisis which negatively impacted the economy. Despite the global hurdles, both domestic and international markets performed well, and as a result, PSERS' investment return for FY 2011 was one of the highest in its history.

For FY 2011, PSERS' rate of return on investments was $20.37 \%$ which exceeded PSERS' total fund Policy Index of $17.56 \%$. The Policy Index is a custom benchmark, which is based on the Board-established asset allocation structure that seeks to generate a return that meets the actuarial rate of return assumption. Net investment income exceeded
$\$ 9.2$ billion in FY 2011 compared to a net investment income of $\$ 6.1$ billion in FY 2010.

The annualized rate of return over the past three and fiveyear periods ended June 30, 2011 was $.44 \%$ and $3.89 \%$, respectively. The return for the three-year period trailed the total fund Policy Index return by 66 basis points while the return for the five-year period exceeded the total fund Policy Index return by 16 basis points. The annualized rate of return for the ten and twenty-five-year periods ended June 30, 2011 was $6.25 \%$ and $8.79 \%$, respectively.

PSERS' long-term actuarial investment rate of return assumption was $7.5 \%$ at June 30, 2011. PSERS' Board of Trustees (Board) decreased the actuarial investment rate of return assumption from $8.25 \%$ to $8.0 \%$ effective for the June 30, 2009 actuarial valuation. The Board decreased the rate of return assumption further from $8.0 \%$ to $7.5 \%$ for the June 30, 2011 actuarial valuation. The changes made by the Board lowered PSERS' rate of return assumption to provide a more realistic outlook on the future earnings potential of the Fund as long-term capital market assumptions have declined. The $.5 \%$ decrease in the rate of return assumption allowed PSERS to modify its asset allocation plan during FY 2011 to achieve its new return target with lower overall risk.

The asset distribution of PSERS' investment portfolio at June 30, 2011, 2010 and 2009, at fair value, and including postemployment healthcare assets, is presented in the table at the bottom of the page.

| Asset Class | (Dollar Amounts in Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | \% | 2010 | \% | 2009 | \% |
| Short-term | \$ 5,893,823 | 11.4 | \$ 4,163,515 | 9.0 | \$ 5,398,729 | 12.5 |
| Fixed income | 12,650,065 | 24.4 | 11,873,202 | 25.5 | 11,333,549 | 26.2 |
| Common and preferred stock | 15,436,643 | 29.8 | 15,316,957 | 32.9 | 13,883,372 | 32.0 |
| Real estate | 5,263,467 | 10.1 | 3,973,873 | 8.6 | 3,699,353 | 8.5 |
| Alternative investments | 12,585,166 | 24.3 | 11,176,721 | 24.0 | 9,028,932 | 20.8 |
| Total | \$ 51,829,164 | 100.0 | \$ 46,504,268 | 100.0 | \$ 43,343,935 | 100.0 |

## Management's Discussion and Analysis (continued)



Short-term investments (cash and cash equivalents) increased by $\$ 1.7$ billion from $\$ 4.2$ billion at June 30, 2010 to $\$ 5.9$ billion at June 30, 2011 due to a reallocation of exposure from common and preferred stocks during FY 2011. Fixed income investments increased by $\$ 800$ million from $\$ 11.9$ billion at June 30, 2010 to $\$ 12.7$ billion at June 30, 2011 due to market value appreciation and allocation increases to the asset class. Common and preferred stock investments also increased by $\$ 100$ million from $\$ 15.3$ billion at June 30, 2010 to $\$ 15.4$ billion at June 30, 2011. The slight rise in this asset category was primarily the result of positive returns in the domestic and international equity markets which were almost entirely negated by allocation decreases to the asset class. Real estate investments rose by $\$ 1.3$ billion from $\$ 4.0$ billion at June 30, 2010 to $\$ 5.3$ billion at June 30, 2011 mostly as a result of contributions to new and existing partnerships combined with market recovery. Alternative investments increased by $\$ 1.4$ billion from $\$ 11.2$ billion at June 30, 2010 to $\$ 12.6$ billion at June 30, 2011 due to contributions to new and existing partnerships combined with strong appreciation in partnership portfolio investments which outweighed significant distributions.

Short-term investments 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 302009 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.

## Securities Lending

Securities lending collateral pool and obligations under securities lending decreased from $\$ 1.5$ billion at June 30, 2010 to $\$ 762$ million at June 30, 2011. Due to a decrease in demand for securities lending activities, the market value of securities actually on loan declined from $\$ 2.1$ billion at June 30, 2010 to $\$ 1.3$ billion at June 30, 2011. The noncash collateral decreased slightly from $\$ 715$ million at June 30, 2010 to $\$ 651$ million at June 30, 2011. Noncash collateral is not reflected in the Statement of Plan Net Assets. The System experienced only a slight change in net gain from securities lending activities from $\$ 8.5$ million in FY 2010 to $\$ 7.2$ million in FY 2011 as spreads improved but volume declined.

## Contributions

Employer contributions increased from $\$ 638.0$ million in FY 2010 to $\$ 747.8$ million in FY 2011 due to the increase in the total employer contribution rate from $4.78 \%$ in FY 2010 to $5.64 \%$ in FY 2011 and an increase in the active member payroll.

Total member contributions increased from $\$ 1.14$ billion in FY 2010 to $\$ 1.24$ billion in FY 2011 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 7.32\% in FY 2010 to $7.34 \%$ in FY 2011. Total member contributions increased from \$1.09 billion in FY 2009 to $\$ 1.14$ billion in FY 2010 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 7.29\% in FY 2009 to 7.32\% in FY 2010. A thirty-year history of PSERS' contribution rates is presented on the next page.

As a result of an increase in member purchase of service credits and higher contribution rates, accounts receivable balances for member and employer contributions were

## Management's Discussion and Analysis (continued)


significantly higher at June 30, 2011 compared to June 30, 2010. Total member and employer accounts receivable at June 30, 2011 were $\$ 531.0$ million compared to $\$ 450.6$ million as of June 30, 2010.

## Pennsylvania Act 120 of 2010

On November 23, 2010, the Governor signed HB 2497 into law. The legislation is now known as Act 120 of 2010.

Act 120 preserves the benefits of existing members and includes a series of actuarial and funding changes to PSERS and benefit reductions for individuals who become new members of PSERS on or after July 1, 2011. The Act created two new membership classes, T-E and T-F.

Act 120 has a projected net savings of $\$ 1.38$ billion through FY 2044 as the $\$ 24.65$ billion of projected savings from benefit reductions is offset by the $\$ 23.27$ billion cost of deferring contributions for budgetary purposes. Act 120 addressed the pending employer contribution rate spike projected for FY 2013 by smoothing the projected rate increases over a five to nine year time period. In addition, the benefit reductions and risk sharing provisions for new members on July 1, 2011 and thereafter have created a low
employer cost structure for new members and shifted some of the investment rist to members. The employer normal cost for Act 120 members is $68 \%$ less than pre-Act 120 members as the benefit plan is primarily member funded.


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Management's Discussion and Analysis (continued)

## Benefit Changes

All new members will automatically become Class T-E members. New members however, will have a one-time opportunity to elect Class T-F within 45 days of receiving written notification from PSERS. Failure to elect Class T-F at time of original eligibility will make the member ineligible for Class T-F forever. In other words, once the election is made either by action or inaction, the election is permanent. Provisions affecting both new membership classes are as follows:

- The cost to purchase Non Qualifying Part Time (NQPT) service and most types of nonschool or nonstate service credit (other than military service) will be the full actuarial cost of the service.
- Ten year vesting period.
- For normal retirement, employees must work until age 65 with a minimum of 3 years of service, or attain a total combination of age and service that is equal to or greater than 92 with a minimum of 35 years of service.
- No projection of service for determining normal retirement.
- Cannot withdraw contributions and interest in a lump sum when retiring.
- Pension benefit cannot exceed the member's final average salary.
- New employees starting later than July 1, 2011 will contribute based on the "shared risk" rate in effect at date of hire.

Benefit and contribution rates for the new membership classes are as follows:

## Class T-E

- Final average salary multiplier is $2 \%$ as opposed to $2.5 \%$ multiplier for most current members.
- Employee contribution base rate is $7.5 \%$ (base rate) with a "shared risk" provision that could cause the total contribution levels to fluctuate between 7.5\% and $9.5 \%$.


## Class T-F

- Final average salary multiplier is $2.5 \%$.
- Employee contribution base rate is $10.3 \%$ (base rate) with a "shared risk" provision that could cause the total contribution levels to fluctuate between $10.3 \%$ and $12.3 \%$.

With a "shared risk" program, Class T-E and T-F members benefit when investments of the fund are doing well and share some of the risk when investments underperform. The member contribution rate will stay within the specified range allotted for Class T-E or T-F; but could increase or decrease by $.5 \%$ every three
years starting July 1, 2015, dependent on investment performance of PSERS. The member contribution rate could never go below the base rate of $7.5 \%$ for T-E and $10.3 \%$ for T-F members, or above $9.5 \%$ for T-E and $12.3 \%$ for T-F members.

## Funding/Actuarial Changes

## Funding Changes - Employer Contributions

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

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

- FY 2012 - not more than $3.0 \%$ plus the premium assistance contribution rate
- FY 2013 - not more than $3.5 \%$ plus the premium assistance contribution rate
- FY 2014 and thereafter - not more than $4.5 \%$ plus the premium assistance contribution rate

The rate cap remains at $4.5 \%$ until the rate cap no longer applies, i.e. the rise in the employer contribution rate is less than the rate cap in effect at that time. Once the rate caps no longer apply, the employer normal cost becomes the contribution rate floor.

## Actuarial Changes

- Currently liabilities are funded over various periods of time using level dollar amortization. Act 120 re-amortizes all unfunded liabilities over a 24 year period and uses level percentage of pay amortization.
- Level percentage of pay amortization is calculated using the same percentage of compensation each year during the amortization period. Under the level dollar amortization, the annual dollar amount of the payment remains the same each year.
- Act 120 changes the recognition of investment gains and losses from a five year smoothing period to a ten year smoothing period.
- Any future legislation enacted that adds liabilities to the system (i.e. cost-of-living adjustments, "30 and Out") will be amortized over 10 years, using a level percentage of pay method. The cost of any additional accrued liability must be reflected above the employer contribution rate caps.
- Establishes a prohibition on the use of Pension Obligation Bonds to fund the System.


## Management's Discussion and Analysis (continued)

## Investment Income

Net investment income increased by $\$ 3.1$ billion from $\$ 6.1$ billion in FY 2010 to $\$ 9.2$ billion in FY 2011, which is consistent with the increase in the investment rate of return from 14.59\% for FY 2010 to 20.37\% for FY 2011. 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. As depicted in the following chart, investment earnings provided $72 \%$ 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.


## Total PSERS' Benefits and Expenses

The primary source of expense during FY 2011 was for the payment of benefits approximating $\$ 5.6$ billion. The breakdown consisted of $\$ 5.3$ billion for Pension, $\$ 94$ million for the PA Program and $\$ 215$ million for HOP benefits. The chart at the end of this page illustrates the significant portion of expenses attributable to benefit payments.

Total PSERS' benefit expense increased from $\$ 5.3$ billion in FY 2010 to $\$ 5.6$ billion in FY 2011. The slight 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, 2011 increased to $\$ 646.4$ million compared to $\$ 540.0$ million at June 30, 2010. New retirements during FY 2011 outpaced the number from FY 2010 by approximately $25 \%$. 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.

Investment expenses decreased by $\$ 7.6$ million from $\$ 522.3$ million in FY 2010 to $\$ 514.7$ million in FY 2011 mainly due to a decline in management fees in the alternative investment asset class. This reduction is widely attributable to changes in fee structure brought on by partnerships maturing. 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.

Administrative expenses increased by $\$ 27.2$ million from $\$ 30.5$ million during FY 2010 compared to $\$ 57.7$ million during FY 2011. This increase was primarily caused by a $\$ 23.8$ million reduction in FY 2010 due to the capitalization of previously expensed GASB 51 qualifying costs for computer systems development. In addition the HOP administrative expenses increased by $\$ 2.3$ million due to an increase in member administrative fees and participation. Administrative expenses totaled \$51.3 million during FY 2009.


## Management's Discussion and Analysis (continued)

## Postemployment Healthcare

PSERS administers two postemployment healthcare programs, the Health Insurance Premium Assistance (PA) Program and the Health Options Program (HOP) for its annuitants. The following paragraphs and summary data provide supplementary 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) Program

- Total plan net assets decreased by $\$ 5.6$ million in FY 2011 due to benefit payments and the associated administrative expenses exceeding employer contributions. The change from June 30, 2009 to June 30, 2010 was an increase of $\$ 11.7$ million due to contributions exceeding expenses.
- Total receivables decreased slightly from $\$ 37.5$ million at June 30, 2010 to $\$ 32.6$ million at June 30, 2011 due to improved employer collections and a lower employer contribution rate factor.
- Investments remained fairly consistent from $\$ 79.8$ million at June 30, 2010 to $\$ 80.6$ million at June 30, 2011.


## Health Options Program (HOP)

- Total plan net assets decreased by $\$ 0.3$ million in FY 2011 primarily due to the rise in claims expenditures outpacing the rise in contributions by a near 3 to 1 margin. The change from June 30, 2009 to June 30, 2010 is primarily due to the timing of vendor payments, which increased cash flows.
- Total receivables increased from $\$ 13.4$ million at June 30, 2010 to $\$ 13.8$ million at June 30, 2011. The increase is tied primarily to an increase in participation.
- Investments increased from $\$ 142.4$ million at June 30, 2010 to $\$ 145.9$ million at June 30, 2011 due to timing of vendor payments which increased cash flow.
- Total liabilities increased $12.2 \%$ from June 30, 2010 to June 30, 2011. 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 the PA Program decreased from $\$ 102.7$ million in FY 2010 to $\$ 89.2$ million in FY 2011 due to the decrease in employer contribution rate from $0.78 \%$ in FY 2010 to $0.64 \%$ in FY 2011.
- Total member and CMS contributions for HOP increased from $\$ 225.1$ million in FY 2010 to $\$ 233.1$ million in FY 2011. This increase is representative of the $8.0 \%$ increase in plan participation.


## Investment Income

- Total investment income for the PA Program decreased from $\$ 0.9$ million in FY 2010 to $\$ 0.7$ million in FY 2011. The decrease is due to declining short-term interest rates from FY 2010 to FY 2011.
- Investment income for HOP decreased from $\$ 0.4$ million in FY 2010 to $\$ 0.3$ million in FY 2011. This decrease is due to lower rates of return on short-term investments.


## Benefits and Expenses

- Overall expenses for the PA Program increased from $\$ 91.9$ million in FY 2010 to $\$ 95.5$ million in FY 2011. This increase is primarily due to the increase in number of members receiving premium assistance benefits.
- Overall expenses for HOP increased from $\$ 209.8$ million in FY 2010 to $\$ 233.7$ million in FY 2011. The increase is due to increased claims experience of the program.

Management's Discussion and Analysis (continued)

## Premium Assistance

## Summary of Plan Net Assets

Assets:
Receivables
Investments
Total Assets
Liabilities
Payables and other liabilities
Total Liabilities
Plan Net Assets

## Summary of Changes in Plan Net Assets

| Additions: | FY 2011 |  | $\begin{aligned} & \text { Increase } \\ & \text { (Decrease) } \\ & \hline \end{aligned}$ |  | FY 2010 |  | Increase <br> (Decrease) |  | FY 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contributions | \$ | 89,242 | \$ | $(13,461)$ | \$ | 102,703 | \$ | 10,210 | \$ | 92,493 |
| Net Investment Income |  | 691 |  | $(178)$ |  | 869 |  | (992) |  | 1,861 |
| Total Additions |  | 89,933 |  | $(13,639)$ |  | 103,572 |  | 9,218 |  | 94,354 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Benefit Expenses |  | 93,518 |  | 3,607 |  | 89,911 |  | 6,705 |  | 83,206 |
| Administrative Expenses |  | 1,988 |  | 44 |  | 1,944 |  | 125 |  | 1,819 |
| Total Deductions |  | 95,506 |  | 3,651 |  | 91,855 |  | 6,830 |  | 85,025 |
| Changes in Plan Net Assets | \$ | $(5,573)$ | \$ | $(17,290)$ | \$ | 11,717 | \$ | 2,388 | \$ | 9,329 |

## Health Options Program

## Summary of Plan Net Assets

| Assets: | (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY 2011 |  | Increase <br> (Decrease) |  | FY 2010 |  | Increase (Decrease) |  | FY 2009 |  |
| Receivables | \$ | 13,769 | \$ | 351 | \$ | 13,418 | \$ | 3,844 | \$ | 9,574 |
| Investments |  | 145,901 |  | 3,465 |  | 142,436 |  | 15,393 |  | 127,043 |
| Total Assets |  | 159,670 |  | 3,816 |  | 155,854 |  | 19,237 |  | 136,617 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |
| Payables and other liabilities |  | 37,741 |  | 4,108 |  | 33,633 |  | 3,462 |  | 30,171 |
| Total Liabilities |  | 37,741 |  | 4,108 |  | 33,633 |  | 3,462 |  | 30,171 |
| Plan Net Assets | \$ | 121,929 | \$ | (292) | \$ | 122,221 | \$ | 15,775 | \$ | 106,446 |
| Summary of Changes in Plan Net Assets |  |  |  |  |  |  |  |  |  |  |
| Additions: |  | FY 2011 |  | ncrease <br> Decrease) |  | 2010 |  | $\begin{aligned} & \text { crease } \\ & \text { ccrease } \end{aligned}$ |  | 2009 |
| Contributions | \$ | 233,094 | \$ | 8,009 | \$ | 225,085 | \$ | 14,728 | \$ | 210,357 |
| Net Investment Income |  | 310 |  | (130) |  | 440 |  | $(1,088)$ |  | 1,528 |
| Total Additions |  | 233,404 |  | 7,879 |  | 225,525 |  | 13,640 |  | 211,885 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |
| Benefit Expenses |  | 214,967 |  | 21,660 |  | 193,307 |  | 12,272 |  | 181,035 |
| Administrative Expenses |  | 18,729 |  | 2,286 |  | 16,443 |  | 2,626 |  | 13,817 |
| Total Deductions |  | 233,696 |  | 23,946 |  | 209,750 |  | 14,898 |  | 194,852 |
| Changes in Plan Net Assets | \$ | (292) | , | $(16,067)$ | \$ | 15,775 | \$ | $(1,258)$ | \$ | 17,033 |

## Statements of Plan Net Assets

June 30, 2011 and 2010
(Dollar Amounts in Thousands)

|  | Postemployment Healthcare |  |
| :---: | :---: | :---: |
|  | Health |  |
| Pension | Premium <br> Opsistance <br> Opogram | Totals |

Assets:
Receivables:

| Members | \$ | 300,448 | \$ | 5,893 | \$ | 38 | \$ | 306,379 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employers |  | 198,739 |  | 25,899 |  | - |  | 224,638 |
| Investment income |  | 314,822 |  | 242 |  | 11 |  | 315,075 |
| Investment proceeds |  | 313,512 |  | - |  | - |  | 313,512 |
| Centers for Medicare \& Medicaid Services |  | - |  | - |  | 6,639 |  | 6,639 |
| Miscellaneous |  | 646 |  | 587 |  | 7,081 |  | 8,314 |
| Total Receivables |  | 1,128,167 |  | 32,621 |  | 13,769 |  | 1,174,557 |
| Investments, at fair value: |  |  |  |  |  |  |  |  |
| Short-term |  | 5,667,335 |  | 80,587 |  | 145,901 |  | 5,893,823 |
| Fixed income |  | 12,650,065 |  | - |  | - |  | 12,650,065 |
| Common and preferred stock |  | 15,436,643 |  | - |  | - |  | 15,436,643 |
| Real estate |  | 5,263,467 |  | - |  | - |  | 5,263,467 |
| Alternative investments |  | 12,585,166 |  | - |  | - |  | 12,585,166 |
| Total Investments |  | 51,602,676 |  | 80,587 |  | 145,901 |  | 51,829,164 |
| Securities lending collateral pool |  | 761,805 |  | - |  | - |  | 761,805 |
| Capital assets (net of accumulated depreciation $\$ 18,208$ ) | Capital assets (net of accumulated |  |  |  |  |  |  | 21,029 |
| Total Assets |  | 53,513,677 |  | 113,208 |  | 159,670 |  | 53,786,555 |
| Liabilities: |  |  |  |  |  |  |  |  |
| Accounts payable and accrued expenses |  | 118,980 |  | 340 |  | 1,230 |  | 120,550 |
| Benefits payable |  | 646,390 |  | 100 |  | 19,525 |  | 666,015 |
| Participant premium advances |  | - |  | - |  | 16,986 |  | 16,986 |
| Investment purchases and other liabilities |  | 786,508 |  | 1,510 |  | - |  | 788,018 |
| Obligations under securities lending |  | 761,805 |  | - |  | - |  | 761,805 |
| Total Liabilities |  | 2,313,683 |  | 1,950 |  | 37,741 |  | 2,353,374 |

Net assets held in trust for pension and
postemployment healthcare benefits
(Schedules of funding progress are presented
on Required Supplementary Schedule 1) $\quad \$ \quad \mathbf{5 1 , 1 9 9 , 9 9 4} \quad \$ \quad 111,258 \quad \$ \quad 121,929 \quad \$ \quad 51,433,181$

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

Statements of Plan Net Assets
June 30, 2011 and 2010
(Dollar Amounts in Thousands)

| 2010 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Postemployment Healthcare |  |  |
|  |  | Health |  |
|  | Premium | Options |  |
| Pension | Assistance | Program | Totals |

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 |
| Centers for Medicare \& Medicaid Services |  | - |  | - |  | 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 |  |  |  |  |  |  |  |  |
| 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
(Schedules of funding progress are presented

| on Required Supplementary Schedule 1) | $\$$ | $45,598,475$ | $\$$ | 116,831 | $\$$ | 122,221 | $\$$ | $45,837,527$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

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

## PAGE 39

## Statements of Changes in Plan Net Assets <br> Years Ended June 30, 2011 and 2010 <br> (Dollar Amounts in Thousands)

|  | 2011 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium <br> Assistance |  | Health Options <br> Program |  |  |  |
| Additions: |  |  |  |  |  |  |  |  |
| Contributions: |  |  |  |  |  |  |  |  |
| Members | \$ | 1,042,707 | \$ | - | \$ | 201,014 | \$ | 1,243,721 |
| Employers |  | 658,511 |  | 89,242 |  | - |  | 747,753 |
| Centers for Medicare \& Medicaid Services |  | - |  | - |  | 32,080 |  | 32,080 |
| Total contributions |  | 1,701,218 |  | 89,242 |  | 233,094 |  | 2,023,554 |
| Investment income: |  |  |  |  |  |  |  |  |
| From investing activities: |  |  |  |  |  |  |  |  |
| Net appreciation (depreciation) in fair value of investments |  | 8,494,530 |  | $(1,324)$ |  | - |  | 8,493,206 |
| Short-term |  | 12,755 |  | 2,063 |  | 310 |  | 15,128 |
| Fixed income |  | 432,649 |  | - |  | - |  | 432,649 |
| Common and preferred stock |  | 368,901 |  | - |  | - |  | 368,901 |
| Real estate |  | 113,370 |  | - |  | - |  | 113,370 |
| Alternative investments |  | 331,286 |  | - |  | - |  | 331,286 |
| Total investment activity income |  | 9,753,491 |  | 739 |  | 310 |  | 9,754,540 |
| Investment expenses |  | $(514,647)$ |  | (48) |  | - |  | $(514,695)$ |
| Net income from investing activities |  | 9,238,844 |  | 691 |  | 310 |  | 9,239,845 |
| From securities lending activities: |  |  |  |  |  |  |  |  |
| Securities lending income |  | 8,251 |  | - |  | - |  | 8,251 |
| Securities lending expense |  | $(1,004)$ |  | - |  | - |  | $(1,004)$ |
| Net income from securities lending activities |  | 7,247 |  | - |  | - |  | 7,247 |
| Total net investment income |  | 9,246,091 |  | 691 |  | 310 |  | 9,247,092 |
| Total Additions |  | 10,947,309 |  | 89,933 |  | 233,404 |  | 11,270,646 |
| Deductions: |  |  |  |  |  |  |  |  |
| Benefits |  | 5,281,223 |  | 93,518 |  | 214,967 |  | 5,589,708 |
| Refunds of contributions |  | 17,695 |  | - |  | - |  | 17,695 |
| Net transfer to State Employees' Retirement System |  | 9,844 |  | - |  | - |  | 9,844 |
| Administrative expenses |  | 37,028 |  | 1,988 |  | 18,729 |  | 57,745 |
| Total Deductions |  | 5,345,790 |  | 95,506 |  | 233,696 |  | 5,674,992 |
| Net increase (decrease) |  | 5,601,519 |  | $(5,573)$ |  | (292) |  | 5,595,654 |
| Net assets held in trust for pension and postemployment healthcare benefits: |  |  |  |  |  |  |  |  |
| Balance, beginning of year |  | 45,598,475 |  | 116,831 |  | 122,221 |  | 45,837,527 |
| Balance, end of year | \$ | 51,199,994 | \$ | 111,258 | \$ | 121,929 | \$ | 51,433,181 |

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

## Statements of Changes in Plan Net Assets

Years Ended June 30, 2011 and 2010
(Dollar Amounts in Thousands)

|  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pension |  | Postemployment Healthcare |  |  |  | Totals |  |
|  |  |  | Premium <br> Assistance |  | Health Options Program |  |  |  |
| Additions: |  |  |  |  |  |  |  |  |
| Contributions: |  |  |  |  |  |  |  |  |
| Members | \$ | 952,047 | \$ | - | \$ | 191,184 | \$ | 1,143,231 |
| Employers |  | 535,331 |  | 102,703 |  | - |  | 638,034 |
| Centers for Medicare \& Medicaid Services |  | - |  | - |  | 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 |  | 5,561,419 |  | $(1,039)$ |  | - |  | 5,560,380 |
| Short-term |  | 19,015 |  | 1,955 |  | 440 |  | 21,410 |
| Fixed income |  | 440,358 |  | - |  | - |  | 440,358 |
| Common and preferred stock |  | 365,255 |  | - |  | - |  | 365,255 |
| 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.

## Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010

## 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, 2011, there were 756 participating employers, generally school districts. Membership as of June 30, 2010, 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

The following Footnote (B) subsections i., ii., iii., and iv. include benefit, contribution and actuarial provisions in effect at June 30, 2011. Act 120 of 2010 introduced major changes to these provisions for individuals who become new PSERS members on or after July 1, 2011 as discussed in the MD\&A under the Pennsylvania Act 120 of 2010 section.

## 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. The Internal Revenue Code (IRC) limitation on the annual benefits for a defined benefit plan was $\$ 195,000$ and age 62 for 2011 and 2010.

Benefits are generally equal to $2 \%$ or $2.5 \%$, depending

| Currently employed members: |  |  |
| :---: | :---: | :---: |
| Vested | 189,000 |  |
| Nonvested | 93,000 |  |
| Total currently employed members |  | 282,000 |
| Retirees and beneficiaries currently receiving benefits | 185,000 |  |
| Inactive members and vestees entitled to but not receiving benefits | 112,000 |  |
| Total retirees and other members |  | 297,000 |
| Total number of members |  | 579,000 |

## 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 | $6.25 \%$ |
| Membership Class T-D | Active members hired before July 22, 1983 | $6.50 \%$ |
| Membership Class T-D | Active members hired on or after July 22, 1983 | $7.50 \%$ |

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.

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. Benefits may be distributed for a deceased member by a nonspouse beneficiary via a direct trustee-to-trustee transfer to an Individual Retirement Account (IRA), which is treated as an inherited account.

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. The IRC limitation on the annual compensation for a defined benefit plan was $\$ 245,000$ for 2011 and 2010.

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 $5.64 \%$ and $4.78 \%$ of qualified compensation for the years ended June 30, 2011 and 2010, respectively. The total contribution rate for the year ended June 30, 2011 was recertified from an actuarially required rate of $8.22 \%$ to $5.64 \%$ based upon the statutory requirements of Act 46 of 2010.

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

## Notes to Financial Statements (continued)

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

- FY 2012 - not more than $3.0 \%$ plus the premium assistance contribution rate
- FY 2013 - not more than $3.5 \%$ plus the premium assistance contribution rate
- FY 2014 and thereafter - not more than $4.5 \%$ plus the premium assistance contribution rate

The rate cap remains at $4.5 \%$ until the rate cap no longer applies, i.e. the rise in the employer contribution rate is less than the rate cap in effect at that time. Once the rate caps no longer apply, the employer normal cost becomes the contribution rate floor.

According to requirements established in Act 29 of 1994, the Commonwealth reimburses school entity employers a portion of the employer contributions paid to the System. All school entity employers are reimbursed by the Commonwealth at least $50 \%$ of the total employer contributions based on the total contribution rate. The Commonwealth reimburses certain school entity employers at a rate greater than $50 \%$ based upon non-pension criteria which stipulate that the entity must have a Commonwealth Department of Education calculated Market Value / Personal Income Aid Ratio in excess of .5000 . The Commonwealth remits 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 (PA) Program. The PA Program contribution rate is set at a level necessary to establish reserves sufficient to provide PA Program 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 the PA Program was $0.64 \%$ and $0.78 \%$ for the years ended June 30, 2011 and 2010, respectively.

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

As of June 30, 2010, the most recent actuarial valuation, the plan was $75.1 \%$ funded. The actuarial accrued liability for pension benefits was $\$ 79.0$ billion, and the actuarial value of pension assets was $\$ 59.3$ billion, resulting in an unfunded accrued liability of $\$ 19.7$ billion. The covered
payroll of active members was $\$ 12.8$ billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was $154.0 \%$.

For fiscal year ended June 30, 2011, the ARC was \$2.44 billion. The actual employer contributions, net of purchase of service contributions, for fiscal year ended June 30, 2011 was $\$ 646.6$ million resulting in a $27 \%$ contributed rate.

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

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

For purposes of determining the annual required contributions under GASB 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) the amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period of 30 years.

## (b) Asset Valuation Method

For actuarial purposes, Act 120 of 2010 extended the asset smoothing from five years to ten years. Assets are valued using a ten-year moving market average value that will recognize the $8.00 \%$ actuarial expected investment return immediately and spread the difference between actual and expected investment return beginning with fiscal year ended June 30, 2010 over a period of ten years (the averaging period is being phased-in from fiscal year 2006).

## Notes to Financial Statements (continued)

Previously, PSERS recognized the actuarial expected return immediately and spread the difference between actual and expected investment return over a period of five years.

## (c) Actuarial Assumptions

Significant actuarial assumptions employed by the actuary for funding purposes as of June 30, 2010, 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 percent of pay
- Benefit payments - no postretirement benefit increases assumed in the future
- Multiple decrement tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary

The System's actuarial liabilities are calculated separately for retirees and beneficiaries and for active and inactive members. The actuarial present value of benefits to be paid to retirees and beneficiaries currently receiving benefits and deferred survivor beneficiaries, whose benefits have been determined, is calculated using the assumptions noted above. The Annuity Reserve Account with interest credited thereon at an annual rate of $5.50 \%$ is compared to the actuarial accrued liability for the remaining lifetimes of the retirees and beneficiaries and any deficiency is then funded by a transfer from the State Accumulation Account. 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 (PA) Program for all eligible annuitants who qualify or elect to participate. Under this program,
employer contribution rates for the PA Program are established to provide reserves in the Health Insurance Account that are sufficient for the payment of PA Program benefits for each succeeding year. Effective January 1, 2002, under the provisions of Act 9 of 2001, participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of $\$ 100$ per month or their out-of-pocket monthly health insurance premium. To receive premium assistance, eligible annuitants must obtain their health insurance through either their school employer or the PSERS' Health Options Program. As of June 30, 2011 there were no assumed future benefit increases to participating eligible annuitants in the PA Program.

## (b) Funding Status and Annual Required Contributions

As of June 30, 2010, the most recent actuarial valuation, the plan was $10.1 \%$ funded. The actuarial accrued liability for benefits was $\$ 1.162$ billion, and the actuarial value of assets was $\$ 116.8$ million, resulting in an unfunded accrued liability of $\$ 1.045$ billion. The covered payroll of active members was $\$ 12.8$ billion and the ratio of the unfunded actuarial accrued liability to the covered payroll was $8.2 \%$.

For fiscal year ended June 30, 2011, the ARC was $\$ 119.3$ million. The actual employer contributions for fiscal year ended June 30, 2011 was $\$ 88.8$ million resulting in a $74.0 \%$ contributed rate.

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

## (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 Program account, and the contribution required is the amount necessary to establish reserves sufficient to provide PA Program 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

## Notes to Financial Statements (continued)

liability for health insurance over a period of 30 years using level dollar open amortization. The entry age actuarial cost method was selected for this calculation because it meets the GASB parameters for determining actuarial liability and normal cost, and is the cost method specified by the PSERS Code for the PSERS pension plan.

At the time of each actuarial valuation, actuarially determined amounts are subject to revision as results are compared to past expectations and long-term future estimates. Other significant actuarial assumptions employed by the actuary as of June 30, 2010, the date of the most recent actuarial valuation were:

- 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 $1.75 \%$
- Multiple decrement tables - mortality, vesting, retirement age, and withdrawal estimates are based upon tables provided by the actuary


## ii. Health Options Program

The Health Options Program (HOP) is a PSERS-sponsored voluntary health insurance program for the sole benefit of annuitants of PSERS, spouses of annuitants, survivor annuitants and their dependents who participate in HOP. The HOP is funded exclusively by the premiums paid by its participants for the benefit coverage they elect. HOP offers several health plans. Participants may select among a 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. 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, 2011 and 2010 PSERS recorded $\$ 15,394,000$ and $\$ 10,107,000$, 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 securities exchanges or securities pricing services, in which case they are valued at the published market price. Fixed income securities and common and preferred stocks are generally valued based on published market prices and quotations from national securities exchanges or securities pricing services. Securities which are not traded on a national securities exchange are valued by the respective fund manager or other third parties based on similar sales.

Directly-owned real estate investments are primarily valued based on appraisals performed by independent appraisers and, for properties not appraised, the present

## Notes to Financial Statements (continued)

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, 2011 and 2010, $\$ 132,000,000$ 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 based on published market prices and quotations from national securities exchanges or securities pricing services. The changes in market value are recognized as part of net appreciation/depreciation in the fair value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

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

In accordance with PSERS' investment guidelines, cash collateral from securities loaned is invested in one of two collateral investment pools, the first of which is denominated in U.S. dollars (USD) and the second in Euros. The USD pool is invested entirely in overnight repurchase agreements carried at amortized cost which approximates fair value. The Euro pool is invested in assetbacked floating rate notes which are marked-to-market daily based on published market prices and quotations from national securities exchanges or securities pricing services. In addition to the floating rate notes, the Euro pool is invested in repurchase agreements.

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 five 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, 2011 and 2010, $\$ 3,965,000$ and $\$ 3,324,000$, 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, 2011 and 2010 are for HOP premiums related to health care coverage to be provided in calendar year 2011 and 2010, 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

## Notes to Financial Statements (continued)

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.

## (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 2010 amounts have been reclassified in conformity with the 2011 presentation.

## (J) Members Receivables

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

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

The following is a summary of the members receivables at June 30, 2011 and 2010:

| Pension: | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  |
|  |  |  | \$ | 77,926 |
| Member contributions | \$ | 80,117 |  |  |
| Purchase of service |  | 212,431 |  | 157,714 |
| Other |  | 7,900 |  | 4,929 |
| Total Members Receivable | \$ | 300,448 | \$ | 240,569 |

## (K) Adoption of New Accounting Standards

During the year ended June 30, 2011 the System adopted GASB Statement No. 59, Financial Instruments Omnibus, which was issued to update and improve existing standards regarding financial reporting and disclosure requirements of certain financial instruments.

In June 2007 the GASB issued Statement No. 51, Accounting and Financial Reporting for Intangible Assets, which states that intangible assets are subject to all the accounting and financial reporting requirements applicable to other types of capital assets and 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 Reporting for Derivative Instruments, which 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:

## Notes to Financial Statements (continued)

|  | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2011 |  | 2010 |
| Pension: |  |  |  |  |
| State Accumulation Account | \$ | (5,704,296) | \$ | $(4,732,711)$ |
| Members' Savings Account |  | 12,242,308 | 11,850,031 |  |
| Annuity Reserve Account |  | 44,661,982 | 38,481,155 |  |
|  | \$ | 51,199,994 |  | 45,598,475 |
| Postemployment healthcare: |  |  |  |  |
| Health Insurance Account | \$ | 111,258 | \$ | 116,831 |
| Health Insurance Program Account |  | 121,929 | \$ | 122,221 |
|  | \$ | 233,187 | \$ | 239,052 |

## (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 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 Program. 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.

## Notes to Financial Statements (continued)

A summary of the fair value of investments at June 30, 2011 and 2010 follows:
(Dollar Amounts in Thousands)

|  | (Dollar Amounts in Thousands) |  |
| :--- | ---: | ---: |
|  | $\mathbf{2 0 1 1}$ |  |
| Pension investments: |  | 2010 |
| Short-term: |  |  |
| PSERS Short-Term Investment Fund | $\mathbf{4 , 4 7 4 , 9 0 3}$ | $\$$ |
| Other domestic short-term | 758,775 | $3,171,190$ |
| Collective trust funds | $\mathbf{8 0 , 4 0 2}$ | 544,374 |
| International short-term | $\mathbf{3 5 3 , 2 5 5}$ | - |
|  | $\mathbf{5 , 6 6 7 , 3 3 5}$ | 225,667 |

Fixed income:

| Domestic asset-backed and mortgage-backed securities | $\mathbf{3 , 4 1 8 , 6 9 6}$ | $3,774,747$ |
| :--- | ---: | ---: |
| U.S. government and agency obligations | $\mathbf{1 , 7 7 3 , 7 0 0}$ | $1,619,970$ |
| Domestic corporate and taxable municipal bonds | $\mathbf{1 , 7 2 4 , 0 0 4}$ | $2,074,746$ |
| Collective trust funds | $\mathbf{4 , 1 2 2 , 4 3 2}$ | $1,227,846$ |
| International fixed income | $\mathbf{1 , 6 1 1 , 2 3 3}$ | $11,873,202$ |
|  | $\mathbf{1 2 , 6 5 0 , 0 6 5}$ |  |
| Common and preferred stock: |  | $5,052,127$ |
| Domestic common and preferred stock | $\mathbf{5 , 2 8 0 , 0 8 1}$ | $4,681,792$ |
| Collective trust funds | $\mathbf{4 , 4 0 3 , 6 9 2}$ | $5,583,038$ |
| International common and preferred stock | $\mathbf{5 , 7 5 2 , 8 7 0}$ | $15,316,957$ |
|  | $\mathbf{1 5 , 4 3 6 , 6 4 3}$ |  |
| Real estate: |  | $3,780,406$ |
| Equity real estate | $\mathbf{5 , 0 3 6 , 2 1 9}$ | 193,467 |
| Directly-owned real estate | $\mathbf{2 2 7 , 2 4 8}$ | $3,973,873$ |


| Alternative |  |  |  |
| :--- | ---: | ---: | ---: |
| investments: |  |  |  |
| Private equity | $\mathbf{7 , 8 1 3 , 0 7 9}$ | $6,130,796$ |  |
| Private debt | $\mathbf{3 , 9 2 2 , 9 5 2}$ | $4,277,438$ |  |
| Venture capital | $\mathbf{8 4 9 , 1 3 5}$ | 768,487 |  |
|  | $\mathbf{1 2 , 5 8 5 , 1 6 6}$ | $11,176,721$ |  |
| Pension investments at fair value | $\$$ | $\mathbf{5 1 , 6 0 2 , 6 7 6}$ | $\$$ |

Postemployment healthcare investments:
Premium Assistance Program:

| PSERS Short-Term Investment Fund | $\$$ | $\mathbf{2 4 , 3 0 0}$ | $\$$ |
| :---: | :---: | :---: | ---: |
| Other domestic short-term | $\mathbf{5 6 , 2 8 7}$ | 24,908 |  |
| Health Options Program: | $\mathbf{8 0 , 5 8 7}$ | 74,940 |  |
| PSERS Short-Term Investment Fund |  |  |  |
| Other domestic short-term | $\mathbf{8 7 , 9 7 7}$ | 85,141 |  |
| Postemployment healthcare investments at fair value | $\mathbf{5}$ | $\mathbf{1 4 5 , 9 2 4}$ | 57,295 |

## 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 $\$ 57,924,000$ and $\$ 57,295,000$ at June 30, 2011 and 2010, 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, 2011 and 2010 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 $26.2 \%$ of the investment portfolio. The fixed income target allocation consists of:

- An allocation of $5.2 \%$ 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 $\mathrm{A}-$ or better.
- An allocation of $6.0 \%$ 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 $5.0 \%$ of the portfolio has been made to the Treasury Inflation-Protected Securities (TIPS) segment of the fixed income asset class benchmarked to the Barclays Capital U.S. TIPS Index and composed of primarily government issued TIPS with an overall weighted-average NRSRO credit rating of AA or better.


## 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 $3.0 \%$ 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 $2.0 \%$ 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 $5.0 \%$ of the portfolio has been made to cash benchmarked to the Merrill Lynch U.S. Treasury Bill 0-3 Months Index composed of primarily investment grade, relatively liquid U.S. and non-U.S. public bonds with an overall weighted-average NRSRO credit rating of AA or better.

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, 2011 and 2010.

| Quality Rating | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  |
|  |  | Fair Value |  | Fair Value |
| AAA | \$ | 2,749,362 | \$ | 3,347,321 |
| AA |  | 5,070,392 |  | 3,891,933 |
| A |  | 1,063,433 |  | 844,840 |
| BBB |  | 844,735 |  | 860,078 |
| BB and Below |  | 1,222,225 |  | 1,153,604 |
| NR* |  | 5,183,904 |  | 3,981,288 |
| Total Exposed to Credit Risk |  | 16,134,051 |  | 14,079,064 |
| US Government Guaranteed** |  | 2,409,837 |  | 1,957,653 |
| Total Fixed Income and ShortTerm Investments | \$ | 18,543,888 | \$ | 16,036,717 |

[^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, 2011 and 2010.

| Quality Rating | (Dollar Amounts in Thousands) |  |  |
| :---: | :---: | :---: | :---: |
|  | 2011 <br> Fair Value | 2010 <br> Fair Value |  |
|  |  |  |  |
| AA | \$ 29,005 | \$ | 2,176 |
| A | (211) |  | $(197,715)$ |
| Total Swaps - Total Return | \$ 28,794 | \$ | $(195,539)$ |

## (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, 2011 and 2010, the System's fixed income portfolio had the following option-adjusted durations by fixed income sector:

| Investment Type | (Dollar Amounts in Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  |  | 2010 |  |  |
|  | Option- <br> Adjusted <br> Duration |  | Fair Value | Option- <br> Adjusted <br> Duration |  | Fair Value |
| Domestic asset-backed and mortgage-backed securities | 1.3 | \$ | 3,418,696 | 1.1 | \$ | 3,774,747 |
| U.S. government and agency obligations | 5.7 |  | 1,773,700 | 5.1 |  | 1,619,970 |
| Domestic corporate and taxable municipal bonds | 3.4 |  | 1,724,004 | 3.3 |  | 2,074,746 |
| Collective trust funds | 3.8 |  | 1,131,686 | 5.1 |  | 1,410,478 |
| International fixed income | 4.3 |  | 1,611,233 | 4.0 |  | 1,175,893 |
| PSERS Short-Term Investment Fund | 0.1 |  | 4,587,180 | 0.1 |  | 3,281,239 |
| Total | 2.4* | \$ | 14,246,499 | $2.5 *$ | \$ | 13,337,073 |

[^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, 2011 and 2010 PSERS had the following non-U.S. currency exposures:

| Currency | $2011$ <br> (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Equity |  | Fixed Income |  | Alternative Investments \& Real Estate |  | Short-Term* |  | Total Fair Value |  |
| Euro | \$ | 869,631 | \$ | 283,457 | \$ | 2,700,941 | \$ | $(42,624)$ | \$ | 3,811,405 |
| British pound sterling |  | 1,037,285 |  | 28,124 |  | 7,905 |  | $(83,210)$ |  | 990,104 |
| Japanese yen |  | 888,939 |  | 59,028 |  | - |  | 19,296 |  | 967,263 |
| Canadian dollar |  | 570,515 |  | 17,855 |  | 2,163 |  | $(32,757)$ |  | 557,776 |
| Australian dollar |  | 387,318 |  | 6,982 |  | - |  | 130,042 |  | 524,342 |
| Brazil real |  | 103,195 |  | 57,054 |  | - |  | 145,027 |  | 305,276 |
| Hong Kong dollar |  | 254,608 |  | - |  | - |  | 176 |  | 254,784 |
| Swiss franc |  | 334,961 |  | - |  | - |  | $(96,720)$ |  | 238,241 |
| South African rand |  | 65,946 |  | 49,997 |  | - |  | 116,948 |  | 232,891 |
| Indian rupee |  | 67,743 |  | - |  | - |  | 138,855 |  | 206,598 |
| Indonesian rupian |  | 39,246 |  | 47,443 |  | - |  | 80,196 |  | 166,885 |
| Norwegian krone |  | 30,641 |  | 3,808 |  | - |  | 131,625 |  | 166,074 |
| South Korean won |  | 102,798 |  | 7,550 |  | - |  | 53,188 |  | 163,536 |
| Other Non-US currencies |  | 558,614 |  | 331,305 |  | - |  | 14,558 |  | 904,477 |
| Total | \$ | 5,311,440 | \$ | 892,603 | \$ | 2,711,009 | \$ | 574,600 | \$ | 9,489,652 |


| Currency | 2010 <br> (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Equity |  | Fixed Income |  | Alternative Investments \& Real Estate |  | Short-Term* |  | Total 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 |

* Includes investment receivables and payables

Notes to Financial Statements (continued)

| Currency | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  |
|  | Notional Value |  | Notional Value |  |
| British pound sterling | \$ | 122,723 | \$ | 72,823 |
| Japanese yen |  | 102,741 |  | 107,111 |
| Euro |  | 30,072 |  | 23,146 |
| Canadian dollar |  | 36,761 |  | 27,023 |
| Australian dollar |  | 9,161 |  | 17,839 |
| Malaysian ringgit |  | - |  | 1,099 |
| Total Futures Contracts and Total Return Swaps | \$ | 301,458 | \$ | 249,041 |

At June 30, 2011 and 2010, 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, 2011 and 2010, 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, 2011 and 2010, 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, 2011 and 2010.

