Public School Employees' Retirement System

# 2009/2010 Budget Report to the House Appropriations Committee



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#### COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

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5 North 5th Street Harrisburg PA

February 17, 2009

Members of the House Appropriations Committee

Dear Members:

On behalf of the Public School Employees' Retirement System (PSERS), I am pleased to present the accompanying report on the financial, actuarial, and investment operations of PSERS and the budgetary projections for the 2009-2010 fiscal year. In addition, PSERS Comprehensive Annual Financial Report for the fiscal year ended June 30, 2008, is also attached.

PSERS is responsible for administering a defined benefit pension plan for over 547,000 active and retired public school employees in the Commonwealth of Pennsylvania. PSERS also administers two postemployment health care programs, the Premium Assistance Program and the Health Options Program (HOP) for its annuitants. Some highlights of recent activities follow:

#### **Financial Highlights**

- The rate of return on investments for the fiscal year ended June 30, 2008 (FY 2008) was -2.82% and 22.93% for the fiscal year ended June 30, 2007 (FY 2007). The rate of return on investments for the calendar year ended December 31, 2008 is estimated at -29.70%.
- PSERS' total plan net assets decreased by \$4.8 billion from \$67.5 billion to \$62.7 billion from July 1, 2007 to June 30, 2008, which is PSERS fiscal year. The decrease is primarily attributable to net investment loss and payment of pension benefits and administrative expenses, combined, that exceeded member and employer contributions. PSERS estimate of total plan net assets as of December 31, 2008 is approximately \$45.4 billion.
- PSERS continues to benefit from managing almost 1/3 of its assets internally including operating its own equity trading room. For FY 2008 PSERS' internal asset management produced savings of \$4.0 million and additional excess performance of \$27.9 million.
- Total member contributions increased from \$1.0 billion in FY 2007 to \$1.04 billion in FY 2008. Total employer contributions increased from \$746.3 million in FY 2007 to \$834.9 million in FY 2008. The net increase is primarily attributable to an increase in the total (pension and healthcare) employer contribution rate from 6.46% in FY 2007 to 7.13% in FY 2008. For FY 2009 the total employer contribution rate decreased to 4.76%.
- PSERS total administrative budget request recommended by the Governor's Budget Office is \$43.2 million for FY 2010 compared to \$42.3 million available for FY 2009.

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#### **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 86.0% funded as of June 30, 2008. This represents a slight increase from PSERS' 85.8% funded status as of June 30, 2007.
  - During the first half of the 1990s when PSERS' funded status was in the mid-80% range, as it is currently, the employer contribution rate ranged from 11.10% to 19.68%. This compares to the current employer contribution rate of 4.76%.

#### **Investment and Pennsylvania Commitment**

- PSERS has a continuing commitment to Pennsylvania companies by contracting with Pennsylvania-based investment advisor companies and by investing in Pennsylvania-based companies where investment characteristics, including yield, risk, and liquidity, are equivalent. Data on Pennsylvania investments is contained in the accompanying report.
- Total PSERS' benefits payments increased by \$600 million from \$4.3 billion in FY 2007 to \$4.9 billion in FY 2008. The increase is primarily attributable to an increase in the number of retirees and beneficiaries currently receiving benefits. Further, since nearly 88% of PSERS' retirees reside in the Commonwealth, a substantial portion of PSERS' estimated \$4.9 billion annual payroll remains in Pennsylvania, thus benefiting the economy of the Commonwealth.

#### Changes to the Fund's Actuarial Investment Rate of Return Assumption

Each year, PSERS Board reviews the Fund's actuarial assumptions with its actuaries and decides whether or not to make any changes to the assumptions going forward. While PSERS has traditionally taken a long-term perspective on its investment return assumption, the extent, speed, and global nature of the current market downturn appears to be historic and is an indicator of a turning point for the U.S. and global economy. At the same time these historic events were occurring, PSERS had one of the highest investment rate of return assumptions in the country. As a consequence, PSERS' Board of Trustees recently decreased PSERS' actuarial investment rate of return assumption from 8.50% to 8.25% effective for the June 30, 2008 actuarial valuation and further decreased the rate of return assumption from 8.25% to 8.00% for the June 30, 2009 actuarial valuation. The changes made by the Board lower PSERS' rate of return assumption to the median investment rate of return assumption used by public pension funds and provides a more realistic projection of the PSERS' future investment returns and thus the funded status of the Fund.

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# Update on the Projected Large Increase in the Employer Contribution Rate in FY 2012-2013

- One of the most widely publicized events at PSERS over the past several years has been the employer contribution rate increase that is projected to occur in FY 2012-2013. This rate increase was first projected at 27.73% in PSERS' June 30, 2003 actuarial valuation.
- Based on the June 30, 2008 valuation, the current estimate for the FY 2012-2013 employer contribution rate is 20.16%.
- The projected sharp rise in the FY 2012-2013 employer contribution rate is primarily the result of the changes made by Acts 2002-38 and 2003-40 to PSERS actuarial funding methodologies that essentially suppressed the employer contribution rate since the June 30, 2003 valuation, the recent change to PSERS actuarial investment rate of return assumption, and the unfunded liabilities created by:
  - The FYs 2001-2003 down investment markets
  - o Act 2001-9 multiplier increase
  - o Act 2002-38 phased COLA
  - The -2.82% investment return for FY 2008.
- Previously, PSERS' investment returns for the four years ended June 30, 2007 had reduced the projected FY 2012-2013 employer contribution rate by more than 50%, from a projected high of 27.73% to the projected rate of 11.23% as of the June 30, 2007 valuation. Over the past few months, however, the sharp downturn in the economy, combined with PSERS' -2.82% investment return for FY 2008 have essentially eliminated any past progress made in reducing the FY 2012-2013 rate increase. While a few months remain until the end of the fiscal year on June 30<sup>th</sup>, the investment losses PSERS has experienced to date will be difficult to overcome and the projected rate increase in FY 2012-2013 could exceed the original projection of 27.73%.
- There are options to address the projected large employer contribution rate increase in FY 2012-2013, but under all such options there remains a need for significant additional funding to PSERS. As in the past, PSERS is committed to providing assistance to the General Assembly to solve the projected rate increase and future funding issues of PSERS.