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 at June 30, 2011 and 2010. During the fiscal years ended June 30, 2011 and 2010, 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.

As of June 30, 2011, the fair value of loaned securities was $\$ 1,338,387,000$, which includes $\$ 600,228,000$ 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 $\$ 1,412,915,000$ of which $\$ 761,805,000$ was cash. As of June 30,2010 , the fair value of loaned securities was $\$ 2,102,223,000$, 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.

## Notes to Financial Statements (continued)

## 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.

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, 2011 and 2010 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 authorized an investment manager to write covered call stock index option spreads up to a notional amount of $\$ 1,500,000,000$ for FY 2010. The program was terminated in FY 2011. The fair value of option contracts of $\$ 7,289,000$ and $\$ 2,093,000$ at June 30, 2011 and 2010, 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 on the following page primarily include forwards. The $\$ 9,941,182,000$ of foreign currency contracts outstanding at June 30, 2011 consist of "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currencies of $\$ 5,342,849,000$ and "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currencies of $\$ 4,598,333,000$. The $\$ 11,147,219,000$ of foreign currency contracts outstanding at June 30, 2010 consist of "buy" contracts of \$5,219,411,000 and "sell" contracts of $\$ 5,927,808,000$. The unrealized gain (loss) on contracts of $\$ 3,896,000$ and $\$(4,414,000)$ at June 30 , 2011 and 2010, respectively, is included in the Statements of Plan Net Assets and represents the fair value of the contracts.

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## Notes to Financial Statements (continued)

The table presented below summarizes the aggregate notional or contractual amounts for the System's derivative financial instruments at June 30, 2011 and 2010.

|  | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  |
| Futures contracts - long: |  |  |  |  |
| Treasury futures | \$ | 295,044 | \$ | 400,302 |
| Eurodollar futures |  | 551,678 |  | 83,922 |
| U.S. equity futures |  | 613,483 |  | 424,961 |
| Non-U.S. equity futures |  | 175,136 |  | 154,454 |
| Commodity futures |  | 1,526,770 |  | 1,015,632 |
| Non-U.S. bond futures |  | 77,793 |  | 69,060 |
| Futures contracts - short: |  |  |  |  |
| Treasury futures |  | 187,080 |  | 294,089 |
| Eurodollar futures |  | 275,905 |  | 263,378 |
| U.S. equity futures |  | 99,626 |  | - |
| Commodity futures |  | - |  | 21,659 |
| Non-U.S. bond futures |  | 56,045 |  | 40,038 |
| Foreign exchange forward and spot contracts, gross |  | 9,941,182 |  | 11,147,219 |
| Options - calls purchased |  | 4,336,538 |  | 2,555,244 |
| Options - puts purchased |  | 4,708,379 |  | 2,241,375 |
| Options - calls sold |  | 4,673,491 |  | 2,784,401 |
| Options - puts sold |  | 5,024,008 |  | 2,376,839 |
| Swaps - total return type |  | 2,931,449 |  | 3,950,185 |

The fair values of derivative instruments outstanding at June 30, 2011 and 2010 are classified by type and by the changes in fair value of the derivative instrument in the table below.
(Dollar Amounts in Thousands)

| Investment Derivative Type | (Dollar Amounts in Thousands) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Change in Fair Value Gain/(Loss) FY 2011 |  | Fair Value at June 30, 2011 |  |
|  | Classification | Amount | Classification | Amount |
| Futures | Investment income | \$ $(26,858)$ | Receivable/(Payable) | \$ (26,858) |
| Total return type swaps | Investment income | 28,794 | Receivable/(Payable) | 28,794 |
| Options | Investment income | 7,289 | Investment | 7,289 |
| Foreign exchange contracts | Investment income | 3,896 | Receivable/(Payable) | 3,896 |
| Total |  | \$ 13,121 |  | \$ 13,121 |
|  | Change in Fair Value Gain/(Loss) FY 2010 |  | Fair Value at June 30, 2010 |  |
| Investment Derivative Type | Classification | Amount | Classification | Amount |
| Futures | Investment income | \$ $(16,146)$ | Receivable/(Payable) | \$ (16,146) |
| Total return type swaps | Investment income | $(195,539)$ | Receivable/(Payable) | $(195,539)$ |
| Options | Investment income | 2,093 | Investment | 2,093 |
| Foreign exchange contracts | Investment income | $(4,414)$ | Receivable/(Payable) | $(4,414)$ |
| Total |  | \$ (214,006) |  | \$ (214,006) |

## SLNANGLAL SECTION

Notes to Financial Statements (continued)
The following table summarizes the System's foreign exchange contracts by currency at June 30, 2011 and 2010:
2011

| Currency | (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Buys |  | Unrealized <br> Gain/(Loss) |  | Sells |  | Unrealized Gain/(Loss) |  |
| Euro | \$ | 811,997 | \$ | 6,664 | \$ | 805,874 | \$ | $(6,999)$ |
| Brazil real |  | 405,682 |  | 11,530 |  | 264,077 |  | $(5,937)$ |
| Swiss franc |  | 373,760 |  | 884 |  | 390,096 |  | (160) |
| Australian dollar |  | 345,768 |  | 2,981 |  | 197,644 |  | $(2,932)$ |
| British pound sterling |  | 336,006 |  | $(4,028)$ |  | 417,026 |  | 4,981 |
| Canadian dollar |  | 309,000 |  | 2,677 |  | 353,205 |  | $(4,410)$ |
| Norwegian krone |  | 262,880 |  | 2,685 |  | 102,507 |  | $(1,673)$ |
| Japanese yen |  | 255,697 |  | 1,879 |  | 256,718 |  | (721) |
| South African rand |  | 247,660 |  | 1,378 |  | 133,093 |  | $(2,618)$ |
| Turkish lira |  | 212,215 |  | $(4,230)$ |  | 110,831 |  | 1,497 |
| New Zealand dollar |  | 210,700 |  | 2,388 |  | 201,563 |  | $(2,362)$ |
| Swedish krona |  | 210,291 |  | 559 |  | 221,263 |  | $(2,402)$ |
| Indonesian rupian |  | 208,656 |  | 2,296 |  | 54,681 |  | (101) |
| Hungarian forint |  | 151,655 |  | 2,109 |  | 92,520 |  | $(2,200)$ |
| Indian rupee |  | 134,337 |  | 1,762 |  | 73,340 |  | (583) |
| Taiwan dollar |  | 98,614 |  | (43) |  | 196,674 |  | $(1,463)$ |
| Russian ruble |  | 91,420 |  | 888 |  | 40,380 |  | (205) |
| Mexican new peso |  | 87,501 |  | 710 |  | 60,635 |  | (659) |
| Other non-US currencies |  | 589,010 |  | 4,167 |  | 626,206 |  | $(4,413)$ |
| Total | \$ | 5,342,849 | \$ | 37,256 | \$ | 4,598,333 | \$ | $(33,360)$ |
|  | 2010 |  |  |  |  |  |  |  |
|  | (Dollar Amounts in Thousands) |  |  |  |  |  |  |  |
| Currency | Buys |  | Unrealized <br> Gain/(Loss) |  | Sells |  | Unrealized <br> 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) |
| Malayssian ringgit |  | 86,622 |  | 537 |  | 34,484 |  | (609) |
| Other non-US currencies |  | 473,899 |  | $(2,675)$ |  | 948,086 |  | 6,270 |
| Total | \$ | 5,219,411 | \$ | 1,923 | \$ | 5,927,808 | \$ | $(6,337)$ |

## 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, 2011 and 2010, 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 $\$ 28,794,000$ and $\$(195,539,000)$ at June 30, 2011 and 2010, 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 9, 2011 to May 17, 2012.

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, 2011 and 2010 is $\$ 1,735,359,000$ and $\$ 2,089,780,000$, 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 $4.11 \%$ at June 30, 2011, 3.15\% at June 30, 2010, 3.29\% at June 30, 2009. The System's contributions to SERS for the years ended June 30, 2011, 2010 and 2009 were \$790,000, $\$ 601,000$ and $\$ 625,000$, 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. FY 2011 employer costs were charged at the rate of $\$ 200 /$ 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 the member 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. This valuation provided Other Postemployment Benefits (OPEB) reporting that was used for both FY 2009 and FY 2010. The Commonwealth engaged an Actuary again in early 2011; providing the valuation for OPEB reporting for FY 2011. The valuation for FY 2009 reported overall 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 OPEB liability for the System was $\$ 1,363,000$. For FY 2010, the valuation indicated overall Annual OPEB Cost (AOC) of $\$ 850,440,000$ with the System's allocated AOC of $\$ 3,705,000$. Based on the aggregate REHP qualifying contributions for FY 2010, the net OPEB liability for the System was $\$ 1,460,000$ for that fiscal year; the cumulative net OPEB liability as of June 30, 2010 was $\$ 2,823,000$. For FY 2011, the valuation indicated overall AOC of $\$ 883,160,000$ with the System's allocated AOC of $\$ 3,319,000$. Based on the aggregate REHP qualifying

## Notes to Financial Statements (continued)

contributions for FY 2011, the net OPEB liability for the Systems was $\$ 1,070,000$ for that fiscal year; therefore, the cumulative 3 year total net OPEB liability as of June 30, 2011 is $\$ 3,893,000$.

| Fiscal Year | Commonwealth ARC/AOC | $\begin{aligned} & \text { PSERS' ARC/ } \\ & \text { AOC } \end{aligned}$ |  | PSERS' Net OPEB |
| :---: | :---: | :---: | :---: | :---: |
| 2011 | \$ 883,160,000 | \$ 3,319,000 | \$ | 1,070,000 |
| 2010 | 850,440,000 | 3,705,000 |  | 1,460,000 |
| 2009 | 818,510,000 | 3,566,000 |  | 1,363,000 |
| 3 year Cumulative OPEB |  |  | \$ | 3,893,000 |

## 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 FY 2010, it was determined that $\$ 23.8$ million qualified 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.

During FY 2011 expenditures of $\$ 3.1$ million for internally developed computer software qualified for recognition as intangible assets. Cumulative amortization of intangible assets was $\$ 7.0$ million through the end of FY 2011.

## 10. Subsequent Events

The System has performed an evaluation of subsequent events through October 7, 2011, the date the basic financial statements were available to be issued. No material events were identified by the System.


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## SLNANGIAL SJCHON

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

| Pension |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (1) |  | (2) |  | (3) | (4) |  | (5) | (6) |
| Valuation as of June 30 |  | Actuarial accrued liabilities (AAL) |  | Actuarial value of assets |  | Unfunded actuarial accrued liabilities UAAL (1) - (2) | Ratio of assets to AAL (2) / (1) |  | Covered payroll | UAAL as a percentage of covered payroll (3) / (5) |
| 2010 | \$ | 79,005.4 | \$ | 59,306.8 | \$ | 19,698.6 | 75.1\% | \$ | 12,788.8 | 154.0\% |
| 2009 |  | 75,520.7 |  | 59,781.6 |  | 15,739.1 | 79.2\% |  | 12,524.6 | 125.7\% |
| 2008 |  | 70,845.6 |  | 60,922.1 |  | 9,923.5 | 86.0\% |  | 11,921.5 | 83.2\% |
| 2007 |  | 66,495.8 |  | 57,057.8 |  | 9,438.0 | 85.8\% |  | 11,410.3 | 82.7\% |
| 2006 |  | 64,627.3 |  | 52,464.7 |  | 12,162.6 | 81.2\% |  | 11,419.0 | 106.5\% |
| 2005 |  | 61,129.4 |  | 51,122.1 |  | 10,007.3 | 83.6\% |  | 10,527.7 | 95.1\% |


| Premium Assistance |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (1) |  | (2) |  | (3) | (4) |  | (5) | (6) |
| Valuation as of June 30 |  | Actuarial accrued liabilities (AAL) |  | Actuarial value of assets |  | $\begin{gathered} \text { Unfunded } \\ \text { actuarial } \\ \text { accrued } \\ \text { liabilities } \\ \text { UAAL (1) - (2) } \end{gathered}$ | $\begin{aligned} & \text { Ratio of assets to } \\ & \text { AAL (2) / (1) } \end{aligned}$ |  | Covered payroll | UAAL as a percentage of covered payroll (3) / (5) |
| 2010 | S | 1,162.2 | \$ | 116.8 | \$ | 1,045.4 | 10.1\% | \$ | 12,788.8 | 8.2\% |
| 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.

## SLIANGIAT SECTION

## Required Supplementary Schedule 2 <br> Schedules of Employer Contributions

(Unaudited - See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

| Pension |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year ended June 30 |  |  |  | Actual Employer Contributions* | Percentage Contributed |
| 2011 | \$ | 2,436,602 | \$ | 646,560 | 27\% |
| 2010 |  | 1,928,278 |  | 527,212 | 27\% |
| 2009 |  | 1,761,295 |  | 503,227 | 29\% |
| 2008 |  | 1,852,238 |  | 753,532 | 41\% |
| 2007 |  | 1,708,821 |  | 659,545 | 39\% |
| 2006 |  | 1,328,373 |  | 456,878 | 34\% |
| Premium Assistance |  |  |  |  |  |
| Year ended June 30 |  | Annual Required Contributions |  | Actual Employer Contributions | Percentage Contributed |
| 2011 | \$ | 119,320 | \$ | 88,796 | 74\% |
| 2010 |  | 117,187 |  | 102,703 | 88\% |
| 2009 |  | 109,531 |  | 92,493 | 84\% |
| 2008 |  | 101,352 |  | 81,317 | 80\% |
| 2007 |  | 94,970 |  | 86,763 | 91\% |

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

* Includes purchase of service contributions in FY 2006 to FY 2008.

Supplementary Schedule 1
Schedule of Operating Expenses
Year Ended June 30, 2011
(Dollar Amounts in Thousands)

|  | Administrative Expenses (1) |  | Investment <br> Expenses (2) |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personnel costs: |  |  |  |  |  |  |
| Salaries and wages | \$ | 14,910 | \$ | 3,482 | \$ | 18,392 |
| Social security contributions |  | 1,120 |  | 205 |  | 1,325 |
| Retirement contributions |  | 643 |  | 147 |  | 790 |
| Employees' insurance contributions |  | 4,361 |  | 521 |  | 4,882 |
| Other employee benefits |  | 5 |  | 135 |  | 140 |
| Total personnel costs |  | 21,039 |  | 4,490 |  | 25,529 |
| Operating costs: |  |  |  |  |  |  |
| Investment managers' fees |  | - |  | 500,186 |  | 500,186 |
| Custodian fees |  | - |  | 600 |  | 600 |
| Specialized services |  | 22,431 |  | 2,968 |  | 25,399 |
| Rental of real estate, electricity |  | 2,101 |  | 166 |  | 2,267 |
| Consultant and legal fees |  | 1,420 |  | 4,119 |  | 5,539 |
| Treasury and other commonwealth services |  | 168 |  | 181 |  | 349 |
| Postage |  | 1,332 |  | - |  | 1,332 |
| Contracted maintenance and repair services |  | 248 |  | 18 |  | 266 |
| Office supplies |  | 378 |  | 9 |  | 387 |
| Rental of equipment and software |  | 1,079 |  | 299 |  | 1,378 |
| Printing |  | 411 |  | - |  | 411 |
| Travel and training |  | 422 |  | 8 |  | 430 |
| Telecommunications |  | 691 |  | - |  | 691 |
| Equipment (non-capital assets) |  | 823 |  | - |  | 823 |
| Miscellaneous expenses |  | 3,635 |  | 1,651 |  | 5,286 |
| Total operating costs |  | 35,139 |  | 510,205 |  | 545,344 |
| Other charges: |  |  |  |  |  |  |
| Depreciation |  | 1,567 |  | - |  | 1,567 |
| Total other charges |  | 1,567 |  | - |  | 1,567 |
| Total operating expenses | \$ | 57,745 | \$ | 514,695 | \$ | 572,440 |

(1) Includes administrative expenses of $\$ 1,988$ related to Postemployment Healthcare Premium Assistance and $\$ 18,729$ related to Postemployment Healthcare Health Options Program for the fiscal year ended June 30, 2011.
(2)Includes investment expenses of $\$ 48$ related to Postemployment Healthcare Premium Assistance for fiscal year ended June 30, 2011 and does not include $\$ 11,752$ in capitalized broker commissions for the fiscal year ended June 30, 2011.

Supplementary Schedule 2 Summary of Investment Expenses

Year Ended June 30, 2011
(Dollar Amounts in Thousands)

|  | Fees |
| :---: | ---: |
| External management: |  |
| Domestic equity | $\$, 926$ |
| International equity | 30,002 |
| Fixed income | 65,444 |
| Real estate | 87,293 |
| Alternative investments | 156,980 |
| Absolute return | 138,931 |
| Commodities | 16,610 |
| Total external management | $\mathbf{5 0 0 , 1 8 6}$ |
|  | $\mathbf{9 , 7 9 0}$ |
| Total internal management | $\mathbf{5 0 9 , 9 7 6}$ |
| Total investment management |  |
| Custodian fees | 600 |
| Consultant and legal fees | $\mathbf{4 , 1 1 9}$ |
| Total investment expenses | $\mathbf{5 1 4 , 6 9 5}$ |

# TLNANGIAL SECTION 

Supplementary Schedule 3
Schedule of Payments to Non-Investment Consultants
Year Ended June 30, 2011
(Dollar Amounts Greater than $\$ 50,000$ )

| Consultant |  | Fees |  | Services Provided |
| :--- | :--- | :--- | :--- | :--- |
| CoreSource, Inc. | $\$$ | $12,168,669$ |  | Postemployment healthcare benefits <br> administration and claims adjudication |
| Rx Solutions, Inc. | $4,538,549$ | Administration of postemployment <br> healthcare benefits and prescription <br> drug plan |  |  |
| ViTech Systems Group, Inc. | $4,452,065$ | Pension administration system services |  |  |



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## INVESTMENT




## COMMONWEALTH OF PENNSYLVANIA

 PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEMALAN H. VAN NOORD, CFA
Chief Investment Officer

October 31, 2011
Dear Members of The PSERS Board of Trustees:
It is a privilege to present to you the Investment Section of the Comprehensive Annual Financial Report for the year ended June 30, 2011.

## Authority and Fiduciary Standard

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

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

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

## Policies and Objectives

The Board is responsible for the formulation of investment policies for the System. 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, which was reduced from $8.0 \%$ to $7.5 \%$ effective with the June 30, 2011 actuarial valuation, over the long-term. In addition, the Board has the following broad objectives:

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

## 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 Board 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 Board also retains various investment consultants to assist with the formulation and implementation of investment policies.

## Operations

The Board, via the Finance Committee, provides oversight of investment activities. The Finance Committee generally conducts seven meetings per year and may meet more frequently as needed. Investment Office staff, as well as external investment advisors and Investment Accounting staff, assist the Board in achieving investment objectives and monitoring compliance with investment policies. For the fiscal year ended June 30, 2011, 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 Advisors, LLC as an alternative investment consultant. Alternative investments generally consist of investments in private debt, private equity, and venture capital limited partnerships. Investment Office staff implement the investment decisions within the guidelines established in the Investment Policy Statement, Objectives and Guidelines regarding asset allocation, manager selection, security selection, and other objectives directed by the Board.

The Board employs both external investment management firms and internal investment managers to manage the investment portfolio of the System. At fiscal year end, 34 external public market investment management firms were managing $\$ 17.0$ billion in assets of the System, $\$ 16.2$ billion in assets were managed by the System's internal investment managers, and the remaining $\$ 18.6$ billion in assets were managed by numerous emerging, alternative investment, and real estate investment managers. The performance of each external investment management firm and each internal manager is monitored quarterly against a preestablished benchmark as well as the performance of the manager's peer group.

## Asset Allocation

The Board reviews the long-term asset allocation targets of the System 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 Board believes that the level of risk assumed by the System is largely determined by the Board's strategic asset allocation plan. The Board, in determining its long-term asset allocation, 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 Board;
- The funded status of the System;
- The Board's willingness and ability to take risk; and,
- The employers' (Commonwealth 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 Board are discussed in the following paragraphs.

The long-term target allocation as of June 30, 2011 included an equity target allocation of $25.5 \%$ consisting of publicly traded stocks. Specific targets have been established for U.S. equity exposure ( $11.2 \%$ ) and nonU.S. equity exposure ( $14.3 \%$ ). 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 $26.3 \%$ consisted of U.S. core fixed income exposure (5.3\%), leveraged Treasury Inflation-Protected Securities exposure (5.0\%), high yield exposure (6.0\%), emerging markets fixed income exposure ( $2.0 \%$ ), non-U.S. fixed income exposure ( $3.0 \%$ ), and cash ( $5.0 \%$ ). Within these categories, all sectors of the bond market are represented.

The real estate target allocation of 9.7\% consisted primarily of limited partnerships. The types 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 $12.0 \%$ 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 its benchmark of $8.00 \%$ and to diversify the System's total portfolio risk.

The commodities target allocation of $6.0 \%$ 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, 2011, the fair value of the investment portfolio was $\$ 51.8$ billion, an increase of $\$ 5.3$ billion from last year's value. This increase was due to net investment income ( $\$ 9.2$ billion) less the deductions for benefits and administrative expenses exceeding member and employer contributions ( $\$ 3.7$ billion) less net changes in other investment assets and liabilities ( $\$ 0.2$ billion). The investment portfolio, as invested, was composed of $26.6 \%$ common and preferred stocks (equity), $27.0 \%$ fixed income investments, $20.8 \%$ alternative investments, $10.7 \%$ real estate, $10.3 \%$ absolute return portfolios, and $4.6 \%$ commodities at June 30, 2011. The table immediately following this letter illustrates a more detailed description of the investment portfolio's asset classes in dollars and as a percentage of the total investment portfolio.

The first half of the fiscal year saw a continued pickup in U.S. economic activity which began last fiscal year closing some of the slack in the economy. That growth, however, quickly tapered off in the second half of the fiscal year as fiscal and monetary supports started to wane. The U.S. Gross Domestic Product (GDP) increased by $2.6 \%, 3.1 \%, 0.4 \%$, and $1.3 \%$ in the third quarter 2010 , fourth quarter 2010 , first quarter 2011, and second quarter 2011, respectively. The official unemployment rate (otherwise known as the U3 unemployment rate) fell modestly during the fiscal year from $9.5 \%$ as of June 2010 to $9.2 \%$ as of June 2011. 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 $16.2 \%$ as of fiscal year end, down only slightly from $16.5 \%$ at the end of the last fiscal year. This past year saw a lot of cross currents for the U.S. economy, including the U.S. Federal Reserve (the Fed) implementing another round of quantitative easing (a.k.a. QE2), geopolitical strife in the Middle East and Africa, and a massive earthquake and resultant tsunami in Japan.

Internationally, the news was really driven by the European debt crisis which has the potential to be one of the largest debt crises in history. Countries in the periphery of Europe, including Greece, Portugal, Ireland, Spain, and Italy have tremendous amounts of debt and have required, in various degrees, rescue packages from the European Central Bank and International Monetary Fund. Conditions of support from these rescue packages include implementation of austerity measures which require each of these countries to either increase taxes or decrease government spending, both of which will have a negative impact on economic growth. The funding gaps in these countries have the potential to be economically destabilizing to world growth.

While corporations have strengthened their balance sheets and extended the maturity of their debts, the consumer, which represents about $70 \%$ of the U.S. economy, continues to have a significant amount of consumer and mortgage debt. The Fed has already lowered the Federal Funds rate to nearly $0.00 \%$ 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 Michigan Survey of Consumer Confidence Sentiment, remains near levels normally seen in recessionary periods and has fallen from 76.0 at the end of last fiscal year to 71.5 at the end of this fiscal year and has continued to deteriorate so far in fiscal year 2011/2012. 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 issues 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 nearly $0.00 \%$, we anticipate that we will be in a low asset return environment for the foreseeable future, providing further headwinds to income growth.

With the continued backing of accommodative monetary and fiscal policies during the past fiscal year, there was a continued rally in risk assets worldwide which led to positive returns in most asset classes. The Morgan Stanley Capital International (MSCI) U.S. Broad Market Index, a U.S. equity index, returned $31.98 \%$ during the fiscal year. Returns for the first three quarters of the fiscal year were exceptionally strong, posting a $32.09 \%$ return before declining $0.08 \%$ in the fiscal fourth quarter as it had become apparent that the economy was slowing, fiscal austerity was being discussed more, and monetary policy was tightening with the end of QE2. Foreign markets in U.S. dollar terms also fared well as the MSCI All Country World (ACW) ex. U.S. Investable Market Index, an international equity index, returned $30.26 \%$ 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 Benchmark Reports on Venture Capital and Buy-outs produced by Venture Economics, returned $11.37 \%$ during the fiscal year as these investments were written up to prices comparable to gains in the public equity markets.

Commodity markets performed very well in this environment as loose monetary policy drove up the prices of various commodities such as oil and gold. For the fiscal year, the Dow Jones UBS Commodity Index, an index composed of futures contracts on 19 physical commodities weighted to account for economic significance and market liquidity, was up $25.91 \%$.

Fixed income markets were mixed in this environment as interest rates remained relatively steady during the year and investors looked to take advantage of wide credit spreads in search of yield. For the fiscal year, the Barclays U.S. Universal Index, a U.S. fixed income index, was up $4.78 \%$ as the yield curve remained fairly unchanged. The Barclays Multiverse Index, a global fixed income index, was up $10.77 \%$ driven primarily by a weakening U.S. dollar due to very low interest rates and QE2. The Barclays High Yield Index returned $15.63 \%$ during the past fiscal year due to a tightening of credit spreads as investors bid up credit in search of yield. The Barclays U.S. TIPS Index, an index of U.S. treasury inflation protection securities, driven by falling real yields and increasing inflation pressures due to the Fed's quantitative easing, returned 7.74\% for the fiscal year.

According 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 $16.03 \%$ 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 March 31, 2011. Investment performance in the private real estate markets have partially rebounded from significant declines since the beginning of the credit crisis in 2008.

The absolute return program had a strong fiscal year generating a total return of $13.18 \%, 518$ basis points above its benchmark return of $8.00 \%$. Returns were generated primarily from global macro managers who had their portfolios properly positioned for the current economic environment to take advantage of mispricings in the market. The absolute return program is structured to have low beta to the equity, fixed income, and commodity markets and to provide additional diversification from the remainder of the asset allocation.

As a result of strong returns from global equities, alternative investments, commodities, and the absolute return program, the System generated a total return of $20.37 \%$ for the one-year period ended June 30, 2011. This return exceeded the total fund Policy Index return of $17.56 \%$ by 281 basis points. Annualized total returns for the three-, five-, and ten-year periods ended June 30, 2011 were $0.44 \%, 3.89 \%$, and $6.25 \%$, respectively. The return for the three-year period ended June 30, 2011 fell short of the total fund Policy Index return by 66 basis points while the returns for the five- and ten-year periods ended June 30, 2011 exceeded the total fund Policy Index returns by 16 and 94 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 Board to invest the System's assets. Performance is calculated using a time-weighted return methodology.

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 Ended June 30, 2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 Year | 3 Years | 5 Years | 10 Years |
| PSERS Total Portfolio <br> Total Fund Policy Index Median Public Defined Benefit Plan (DBP) Fund Universe (Wilshire Database) | $\begin{aligned} & 20.37 \\ & 17.56 \\ & 21.87 \end{aligned}$ | $\begin{aligned} & 0.44 \\ & 1.10 \\ & 3.53 \end{aligned}$ | $\begin{aligned} & 3.89 \\ & 3.73 \\ & 4.56 \end{aligned}$ | $\begin{aligned} & 6.25 \\ & 5.31 \\ & 6.04 \end{aligned}$ |
| PSERS U.S. Equity Portfolios <br> U.S. Equity Policy Index (1) <br> Median Public DBP Fund Universe - U.S. Equities (Wilshire Database) | $\begin{aligned} & 32.69 \\ & 31.98 \\ & 32.62 \end{aligned}$ | $\begin{aligned} & 3.57 \\ & 3.77 \\ & 4.23 \end{aligned}$ | $\begin{aligned} & 2.81 \\ & 3.32 \\ & 3.21 \end{aligned}$ | $\begin{aligned} & 3.73 \\ & 3.67 \\ & 3.75 \end{aligned}$ |
| PSERS Non-U.S. Equity Portfolios <br> MSCI All Country World ex. U.S. Investable Market Index (2) <br> Median Public DBP Fund Universe - Non-U.S. Equities (Wilshire Database) | $\begin{aligned} & 30.44 \\ & 30.26 \\ & 30.84 \end{aligned}$ | $\begin{array}{r} 3.78 \\ 1.96 \\ -0.51 \end{array}$ | $\begin{aligned} & 5.78 \\ & 4.50 \\ & 2.53 \end{aligned}$ | $\begin{aligned} & 9.03 \\ & 8.11 \\ & 6.92 \end{aligned}$ |
| PSERS U.S. Fixed Income Portfolios <br> U.S. Fixed Income Policy Index (3) <br> Median Public DBP Fund Universe - U.S. Bonds (Wilshire Database) | $\begin{array}{r} 11.55 \\ 10.38 \\ 7.06 \end{array}$ | $\begin{array}{r} \mathbf{1 0 . 2 6} \\ 10.59 \\ 7.73 \end{array}$ | $\begin{aligned} & 8.85 \\ & 9.32 \\ & 6.63 \end{aligned}$ | $\begin{aligned} & 7.60 \\ & 7.17 \\ & 6.15 \end{aligned}$ |
| PSERS Global Fixed Income Portfolios <br> Global Fixed Income Policy Index (4) <br> Median Public DBP Fund Universe - Global Bonds (Wilshire Database) | $\begin{aligned} & \mathbf{1 4 . 4 1} \\ & 15.98 \\ & 13.90 \end{aligned}$ | $\begin{aligned} & 9.75 \\ & 7.47 \\ & 8.87 \end{aligned}$ | $\begin{aligned} & 8.78 \\ & 7.87 \\ & 8.16 \end{aligned}$ | $\begin{aligned} & 8.84 \\ & 8.07 \\ & 8.03 \end{aligned}$ |
| PSERS Commodity Portfolios <br> Dow Jones - UBS Commodity Index | $\begin{aligned} & 31.84 \\ & 25.91 \end{aligned}$ | $\begin{gathered} -8.47 \\ -11.87 \end{gathered}$ | $\begin{aligned} & \text { N/A } \\ & \text { N/A } \end{aligned}$ | $\begin{aligned} & \text { N/A } \\ & \text { N/A } \end{aligned}$ |
| PSERS Absolute Return Portfolios Benchmark - 8.00\% Annualized Return | $\begin{array}{r} 13.18 \\ 8.00 \end{array}$ | $\begin{aligned} & \text { N/A } \\ & \text { N/A } \end{aligned}$ | $\begin{aligned} & \text { N/A } \\ & \text { N/A } \end{aligned}$ | $\begin{aligned} & \text { N/A } \\ & \text { N/A } \end{aligned}$ |
| PSERS Real Estate (5) <br> Blended Real Estate Index (6) <br> Median Public DBP Fund Universe - Real Estate (Wilshire Database) | $\begin{aligned} & \mathbf{2 0 . 1 8} \\ & 20.04 \\ & 20.80 \end{aligned}$ | $\begin{array}{r} -14.98 \\ -1.09 \\ -4.13 \end{array}$ | $\begin{array}{r} -5.42 \\ 3.85 \\ 0.48 \end{array}$ | $\begin{aligned} & 6.01 \\ & 8.50 \\ & 6.76 \end{aligned}$ |
| PSERS Alternative Investments (5) <br> Venture Economics Median Return, Vintage Year Weighted <br> Median Public DBP Fund Universe - Private Equity (Wilshire Database) | $\begin{aligned} & \mathbf{1 8 . 6 0} \\ & 11.37 \\ & 22.03 \end{aligned}$ | $\begin{aligned} & \mathbf{1 . 8 4} \\ & 2.82 \\ & 4.20 \end{aligned}$ | $\begin{array}{r} \mathbf{1 1 . 3 6} \\ 5.49 \\ 10.78 \end{array}$ | $\begin{array}{r} \mathbf{1 0 . 8 7} \\ 4.04 \\ 9.41 \end{array}$ |

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI All Country World (ACW) ex. USA Investable Market Index effective July 1, 2008; previously was the MSCI ACW ex. U.S. Index. The benchmark was $30 \%$ hedged to the U.S. dollar from July 1, 2006 to March 31, 2009; otherwise, the benchmark is unhedged.
3. Returns presented are a blend of the Barclays Capital U.S. Universal Index (27.8\%), Barclays Capital U.S. TIPS Index (Series-L) (27.8\%), and Barclays U.S. High Yield Index (44.4\%) effective April 1, 2010. The weights to these indexes have varied in previous quarters. Prior to April 1, 2007, the Barclays Capital Aggregate Bond Index was used in place of the Barclays Capital U.S. Universal Index.
4. Returns presented are a blend of the Barclays Multiverse Index (40.8\%) and the JP Morgan Global Bond Index Emerging Markets Global Diversified (USD Unhedged) Index (59.2\%) Between April 1, 2007 and March 31, 2010, the Barclays Multiverse Index was used; previous to April 1, 2007, the Barclays Global Aggregate Bond Index was used.
5. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
6. NCREIF Index effective April 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 New York Mellon 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 $\$ 7.2$ million in net gains during the year.

## Accomplishments

The System continued its efforts to diversify its market exposures during the second quarter of FY 2011 as the target allocation to absolute return mandates, an asset class used as a risk diversifier added during the current fiscal year, was increased from $10.0 \%$ to $12.0 \%$.

Recognizing the low return environment and the risks associated with reaching for too much return, the Board lowered the actuarial assumed rate of return, which was reduced from $8.0 \%$ to $7.5 \%$ effective with the June 30, 2011 actuarial valuation. This change allows the System to design an asset allocation with lower risk parameters given the continued uncertainty of the economic environment.

## Summary

The System had a very good fiscal year ended June 30, 2011. Most risk assets across the spectrum performed well, allowing the System to generate returns substantially in excess of the actuarial investment rate of return assumption. The System was unable to meet or exceed this assumption for the three-, five-, and ten-year periods ended June 30, 2011. For the twenty-five-year period ended June 30, 2011, however, the System generated a return of $8.79 \%$, well in excess of the actuarial investment rate of return assumption. We continue to believe that we are in the midst of a challenging period for asset returns for the reasons discussed above. We also believe, however, 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.

Alan H. Van Noord, CFA
Chief Investment Officer

INVESTENTENT SECTEON

## Portfolio Summary Statistics

Asset Allocation
As of June 30, 2011
(Dollar Amounts in Thousands)

| Pension investments | Fair Value (\$) | \% Fair Value |
| :---: | :---: | :---: |
| Common and preferred stock (Equity): |  |  |
| Large cap stocks | 4,720,254 | 9.2 |
| Mid and small cap stocks | 1,043,757 | 2.0 |
| Emerging markets stocks | 1,968,476 | 3.8 |
| Total Non-U.S. equity | 7,732,487 | 15.0 |
| Large cap stocks | 4,153,489 | 8.1 |
| Mid and small cap stocks | 1,639,709 | 3.2 |
| Microcap stocks | 130,700 | 0.3 |
| Total U.S. equity | 5,923,898 | 11.6 |
| Total Common and preferred stock - Asset Allocation Basis | 13,656,385 | 26.6 |
| Fixed income: |  |  |
| Investment grade fixed income | 5,223,403 | 10.2 |
| High yield and opportunistic fixed income | 2,787,758 | 5.4 |
| Total U.S. Fixed income | 8,011,161 | 15.6 |
| Global core fixed income | 882,037 | 1.7 |
| Emerging markets fixed income | 886,162 | 1.6 |
| Total Global Fixed income | 1,768,199 | 3.3 |
| Cash and cash equivalents | 4,160,513 | 8.1 |
| Total Fixed income - Asset Allocation Basis | 13,939,873 | 27.0 |
| Real estate | 5,467,929 | 10.7 |
| Alternative investments: |  |  |
| Private equity | 7,821,209 | 15.2 |
| Private debt | 2,024,155 | 3.9 |
| Venture capital | 849,135 | 1.7 |
| Total Alternative investments - Asset Allocation Basis | 10,694,499 | 20.8 |
| Absolute return | 5,297,524 | 10.3 |
| Commodities | 2,388,292 | 4.6 |
| Total Pension investments - Asset Allocation Basis | 51,444,502 | 100.0 |
| Net Asset Allocation Adjustment* | 158,174 |  |
| Pension investments per Statement of Plan Net Assets | 51,602,676 |  |
| Postemployment Healthcare investments | 226,488 | 100.0 |

[^2]
## Comparison of Actual Portfolio Distribution

 to Asset Allocation PlanAs of June 30, 2011

| Asset Category | Plan | Actual |
| :--- | :---: | :---: |
| Common and preferred stock (Equity) | $25.5 \%$ | $26.6 \%$ |
| Fixed income | $26.3 \%$ | $27.0 \%$ |
| Real estate | $9.7 \%$ | $10.7 \%$ |
| Alternative investments | $20.5 \%$ | $20.8 \%$ |
| Absolute return | $12.0 \%$ | $10.3 \%$ |
| Commodities | $6.0 \%$ | $4.6 \%$ |



## INVESTMINTH SECTION

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


The following lists of portfolio detail statistics present the ten largest holdings by descending order of fair value for the largest 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. Box 125, Harrisburg, PA 17108.

## Common and Preferred Stock - Non-U.S. Equity 10 Largest Holdings in Descending Order by Fair Value <br> As of June 30, 2011 <br> (Dollar Amounts and Shares in Thousands)

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| BlackRock Emerging Markets Strategic Insights Fund | 4,004 | 205,687 |
| The 32 Capital Fund Ltd. | 98 | 130,775 |
| BHP Billiton Ltd. | 1,930 | 118,806 |
| Rio Tinto PLC | 741 | 108,519 |
| Royal Dutch Shell PLC | 1,902 | 104,398 |
| BlackRock Emerging Markets Alpha Advantage Fund Ltd. | 34 | 103,130 |
| Nestle SA | 1,239 | 76,881 |
| BP PLC | 6,159 | 70,718 |
| Schlumberger Ltd. | 425 | 60,740 |
| Shah Capital Offshore Opportunity Fund | 415 | 55,862 |
| Total of 10 Largest Holdings |  | $\mathbf{1 , 0 3 5 , 5 1 6}$ |

INVESTHITNTE SECTEON

## Common and Preferred Stock - U.S. Equity 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2011 <br> (Dollar Amounts and Shares in Thousands)

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| Security Capital Preferred Growth | 13,039 | 177,582 |
| Exxon Mobil Corporation | 1,569 | 127,687 |
| Apple Computer, Inc. | 300 | 100,615 |
| Chevron Corporation | 652 | 67,099 |
| IBM | 380 | 65,146 |
| General Electric Company | 3,325 | 62,712 |
| Microsoft Corporation | 2,327 | 60,493 |
| Johnson \& Johnson | 882 | 58,694 |
| AT\&T Inc. | 1,857 | 58,320 |
| Procter \& Gamble Company | 902 | 57,312 |
| Total of 10 Largest Holdings |  | $\mathbf{8 3 5 , 6 6 0}$ |

## Fixed Income

10 Largest Holdings in Descending Order by Fair Value
As of June 30, 2011
(Dollar Amounts and Shares in Thousands)

| Description | Maturity Date | Interest Rate (\%) | Par <br> Value(\$) or No. of Shares | Fair <br> Value (\$) |
| :---: | :---: | :---: | :---: | :---: |
| Bridgewater All Weather @ 12\%, Ltd. | N/A | N/A | 594 | 606,808 |
| BlackRock US Extended Core Global Alpha Fund | N/A | N/A | 359 | 507,405 |
| Bridgewater Int'l Inflation-Linked Bond Fund | N/A | N/A | 250 | 394,143 |
| Bridgewater Pure Alpha Fund II Ltd. | N/A | N/A | 140 | 348,344 |
| U.S. Treasury - Inflation Index | 01/15/25 | 2.375 | 190,411 | 218,854 |
| Bridgewater U.S. Inflation-Linked Bond Fund | N/A | N/A | 90 | 143,825 |
| U.S. Treasury - Inflation Index | 01/15/16 | 2.000 | 106,040 | 117,854 |
| U.S. Treasury - Inflation Index | 01/15/14 | 2.000 | 81,780 | 88,105 |
| U.S. Treasury - Inflation Index | 02/15/40 | 2.125 | 79,794 | 86,832 |
| U.S. Treasury - Inflation Index | 02/15/41 | 2.125 | 76,804 | 83,446 |
| Total of 10 Largest Holdings |  |  |  | 2,595,616 |

# Absolute Return <br> 10 Largest Holdings in Descending Order by Fair Value <br> As of June 30, 2011 <br> (Dollar Amounts and Shares in Thousands) 

| Description | No. of <br> Shares | Fair <br> Value (\$) |
| :--- | ---: | ---: |
| Bridgewater Pure Alpha Fund II Ltd. | 360 | 885,771 |
| Brigade Leveraged Capital Structures Offshore Ltd. | 633 | 847,346 |
| AQR Offshore Multi-Strategy Fund Ltd. | 8 | 797,727 |
| BlackRock Global Ascent Ltd. | 300 | 724,917 |
| Brevan Howard Fund, Ltd. | 2,500 | 364,700 |
| Capula Tail Risk Fund Ltd. | 198 | 251,322 |
| BlackRock Capital Structure Investments Fund Ltd. | 117 | 218,996 |
| PIMCO Absolute Return Strategy V Offshore Fund | 159 | 217,738 |
| PIMCO Global Credit Opportunity Offshore Fund | 149 | 215,932 |
| The Boston Company Microcap Portfolio |  | 207,509 |
| Total of 10 Largest Holdings |  | $\mathbf{4 , 7 3 1 , 9 5 8}$ |

## Postemployment Healthcare Investments 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2011 <br> (Dollar Amounts in Thousands)

| Description | Maturity <br> Date | Interest <br> Rate (\%) | Par <br> Value (\$) | Fair <br> Value (\$) |
| :--- | ---: | ---: | ---: | ---: |
| PSERS Short-Term Investment Fund | Various | Various | 112,277 | 112,277 |
| M \& T Bank Repurchase Agreement | $7 / 1 / 11$ | 0.010 | 28,292 | 28,292 |
| M \& T Bank Repurchase Agreement | $7 / 1 / 11$ | 0.010 | 21,407 | 21,407 |
| M \& T Bank Repurchase Agreement | $7 / 1 / 11$ | 0.010 | 8,116 | 8,116 |
| GNMA Guaranteed REMIC 2004-29 Class B | $8 / 16 / 29$ | 5.000 | 2,914 | 2,908 |
| GNMA Guaranteed REMIC 2006-60 Class PA | $1 / 20 / 36$ | 5.000 | 2,853 | 2,857 |
| FHLMC Multiclass 2799 Class PF | $1 / 15 / 31$ | 0.537 | 2,792 | 2,791 |
| FHLMC Multiclass 3545 Class LA | $12 / 15 / 16$ | 2.120 | 2,563 | 2,563 |
| FHLMC Multiclass 2885 Class DT | $5 / 15 / 18$ | 4.500 | 2,306 | 2,303 |
| FNMA Guaranteed REMIC 2005-118 Class ME | $1 / 25 / 32$ | 6.000 | 2,122 | 2,090 |
| Total of 10 Largest Holdings |  |  |  | $\mathbf{1 8 5 , 6 0 4}$ |

## Comparison of Investment Activity Income

For Fiscal Years Ended June 30, 2011 and 2010
(Dollar Amounts in Thousands)

| Investment Activity | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Net appreciation in fair value of investments | \$ | 8,493,206 | \$ | 5,560,380 |
| Short-term |  | 15,128 |  | 21,410 |
| Fixed income |  | 432,649 |  | 440,358 |
| Common and preferred stock |  | 368,901 |  | 365,255 |
| Real estate |  | 113,370 |  | 62,273 |
| Alternative investments |  | 331,286 |  | 179,116 |
| Total investment activity income | \$ | 9,754,540 | \$ | 6,628,792 |

(Dollar Amounts in Billions)


Brokers' fees on equity investment transactions for the fiscal year ended June 30, 2011 were $\$ 11.8$ 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, 2011, the System earned $\$ 254,000$ 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 <br> (Cumulative Fiscal Year Amounts Exceeding $\mathbf{\$ 1 0 0 , 0 0 0 )}$ <br> Fiscal Year Ended June 30, 2011

| Broker Name |
| :--- |
| Jones \& Associates |
| Goldman Sachs \& Company |
| Instinet Corporation |
| UBS Securities |
| Citigroup |
| Merrill Lynch |
| JP Morgan Chase \& Company |
| Credit Suisse |
| Knight Securities |
| Morgan Stanley \& Company |
| Deutsche Bank |


| Fees Paid (\$) | Broker Name | Fees Paid (\$) |
| :---: | :---: | :---: |
| 1,651,302 | Macquaries Equities Limited | 236,756 |
| 1,550,678 | Credit Lyonnais Securities | 224,393 |
| 922,781 | Cantor, Fitzgerald \& Company | 211,274 |
| 527,540 | Liquidnet Incorporated | 188,592 |
| 475,654 | Barclays | 171,047 |
| 424,831 | Nomura Securities International | 166,185 |
| 424,197 | Fimat USA | 157,521 |
| 386,578 | BNY Convergex | 139,434 |
| 314,392 | B-Trade Services, LLC | 120,924 |
| 292,625 | HSBC Securities Incorporated | 103,751 |
| 270,065 |  |  |

## Professional Consultants

External Investment Advisors
As of June 30, 2011

## Absolute Return Managers

- AQR Capital Management, LLC
- BlackRock Financial Management, Inc.
- Boston Company Asset Management, LLC (The)
- Brevan Howard Asset Management, LLP
- Bridgewater Associates, Inc.
- Brigade Capital Management
- Capula Investment Management, LLP
- Caspian Capital Advisors
- FX Concepts, LLC
- Lazard Asset Management, LLC
- Pacific Investment Management Company
- Pareto Investment Management, Ltd.