In conclusion, please contact Jeffrey B. Clay, Executive Director, if you have any questions or would like additional information.

Respectfully,

Melin I. Vogler

Melva S. Vogler Chairman of the Board

# 2009/2010 Budget Report House Appropriations Committee Budget Report Date February 17, 2009

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# Section 1 PSERS Overview



# **Overview and Mission Statement 1**



# Overview

Established on July 18, 1917, the Pennsylvania Public School Employees' Retirement System (PSERS) provides retirement benefits to public school employees of the Commonwealth of Pennsylvania.

As of June 30, 2008, the System had 272,690 active members. The annuitant membership was comprised of 173,540 retirees and beneficiaries who receive over \$300 million each month including healthcare premium assistance. The average yearly pension benefit paid to annuitants is \$21,963. PSERS had 739 participating employers on June 30, 2008.

As reported in the latest Pension and Investments survey published January 26, 2009, PSERS is the 22nd largest plan among United States corporate and public pension plans, and the 13<sup>th</sup> largest defined benefit public pension fund in the nation. As published in the Pension and Investments survey from December 22, 2008, PSERS is the 39th largest plan among corporate and public pension plans worldwide. The net asset value of PSERS' investment portfolio was approximately \$45.4 billion as of December 31, 2008.

# **Mission Statement**

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

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

# **PSERS Board of Trustees** 2



# **PSERS Board of Trustees**

Melva S. Vogler, Chairman

Sally J. Turley, Vice Chairman

Tina Byles-Williams

Honorable Dwight Evans House of Representatives

Vacant Senate of Pennsylvania

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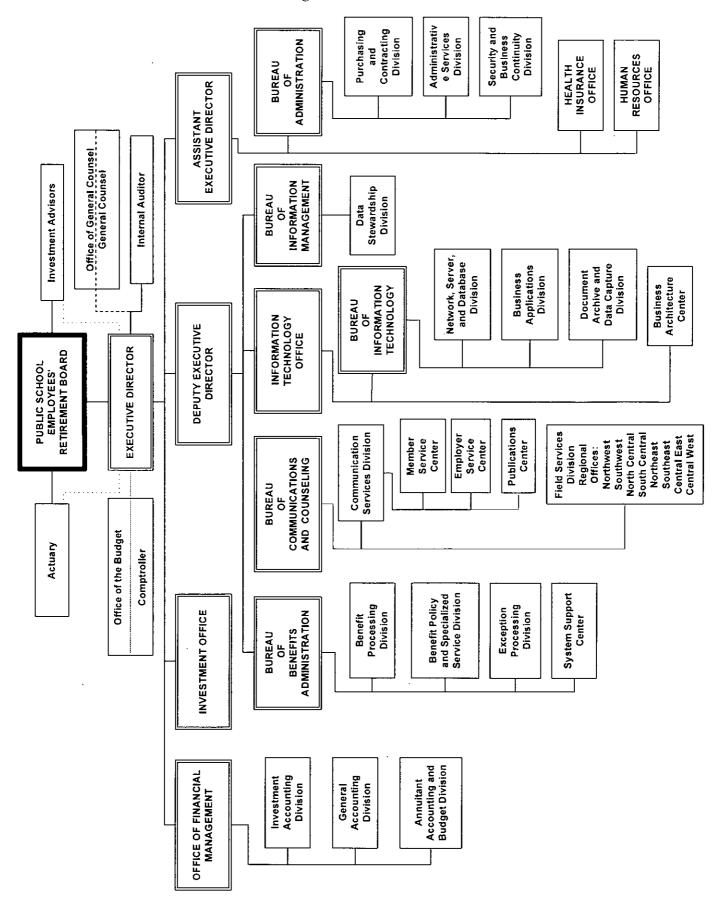
Gerald L. Zahorchak, D.Ed. Secretary of Education

PSERS Board Members as of February 4, 2009

# PSERS Organizational Chart 3 and Description



**PSERS** Organizational Chart



# Organizational Structure of the Public School Employees' Retirement System

### **Executive Office**

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

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

#### **Investment Office**

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

### **Chief Counsel's Office**

This office provides legal services through a team of professional personnel under the Governor's Office of General Counsel. The Legal staff is responsible for representing PSERS in all administrative hearings and other litigation matters; drafting and negotiating PSERS' investment and administrative services contracts; and providing counsel on a wide variety of matters, including the interpretation of the Retirement Code and the Right-to-Know Law.

### **Internal Auditor's Office**

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

### **Office of Financial Management**

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

# Organizational Structure of the Public School Employees' Retirement System (continued)

### **Deputy Executive Director**

The Deputy Executive Director directly oversees the benefit programs for all active and retired members of the System, the development and implementation of the member and employer communications programs and the member counseling programs, and the maintenance of agency policies, procedures, and benefit related data. The organizational units directly reporting to this position include the Information Technology Office, the Bureau of Benefits Administration, the Bureau of Communications and Counseling, and the Bureau of Information Management.