## U.S. Style-Oriented Small Cap Equity Manager

- First Pacific Advisors, Inc.


## U.S. Micro Cap Equity Manager

- NorthPointe Capital, LLC

Publicly-Traded Real Estate Securities Manager

- Security Capital Research \& Management, Inc.


## Non-U.S. Large Cap Equity Managers

- Baillie Gifford Overseas, Ltd.
- BlackRock Financial Management, Inc.
- Marathon Asset Management, LLP


## Active Currency Program Manager

- Pareto Investment Management, Ltd.


## Non-U.S. Small Cap Equity Managers

- Acadian Asset Management, Inc.
- Batterymarch Financial Management, Inc.
- Oberweis Asset Management, Inc.
- Pyramis Global Advisors, Inc.
- Wasatch Advisors, Inc.

Non-U.S. Emerging Markets Equity Managers

- Batterymarch Financial Management, Inc.
- Wasatch Advisors, Inc.
- Wellington Management Company, LLP


## Enhanced Commodity Index Managers

- Credit Suisse Asset Management, LLC
- NB Alternative Fund Management, LLC


## Professional Consultants (Continued)

## Full Discretion Commodity Managers

- DB Advisors
- Schroders Investment Mgmt. North America, Inc.
- Wellington Management Company, LLP


## U.S. Core Plus Fixed Income Managers

- BlackRock Financial Management, Inc.
- Pacific Investment Management Company
- Western Asset Management Company


## U.S. High Yield Fixed Income Manager

- MacKay-Shields Financial Corporation

Global Core Plus Fixed Income Managers

- Aberdeen Asset Management, Inc.
- Fischer Francis Trees \& Watts, Inc.
- Rogge Global Partners


## Emerging Markets Debt Managers

- Franklin Templeton Investments
- Stone Harbor Investment Partners, LP


## Global Treasury Inflation - Protected Securities Manager

- Bridgewater Associates, Inc.


## Credit Opportunities Managers

- BlackRock Financial Management, Inc.
- Brookfield Investment Management, Inc.
- LBC Credit Partners
- Mariner Investment Group, LLC
- Oaktree Capital Management, LP
- Sankaty Advisors, LLC


## Real Estate Advisors

- Charter Oak Advisors, Inc.
- GF Management, Inc.
- Grandbridge Real Estate Capital, LLC
- Grosvenor Investment Management U.S., Inc.
- L\&B Realty Advisors, LLP


## Short-Term Investment Manager

- Bridgewater Associates, Inc.


## Real Estate Partnerships

- Apollo European Real Estate Fund III, LP
- Apollo Real Estate Finance Corporation
- Apollo Value Enhancement Fund VII, LP
- AREFIN Co-Invest Corporation
- AvalonBay Value Added Fund I \& II, LP
- Avenue Real Estate Fund Parallel, LP
- Beacon Capital Strategic Partners V, LP
- Blackstone Real Estate Partners V \& VI.TE.1, LP
- Blackstone Real Estate Partners Europe III, LP
- BPG Investment Partnership V \& VI, 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
- Cornerstone Patriot Fund, LP
- CS Strategic Partners IV RE, LP
- CSFB Strategic Partners II \& III RE, LP
- DLJ Real Estate Capital Partners II, III \& IV, LP
- DRA Growth and Income Fund VI, LLC
- Fillmore West Fund, LP
- Five Arrows Realty Securities V, LP
- Fortress Investment Fund I, IV \& V, LP
- Hines U.S. Office Value Added Fund, LP
- JPMCB Strategic Property Fund
- Lazard Freres Real Estate Investors I \& II, LLC
- LCCG Real Estate Special Situations Mortgage Fund, LLC
- Legg Mason Real Estate Capital I \& II, Inc.
- LEM Real Estate Mezzanine Fund II, LP
- Lubert-Adler Real Estate Fund III, IV, V, \& VI, LP
- Madison Marquette Retail Enhancement Fund, LP
- MGPA Asia Fund III, LP
- MGPA Europe Fund III, LP
- Morgan Stanley Real Estate Fund II, LP
- Morgan Stanley Real Estate Fund IV Special Domestic, LP
- Morgan Stanley Real Estate Fund IV, V \& VI Special International, LP
- Morgan Stanley Real Estate Fund V Special U.S., LP
- Morgan Stanley Real Estate Fund VII Global, LP
- O’Connor North American Property Partners I \& II, LP
- Paladin Realty Latin America Investors III, LP
- Peabody Global Real Estate Partners, LP
- Prime Property Fund, LLC
- PRISA
- ProLogis North American Industrial Fund, LP
- RCG Longview Debt Fund IV, LP
- RCG Longview Equity Fund, LP
- RREEF America REIT II, Inc.
- Silverpeak Legacy Partners I, II \& III, LP
- Stockbridge Real Estate Fund I, II \& III, LP
- Strategic Partners Value Enhancement Fund, LP
- UBS (US) Trumbull Property Fund, LP
- Westbrook Real Estate Fund, LP
- Whitehall Street Real Estate V, VI, VII \& VIII, LP
- William E. Simon \& Sons Realty Partners, LP


## Farmland Advisor

- Prudential Agricultural Group


## Professional Consultants (Continued)

## Private Equity/Venture Capital Partnerships

- ABS Capital Partners II, LP
- Actis Emerging Markets 3, LP
- Adams Capital Management, LP
- Aisling Capital Partners II \& III, LP
- Allegheny New Mountain Partners, LP
- Apax Europe VII, LP
- Baring Asia Private Equity Fund III, IV \& V, LP
- Blue Point Capital Partners (B) I \& II, LP
- Bridgepoint Capital II Partnership, LP
- Bridgepoint Europe IA, IIA, IIIA \& IV, LP
- Bruckmann, Rosser, 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 Fund, LP (The)
- Co-Investment Fund II, LP (The)
- Credit Suisse First Boston Equity Partners, LP
- Credit Suisse First Boston International Equity Partners, LP
- Crestview Capital Partners I \& II, LP
- Cross Atlantic Technology Fund I \& II, LP
- CSFB Strategic Partners II, III-B \& III-VC, LP
- CS Strategic Partners Fund IV \& IV VC, LP
- CVC Capital Partners Asia Pacific III, LP
- CVC European Equity Partners V, LP
- DLJ Merchant Banking Partners III, LP
- DLJ Strategic Partners, LP
- Dubin Clark Fund II, LP
- Edgewater Growth Capital Partners, LP
- Edgewater Private Equity Fund III, LP
- Evergreen Pacific Partners I \& II, LP
- First Reserve Fund XI \& XII, LP
- Franklin Capital Associates III, LP
- Furman Selz Investors 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
- Headland Private Equity Fund 6, LP
- Irving Place Capital Partners II \& III, LP
- Jefferies Capital Partners IV, LP
- Jefferson Partners Fund IV (PA), LP
- KBL 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 Mezzanine Partners, LP
- Lexington Capital Partners, LP
- Lindsay, Goldberg \& Bessemer, LP
- LLR Equity Partners I, II \& III, LP
- Milestone Partners II \& III, LP
- Morgan Stanley Dean Witter Capital Partners IV, LP
- Navis Asia Fund V, LP
- NEPA Venture Fund II, LP
- New Mountain Partners I \& III, LP
- New York Life Capital Partners, I, II, III \& IV, LP
- Nordic Capital VII 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
- StarVest Partners I \& II, LP
- Sterling Capital Partners, LP
- Sterling Venture Partners, LP
- TDH III, LP
- Tenaya Capital IV-P \& V, LP
- TL Venture III, LP
- TPG Partners II, V \& VI, LP
- Trilantic Capital Partners IV, LP
- U.S. Equity Partners II, LP
- Wicks Communications \& Media Partners, LP
- Willis Stein \& Partners, LP


## Private Debt Partnerships

- Avenue Asia Special Situations Fund II, III \& IV, LP
- Avenue Europe Special Situations Fund, LP
- Avenue Special Situations Fund IV, V \& VI, LP
- Cerberus Institutional Partners, LP (Series Two, Three and Four)
- Gleacher Mezzanine Fund I \& II, LP
- Gold Hill Venture Lending 03-A, LP
- GSC Partners CDO Investors IV, LP
- GSC Recovery II \& III, LP
- NYLIM Mezzanine 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 Market Emerging Investment Program Managers

- AH Lisanti Capital Growth, LLC
- Ativo Capital Management, LLC
- Conestoga Capital Advisors
- Denali Advisors, LLC
- EDMP, Inc.
- Harvest Fund Advisors, LLC
- Hellman, Jordan Management Company, Inc.
- John Hsu Capital Group, Inc.
- Opus Capital Group, LLC
- Piedmont Investment Advisors, LLC
- Pugh Capital Management, Inc.
- Shah Capital Management, Inc.
- Westwood Global Investments, LLC

Professional Consultants (Continued)
Alternative Investment Consultant

- Portfolio Advisors, LLC


## Custodian Bank and Securities Lending Agent

- The Bank of New York Mellon Corporation

Investment Accounting Application Service
Provider

- Financial Control Systems, Inc.

Investment Evaluator and General Investment
Consultant

- Wilshire Associates, Inc.


## Proxy Voting Agent

- Glass, Lewis \& Co., LLC


## Real Estate Investment Consultant

- Courtland Partners, Ltd.

Hedge Fund Consultant

- Aksia, LLC


## ACTUARIAL



# The Retirement Board 

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, 2010.

The valuation takes into account all of the promised benefits to which members are entitled as of June 30, 2010, including pension and survivor benefits, and as required by the Public School Employees’ Retirement Code, 24 Pa. C.S. §8101 et. seq. (Retirement Code) is the basis for the contribution rate for fiscal year 2011/2012.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees. As adopted by the Board of Trustees at their January 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 Board (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 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.)

## Assets and Membership Data

The Retirement 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 Adequacy

The valuation results determine that the employer contribution rate for fiscal year 2011/2012 is $8.65 \%$. As of June 30, 2010, the total funded ratio of the plan (for Pensions and Health Insurance combined) is $75.1 \%$, based on the accrued liability and actuarial value of assets calculated under the funding requirements of Section 8328 of the Retirement Code.

## Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the valuation report. The actuary prepared supporting schedules included in the Actuarial and Statistical Section of the PSERS Comprehensive Annual 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 Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries 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,


Dana Spangher, FSA, MAAA, EA
Principal, Consulting Actuary


Edward Quinn, MAAA, EA
Director, Retirement Actuary

## EXECUTIVE SUMMARY

This report presents the actuarial valuation as of June 30, 2010 for the Public School Employees’ Retirement System of Pennsylvania.

The principal valuation results include:

- The employer contribution rate for fiscal year 2011/2012, which is $8.65 \%$.
- The total funded ratio of the plan determined as of June 30, 2010 under the funding requirements of Section 8328 of the Retirement Code, which is $75.1 \%$ 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, 2010, which is a loss of $\$ 3.467$ billion.
- Annual disclosures as of June 30, 2010 as required by Statements No. 25, 43, and 50 of the Governmental Accounting Standards Board.

The valuation was completed based upon membership and financial data submitted by the Retirement 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 Actuarial and Statistical Section of the PSERS Comprehensive Annual Financial Report (CAFR), and also prepared the trend data schedules included in the Financial Section of the CAFR.

## CHANGES SINCE LAST YEAR

## Legislative and Administrative Changes

The valuation was completed based upon the following legislative changes:

- The valuation reflects Act 2010-46 (Act 46). Act 46 directed the Public School Employees’ Retirement Board to recertify the employer contribution rate for the Fiscal Year which ends June 30, 2011 from $8.22 \%$ to $5.64 \%$, with $5 \%$ consisting of the pension component of the rate and $.64 \%$ consisting of the premium assistance component of the rate.
- The valuation also reflects the following benefit and funding reform provisions of Act 2010-120 (Act 120):
a. Benefit reforms:

1. Establish a new class of membership ("Class T-E"). Any employee who becomes a member of the Retirement System after June 30, 2011 would become a Class T-E member. A Class T-E member would be eligible for an annuity based upon an annual benefit accrual rate of $2 \%$ and would have a corresponding employee contribution requirement equal to $7.5 \%$ of compensation;
2. Establish an optional new class of membership ("Class T-F"). Any employee who becomes a member of the Retirement System after June 30, 2011 would have the option of electing Class T-F membership within 45 days of becoming a member. A Class T-F member would be eligible for an annuity based upon an annual benefit accrual rate of $2.5 \%$ and would have a corresponding employee contribution requirement equal to $10.3 \%$ of compensation;
3. Increase the superannuation requirements for Class T-E and Class T-F members to i) age 65 with a minimum of three years of service credit, or ii) any combination of age and service that totals 92 with at least 35 years of credited service;
4. Increase the withdrawal eligibility requirement for Class T-E and Class T-F members to ten years of service credit;
5. Class T-E and Class T-F can not elect to receive a lump sum payment of member contributions;
6. Establish a "shared-risk" employee contribution rate for Class T-E and Class T-F members. Members benefit when investments of the fund are doing well and share some of the risk when investments underperform. The member contribution rate will stay within the specified range allotted for Class T-E or Class T-F, but could increase or decrease every three years starting July 1, 2015 depending on investment performance. The member contribution rate can never go below the base rate of $7.5 \%$ for Class T-E members and $10.3 \%$ for Class T-F members, nor above $9.5 \%$ for Class T-E members and $12.3 \%$ for Class T-F members. If the investment rate of return (less investment fees) is equal to or exceeds the assumed rate of return based on the prior ten-year period, the member contribution rate will decrease by .5\%. Likewise, the member contribution rate will increase by $.5 \%$ if the investment rate of return (less investment fees) during the ten-year period is $1.0 \%$ or more below the assumed rate of return. If the Retirement System is fully funded at the time of the comparison, the member contribution rate reverts back to the base rate for the Class. There shall be no increase in the member contribution rate if there has not been an equivalent increase in the employer contribution rate over the previous threeyear period. Until a full ten-year look back is available, the investment return measurement period will begin on July 1, 2011;
7. Require Class T-E and Class T-F members who purchase most types of nonschool or non-state service credit (other than intervening military service) to pay an amount equal to the full actuarial cost of the service purchase;
8. Limit the maximum annual retirement benefit of Class T-E and Class T-F members to not more than $100 \%$ of final average salary; and
9. Class-E and Class T-F members have a one-year period from date of membership to purchase Non-Qualifying Part-Time Service.
b. Funding reforms effective with the June 30, 2010 valuation:
10. Extend from five years to ten years the asset smoothing period over which the Retirement System's investment gains and losses are recognized;
11. Re-amortize the unfunded actuarial accrued liability as of the June 30, 2010 valuation, including the cost of Act 120, over a 24 -year period with the amortization payments determined as a level percentage of pay. Future valuation experience gains or losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, will be amortized over a 24-year period as a level percentage of pay. Future increases in accrued liability enacted by legislation after June 30, 2010 will be funded over a 10-year period as a level percentage of pay;
12. Modify the employer pension contribution requirements by imposing limits ("collars") on the rate at which employer contributions may rise from year to year. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014, the pension contribution rate can be no more than $3 \%, 3.5 \%$ and $4.5 \%$, respectively, of total compensation of all active members, greater than the prior year's final contribution rate; and
13. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate will be the actuarially determined contribution rate, but not less than the employer normal contribution rate.

## Actuarial Assumptions and Methods

The actuarial assumptions and methods are outlined in Table 11.

## Contribution Rates

The results of the valuation as of June 30, 2010 determine the employer contribution rate for fiscal year 2011/2012. The calculated employer contribution rate for the 2011/2012 fiscal year is $8.65 \%$, and the Board of Trustees certified this rate at their December 2010 meeting. This rate consists of an $8.00 \%$ pension rate (fiscal year 2010/2011 rate of 5.00\% plus the Act 120 3.00\% collar) plus a $0.65 \%$ health insurance contribution rate.

The average contribution rate payable by the members is $7.37 \%$. Effective January 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 $1.25 \%$ to $7.50 \%$. Anyone who enrolls after June 30, 2001 and before July 1, 2011 is automatically a member of Class T-D. The average member contribution rate of $7.37 \%$ is a pay-weighted average of member rates that vary based on date of hire and based on Class T-D membership. Any employee who becomes a member after June 30, 2011 would become a Class T-E member or, alternatively, elect to become a Class T-F member. The base contribution rate for Class T-E members is $7.50 \%$ of compensation. The base contribution rate for Class T-F members is $10.30 \%$ of compensation. Class T-E and Class T-F members are subject to a "shared-risk" employee contribution rate.

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

The employer contribution rate calculated by the actuary increased from $5.64 \%$ for fiscal year 2010/2011 to $8.65 \%$ for fiscal year 2011/2012. The reconciliation of the employer contribution rates by source is as follows:

- FY2010/2011 Act 46 final rate
- Deferral of FY 2011 pension contribution due to Act 462.58
- FY 2010 /2011 rate prior to Act $46 \quad 8.22 \%$
- Increase due to change in normal rate
- Net increase due to payroll growth and liability experience
- Increase due to actuarial loss on assets
- Increase due to Act 120 funding reforms (before 3\% collar)
- Deferral of FY 2012 pension contribution due to Act 120 3\% collar
- Increase due to change in health insurance contribution rate
- Final FY 2011/2012 employer contribution rate $8.65 \%$


## 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, 2010. Comparable results from the June 30, 2009 valuation are also shown.

| Item | June 30, 2010 | June 30, 2009 |
| :---: | :---: | :---: |
| Demographics |  |  |
| Active Members |  |  |
| - Number | 282,041 | 279,701 |
| - Average Annual Pay | \$ 45,344 | \$ 44,779 |
| Annuitants |  |  |
| - Number | 184,934 | 177,963 |
| - Average Annual Benefit Payment | \$ 23,466 | \$ 22,456 |
| Contribution Rates (as a Percentage of Payroll) | (Fiscal Year 2011/2012) | (Fiscal Year 2010/2011) |
| Employer Contribution Rate: |  |  |
| - Total Pension Rate Calculated by Actuary | 18.27\% | 7.58\% |
| - Act 46 Recertification of Fiscal Year 2011 Employer Pension Rate | N/A | 5.00 |
| - Act 120 Fiscal Year 2012 Employer Pension Rate After Application of Collar | 8.00 | N/A |
| - Health Insurance Contribution Rate | $\underline{0.65}$ | $\underline{0.64}$ |
| - Total Contribution Rate | 8.65\% | 5.64\% |
| - Total Contribution Rate Certified by Board | 8.65\% | 5.64\% |
| Member Average Contribution Rate: | $\underline{7.37}$ | 7.34 |
| - Total Rate | 16.02\% | 12.98\% |
| Actuarial Funded Status* |  |  |
| - Accrued Liability | \$ 79,122.3 Mil | \$ 75,625.9 Mil |
| - Actuarial Value of Assets | 59,423.7 | 59,886.7 |
| - Unfunded Accrued Liability | \$ 19,698.6 | \$ 15,739.2 |
| - Funded Ratio | 75.1\% | 79.2\% |
| * Pensions and Health Insurance combined |  |  |

## 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 level percentage of pay amortization schedules required by the Retirement Code as amended by Act 2010-120, i.e., a schedule of 24 years for the unfunded accrued liability as of June 30, 2010 and each change in the unfunded accrued liability due to actuarial experience after the June 30, 2010 valuation. Any legislation after June 30, 2010 that increases the liability will be funded over 10 years.
- As directed by Act 2010-120, use pension rate collars to moderate the rise of annual employer pension contribution rates to reach the full actuarially determined contribution funding level in a budgetarily sound manner and within a financially responsible period of time.

The total contribution rate of $8.65 \%$ 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 phased-in 10-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 Retirement System's total funded ratio (for Pensions and Health Insurance combined) is $75.1 \%$ as of June 30, 2010. This funded ratio is based on an actuarial value of assets of $\$ 59.4$ billion and an accrued liability of $\$ 79.1$ billion. The funded ratio for Pensions alone is also $75.1 \%$ as of June 30, 2010, based on an actuarial value of assets of $\$ 59.3$ billion, and an accrued liability of $\$ 79.0$ billion.

## Reasons for Change in the Total Funded Ratio

The total funded ratio decreased from 79.2\% as of June 30, 2009 to $75.1 \%$ as of June 30, 2010. This decrease is primarily due to the actuarial value of assets loss that occurred during the year. There was also a net actuarial experience loss.

## Five-Year History of Total Funded Ratio*

(\$ Amounts in Millions)

| Valuation as of June 30 | Accrued Liability | Actuarial Value of Assets | Unfunded Accrued <br> Liability | Funded Ratio |
| :---: | :---: | :---: | :---: | :---: |
| 2010 | $\$ 79,122.3$ | $\$ 59,423.7$ | $\$ 19,698.6$ | $75.1 \%$ |
| 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 |

[^3]
## TABLE 1

## SUMMARY OF RESULTS OF ACTUARIAL VALUATION <br> AS OF JUNE 30, 2010 <br> (\$ Amounts in Thousands)

| Item | June 30, 2010 |  | June 30, 2009 |  |
| :---: | :---: | :---: | :---: | :---: |
| Member Data |  |  |  |  |
| 1. Number of Members |  |  |  |  |
| a) Active Members |  | 282,041 |  | 279,701 |
| b) Inactive Members and Vestees |  | 111,931 |  | 103,805 |
| c) Annuitants, Beneficiaries and Surviv or Annuitants |  | 184,934 |  | 177,963 |
| d) Total |  | 578,906 |  | 561,469 |
| 2. Annualized Salaries (\$ Amounts in Thousands) | \$ | 12,788,847 | \$ | 12,524,593 |
| 3. Annual Annuities (\$ Amounts in Thousands) | \$ | 4,339,639 | \$ | 3,996,288 |
| Valuation Results |  |  |  |  |
| 4. Present Value of Future Pension Benefits |  |  |  |  |
| a) Active Members | \$ | 57,927,025 | \$ | $57,954,419$ |
| b) Inactive Members and Vestees |  | 1,261,485 |  | $930,887$ |
| c) Annuitants, Beneficiaries and Surviv or Annuitants |  | 40,284,383 |  | 37,112,318 |
| d) Total | \$ | 99,472,893 | \$ | 95,997,624 |
| 5. Present Value of Future Pension Normal Cost |  |  |  |  |
| a) Active Members | \$ | 9,960,432 | \$ | 9,879,309 |
| b) Employer |  | 10,507,033 |  | 10,597,579 |
| c) Total | \$ | 20,467,465 | \$ | 20,476,888 |
| 6. Pension Accrued Liability |  |  |  |  |
| a) Active Members (4a) - (5c) | \$ | 37,459,560 | \$ | 37,477,531 |
| b) Inactive Members and Vestees |  | 1,261,485 |  | 930,887 |
| c) Annuitants, Beneficiaries and Surviv or Annuitants |  | 40,284,383 |  | 37,112,318 |
| d) Total | \$ | 79,005,428 | \$ | 75,520,736 |
| 7. Health Insurance Assets for Premium Assistance | \$ | 116,831 | \$ | 105,114 |
| 8. Total Accrued Liability for Funding (6) + (7) | \$ | 79,122,259 | \$ | 75,625,850 |
| 9. Actuarial Value of Assets | \$ | 59,423,679 | \$ | 59,886,689 |
| 10. Funded Status (9) / (8) |  | 75.1 \% |  | 79.2 \% |
| 11. Unfunded Accrued Liability (8) - (9) | \$ | 19,698,580 | \$ | 15,739,161 |
| 12. Total Normal Cost Rate |  | $15.49 \%$ |  | 15.42 \% |
| 13. Member Contribution Rate |  | $737 \%$ |  | $734 \%$ |
| 14. Employer Normal Cost Rate (12) - (13) |  | 8.12 \% |  | $808 \%$ |
| Employer Annual Funding Requirement |  | 2011/2012 |  | 2010/2011 |
| 15. Employer Contribution Rate Calculated by Actuary |  |  |  |  |
| a) Normal |  | $8.12 \%$ |  | $8.08 \%$ |
| b) Unfunded Accrued Liability |  | $\frac{10.15}{18.27}$ |  | (0.50) |
| c) Preliminary Pension Rate |  | 18.27 \% |  | $7.58 \%$ |
| d) Act 46 Recertification of Fiscal Y ear 2011 |  |  |  |  |
| Employer Pension Rate <br> e) Act 120 Fiscal Year 2012 |  | N/A |  | 5.00 |
| Employer Pension Rate Collar |  | 800 |  | N/A |
| f) Health Insurance |  | 0.65 |  | 0.64 |
| g) Total Rate |  | 8.65 \% |  | $5.64 \%$ |

TABLE 2

## SUMMARY OF SOURCES OF EMPLOYER CONTRIBUTION RATE <br> AS OF JUNE 30, 2010 <br> (\$ Amounts in Thousands)

| Funding <br> Period <br> (Years) |  | Beginning July 1 |  | Initial <br> Liability |  | 7/1/2010 Outstanding Balance |  | Annual Amount | ment <br> Percent * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Amortization of: |  |  |  |  |  |  |  |  |  |
| a) Act 120 Fresh Start Unfunded Accrued Liability and Asset Method Change | 24 | 2011 | \$ | 16,279,283 | \$ | 16,279,283 | \$ | 1,184,981 | 8.40\% |
| b) 2010 Experience | 24 | 2011 |  | 3,419,297 |  | 3,419,297 |  | 247,938 | 1.75\% |
| Total Amortization Payments |  |  |  |  | \$ | 19,698,580 | \$ | 1,432,919 | 10.15\% |
| 2. Employer Normal Cost Rate |  |  |  |  |  |  |  |  | 8.12\% |
| 3. Preliminary Pension Rate (1) + (2) |  |  |  |  |  |  |  |  | 18.27\% |
| 4. Act 120 Fiscal Year 2012 Employer Pension Rate Collar |  |  |  |  |  |  |  |  | 8.00\% |
| 5. Health Insurance Rate |  |  |  |  |  |  |  |  | 0.65\% |
| 6. Final Total Employer Contribution Rate Calculated by Actuary (4) + (5) |  |  |  |  |  |  |  |  | 8.65\% |

[^4]
## TABLE 3

## DETERMINATION OF HEALTH INSURANCE CONTRIBUTION RATE FOR FISCAL YEAR 2011/2012

(\$ Amounts in Thousands)

## Item

1. June 30, 2010 Balance in Health Insurance Account

## \$ 116,831

2. Estimated Fiscal 2010/2011 Contribution
(a) Contribution Rate Certified in 2009 Valuation
0.64\%
(b) Estimated Fiscal 2010/2011 payroll
(c) Estimated Contribution $=(a) \times(b)$

| $\$$ | $13,510,000$ |
| :--- | ---: |
| $\$ \quad 86,464$ |  |

5. Required Fiscal $2011 / 2012$ Contribution
6. Estimated Number of Annuitants who:
(a) Fiscal 2010/2011
(b) Fiscal 2011/2012
(c) Fiscal 2012/2013
7. Estimated Disbursements: Administration
(a) Fiscal 2010/2011
(b) Fiscal $2011 / 2012$
(c) Fiscal 2012/2013
(d) Total

Are Eligible 118,200 120,800 123,400 Assistance

Total
\$ 2,206

| 2,220 |
| ---: |
| 2,309 |
| $\$ \quad 6,735$ |

TABLE 4
SUMMARY OF MARKET VALUE OF PLAN ASSETS
AS OF JUNE 30, 2010
(\$ Amounts in Thousands)

## Market Value

1. Market Value of Assets as of June 30, 2009
2. Contributions During Fiscal 2009/2010
3. Disbursements During Fiscal 2009/2010
4. Investment Return During Fiscal 2009/2010
a) Investment Return (Net of Investment Expenses)
b) Administrative Expenses
c) Investment Return After Expenses (a) - (b)
5. Market Value of Assets as of June 30, 2010
$(1)+(2)-(3)+(4 c)$
6. Rate of Return (per Wilshire)

## Asset Allocation by Account

1. Members' Savings Account
2. Annuity Reserve Account
3. State Accumulation Account
4. Health Insurance Account
5. $\operatorname{Total}(1)+(2)+(3)+(4)$
\$ 43,100,594
1,590,081
5,075,868
\$ 6,114,548
14,049
\$ 6,100,499
\$ 45,715,306
$14.59 \%$
\$ 11,850,031
40,284,383
$(6,535,939)$
116,831
\$ 45,715,306

## TABLE 5

DERIVATION OF ACTUARIAL VALUE OF ASSETS<br>AS OF JUNE 30, 2010*<br>(\$ Amounts in Thousands)

1. Market Value of Assets as of June 30, 2010
\$ 45,715,306
2. Determination of Deferred Gain (Loss)

## Return on Assets

| Fiscal <br> Year | Return on Assets |  |  |  | Deferred <br> Amount |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Expected | Difference | \% Deferred ${ }^{\#}$ |  |
| 2009/2010 | \$ 6,100,499 | \$ 4,651,504 | \$ 1,448,995 | 90.00\% | \$ 1,304,096 |
| 2008/2009 | $(16,237,298)$ | 4,900,688 | ( $21,137,986$ ) | $71.11 \%$ | $(15,031,457)$ |
| 2007/2008 | $(1,816,980)$ | 4,728,472 | $(6,545,452)$ | 52.50\% | $(3,436,362)$ |
| 2006/2007 | 12,658,871 | 4,359,054 | 8,299,817 | 34.29\% | 2,845,652 |
| 2005/2006 | 7,901,068 | 4,242,878 | 3,658,190 | 16.67\% | 609,698 |

3. Actuarial Value of Assets (1) - (2)
\$ $(13,708,373)$
\$ 59,423,679
4. Actuarial Rate of Return ** 3.09\%

* The amounts reported include assets for both Pension and Health Insurance
** The actuarial rate of return is the investment return based on the change in the actuarial value of assets from the June 30 , 2009 valuation to the June 30,2010 valuation (prior to Act 120 method change).
\# The percentage amounts shown are rounded. The corresponding D eferred Amounts reflect the use of unrounded percentage amounts.


## TABLE 6

## ANALYSIS OF CHANGE IN UNFUNDED ACCRUED LIABILITY* <br> AS OF JUNE 30, 2010 <br> (\$ Amounts in Thousands)

| Item | Amount |  |
| :---: | :---: | :---: |
| 1. Unfunded Accrued Liability at June 30, 2009 | \$ | 15,739,161 |
| 2. Interest Credit to June 30,2010 | \$ | 1,287,104 |
| 3. Contributions Toward Unfunded Accrued Liability |  | $(479,578)$ |
| 4. Change due to Effect of $4 \%$ Floor on FY 2010 Pension Contribution |  | (47,726) |
| 5. Expected Unfunded Accrued Liability at June 30,2010 $(1)+(2)-(3)+(4)$ | \$ | 17,458,117 |
| 6. Actual Unfunded Accrued Liability at June 30,2010 | \$ | 19,698,580 |
| 7. Increase (Decrease) from Expected $(6)-(5)$ | \$ | 2,240,463 |
| 8. Reasons for Increase (Decrease) <br> (a) Experience Losses (Gains) |  |  |
| (i) Loss from Investment Return on Actuarial Value of Assets | \$ | 2,855,287 |
| (ii) Loss from New Entrants and Pickups |  | 247,891 |
| (iii) Loss from Salary Increases Greater than Expected |  | 42,030 |
| (iv) Loss from Mortality Experience |  | 386,286 |
| (v) Loss from Vested Termination Experience (Retirement/Disability/Termination) |  | 111,228 |
| (vi) Gain from Non-vested Termination Experience |  | $(239,456)$ |
| (vii) Loss from Data/Miscellaneous |  | 63,758 |
| Subtotal | \$ | 3,467,024 |
| (b) Act 120 Change in Asset Averaging Period | \$ | $(1,226,561)$ |
| (c) Grand Total | \$ | 2,240,463 |

[^5]
## TABLE 7

## SCHEDULE OF FUNDING PROGRESS FOR PENSIONS* GASB STATEMENT NO. 25 DISCLOSURE

(\$ Amounts 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 | Covered <br> Payroll | Unfunded <br> Accrued <br> Liability as a <br> Percentage of <br> Covered Payroll |
| :---: | :---: | ---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 2010 | $\$ 59,306,848$ | $\$ 79,005,428$ | $\$ 19,698,580$ | $75.1 \%$ | $\$ 12,788,847$ | $154.0 \%$ |
| 2009 | $59,781,575$ | $75,520,736$ | $15,739,161$ | 79.2 | $12,524,593$ | 125.7 |
| 2008 | $60,922,157$ | $70,845,637$ | $9,923,480$ | 86.0 | $11,921,469$ | 83.2 |
| 2007 | $57,057,838$ | $66,495,870$ | $9,438,032$ | 85.8 | $11,410,257$ | 82.7 |
| 2006 | $52,464,726$ | $64,627,361$ | $12,162,635$ | 81.2 | $11,419,049$ | 106.5 |
| 2005 | $51,122,156$ | $61,129,444$ | $10,007,288$ | 83.6 | $10,527,668$ | 95.1 |

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


## SCHEDULE OF FUNDING PROGRESS

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

| Valuation as of June 30 |  | Actuarial <br> Value of Assets |  | Actuarial <br> Accrued <br> Liability |  | Unfunded <br> Actuarial <br> Accrued <br> Liability | Funded Ratio |  | Covered Payroll | Unfunded <br> Accrued <br> Liability as a <br> Percentage of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | \$ | 116,831 | \$ | 1,162,219 | \$ | 1,045,388 | 10.1 \% | \$ | 12,788,847 | 8.2 \% |
| 2009 |  | 105,114 |  | 1,159,055 |  | 1,053,941 | 9.1 |  | 12,524,593 | 8.4 |
| 2008 |  | 95,785 |  | 1,133,011 |  | 1,037,226 | 8,5 |  | 11,921,469 | 8.7 |
| 2007 |  | 97,292 |  | 1,058,092 |  | 960,800 | 9.2 |  | 11,410,257 | 8.4 |
| 2006 |  | 92,777 |  | 1,056,154 |  | 963,377 | 8.8 |  | 11,419,049 | 8.4 |

[^6]
## TABLE 8a

SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR PENSIONS GASB STATEMENT NO. 25 DISCLOSURE
(\$ Amounts in Thousands)

| Fiscal <br> Year <br> Ended <br> June 30 | Annual <br> Required <br> Contribution | Actual <br> Employer <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
| 2010 | $\$$ | $1,928,278$ | $\$$ |
| 2009 | $1,761,295$ | 527,212 | 503,227 |
| 2008 | $1,852,238$ | 753,532 | $27 \%$ |
| 2007 | $1,708,821$ | 659,545 | 29 |
| 2006 | $1,328,373$ | 456,878 | 41 |
| 2005 | 945,107 | 431,556 | 39 |

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, 2010 was determined by the valuation completed as of June 30, 2008 which was based on an $8.25 \%$ interest rate).

Additional information as of the latest actuarial valuation follows:

Valuation Date:
Actuarial Cost Method:
Amortization Method:
Remaining Amortization Period:
Asset V aluation Method:

Actuarial Assumptions:

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

TABLE 8b

## SCHEDULE OF EMPLOYER CONTRIBUTIONS FOR POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS GASB STATEMENT NO. 43 DISCLOSURE

(\$ Amounts in Thousands)

| Fiscal <br> Year <br> Ended <br> June 30 | Annual <br> Required <br> Contribution | Actual <br> Employer <br> Contribution | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 2010 | $\$$ | 117,187 | $\$$ |
| 2009 | 109,531 | 92,403 | $88 \%$ |
| 2008 | 101,352 | 81,317 | 84 |
| 2007 | 94,970 | 86,763 | 80 |
|  |  |  | 91 |

The Annual Required Contribution (ARC) beginnning with the fiscal year ended June 30, 2009 was determined as part of the actuarial valuation as of two years prior to the date indicated (i.e., the ARC for the fiscal year ended June 30, 2010 was determined by the valuation completed as of June 30, 2008, which was based on an $8.25 \%$ 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: 6/30/2010

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\%


## ACTUARIAL SECTION

TABLE 9
SOLVENCY TEST
COMPARATIVE SUMMARY OF ACCRUED LIABILITY AND ACTUARIAL VALUE OF ASSETS
(\$ Amounts in Thousands)

PENSIONS

| Valuation as of June 30 | (1) <br> Active <br> Member Contributions | (2) <br> Retirees <br> and Beneficiaries | (3) <br> Active Member Employer Financed | Actuarial Value of Assets | Portion of Accrued Liability Covered by Valuation Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (1) | (2) | (3) |
| 2010 | \$ 11,850,031 | \$ 40,284,383 | \$ 26,871,014 | \$ 59,306,848 | $100 \%$ | 100\% | $27 \%$ |
| 2009 | 11,087,345 | 37,112,318 | 27,321,073 | 59,781,575 | 100 | 100 | 42 |
| 2008 | 10,532,683 | 34,617,953 | 25,695,001 | 60,922,157 | 100 | 100 | 61 |
| 2007 | 10,183,433 | 31,603,788 | 24,708,649 | 57,057,838 | 100 | 100 | 62 |
| 2006 | 9,571,668 | 29,117,164 | 25,938,529 | 52,464,726 | 100 | 100 | 53 |
| 2005 | 9,116,347 | 27,051,245 | 25,058,989 | 51,219,293 | 100 | 100 | 60 |

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

| Valuation as of | (1) <br> Active <br> Member Contributions | (2) <br> Retirees and Beneficiaries | (3) <br> Active Member Employer Financed | Actuarial Value of Assets |  | Portion of Accrued Liability Covered by V aluation Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30 |  |  |  |  |  | (1) | (2) | (3) |
| 2010 | \$ 0 | \$ 767,587 | \$ 394,632 | \$ | 116,831 | N/A | 15 \% | 0\% |
| 2009 | 0 | 759,891 | 399,164 |  | 105,114 | N/A | 14 | 0 |
| 2008 | 0 | 749,070 | 383,941 |  | 95,785 | N/A | 13 | 0 |
| 2007 | 0 | 684,677 | 373,415 |  | 97,292 | N/A | 14 | 0 |
| 2006 | 0 | 684,435 | 371,719 |  | 92,777 | N/A | 14 | 0 |

TABLE 10

## HISTORY AND PROJECTION OF CONTRIBUTION RATES AND FUNDED RATIOS ${ }^{1}$

| Fiscal Year Ending June | Appropriation Payroll (thousands) | Contribution Rates ${ }^{2}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Employee | Employer <br> Normal <br> Cost | Employer <br> Unfunded Liability | Preliminary <br> Employer Pension | Final Employer Pension | Employer Health Insurance | Total Employer | Funded <br> Ratio |
| 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 | 109 | 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 | 716 | 7.61 | (4.28) | 3.33 | 4.00 | 0.69 | 4.69 | 81.2 |
| $2007{ }^{6}$ | 11,821,951 | 721 | 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 | 75.1 |
| $2011{ }^{78}$ | 13,510,000 | 7.34 | 8.08 | (0,50) | 7.58 | 5.00 | 0.64 | 5.64 | 71.4 |
| $2012{ }^{9}$ | 14,112,000 | 7.37 | 8.12 | 10.15 | 18.27 | 8.00 | 0.65 | 8.65 | 68.0 |
| $2013{ }^{9}$ | 14,565,146 | 7.39 | 8.05 | 11.28 | 19.33 | 11.50 | 0.69 | 12.19 | 64.9 |
| $2014{ }^{9}$ | 15,031,927 | 7.40 | 7.72 | 12.98 | 20.70 | 16.00 | 0.69 | 16.69 | 62.5 |
| $2015{ }^{9}$ | 15,528,583 | 7.42 | 7.42 | 14.53 | 21.95 | 20.50 | 0.68 | 21,18 | 60.8 |
| 2016 | 16,058,316 | 7.43 | 7.14 | 15.86 | 23.00 | 23.00 | 0.66 | 23.66 | 59.3 |
| 2017 | 16,624,603 | 7.44 | 6.89 | 16.96 | 23.85 | 23.85 | 0.65 | 24.50 | 57.5 |
| 2018 | 17,226,433 | 7.45 | 6.65 | 17.99 | 24.64 | 24.64 | 0.63 | 25.27 | 56.3 |
| 2019 | 17,869,493 | 746 | 6.43 | 19.19 | 25.62 | 25.62 | 0.62 | 26.24 | 571 |
| 2020 | 18,555,740 | 747 | 6.21 | 20.15 | 26.36 | 26.36 | 0.60 | 26.96 | 58.0 |
| 2021 | 19,283,872 | 747 | 6.02 | 20.37 | 26.39 | 26.39 | 0.57 | 26.96 | 59.0 |
| 2022 | 20,054,674 | 7.47 | 5.84 | 20.62 | 26.46 | 26.46 | 0.57 | 27.03 | 60.3 |

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 Rate and the Employer Health Insurance Rate.
3. For fiscal years ending on or before June 30, 2002, there was no floor specified in the Retirement Code, but the Final Employer Pension Rate could not be less than $0 \%$, since money can only be removed from the trust for purposes allowed by the Retirement Code.
4. Act 2002-38 amended the Retirement Code to place a permanent $1 \%$ floor on the Employer Pension Rate, but also provided that the Total Employer Rate for the year ending June 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 Health Insurance Rate).
5. Act 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 June 30, 2005 were used to determine the contributions for the fiscal year ending June 30, 2007. Since the benefit changes under Act 2001-9 had not been in effect throughout the entire period covered by the study the Board decided, at its December 2005 meeting, to delay making any changes to the retirement rate assumptions until further data became available. The $5.72 \%$ Final Employer Pension Rate equals the $6.46 \%$ Total Employer Rate certified by the Board at that meeting, minus the $0.74 \%$ Employer Health Insurance Rate. The $5.67 \%$ Preliminary Employer Pension Rate equals the sum of the Employer Normal Cost and Unfunded Liability rates. The Normal Cost and Unfunded Liability rates were calculated by the actuary in January 2006, based on the package of assumptions adopted at the December 2005 meeting.
7. The Board at its January 2009 meeting adopted to reduce the interest rate from $8.50 \%$ to $8.25 \%$ for the June 30, 2008 valuation and to $8.00 \%$ thereafter.
8. Act 2010-46 recertified the fiscal year ending June 30, 2011 pension rate from $7.58 \%$ to $5.00 \%$.
9. The Final Employer Pension rate is limited by the Act 2010-120 pension rate collar.

## TABLE 11

## DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS

## ASSUMPTIONS

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. Actuarial 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 June 30, 2000):

| Age | Annual Rate of: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Vested Withdrawal* |  | Death | Disability | Early Retirement** | Superannuation Retirement |
|  | Non-Vested Withdrawal | Less Than 10 Years of Service | 10 or More Years of Service |  |  |  |  |
| MALES |  |  |  |  |  |  |  |
| 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 |
| FEMALES |  |  |  |  |  |  |  |
| 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.


## TABLE 11 continued

Death after Retirement: The Uninsured Pensioners 1994 Mortality 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. Buck Mortality Tables, rated forward one year for males and unadjusted for females, adopted in 2000, are used to determine actuarial equivalent benefits.)

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:

| Age | 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: Assumed equal to 2\% of contributions made during the year.

## METHODS

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

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

Actuarial Cost Method for Pension Funding: Entry Age Normal Cost Method (modified slightly as of June 30, 2005 to use a pay-weighted average normal contribution rate). The results of each June 30 valuation normally determine the employer contribution rate for the second succeeding fiscal year. Act 120 revised the funding method effective with the June 30, 2010 valuation. Act 120 mandated that the outstanding balance of the unfunded accrued liability as of June 30, 2010, including changes in the unfunded accrued liability due to the funding reforms of Act 120, be amortized over a 24 -year period, as a level percent of pay, beginning July 1, 2011. Future valuation gains and losses, and changes in the unfunded accrued liability resulting from changes in actuarial assumptions and methods, are amortized over a 24 -year period, as a level percent of pay. Future increases in the unfunded accrued liability due to legislation will be amortized over a 10-year period, as a level percent of pay. Act 120 also modified the employer pension contribution requirements by imposing collars on the rate at which employer contributions may rise from year to year. For the fiscal years ending June 30, 2012, June 30, 2013, and on or after June 30, 2014 the pension contribution rate can be no more than $3 \%$, $3.5 \%$ and $4.5 \%$, respectively, of total compensation of all active members, greater than the prior year's final contribution rate. Beginning with the fiscal year in which the actuarially required contribution rate is less than the collared rate, the final contribution rate is the actuarially determined contribution rate, provided that the final contribution rate is not less than the employer normal contribution rate.

## TABLE 11 continued

Actuarial Cost Method for GASB 25 Accounting for Pensions: Same as for pension funding, except that the GASB 25 amortization payment will be set equal to the level dollar amount that will amortize the unfunded accrued liability over a period of 30 years.

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

Actuarial Cost Method for GASB 43 Accounting for Health Insurance: The actuarial liability is determined under the entry age actuarial cost method, and the Annual Required Contribution (ARC) for the second fiscal year that follows the valuation date is equal to the entry age normal cost for health insurance plus an amount that will amortize the entry age unfunded actuarial liability for health insurance over a period of 30 years.

## DATA

Census and Assets: The valuation was based on members of the Retirement System as of June 30, 2010 and does not take into account future members. All census data was supplied by the Retirement System and was subject to reasonable consistency checks. The actuary adjusts the data to account for service and pay earned by members on or before the valuation that is not reported by the Retirement System until after the actuarial valuation is performed. Asset data was supplied by the Retirement System.

## TABLE 12

SUMMARY OF MEMBERSHIP DATA AS OF JUNE 30, 2010
(\$ Amounts in Thousands)

| Item | Male | Female | Total |
| :---: | ---: | ---: | ---: |
| Number of Members * | 76,992 | 205,049 | 282,041 |
| Annual Salaries ** | $\$$ | $3,908,918$ | $\$$ |
| Average Age *** | $8,879,929$ | $\$$ | $12,788,847$ |
| Average Service *** | 44.2 | 44.6 | 44.5 |

[^7]
## ANNUITANTS AND BENEFICIARIES

| Item | Number | Annual <br> Annuities | Average <br> Annuities | Average <br> Age |
| :--- | ---: | ---: | ---: | ---: |
| Annuitants <br> (Normal, Early and Withdrawal) <br> Survivors andBeneficiaries | 168,238 | $\$ 14,112,076$ | $\$$ | 24,442 |

\# The annuities shown in the table above represent the annual amount payable as of July 1,2010 for participants who were in payment on June 30, 2010.