### **Information Technology Office**

This office oversees the Bureau of Information Technology and the Business Architecture Center. It is responsible for strategic information technology planning and policy development, ensuring that information technology plans and policies are aligned with, in support of, and prioritized according to agency needs and requirements, as well as those Commonwealth needs and requirements that are consistent with agency needs, and for communicating such to the agency's information technology staff. Large information technology contracts and projects are managed by this office. This office is responsible for understanding, analyzing, documenting, and improving PSERS' organization, business rules, processes, information systems, and the relationships among these components so that PSERS is able to: conduct its business consistently and according to established rules; understand each component, its relationship to each of the other components and to PSERS' mission, vision, values and goals; fully, yet quickly analyze and understand the impact of potential change to one or more of these components on the others; more effectively identify inefficient, duplicate, or suspect processes, technologies; and account for its organization business rules and processes, information systems and technologies.

### **Bureau of Information Technology**

This bureau is responsible for planning, coordinating, administering, and implementing information technology resources in accordance with the agency's strategic plans, goals, objectives, and priorities as communicated by PSERS' Chief Information Officer, and for providing operational support for those technologies and initiatives. The bureau is organized into three divisions: the Network, Server, and Database Division, the Business Applications Division, and the Document Archive and Data Capture Division.

#### **Bureau of Information Management**

This bureau is responsible for maintaining, documenting, and cleansing PSERS' member and employer data, managing PSERS' electronic data records, imaged records, paper and film/fiche records, understanding the meaning and knowing the location of its data. The bureau currently includes the Data Stewardship Division which houses PSERS' records management program, and the Data Integrity and Member Accounting sections.

# Organizational Structure of the Public School Employees' Retirement System (continued)

### **Bureau of Benefits Administration**

This bureau is responsible for administering a comprehensive pension benefits program for PSERS. The bureau provides professional and technical services to individuals who are employed full-time and part-time in one of Pennsylvania's 734 public schools or institutions. They also provide services to retirees, their beneficiaries and persons legally authorized to act on their behalf. The bureau is organized into three divisions: the Benefit Processing Division, the Benefit Policy and Specialized Service Division, and the Exception Processing Division.

### **Bureau of Communications and Counseling**

This bureau is responsible for professionally communicating accurate and timely information. The goal is to promote the understanding of PSERS' benefits and processes to the members, the employers, the Legislature, the Governor's Office, other government organizations, professional organizations, and the public. It is organized into two divisions: the Field Services Division and the Communications Services Division.

#### **Assistant Executive Director**

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

#### **Bureau of Administration**

This bureau provides facilities, purchasing and contracting, policies and procedures, business continuity, automotive, mail, imaging, and other administrative services necessary to support agency functions. The bureau is organized into three divisions: the Purchasing and Contacting Division, the Administrative Services Division and the Security and Business Continuity Division.

#### **Human Resources Office**

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

#### **Health Insurance Office**

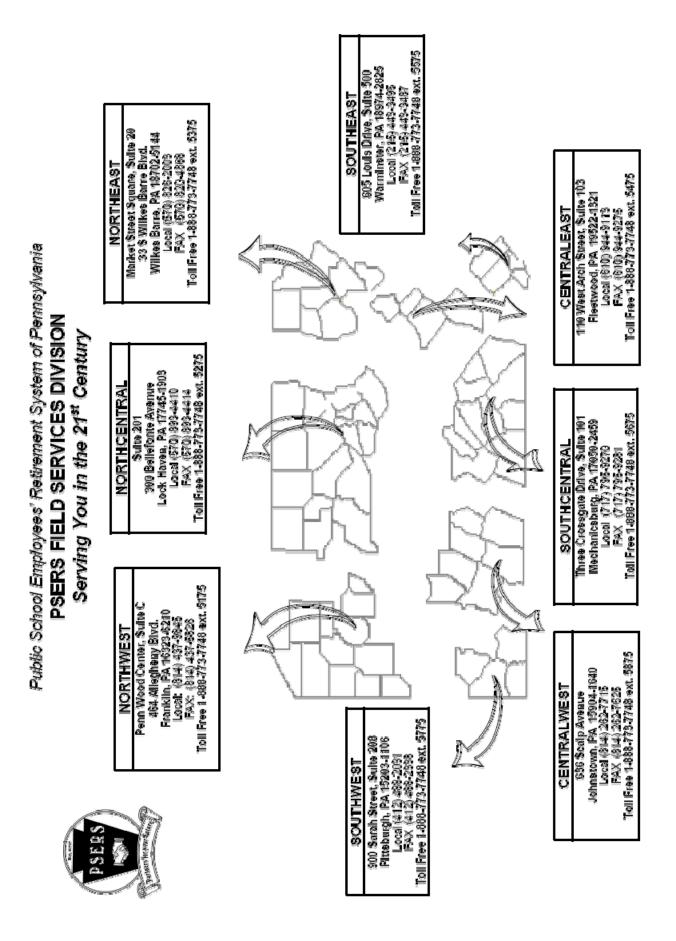
This office is responsible for all aspects of the PSERS' Health Options Program (HOP) and administering PSERS' annuitant's health insurance premium assistance benefits. The HOP is a voluntary statewide plan that provides group health insurance coverage for school retirees, their spouses, and eligible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

# **PSERS' Regional Offices**

There are eight PSERS Regional Offices strategically located throughout the Commonwealth. These offices provide services to both active and retired PSERS members and over 700 employers. Among these services are regularly scheduled retirement counseling meetings and other informational presentations on various topics relating to retirement benefits and programs. See map on next page.

# Services provided to PSERS' Members

| <u>2005/06</u>        | <u>2006/07</u>  | <u>2007/08</u>  |
|-----------------------|---|---|
| 238<br>12,881         | 237<br>13,458   | 224<br>12,663   |
| 1,045<br>8,037        | 1,059<br>8,415  | 1,005<br>7,904  |
| 1,544                 | 1,646   | 1,992   |
| 248,185<br>52,322     | 246,264<br>56,224   | 227,252<br>50,421   |
| 16,703<br>14,795      | 21,513<br>20,319  | 27,403<br>23,810  |
| 37,428                | 31,464  | 27,478  |
| 10,099                | 5,548   | 8,073   |
|                       |   |   |
| 5,083<br>4,415<br>434 | 5,042<br>5,232<br>397   | 4,537<br>4,147<br>415   |
|                       | 238<br>12,881<br>1,045<br>8,037<br>1,544<br>248,185<br>52,322<br>16,703<br>14,795<br>37,428<br>10,099<br>5,083<br>4,415 | $\begin{array}{c ccccc} 238 & 237 \\ 12,881 & 13,458 \\ 1,045 & 1,059 \\ 8,037 & 8,415 \\ 1,544 & 1,646 \\ 248,185 & 246,264 \\ 52,322 & 56,224 \\ 16,703 & 21,513 \\ 14,795 & 20,319 \\ 37,428 & 31,464 \\ 10,099 & 5,548 \\ \hline 5,083 & 5,042 \\ 4,415 & 5,232 \\ \end{array}$ |



# **Information Technology Initiative**

# New Pension Administration System (NPAS)

PSERS' successfully completed the implementation of the last major phase of the NPAS project, bringing this multi-year project to a close and allowing PSERS to decommission its outdated legacy mainframe system. This new system brings with it many new features and capabilities that not only helps today, but also positions PSERS well for the future. PSERS' staff is quickly learning how to make the most of the new system, improving process efficiency as well as customer service levels. PSERS plans to continue to use this tremendous opportunity to raise the bar, bringing the organization to new levels of efficiency and adaptability as it strives to serve its members in the best possible manner.

# Member Demographics 4



| Fiscal Year<br>ending June 30 | Active<br><u>Members</u> | Inactive<br><u>Members</u> | Annuitants,<br>Beneficiaries,<br>and Survivor<br><u>Annuitants</u> | Total<br>Active/Retired<br><u>Members</u> | Ratio of<br>Active/Retired | Overall Member<br>Total Inactive,<br>Active & Survivor<br><u>Annuitants</u> |
|-------------------------------|--------------------------|----------------------------|--|---|----------------------------|---|
| 2008                          | 272,690                  | 100,803                    | 173,540  | 446,230                                   | 1.57 to 1                  | 547,033   |
| 2007                          | 264,023                  | 109,186                    | 168,026  | 432,049                                   | 1.57                       | 541,235   |
| 2006                          | 263,350                  | 94,071                     | 161,813  | 425,163                                   | 1.62                       | 519,234   |
| 2005                          | 255,465                  | 58,720                     | 156,519  | 411,984                                   | 1.63                       | 470,704   |
| 2004                          | 247,901                  | 72,014                     | 151,552  | 399,453                                   | 1.63                       | 471,467   |
| 2003                          | 246,700                  | 65,453                     | 145,693  | 392,393                                   | 1.69                       | 457,846   |
| 2002                          | 242,616                  | 61,295                     | 141,414  | 384,030                                   | 1.71                       | 445,325   |
| 2001                          | 243,311                  | 53,979                     | 132,716  | 376,027                                   | 1.83                       | 430,006   |
| 2000                          | 234,210                  | 50,682                     | 134,058  | 368,268                                   | 1.74                       | 418,950   |
| 1999                          | 223,495                  | 46,426                     | 132,869  | 356,364                                   | 1.68                       | 402,790   |

# **PSERS'** Member Demographics

# Age and Service Profile of Active Members as of June 30, 2007 and June 30, 2008

|                                | June 30, 2007 | June 30, 2008 |
|--------------------------------|---------------|---------------|
| Average Age                    | 45.1 years    | 45.2 years    |
| Average Years of PSERS Service | 11.2 years    | 11.1 years    |
| Average Annual Compensation    | \$43,217      | \$43,718      |

# Profile of PSERS' Annuitants, Beneficiaries, and Survivor Annuitants as of June 30, 2007 and June 30, 2008

| Type of Member        | Number of Members           6/30/2007         6/30/2008 |                | <u>Average Ann</u><br><u>6/30/2007</u> | ual Benefit<br><u>6/30/2008</u> |
|-----------------------|---|----------------|--|---------------------------------|
| Normal/Early Retirees | 152,361   | 157,656        | \$21,836                               | \$22,747                        |
| Survivor Annuitants   | 8,266   | 8,449          | \$9,201                                | \$9,805                         |
| Disability Retirees   | 7,399   | 7,435          | \$16,266                               | \$19,144                        |
| Total                 | <u>168,026</u>  | <u>173,540</u> | \$20,970                               | \$21,963                        |

# **PSERS'** Member Demographics

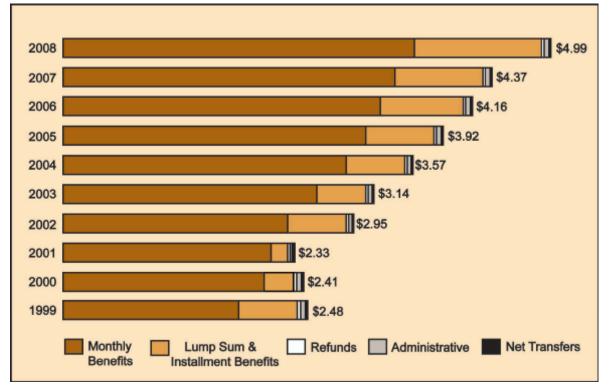
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### Deductions from Plan Net Assets 10 Year Trend (Dollar Amounts in Thousands)