TABLE 13
10 YEAR HISTORY OF MEMBERSHIP DATA

| Valuation as <br> of June 30 | Number of Active <br> Members | Percentage Change <br> in Membership | Total Annual <br> Payroll <br> (Thousands) | Percentage Change <br> in Payroll |
| :---: | :---: | :---: | :---: | :---: |
| 2010 | 282,041 | $0.84 \%$ | $\$ 12,788,847$ | $2.11 \%$ |
| 2009 | 279,701 | $2.57 \%$ | $12,524,593$ | $5.06 \%$ |
| 2008 | 272,690 | $3.28 \%$ | $11,921,469$ | $4.48 \%$ |
| 2007 | 264,023 | $0.26 \%$ | $11,410,257$ | $(0.08 \%)$ |
| 2006 | 263,350 | $3.09 \%$ | $11,419,049$ | $8.47 \%$ |
| 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 | $3.89 \%$ | $9,414,884$ | $5.32 \%$ |

TABLE 14

## 10 YEAR HISTORY OF MEMBERSHIP DATA

## THE NUMBER AND ANNUAL ANNUITIES OF ANNUITANT AND SURVIVOR ANNUITANT MEMBERS

$\left.$| Year <br> Ended <br> June 30 | Number | Annual <br> Annuities <br> (Millions) | Average <br> Annual <br> Annuities | Additions* | Annual <br> Annuities* <br> (Millions) | Deletions* | Annual <br> Annuities* <br> (Millions) | Percentage <br> Change in <br> Membership |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | | Percentage |
| :---: |
| Change in |
| Annuities | \right\rvert\,

[^8] payees may also occur due to finalization of benefit calculations and due to the commencement of supplemental anmuity payments


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## STATISTICAL



CENTRALEAST


## 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 June 30, 2011.

The Schedules of Total Changes in Pension Plan Net Assets and Total Changes in Postemployment Healthcare Plans Net Assets show the historical combined effects of the additions and deductions of the plans' net assets over the ten-year period ended June 30, 2011.

The graphs of Additions to Pension Plan Net Assets and Additions to Postemployment Healthcare Plans Net Assets provide visual details of the additions to the plans' net assets over the ten-year period ended June 30, 2011.

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, 2011.

## Revenue Capacity

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, 2011.

## 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, 2010.

The Schedule of Summary Annuity Data provides general populations and statistics relating to the System's annuitants over the ten-year period ended June 30, 2010.

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 June 30, 2011.

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 June 30, 2010.

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 service over the ten-year period ended June 30, 2010.

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, 2010.

## Operating Information

The list of Ten Largest Employers shows the System's ten largest employers based on number of PSERS members during FY 2011 and the Schedule of Employers provides the full list of PSERS' employers.

| For years ended June 30 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contribution Rates: |  |  |  |  |  |  |  |  |  |  |
| Total Pension \% | 5.00 | 4.00 | 4.00 | 6.44 | 5.72 | 4.00 | 4.00 | 2.98 | . 18 | 0.00 |
| Health Care Insurance Premium Assistance \% | . 64 | . 78 | . 76 | . 69 | . 74 | . 69 | . 23 | . 79 | . 97 | 1.09 |
| Total Employer \% | 5.64 | 4.78 | 4.76 | 7.13 | 6.46 | 4.69 | 4.23 | 3.77 | 1.15 | 1.09 |
| Average Member \% | 7.34 | 7.32 | 7.29 | 7.25 | 7.21 | 7.16 | 7.12 | 7.08 | 7.10 | 6.43 |
| Contributions: |  |  |  |  |  |  |  |  |  |  |
| Member - Pension \$ | 1,042,707 | 952,047 | 911,118 | 879,598 | 855,322 | 827,647 | 788,310 | 783,691 | 752,110 | 662,561 |
| Member - HOP \$ | 201,014 | 191,184 | 178,801 | 159,563 | 144,185 | 155,199 | 167,199 | 160,731 | 145,197 | 143,006 |
| Employer - Pension \$ | 658,511 | 535,331 | 515,889 | 753,532 | 659,545 | 456,878 | 431,556 | 321,091 | 20,831 | 539 |
| Employer - Health Care Insurance Premium Assistance \$ | 89,242 | 102,703 | 92,483 | 81,317 | 86,763 | 74,065 | 26,252 | 85,631 | 95,625 | 108,911 |
| CMS \$ | 32,080 | 33,901 | 31,556 | 28,426 | 27,789 | 13,941 | - | - | - |  |
| Average Annual Member Compensation \$ * | 46,247 | 45,344 | 44,779 | 43,718 | 43,217 | 43,361 | 41,210 | 40,463 | 39,128 | 38,658 |
| Market Value of Assets \$ | 51,311,000 | 45,715,000 | 43,101,000 | 62,569,000 | 67,438,000 | 57,328,000 | 52,033,534 | 48,484,506 | 42,446,826 | 43,576,553 |
| Actuarial Value of Assets \$ | \# | 59,424,000 | 59,887,000 | 61,018,000 | 57,155,000 | 52,558,000 | 51,219,300 | 52,094,500 | 52,900,500 | 54,296,400 |
| Accrued Actuarial Liability \$ | \# | 79,122,000 | 75,626,000 | 70,941,000 | 66,593,000 | 64,720,000 | 61,129,444 | 56,978,143 | 54,313,328 | 51,693,207 |
| Funded Ratio \% | \# | 75.1 | 79.2 | 86.0 | 85.8 | 81.2 | 83.7 | 91.2 | 97.2 | 104.8 |
| Total Benefits \& Refunds \$ | 5,617,247 | 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 |
| Average Pension \$ * | 23,895 | 23,466 | 22,456 | 21,963 | 20,970 | 20,236 | 19,343 | 18,464 | 17,469 | 15,899 |
| Annuitants \& Beneficiaries | 194,622 | 184,934 | 177,963 | 173,540 | 168,026 | 161,813 | 156,519 | 151,552 | 145,693 | 141,414 |
| Active Members | 279,152 | 282,041 | 279,701 | 272,690 | 264,023 | 263,350 | 255,465 | 247,901 | 246,700 | 242,616 |

Schedule of Total Changes in Pension Plan Net Assets
10 Year Trend
(Dollar Amounts in Thousands)

| Additions to Plan Net Assets |  |  |  |  |  |  |  |  | Deductions from Plan Net Assets |  |  |  |  |  |  |  | Net Increase / (Decrease) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended June 30 |  | Member ntributions | Employer Contributions |  | Net Investment Income |  |  | Total Additions | Monthly Benefits |  | Lump-Sum and Installment | Refunds of Contributions | Administrative* |  | $\begin{gathered} \text { Net } \\ \text { Transfers** } \end{gathered}$ | Total Deductions |  |  |
| 2011 | \$ | 1,042,707 | \$ | 658,511 | \$ | 9,246,091 | \$ | 10,947,309 | \$ | 4,322,520 | \$ 958,703 | \$ 17,695 | \$ | 37,028 | \$ 9,844 | \$ 5,345,790 |  | 5,601,519 |
| 2010 |  | 952,047 |  | 535,331 |  | 6,113,679 |  | 7,601,057 |  | 4,095,334 | 866,888 | 16,720 |  | 12,105 | 7,015 | 4,998,062 |  | 2,602,995 |
| 2009 |  | 911,118 |  | 515,889 |  | $(16,201,701)$ |  | (14,774,694) |  | 3,885,286 | 754,011 | 20,369 |  | 35,639 | 7,947 | 4,703,252 |  | $(19,477,946)$ |
| 2008 |  | 879,598 |  | 753,532 |  | $(1,782,628)$ |  | $(149,498)$ |  | 3,623,652 | 1,012,688 | 28,713 |  | 35,863 | 17,157 | 4,718,073 |  | $(4,867,571)$ |
| 2007 |  | 855,322 |  | 659,545 |  | 12,694,327 |  | 14,209,194 |  | 3,189,004 | 855,431 | 18,180 |  | 35,239 | 6,010 | 4,103,864 |  | 10,105,330 |
| 2006 |  | 827,647 |  | 456,878 |  | 7,935,586 |  | 9,220,111 |  | 3,030,297 | 830,361 | 16,330 |  | 35,391 | 8,462 | 3,920,841 |  | 5,299,270 |
| 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 |  | $(4,623,706)$ |

[^9]
## STATISTICAL SECTION

## Additions to Pension Plan Net Assets

10 Year Trend
(Dollar Amounts in Billions)


Deductions from Pension Plan Net Assets
10 Year Trend
(Dollar Amounts in Billions)

Schedule of Total Changes in Postemployment Healthcare Plans Net Assets
10 Year Trend

| Additions to Plan Net Assets |  |  |  | Deductions from Plan Net Assets |  |  | Net Increase / (Decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Year Ended } \\ \text { June } 30 \end{gathered}$ | Employer Contributions | Net Investment Income | Total Additions | Benefits | Administrative | Total Deductions |  |
| 2011 | \$ 89,242 | \$ 691 | \$ 89,933 | \$ 93,518 | \$ 1,988 | \$ 95,506 | \$ $(5,573)$ |
| 2010 | 102,703 | 869 | 103,572 | 89,911 | 1,944 | 91,855 | 11,717 |
| 2009 | 92,493 | 1,861 | 94,354 | 83,206 | 1,819 | 85,025 | 9,329 |
| 2008 | 81,317 | 2,755 | 84,072 | 84,335 | 1,244 | 85,579 | $(1,507)$ |
| 2007 | 86,763 | 2,573 | 89,336 | 82,031 | 2,790 | 84,821 | 4,515 |
| 2006 | 74,065 | 2,850 | 76,915 | 79,298 | 1,977 | 81,275 | $(4,360)$ |
| 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 |

Health Options Program

| Additions to Plan Net Assets |  |  |  |  |  | Deductions from Plan Net Assets |  |  | Net Increase / <br> (Decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended June 30 | Member Contributions | CMS Contributions | Net Investment Income |  | al | Benefits | Administrative | Total Deductions |  |
| 2011 | \$ 201,014 | \$ 32,080 | \$ 310 | \$ | 233,404 | \$ 214,967 | \$ 18,729 | \$ 233,696 | \$ (292) |
| 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 |

## STATISTICAL SECTION

## Additions to Postemployment Healthcare Plans Net Assets

## 10 Year Trend

(Dollar Amounts in Millions)
Premium Assistance


Health Options Program


## STATISTICAL SECTION

## Deductions from Postemployment Healthcare Plans Net Assets

## 10 Year Trend

(Dollar Amounts in Millions)
Premium Assistance


Health Options Program

Schedule of Pension Investment Income

| For years ended June 30 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Income: |  |  |  |  |  |  |  |  |  |  |
| From investing activities: |  |  |  |  |  |  |  |  |  |  |
| Net appreciation (depreciation) in fair value of investments | \$8,494,530 | \$ 5,561,419 | \$(17,007,821) | \$ $(3,763,649)$ | \$ 10,457,473 | \$5,969,223 | \$4,463,930 | \$ 6,874,420 | \$ ( 170,101 ) | \$ $3,776,589)$ |
| Investment Income | 1,258,961 | 1,066,017 | 1,310,460 | 2,331,266 | 2,524,655 | 2,154,654 | 1,789,078 | 1,544,159 | 1,354,835 | 1,397,457 |
| Total investment activity income (loss) | 9,753,491 | 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) |
| Investment expenses | $(514,647)$ | $(522,268)$ | (477,520) | $(399,098)$ | (313,726) | $(211,247)$ | $(192,629)$ | $(191,267)$ | $(179,033)$ | (162,755) |
| Net income (loss) from investing activities | 9,238,844 | 6,105,168 | (16,174,881) | $(1,831,481)$ | 12,668,402 | 7,912,630 | 6,060,379 | 8,227,312 | 1,005,701 | $(2,541,887)$ |
| From securities lending activities: |  |  |  |  |  |  |  |  |  |  |
| Securities lending income | 8,251 | 9,574 | 55,574 | 319,107 | 419,762 | 270,447 | 125,882 | 46,075 | 43,870 | 57,391 |
| Securities lending expense | $(1,004)$ | $(1,063)$ | $(82,394)$ | $(270,254)$ | $(393,837)$ | $(247,491)$ | $(109,779)$ | $(31,379)$ | (28,838) | $(41,137)$ |
| Net income (loss) from securities lending activities | 7,247 | 8,511 | $(26,820)$ | 48,853 | 25,925 | 22,956 | 16,103 | 14,696 | 15,032 | 16,254 |
| Total net investment income (loss) | \$9,246,091 | \$6,113,679 | \$(16,201,701) | \$ (1,782,628) | \$12,694,327 | \$7,935,586 | \$ 6,076,482 | \$ 8,242,008 | \$ 1,020,733 | \$ $2,525,633$ ) |

Schedule of Premium Assistance Investment Income
(Dollar Amounts in Thousands)

| For years ended June 30 | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |  | 2006 |  | 2005 |  | 2004 |  | 2003 |  | 2002 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment Income: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| From investing activities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net appreciation (depreciation) in fair value of investments | \$ | $(1,324)$ | \$ | $(1,039)$ | \$ | (363) | \$ | 268 | \$ | 88 | \$ | (480) | \$ | $(2,218)$ | \$ | $(3,003)$ |  | $(2,405)$ | \$ | (564) |
| Investment Income |  | 2,063 |  | 1,955 |  | 2,269 |  | 2,525 |  | 2,517 |  | 3,362 |  | 4,635 |  | 4,627 |  | 3,566 |  | 2,159 |
| Total investment activity income |  | 739 |  | 916 |  | 1,906 |  | 2,793 |  | 2,605 |  | 2,882 |  | 2,417 |  | 1,624 |  | 1,161 |  | 1,595 |
| Investment expenses |  | (48) |  | (47) |  | (45) |  | (38) |  | (32) |  | (32) |  | (48) |  | (33) |  | (23) |  | (22) |
| Total net investment income | \$ | 691 | \$ | 869 | \$ | 1,861 | \$ | 2,755 | \$ | 2,573 | \$ | 2,850 | \$ | 2,369 | \$ | 1,591 | \$ | 1,138 | \$ | 1,573 |

Schedule of Health Options Program Investment Income


## Schedule of Summary Membership Data

10 Year Trend *

| For year ended June 30 | Male |  |  |  | Female |  |  | Total <br> Number of Active Members |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Age | Average Service |  | verage <br> Annual <br> laries | Average Age | Average Service | Average <br> Annual <br> Salaries |  |
| 2010 | 44.2 | 10.9 | \$ | 50,770 | 44.6 | 10.3 | \$ 43,306 | 282,041 |
| 2009 | 44.4 | 11.2 |  | 50,613 | 44.7 | 10.3 | 42,606 | 279,701 |
| 2008 | 44.5 | 11.4 |  | 49,818 | 44.7 | 10.4 | 41,440 | 272,690 |
| 2007 | 44.5 | 11.7 |  | 49,220 | 44.7 | 10.5 | 40,958 | 264,023 |
| 2006 | 44.6 | 12.0 |  | 49,153 | 44.7 | 10.7 | 41,155 | 263,350 |
| 2005 | 44.9 | 12.6 |  | 47,416 | 45.0 | 11.0 | 38,832 | 255,465 |
| 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 |

* Actuarial Valuation for year ended June 30, 2010 is most current valuation completed at publication date.


## Schedule of Summary Annuity Data 10 Year Trend *

| For year ended June 30 | Number of Annuitants \& Beneficiaries |  | Total <br> Annual Annuities** | Average <br> Annual <br> Annuity |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 184,934 | \$ | 4,339,639 | \$ | 23,466 |
| 2009 | 177,963 |  | 3,996,000 |  | 22,456 |
| 2008 | 173,540 |  | 3,812,000 |  | 21,963 |
| 2007 | 168,026 |  | 3,523,000 |  | 20,970 |
| 2006 | 161,813 |  | 3,274,000 |  | 20,236 |
| 2005 | 156,519 |  | 3,027,550 |  | 19,343 |
| 2004 | 151,552 |  | 2,798,211 |  | 18,464 |
| 2003 | 145,693 |  | 2,545,135 |  | 17,469 |
| 2002 | 141,414 |  | 2,248,291 |  | 15,899 |
| 2001 | 132,716 |  | 1,871,995 |  | 14,105 |

[^10]

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

|  | Years of Credited Service |  |  |  |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | < 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 |  | 40+ |  |  |
| Fiscal year ended June 30, 2010 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 4,695 | 11,529 | 20,812 | 17,777 | 17,356 | 19,973 | 40,625 | 30,716 |  | 4,755 |  | 168,238 |
|  | \$ 1,023 | \$ 349 | \$ 287 | \$ 613 | \$ 1,093 | \$ 1,839 | \$ 3,004 | \$ 3,933 |  | 3,896 |  | 2,037 |
| Disability | - | 1,633 | 1,761 | 1,453 | 1,352 | 1,227 | 517 | 18 |  | 11 |  | 7,972 |
|  | \$ - | \$ 694 | \$ 819 | \$ 1,098 | \$ 1,654 | \$ 2,513 | \$ 3,475 | \$ 2,563 |  | 1,958 |  | 1,424 |
| Beneficiary and Survivor | - | 2,604 | 772 | 735 | 755 | 773 | 1,192 | 1,280 |  | 613 |  | 8,724 |
|  | \$ - | \$1,008 | \$ 217 | \$ 336 | \$ 525 | \$ 770 | \$ 1,075 | \$ 1,200 |  | 1,241 | \$ | 872 |
| Fiscal year ended June 30, 2009 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 4,395 | 10,474 | 20,503 | 17,544 | 17,134 | 19,821 | 39,700 | 28,187 |  | 4,448 |  | 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 June 30, 2008 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal 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 June 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 |
| Beneficiary 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 June 30, 2006 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal 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 |

** Actuarial valuation for year ended June 30, 2010 is the most current valuation completed at the publication date.

# STATISTICAL SECTION 

Schedule of Average Monthly Pension Benefit Payments Grouped by Years of Credited Service

10 Year Trend (Continued)

|  | Years of Credited Service |  |  |  |  |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | < 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 |  | 40+ |  |  |
| Fiscal year ended June 30, 2005 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal and Early | 2,654 | 7,117 | 20,423 | 17,022 | 15,827 | 17,732 | 33,402 | 21,971 |  | 5,615 |  | 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 |
| Fiscal year ended June 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 June 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 June 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 |
| Beneficiary 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 June 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 |

## Schedule of Average Monthly 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 June 30, 2010 |  |  |  |  |  |  |  |  |  |
| Number of retired members | 312 | 1,294 | 989 | 826 | 947 | 1,035 | 1,992 | 1,731 | 218 |
| Final Average Salary | \$21,528 | \$28,957 | \$34,500 | \$42,207 | \$52,104 | \$63,290 | \$72,258 | \$79,239 | \$80,405 |
| Monthly Benefit | \$ 312 | \$ 269 | \$ 634 | \$ 1,140 | \$ 1,906 | \$ 2,833 | \$ 3,979 | \$ 4,963 | \$ 5,550 |
| Fiscal year ended June 30, 2009 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 259 | 1,213 | 857 | 753 | 835 | 902 | 1,959 | 1,757 | 165 |
| Final Average Salary | \$18,802 | \$27,718 | \$31,600 | \$39,456 | \$48,973 | \$61,459 | \$71,256 | \$76,947 | \$77,351 |
| Monthly Benefit | \$ 106 | \$ 230 | \$ 556 | \$ 1,063 | \$ 1,726 | \$ 2,764 | \$ 3,915 | \$ 4,834 | \$ 5,343 |
| Fiscal year ended June 30, 2008 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 253 | 1,304 | 903 | 857 | 798 | 1,038 | 2,318 | 1,936 | 139 |
| Final Average Salary | \$18,146 | \$26,404 | \$31,479 | \$38,271 | \$47,220 | \$57,595 | \$70,232 | \$75,942 | \$75,041 |
| Monthly Benefit | \$ 104 | \$ 210 | \$ 556 | \$ 1,010 | \$ 1,647 | \$ 2,551 | \$ 3,863 | \$ 4,775 | \$ 5,164 |
| Fiscal year ended June 30, 2007 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 274 | 1,348 | 920 | 884 | 836 | 1,163 | 2,702 | 2,105 | 142 |
| Final Average Salary | \$17,233 | \$26,678 | \$29,390 | \$38,155 | \$45,934 | \$56,810 | \$68,962 | \$73,165 | \$77,381 |
| Monthly Benefit | \$ 85 | \$ 231 | \$ 502 | \$ 1,011 | \$ 1,591 | \$ 2,534 | \$ 3,800 | \$ 4,604 | \$ 5,421 |
| Fiscal year ended June 30, 2006 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 256 | 1,184 | 816 | 889 | 788 | 1,063 | 2,654 | 1,908 | 132 |
| Final Average Salary | \$16,172 | \$25,512 | \$28,360 | \$35,156 | \$43,902 | \$54,791 | \$66,976 | \$72,236 | \$75,847 |
| Monthly Benefit | \$ 88 | \$ 222 | \$ 475 | \$ 947 | \$ 1,536 | \$ 2,467 | \$ 3,725 | \$ 4,571 | \$ 5,255 |
| Fiscal year ended June 30, 2005 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 199 | 931 | 770 | 867 | 711 | 1,121 | 2,903 | 2,234 | 166 |
| Final Average Salary | \$16,899 | \$24,980 | \$28,573 | \$35,081 | \$42,144 | \$53,664 | \$66,212 | \$70,328 | \$73,362 |
| Monthly Benefit | \$ 85 | \$ 232 | \$ 519 | \$ 938 | \$ 1,488 | \$ 2,436 | \$ 3,684 | \$ 4,454 | \$ 5,096 |
| Fiscal year ended June 30, 2004 |  |  |  |  |  |  |  |  |  |
| Number of retired members: | 171 | 804 | 753 | 736 | 702 | 989 | 2,647 | 1,849 | 141 |
| Final Average Salary | \$15,913 | \$22,502 | \$27,392 | \$33,361 | \$40,589 | \$52,181 | \$62,708 | \$68,374 | \$69,609 |
| Monthly Benefit | \$ 79 | \$ 229 | \$ 505 | \$ 861 | \$ 1,503 | \$ 2,376 | \$ 3,480 | \$ 4,339 | \$ 4,916 |
| Fiscal year ended June 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 |
| Monthly Benefit | \$ 69 | \$ 250 | \$ 458 | \$ 865 | \$ 1,368 | \$ 2,279 | \$ 3,484 | \$ 4,266 | \$ 4,704 |
| Fiscal year ended June 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 |
| Monthly Benefit | \$ 68 | \$ 215 | \$ 436 | \$ 835 | \$ 1,370 | \$ 2,291 | \$ 3,302 | \$ 4,181 | \$ 4,488 |
| Fiscal year ended June 30, 2001 |  |  |  |  |  |  |  |  |  |
| 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 |
| Monthly Benefit | \$ 66 | \$ 335 | \$ 346 | \$ 595 | \$ 1,053 | \$ 1,579 | \$ 2,338 | \$ 3,500 | \$ 3,994 |