|                | Ben                 | nefits                          |          |                |                   |                     |
|----------------|---------------------|---------------------------------|----------|----------------|-------------------|---------------------|
| Fiscal<br>Year | Monthly<br>Benefits | Lump-<br>Sum and<br>Installment | Refunds  | Administrative | Net<br>Transfers* | Total<br>Deductions |
| 2008           | \$3,632,461         | \$1,263,350                     | \$28,713 | \$49,250       | \$17,157          | \$4,990,931         |
| 2007           | 3,440,819           | 855,431                         | 18,180   | 50,482         | 6,010             | 4,370,922           |
| 2006           | 3,260,712           | 830,361                         | 16,330   | 48,629         | 8,462             | 4,164,494           |
| 2005           | 3,158,661           | 692,089                         | 16,233   | 42,645         | 10,859            | 3,920,487           |
| 2004           | 2,906,344           | 559,939                         | 14,767   | 49,202         | 16,315            | 3,546,567           |
| 2003           | 2,591,130           | 485,495                         | 13,943   | 42,278         | 12,116            | 3,144,962           |
| 2002           | 2,293,687           | 595,184                         | 14,858   | 35,373         | 9,434             | 2,948,536           |
| 2001           | 2,087,868           | 176,228                         | 22,369   | 34,854         | 10,867            | 2,332,186           |
| 2000           | 2,048,792           | 306,329                         | 22,446   | 29,333         | 4,710             | 2,411,610           |
| 1999           | 1,834,494           | 591,532                         | 20,110   | 27,786         | 10,247            | 2,484,169           |

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

#### Deductions from Plan Net Assets 10 Year Trend



# **Actuarial Information 5**



# **The Actuarial Process and Pension Plan Funding**

PSERS is a defined benefit plan, meaning benefits are based on members' service and salary history, not investment performance. The plan is funded through three sources: (1) employer contributions; (2) member contributions; and, (3) investment earnings. The following information highlights the actuarial process and funding for PSERS.

# **Actuarial Process**

The actuarial process presumes that there will be a systematic flow of contributions at a specified level to pay for plan benefits and that the flow of contributions, together with investment earnings, will be sufficient to meet all benefit and expense requirements of the plan. Actuarial cost methods for funding PSERS pension plan are defined in the Public School Employees' Retirement Code. The actuary for the pension plan reviews economic and demographic experience annually and over five-year periods. The actuary's periodic valuations test the validity of the underlying actuarial assumptions versus the actual experience of the plan. That experience is also used as a basis for formulating actuarial assumptions, which are essentially highly educated predictions about what will occur in the future with respect to salary growth, investment returns, and demographic factors such as rates of retirement and death. PSERS' primary economic assumptions for 2008/2009 project an average annual investment return of 8.25% and an average annual salary increase factor of 6.00%.

It should be noted that at their January 23, 2009 meeting, PSERS Board of Trustees voted to decrease the actuarial investment rate of return assumption from 8.50% to 8.25% effective for the June 30, 2008 actuarial valuation. The Board of Trustees also voted to decrease the rate of return assumption further from 8.25% to 8.00% for the June 30, 2009 actuarial valuation. The changes made by the Board lowers PSERS' rate of return assumption to the median investment rate of return assumption used by most public pension funds and provide a more realistic outlook of the future earning's potential of the Fund.

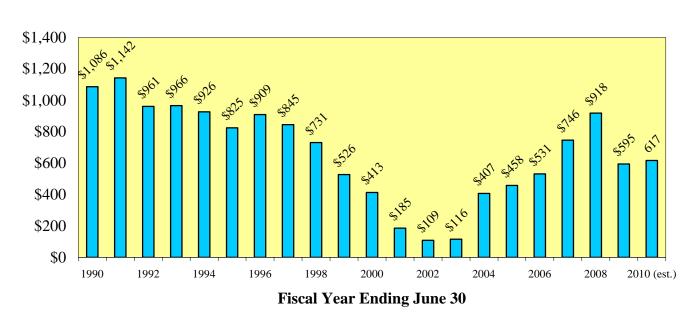
### **Employer Contributions**

The Retirement Code vests the Board with the authority to establish the employer contribution rate. The Board, in consultation with the actuary, establishes the employer contribution rate annually, as part of the annual actuarial valuation. The employer contribution rate, which is expressed as a percentage of payroll, is composed of two items: 1) the pension contribution; and, 2) the contribution for health care premium assistance. The total employer contribution rate for the year ended June 30, 2008, was 7.13%, including 0.69% for health care premium assistance. The total employer contribution rate for the fiscal year ending June 30, 2009 is 4.76%, including 0.76% for health care premium assistance. The total employer contribution rate adopted by PSERS' Board of Trustees for the year ending June 30, 2010 is 4.78%, including 0.78% for health care premium assistance. The change in the investment rate of return assumption noted previously, did not impact the FY 2009/2010 employer contribution rate increase in FY 2012/2013, however was affected by the decrease in the investment rate of return assumption. The estimated FY 2012/2013 employer contribution rate increase from the most recent estimate of 16.40% published after the Board's December 12, 2008 meeting.

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# The Actuarial Process and Pension Plan Funding (continued)

For the fiscal year ended June 30, 2008, PSERS' employer contributions totaled \$835 million, which includes \$81 million for healthcare premium assistance. For the fiscal year ending June 30, 2009 the employer contribution estimate is \$595 million, reflective of the 4.76 % contribution rate. The contribution rate for the fiscal year ending June 30, 2010 is 4.78% which results in a contribution estimate of \$617 million.



# Employer Contribution History (in millions)

# **Member Contributions**

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

PSERS members contributed \$880 million for pension contributions for fiscal year 2007-2008, compared to \$855 million for the 2006-2007 fiscal year. Total member contributions are estimated to be \$904 million for the year ending June 30, 2009 and \$944 million for the year ending June 30, 2010. The annual increases are due to a projected increase in member payroll and due to small increases in the member contribution rate each year.

# The Actuarial Process and Pension Plan Funding (continued)

### **Investment Returns**

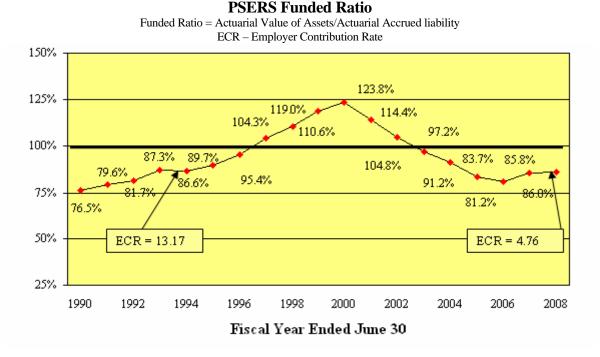
The investment rate of return (net of fees) for the fiscal years ended June 30, 2008, and June 30, 2007, was -2.82% and 22.93%, respectively. The annualized rates of investment return for the three and five-year periods ended June 30, 2008 were 11.25% and 13.21%, respectively, and the annualized rate of investment return over the past ten fiscal years was 7.76%. The net asset value of PSERS' investments was \$62.7 billion as of June 30, 2008. The preliminary investment rates of return for the one, three, five and ten-year periods ended December 31, 2008 were -29.70%, -1.88%, 3.88% and 4.15% respectively.

# **Funded Status**

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

#### **Key Facts**

- Funded Status is 86.0% as of June 30, 2008
- Funded Status was 85.8% as of June 30, 2007
- The decrease in the funded status since 2000 is the result of several factors including the unfavorable investment markets from FY 2001 to FY 2003, funding changes enacted in Act 38 of 2002 and Act 40 of 2003 and actuarial liability losses



# **Employer Contribution Rate 6**



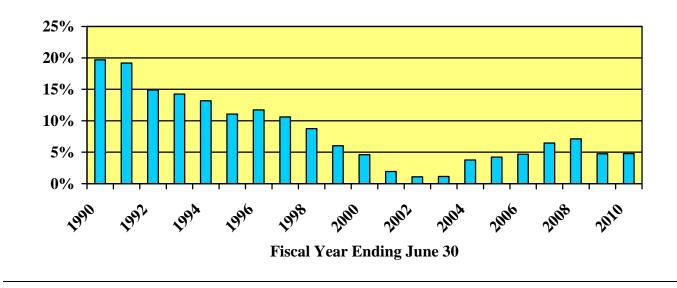
# **Employer Contribution Rate**

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

#### **Employer Contribution Rate Statistics**

| ٠ | Highest historical ECR (1985/1986 year) | 20.04% |
|---|---|--------|
| ٠ | Lowest historical ECR (2001/2002 year)  | 1.09%  |
| • | Ten year average ECR (2000 to 2009)     | 4.00%  |
| • | Twenty year average ECR (1990 to 2009)  | 7.71%  |
| • | Thirty year average ECR (1980 to 2009)  | 11.17% |
| • | Adopted ECR (2009/2010 year)            | 4.78%  |
|   |   |        |

# **Employer Contribution Rate History (Percentage)**



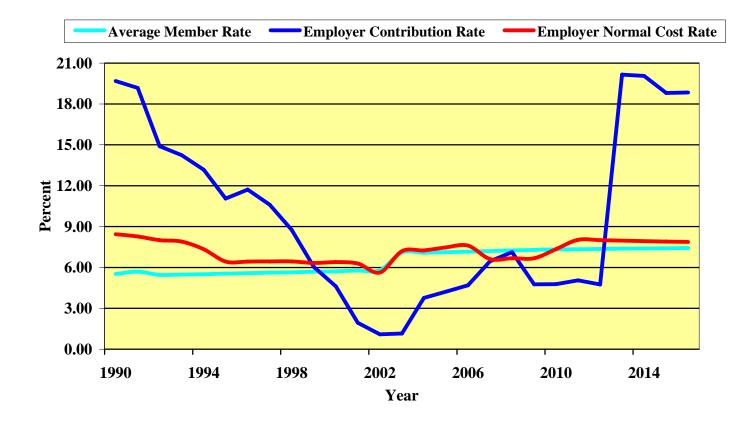
#### **Projected Fiscal Year 2012-2013 Employer Contribution Rate Increase**

One of the most widely publicized events at PSERS over the past several years has been the employer contribution rate increase that is projected to occur in the 2012-2013 fiscal year. The rate increase was first projected in the June 30, 2003 actuarial valuation. This projection took into consideration the actuarial impact of the pension benefit enhancement enacted in 2001 (Act 9 of 2001), a major downturn in the investment markets between 2001 and 2003 and a series of legislative actions (Act 38 of 2002 and Act 40 of 2003) that changed the basic funding methodologies for PSERS and suppressed the employer contribution rate for a period of ten years.

# Employer Contribution Rate (continued)

Previously, PSERS' investment returns for the four years ended June 30, 2007 had reduced the projected FY 2012-2013 employer contribution rate by more than 50%, from a projected high of 27.73% to the projected rate of 11.23% as of the June 30, 2007 valuation. Over the past few months, however, the sharp downturn in the economy combined with PSERS' -2.82% investment return for FY 2008 has essentially eliminated any past progress made in reducing the FY 2012-2013 rate increase. While a few months remain until the end of the fiscal year on June 30<sup>th</sup>, the investment losses PSERS has experienced to date will be difficult to overcome and the projected rate increase in FY 2012-2013 could exceed the original projection of 27.73%.