[^11]
## STATISTICAL SECTION

## Schedule of Average Monthly Premium Assistance 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 June 30, 2010 |  |  |  |  |  |  |  |  |  |
| Number of retired members |  | 20 | 21 | 227 | 381 | 597 | 1,371 | 1,253 | 165 |
| Final Average Salary |  | \$36,052 | \$48,277 | \$45,245 | \$55,323 | \$65,244 | \$73,207 | \$80,413 | \$80,328 |
| Monthly Benefit |  | \$ 100 | \$ 100 | \$ 98 | \$ 98 | \$ 98 | \$ 97 | \$ 97 | \$ 100 |
| Fiscal year ended June 30, 2009 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 33 | 202 | 353 | 555 | 1,324 | 1,273 | 129 |
| Final Average Salary |  | \$30,120 | \$44,926 | \$44,889 | \$49,416 | \$62,449 | \$72,314 | \$76,742 | \$79,676 |
| Monthly Benefit |  | \$ 100 | \$ 96 | \$ 99 | \$ 98 | \$ 97 | \$ 95 | \$ 96 | \$ 97 |
| Fiscal year ended June 30, 2008 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 36 | 242 | 336 | 609 | 1,686 | 1,435 | 114 |
| Final Average Salary |  | \$31,419 | \$41,391 | \$41,714 | \$49,709 | \$59,708 | \$70,486 | \$75,903 | \$72,718 |
| Monthly Benefit |  | \$ 97 | \$ 100 | \$ 99 | \$ 99 | \$ 97 | \$ 95 | \$ 95 | \$ 96 |
| Fiscal year ended June 30, 2007 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 29 | 36 | 271 | 370 | 741 | 1,986 | 1,609 | 101 |
| Final Average Salary |  | \$36,165 | \$39,981 | \$37,907 | \$46,781 | \$59,682 | \$69,722 | \$73,808 | \$78,288 |
| Monthly Benefit |  | \$ 9 | \$ 99 | \$ 98 | \$ 99 | \$ 96 | \$ 93 | \$ 93 | \$ 98 |
| Fiscal year ended June 30, 2006 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 35 | 29 | 288 | 343 | 713 | 1,931 | 1,491 | 113 |
| Final Average Salary |  | \$27,700 | \$40,994 | \$37,316 | \$43,608 | \$56,647 | \$68,662 | \$72,726 | \$74,851 |
| Monthly Benefit |  | \$ 97 | \$ 100 | \$ 97 | \$ 98 | \$ 98 | \$ 93 | \$ 92 | \$ 92 |
| Fiscal year ended June 30, 2005 |  |  |  |  |  |  |  |  |  |
| Number of retired members: |  | 32 | 42 | 265 | 297 | 751 | 2,143 | 1,759 | 136 |
| Final Average Salary |  | \$31,231 | \$32,470 | \$37,651 | \$41,099 | \$56,000 | \$68,328 | \$71,690 | \$74,802 |
| Monthly Benefit |  | \$ 78 | \$ 99 | \$ 100 | \$ 97 | \$ 94 | \$ 89 | \$ 87 | \$ 94 |
| Fiscal year ended June 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 |
| Monthly Benefit |  | \$ 99 | \$ 98 | \$ 100 | \$ 100 | \$ 96 | \$ 95 | \$ 93 | \$ 96 |
| Fiscal year ended June 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 |
| Monthly Benefit |  | \$ 99 | \$ 100 | \$ 96 | \$ 100 | \$ 99 | \$ 95 | \$ 94 | \$ 97 |
| Fiscal year ended June 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 |
| Monthly Benefit |  | \$ 99 | \$ 100 | \$ 100 | \$ 100 | \$ 100 | \$ 96 | \$ 97 | \$ 100 |
| Fiscal year ended June 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 |
| Monthly Benefit |  | \$ 100 | \$ 100 | \$ 99 | \$ 96 | \$ 100 | \$ 97 | \$ 100 | \$ 100 |

[^12]
# STATISTICAL SECTION 

## Ten Largest Employers * <br> As of June 30, 2011

(Based on number of reported members)

|  | Employer | Number of Reported <br> Members | Percentage of <br> Total |
| ---: | :--- | ---: | :--- |
| 1. | Philadelphia City School District |  |  |
| 2. | Pittsburgh School District | 21,256 | $7.63 \%$ |
| 3. | Central Bucks School District | 4,375 | $1.57 \%$ |
| 4. | Allentown City School District | 2,725 | $0.98 \%$ |
| 5. | North Penn School District | 2,646 | $0.95 \%$ |
| 6. | Reading School District | 2,149 | $0.77 \%$ |
| 7. | Erie City School District | 2,130 | $0.76 \%$ |
| 8. | Pocono Mountain School District | 1,919 | $0.69 \%$ |
| 9. | Bethlehem Area School District | 1,905 | $0.68 \%$ |
| 10. | Upper Darby School District | 1,854 | $0.67 \%$ |
|  |  | 1,708 | $0.61 \%$ |

[^13]
## STATISTICAL SECTION

## Schedule of Employers

School Districts

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

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

C
California Area
Cambria Heights
Cameron County
Camp Hill
Canon-McMillan
Canton Area
Carbondale Area
Carlisle Area
Carlynton
Carmichaels Area
Catasauqua Area
Centennial
Central Bucks
Central Cambria
Central Columbia
Central Dauphin
Central Fulton
Central Greene
Central Valley
Central York
Chambersburg Area
Charleroi Area
Chartiers Houston
Chartiers Valley
Cheltenham Township
Chester-Upland
Chestnut Ridge
Chichester
Clairton City
Clarion Area
Clarion-Limeston Area
Claysburg-Kimmel
Clearfield Area
Coatesville Area
Cocalico
Colonial
Columbia Borough
Commodore Perry
Conemaugh Township Area
Conemaugh Valley
Conestoga Valley
Conewago Valley
Conneaut
Connellsville Area
Conrad Weiser Area
Cornell
Cornwall-Lebanon
Corry Area
Coudersport Area
Council Rock
Cranberry Area
Crawford Central
Crestwood
Cumberland Valley
Curwensville Area

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

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

F
Fairfield Area
Fairview
Fannett Metal
Farrell Area
Ferndale Area
Fleetwood Area
Forbes Road
Forest Area
Forest City Regional
Forest Hills
Fort Cherry
Fort LeBoeuf
Fox Chapel Area
Franklin Area
Franklin Regional
Frazier
Freedom Area
Freeport Area

## Schedule of Employers (Continued)

| G | K | Milton Area |
| :---: | :---: | :---: |
| Galeton Area | Kane Area | Minersville Area |
| Garnet Valley | Karns City Area | Mohawk Area |
| Gateway | Kennett Consolidated | Monessen |
| General McLane | Keystone | Moniteau |
| Gettysburg Area | Keystone Central | Montgomery Area |
| Girard | Keystone Oaks | Montour |
| Glendale | Kiski Area | Montoursville Area |
| Governor Mifflin | Kutztown Area | Montrose Area |
| Great Valley |  | Moon Area |
| Greater Johnstown | L | Morrisville Borough |
| Greater Latrobe | Lackawana Trail | Moshannon Valley |
| Greater Nanticoke Area | Lakeland | Mount Carmel Area |
| Greencastle-Antrim | Lake-Lehman | Mount Pleasant Area |
| Greensburg Salem | Lakeview | Mount Union Area |
| Greenville Area | Lampeter-Strasburg | Mountain View |
| Greenwood | Lancaster | Mt. Lebanon |
| Grove City Area | Laurel | Muhlenberg |
|  | Laurel Highlands | Muncy |
| H | Lebanon |  |
| Halifax Area | Leechburg Area | N |
| Hamburg Area | Lehighton Area | Nazareth |
| Hampton Township | Lewisburg Area | Neshaminy |
| Hanover Area | Ligonier Valley | Neshannock Township |
| Hanover Public | Line Mountain | New Brighton Area |
| Harbor Creek | Littlestown Area | New Castle Area |
| Harmony Area | Lower Dauphin | New Hope-Solebury |
| Harrisburg City | Lower Merion | New Kensington-Arnold |
| Hatboro-Horsham | Lower Moreland Township | Newport |
| Haverford Township | Loyalsock Township | Norristown Area |
| Hazelton Area |  | North Allegheny |
| Hempfield | M | North Clarion County |
| Hempfield Area | Mahanoy Area | North East |
| Hermitage | Manheim Central | North Hills |
| Highlands | Manheim Township | North Penn |
| Hollidaysburg Area | Marion Center Area | North Pocono |
| Homer-Center | Marple Newtown | North Schuykill |
| Hopewell Area | Mars Area | North Star |
| Huntingdon Area | McGuffey | Northampton Area |
|  | McKeesport Area | Northeast Bradford |
| I | Mechanicsburg Area | Northeastern York |
| Indiana Area | Mercer Area | Northern Bedford County |
| Interboro | Methacton | Northern Cambria |
| Iroquois | Meyersdale Area | Northern Lebanon |
|  | Mid Valley | Northern Lehigh |
| J | Middletown Area | Northern Potter |
| Jamestown Area | Midd-West | Northern Tioga |
| Jeannette City | Midland Borough Mifflin County | Northern York County Northgate |
| Jefferson-Morgan | Mifflinburg Area | Northwest Area |
| Jenkintown | Millcreek Township | Northwestern |
| Jersey Shore Area | Millersburg Area | Northwestern Lehigh |
| Johnsonburg Area | Millville Area | Norwin |
| Juniata County |  |  |
| Juniata Valley |  |  |

## Schedule of Employers (Continued)

| O | R |
| :---: | :---: |
| Octorara Area | Radnor Township |
| Oil City Area | Reading |
| Old Forge | Red Lion Area |
| Oley Valley | Redbank Valley |
| Oswayo Valley | Reynolds |
| Otto-Eldred | Richland |
| Owen J. Roberts | Ridgway Area |
| Oxford Area | Ridley |
|  | Ringgold |
| P | Riverside |
| $\mathrm{P}^{\text {Palisades }}$ | Riverside Beaver County |
| Palisades | Riverview |
| Palmerton Area | Rochester Area |
| Palmyra Area | Rockwood Area |
| Panther Valley | Rose Tree Media |
| Parkland |  |
| Pen Argyl Area | S |
| Penn Cambria | S |
| Penn Hills | Saint Clair Area |
| Penn Manor | Saint Marys Area |
| Penncrest | Salisbury Township |
| Penn-Delco | Salisbury-Elk Lick |
| Pennridge | Saucon Valley |
| Penns Manor | Sayre Area |
| Penns Valley Area | Schuylkill Haven Area |
| Pennsbury | Schuylkill Valley |
| Penn-Trafford | Scranton |
| Pequea Valley | Selinsgrove Area |
| Perkiomen Valley | Seneca Valley |
| Peters Township | Shade Central City |
| Philadelphia City | Shaler Area |
| Philipsburg-Osceola Area | Shamokin Area |
| Phoenixville Area | Shanksville-Stoneycreek |
| Pine Grove Area | Sharon City |
| Pine-Richland | Sharpsville Area |
| Pittsburgh | Shenandoah Valley |
| Pittston Area | Shenango Area |
| Pleasant Valley | Shikellamy |
| Plum Borough | Shippensburg Area |
| Pocono Mountain | Slippery Rock Area |
| Port Allegany | Smethport Area |
| Portage Area | Solanco |
| Pottsgrove | Somerset Area |
| Pottstown | Souderton Area |
| Pottsville Area | South Allegheny |
| Punxsutawney Area | South Butler County |
| Purchase Line | South Eastern |
|  | South Fayette Township |
|  | South Middleton |
| Q | South Park |
| Quaker Valley | South Side Area |
| Quakertown Community | South Western |
|  | South Williamsport Area |
|  | Southeast Delco |
|  | Southeastern Greene |
|  | Southern Columbia Area |
|  | Southern Fulton |

Southern Huntingdon County
Southern Lehigh
Southern Tioga
Southern York County
Southmoreland
Spring Cove
Spring Grove Area
Springfield
Springfield Township
Spring-Ford Area
State College Area
Steel Valley
Steelton-Highspire
Sto-Rox
Stroudsburg Area
Sullivan County
Susquehanna Community
Susquehanna Township
Susquenita
T
Tamaqua Area
Titusville Area
Towanda Area
Tredyffrin-Easttown
Trinity Area
Tri-Valley
Troy Area
Tulpehocken Area
Tunkhannock Area
Turkeyfoot Valley Area
Tuscarora
Tussey Mountain
Twin Valley
Tyrone Area
U
Union
Union Area
Union City Area
Uniontown Area
Unionville-Chadds Ford
United
Upper Adams
Upper Darby
Upper Dauphin Area
Upper Dublin
Upper Merion Area
Upper Moreland Township
Upper Perkiomen
Upper Saint Clair

Schedule of Employers (Continued)


## Area Vocational Technical Schools

| A. W. Beattie Career Center | Greater Johnstown AVTS |
| :--- | :--- |
| Admiral Peary AVTS | Green County CTC |
| Beaver County AVTS | Huntingdon County CTC |
| Bedford County Technical Center | Indiana County Technology Center |
| Berks CTC | Jefferson County-DuBois AVTS |
| Bethlehem AVTS | Lancaster County CTC |
| Bucks CountyTechnical High School | Lawrence County CTC |
| Butler County AVTS | Lebanon County CTC |
| Carbon Career \& Technical Institute | Lehigh Career \& Technical Institute |
| Career Institute of Technology | Lenape Tech |
| Center for Technical Studies of | Lycoming CTC |
| $\quad$ Montgomery County | Mercer County Career Center |
| Central PA Institute of Science \& Technology | Middle Bucks Institute of Technology |
| Central Westmoreland CTC | Mifflin-Juniata CTC |
| Clarion County Career Center | Mon Valley CTC |
| Clearfield County CTC | Monroe Career \& Tech Institute |
| Columbia-Montour AVTS | North Fayette County AVTS |
| Crawford County CTC | North Montco Technical Career Center |
| CTC of Lackawanna County | Northern Tier Career Center |
| Cumberland-Perry AVTS | Northern Westmoreland CTC |
| Dauphin County Technical School | Northumberland County AVTS |
| Delaware County AVTS | Parkway West CTC |
| Eastern Center for Arts \& Technology | Reading-Muhlenberg CTC |
| Eastern Westmoreland CTC | Schuykill Technology Center |
| Erie County Technical School | Somerset County Technology Center |
| Fayette County AVTS | Steel Center AVTS |
| Forbes Road CTC | SUN Area CTC |
| Franklin County CTC | Susquehanna County CTC |
| Fulton County AVTS |  |
| Greater Altoona CTC |  |

A. W. Beattie Career Center

Admiral Peary AVTS
Beaver County AVTS
Bedford County Technical Center

Bethlehem AVTS
Bucks CountyTechnical High School
Butler County AVTS
stitute
Career Institute of Technology

Central PA Institute of Science \& Technology
Central Westmoreland CTC
Clarion County Career Center
arfield County CTC

Crawford County CTC
CTC of Lackawanna County

Dauphin County Technical School
Delaware County AVTS
Eastern Center for Arts \& Technology
Easten Westmoreland CTC

For
Franklin County CTC

Greater Altoona CTC

Greater Johnstown AVTS
Green County CTC
Huntingdon County CTC
Intiana County Technology Center

Lancaster County CTC
Lawrence County CTC
Lebanon County CTC
Lenape Tech
Lycoming CTC
ercer County Career Center

Mifflin-Juniata CTC
Mon Valley CTC
Monroe Career \& Tech Institute
North Fayette County AVTS
North Montco Technical Career Center
Northern Tier Career Center

Northumberland County AVTS
Parkway West CTC
Reading-Muhlenberg CTC

Somerset County Technology Center
Steel Center AVTS

Susquehanna County CTC

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

## Schedule of Employers (Continued)

Allegheny \#3
Appalachia \#8
Arin \#28
Beaver Valley \#27
Berks County \#14
Blast \#17
Bucks County \#22
Capital Area \#15
Carbon-Lehigh \#21
Central \#10
Central Susquehanna \#16
Chester County \#24
Colonial \#20
Delaware County \#25

## Intermediate Units

Intermediate Unit \#1
Lancaster-Lebanon \#13
Lincoln \#12
Luzerne \#18
Midwestern \#4
Montgomery County \#23
Northeastern Educational \#19
Northwest Tri-County \#5
Pittsburgh-Mt. Oliver \#2
Riverview \#6
Schuylkill \#29
Seneca Highlands \#9
Tuscarora \#11
Westmoreland \#7

Bloomsburg University
Bucks County Community College
Butler County Community College
California University
Cheyney University
Clarion University of Pennsylvania
Community College of Allegheny County
Community College of Beaver County
Community College of Philadelphia
Delaware County Community College
East Stroudsburg University
Edinboro University
Education Resource
Harrisburg Area Community College
Indiana University
Kutztown University

## Colleges / Universities

Lehigh Carbon Community College
Lock Haven University
Luzerne County Community College
Mansfield University
Millersville University
Montgomery County Community College
Northhampton County Community College
Penn State University
Pennsylvania College of Technology
Reading Area Community College
Shippensburg University
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 Adams Academy

## Charter Schools (C S)

21st Century Cyber C S
Achievement House C S
Ad Prima C S
Agora Cyber C S
Alliance For Progress C S
Antonia Pantoja C S
Architecture and Design Charter High School
Arise Academy Charter High School
Avon Grove C S
Bear Creek Community C S
Beaver Area Academic C S
Belmont C S

Boys Latin of Philadelphia C S
Bucks County Montessori C S
Career Connections C S
Center for Student Learning Charter School at Pennsbury
Central Pennsylvania Digital Learning Foundation C S
Centre Learning Community C S
Chester County Family Academy C S
Christopher Columbus C S
City Charter High School
Collegium C S
Commonwealth Connections Academy C S
Community Academy of Philadelphia C S

## Schedule of Employers (Continued)

Crispus Attucks Youthbuild C S
Deleware Valley C S
Discovery C S
Dr. Robert Ketterer C S
Eastern University Academy C S
Environmental Charter School at Frick Park
Eugenio Maria de Hostos Community Bilingual C S
Evergreen Community C S
Family C S
Fell C S
First Philadelphia Charter School for Literacy
Folk Arts-Cultural Treasures C S
Franklin Towne Charter Elementary School
Franklin Towne Charter High School
Freire C S
Gettysburg Montessori C S
Global Leadership Academy C S
Graystone Academy C S
Green Woods C S
Hardy Williams Academy C S
Helen Thackston C S
Hope C S
Imani Education Circle C S
IMHOTEP Institute C S
Independence C S
Infinity C S
John B Stetson C S
Keystone Education Center C S
Khepera C S
Kipp Academy C S
Kipp West Philadelphia Preparatory C S
La Academia: The Partnership C S
Laboratory C S
Lehigh Valley Academy Regional C S
Lehigh Valley Charter School for the Performing Arts
Lehigh Valley Dual Language C S
Lincoln C S
Lincoln Leadership Academy C S
Lincoln Park Performing Arts C S
Manchester Academic C S
Mariana Bracetti Academy C S
Maritime Academy C S
Mastery Charter School - Harrity Elementary
Mastery Charter School - Mann Elementary
Mastery Charter School - Smedley Elementary
Mastery Charter High School
Mastery Charter School - Pickett Campus
Mastery Charter School - Shoemaker Campus
Mastery Charter School - Thomas Campus
Math Civics and Sciences C S
Mathematics, Science \& Technology Community C S
Montessori Regional C S
Multi-Cultural Academy C S
New Day Charter School
New Foundations C S
New Hope Academy
New Media Technology C S
Nittany Valley C S
Northside Urban Pathways C S
Northwood Academy C S
Nueva Esperanza Academy C S
Pan American Academy C S
Pennsylvania Cyber C S
Pennsylvania Distance Learning C S
Pennsylvania Leadership C S

Pennsylvania Learners Online Regional Cyber C S
Pennsylvania Virtual C S
People for People C S
Perseus House Charter School of Excellence
Philadelphia Academy C S
Philadelphia Electrical \& Technology Charter High School
Philadelphia Harambee Institute of Science and Technology C S
Philadelphia Montessori C S
Philadelphia Performing Arts C S
Planet Abacus C S
Pocono Mountain C S
Preparatory Charter School of Mathematics,
Science, Technology \& Careers
Propel - East C S
Propel - Sunrise CS
Propel Charter School - Homestead
Propel Charter School - McKeesport
Propel Charter School - Montour
Renaissance Academy-Edison C S
Richard Allen Prepratory C S
Robert Benjamin Wiley Community C S
Roberto Clemente C S
Russell Byers C S
Sankofa Academy C S
Sankofa Freedom Academy C S
School Lane C S
Seven Generations C S
Souderton Charter School Collaborative
Spectrum C S
Sugar Valley Rural C S
SUSQ-CYBER C S
Sylvan Heights Science C S
Tacony Academy C S
Tidioute Community C S
Truebright Science Academy C S
Universal Bluford C S
Universal Daroff C S
Universal Institute C S
Urban League of Pittsburgh C S
Vida C S
Wakisha C S
Walter D. Palmer Leadership Learning Partnership C S
West Oak Lane C S
West Philadelphia Achievement Charter Elementary School
Wissahickon C S
Wonderland C S
World Communications C S
York Academy Regional C S
Young Scholars C S
Young Scholars Frederick Douglas C S
Young Scholars of Central Pennsylvania C S


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[^0]:    * Not Rated securities include $\$ 4,202,834$ and $\$ 3,227,846$ in collective trust funds at June 30, 2011 and 2010 respectively.
    ** Comprised of U.S. government and agency obligations explicitly guaranteed by the U.S. government and not considered to have credit risk.

[^1]:    * Fixed income investment managers enter into futures contracts to adjust the durations of their portfolios as a whole rather than any particular investment type within the portfolio. In total, the futures contracts have adjusted PSERS' total portfolio duration upward by 0.1 at June 30, 2011 and 2010. The total portfolio option-adjusted duration is calculated by weighting each investment type by fair value.

[^2]:    * Includes reclassifications of certain investments between asset classes and investment receivables\payables to adjust the Statement of Plan Net Assets classification to the basis used to measure Asset Allocation. See the table and graph which follow.

[^3]:    * For Pensions and Health Insurance (under the funding provisions of the Retirement Code)

[^4]:    * Based on Estimated Employer Payroll for Fiscal Year Ending 2012 of \$ 14,112,000.

[^5]:    * The amounts reported include assets and liabilities for Pensions only.

[^6]:    * 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.

[^7]:    * Excludes 111,931 inactive members and vestees,
    ** The salaries shown in the table above represent an annual rate of pay for the year endec
    June 30,2010 for members who were in active service on June 30, 2010.
    *** Average completed years of age and service.

[^8]:    * The annual annuities added and deleted are for the annuitants and survivor annuitants who were added and deleted. Changes in annuities for continuing

[^9]:    * Reporting of administrative expenses for fiscal year ended June 30, 2010 includes effects of the capitalization of intangible assets as a result of PSERS' implementation of GASB Statement No. 51 Accounting and Financial Reporting for Intangible Assets.
    ** Net transfers to the Commonwealth of Pennsylvania State Employees' Retirement System.

[^10]:    * Actuarial Valuation for year ended June 30, 2010 is most current valuation completed at publication date.
    **Total Annual Annuities dollar amounts expressed in thousands.

[^11]:    * Actuarial valuation for year ended June 30, 2010 is the most current valuation completed at the publication date.

[^12]:    * Actuarial valuation for year ended June 30, 2010 is the most current valuation completed at the publication date.

[^13]:    * 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.