# History of PSERS Employer Contribution Rates as a Percent of Payroll



# Consultants' Fees 7



# Consultants' Fees (\$50,000 and Over)

The following benefit, investment, information technology and financial professional service firms were under contract to provide services to PSERS during the fiscal year ended June 30, 2008.

| <u>Firm</u>                                     | Services Provided   | <b>Consulting Fee</b> |   |
|---|---|-----------------------|---|
| CoreSource, Inc.                                | Postemployment healthcare benefits administration and claims adjudication             | \$ 9,155,102          | * |
| The Segal Company                               | Actuarial services and consulting for HOP and prescription drug plan                  | 2,789,611             | * |
| Vitech Systems Group, Inc.                      | NPAS project development  | 2,358,645             | * |
| Rx Solutions, Inc.                              | Administration of postemployment<br>healthcare benefits and prescription<br>drug plan | 1,725,318             | * |
| Portfolio Advisors, LLC                         | Private market consulting   | 1,435,000             |   |
| Financial Control Systems, Inc.                 | Investment accounting application service provider                                    | 673,000               |   |
| Independent Pharmaceutical<br>Consultants, Inc. | Administration of postemployment<br>healthcare benefits and prescription<br>drug plan | 551,192               | * |
| Buck Consultants LLC                            | Pension benefit actuarial services  | 502,196               | * |
| Wilshire Associates                             | General investment consulting   | 445,000               |   |
| Glass, Lewis & Co., LLC                         | Proxy voting  | 351,000               |   |
| Gunther International Ltd.                      | Communication and mailing services  | 322,968               | * |
| Courtland Partners, Ltd.                        | Real Estate investment consulting   | 225,000               |   |
| Clifton Gunderson LLP                           | Financial audit of pension system<br>and postemployment healthcare<br>programs        | 117,000               | * |
| Mercer  | Investment consulting services  | 52,000                |   |

\* As reported in PSERS' Comprehensive Annual Financial Report

# Legislation Information 8



# **Legislation Information**

No legislation was enacted during the 2007-2008 Legislative Session (calendar years 2007 & 2008) amending the Public School Employees' Retirement Code. The only legislation enacted by the Pennsylvania General Assembly during that time period that had any significant impact on the operations of the Public School Employees' Retirement System is Act 2008–3, which is known as the Right-To-Know Law (RTKL).

# Section 2 Budget Request



# PSERS 2009/2010 Budget 9



|                                       |                      |                      | Governor's           |
|---------------------------------------|----------------------|----------------------|----------------------|
|                                       |                      |                      | Recommended          |
|                                       | Actual               | Available            | Request              |
|                                       | <u>2007/2008</u>     | <u>2008/2009</u>     | <u>2009/2010</u>     |
| <b>Total Personnel Expenses</b>       | \$ 23,902,000        | \$ 25,020,000        | \$ 26,052,000        |
| Budgetary Reserve                     |                      | 229,000              |                      |
| <b>Operating Expenses</b>             |                      |                      |                      |
| Travel                                | 234,100              | 200,000              | 229,000              |
| Training                              | 101,847              | 100,000              | 116,000              |
| Telecommunication                     | 782,300              | 731,000              | 741,000              |
| Electricity                           | 46,000               | 60,000               | 60,000               |
| Consultant Services                   | 905,645              | 753,000              | 743,000              |
| Legal Services/Fees                   | 1,000                | -                    | -                    |
| Specialized Services                  | 408,938              | 443,000              | 483,000              |
| Advertising                           | 21,755               | 10,000               | 10,000               |
| EDP Contract Service                  | 5,311,310            | 6,476,000            | 6,203,000            |
| Contr Maint Svcs - EDP                | 222,091              | 373,000              | 124,000              |
| Contr Maint Svcs – non EDP            | 238,168              | 150,000              | 226,000              |
| Contracted Repairs                    | 66,760               | 132,000              | 130,000              |
| EDP & Other Rental                    | 934,568              | 1,190,000            | 1,005,000            |
| Real Estate Rental                    | 1,577,258            | 1,758,000            | 1,932,000            |
| Office Supplies                       | 333,925              | 400,000              | 388,000              |
| Education Supplies                    | 20,600               | 12,000               | 13,000               |
| EDP Software                          | 3,000                | 16,000               | 105,000              |
| Other Computer Equipment              | 910,174              | 173,000              | 102,500              |
| Furniture & Fixtures                  | 198,745              | 50,000               | 51,000               |
| Other Equipment & Supplies            | 340,068              | 321,000              | 360,000              |
| Postage                               | 1,491,259            | 1,713,000            | 1,615,000            |
| Freight Charges                       | 15,000               | 17,000               | 17,000               |
| Printing                              | 625,650              | 433,000              | 493,500              |
| Subscriptions                         | 42,905               | 25,000               | 28,500               |
| Memberships                           | 34,283               | 45,000               | 37,500               |
| Conference Expense                    | 63,000               | 65,000               | 73,000               |
| Insurance                             | 22,105               | 16,000               | 21,000               |
| Interest Penalties                    | 1,005                | -                    |                      |
| Other Operational Expenses            | 1,421,541            | 1,326,000            | 1,318,000            |
| Total Operating Expenses              | 16,375,000           | 16,988,000           | 16,625,000           |
|                                       | 10,575,000           | 10,900,000           | 10,020,000           |
| Fixed Assets<br>Machinery & Equipment |                      |                      |                      |
| Automobiles                           | -                    | 30,000               | •                    |
| EDP Computers & Peripherals           | 534,000              | 30,000               | -<br>500,000         |
| Office Equipment                      |                      | -                    | 500,000              |
| <b>Telecommunications Equipment</b>   | <u> </u>             | 30,000               | <u>50,000</u>        |
| Total Fixed Assets                    | 534,000              | 60,000               | 550,000              |
| Total Budget                          | 40,811,000           | 42,297,000           | <u>43,227,000</u>    |
| Personnel Augmentations               | <u>842,000</u>       | <u>897.000</u>       | <u>957,000</u>       |
| Total with Augmentations              | <u>\$ 41,653,000</u> | <u>\$ 43,194,000</u> | <u>\$ 44,184,000</u> |

# Directed Commissions Recapture 10 Program Budget



# DIRECTED COMMISSIONS RECAPTURE PROGRAM BUDGET

The Directed Commissions Recapture Budget is a program whereby a portion of commissions incurred by PSERS through investment trading activity is returned to PSERS. These funds, which are held in a restricted revenue account at Treasury, can be used for the administration of the Fund or can be reinvested back into the asset allocation through a transfer to the PSERS Retirement Account. Expenditures paid from the Directed Commissions Recapture Program Budget have the same approval process as any other expenditure made by the Fund.

Note: For Rebudget 2008-2009 and Budget Request 2009-2010 – Investment Information Services will be included as part of the Investment Related Expense Appropriation 5003300000.

Directed Commissions Recapture Program -Directed Commissions Appropriation #6012700000

|  |           |                  | Governor's       |
|--|-----------|------------------|------------------|
|  |           |                  | Recommended      |
|  | Actual    | Available        | Request          |
|  | 2007-2008 | <u>2008-2009</u> | <u>2009-2010</u> |
| <b>Investment Information Services Total</b> | 1,480,800 |                  |                  |
| Budgetary Reserve                            |           | 1,000,000        | 1,000,000        |
| Total  | 1,480,800 | 1,000,000        | 1,000,000        |

# Section 3 Investment Information



# Investment Policy, Objectives, 11 and Performance



# **Investment Policy**

The Public School Employees' Retirement Board of Trustees (the Board) is responsible for, among other things, the formulation of an Investment Policy (the Policy) for the Public School Employees' Retirement System (the System). As articulated in the Public School Employees' Retirement Code, the Board and Staff delegated with investment authority must act in a manner consistent with the Prudent Investor Standard, which requires "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." 24 Pa. C.S. §8521(a). The Prudent Investor Standard recognizes modern portfolio theory and guides investment and management decisions respecting individual assets so that the trade-offs between risk and return for each asset are considered in the context of an overall investment strategy.

The System's Investment Policy, which is available at <u>www.psers.state.pa.us</u>, reflects the many implications of the Prudent Investor Standard. The Board reviews the Policy at least annually, and may make more frequent changes as necessary. The Policy establishes clear criteria for the management of the assets by or on behalf of the Board. For example:

- The Board, PSERS' staff, investment consultants, and investment managers are assigned appropriate responsibilities and made to clearly understand the objectives and policies of the Board and the System;
- Allocation plans are prepared to guide the investment of the System's assets;
- Guidelines are established for each investment category so that asset quality, diversification, and return can be monitored;
- Investment managers are given guidance and limitations on the investment of the System's assets; and,
- The Board has created a meaningful basis for evaluating the investment performance of individual investment managers, as well as for evaluating overall success in meeting its objectives.

# **General Investment Objectives**

The System seeks to provide benefits to its members through a carefully planned and wellexecuted investment program. The overall investment objective of the Board is to provide adequate funding for member benefits. Realization of this overall return objective would be sufficient to achieve funding adequacy (defined as when the actuarial market value of assets is at least equal to the System's projected benefit obligations) on an inflation-adjusted basis. The Policy also identifies the following general investment objectives and constraints:

### **Return Objectives**

- The System has an overall return objective of meeting or exceeding the actuarial rate (currently 8.25%) over the long term;
- The assets of the System shall be invested to maximize the returns for the level of risk taken; and,
- The System shall strive to achieve a return that exceeds the Policy Index.

### **Risk Objectives**

- The assets of the System shall be diversified to minimize the risk of losses within any one asset class, investment type, industry or sector exposure, maturity date, or geographic location; and
- The System's assets shall be invested so that the probability of investment losses (as measured by the Policy Index) in excess of 12% in any one year is no greater than 2.5% (or two standard deviations below the expected return).

### Constraints

- The System shall maintain adequate liquidity to meet required benefit payments to the System's beneficiaries;
- The System's assets shall be invested in a manner that is consistent with the System's long-term investment horizon; and,
- As a tax-exempt investor, the System's assets may be invested without distinction between returns generated from income and returns generated from capital gains.

## **Investment Performance Net of Fees (unaudited)** (for the period ended June 30, 2008)

| Asset Class  | <u>One Year</u> | <u>Three Year</u> | <u>Five Year</u> | <u>Ten Year</u> |
|--|-----------------|-------------------|------------------|-----------------|
|  |                 |                   |                  |                 |
| PSERS U.S. Equities                                    | -13.98          | 4.33              | 8.47             | 4.75            |
| Dow Jones Wilshire 5000 Index                          | -12.53          | 5.02              | 8.73             | 3.59            |
|  |                 |                   |                  |                 |
| PSERS Non-U.S. Equities                                | -9.81           | 15.72             | 19.08            | 8.32            |
| MSCI All-Country World Index Ex. U.S. (1)              | -8.76           | 14.71             | 18.52            | 7.33            |
| ·  |                 |                   |                  |                 |
| PSERS U.S. Fixed Income                                | 7.81            | 4.52              | 5.10             | 6.26            |
| U.S. Fixed Income Policy Index (2)                     | 6.24            | 3.81              | 3.69             | 5.60            |
| -<br>-   |                 |                   |                  |                 |
| PSERS Global Fixed Income                              | 10.02           | 5.22              | 5.78             | 6.02            |
| Global Fixed Income Policy Index (3)                   | 12.36           | 5.67              | 5.82             | 6.15            |
|  |                 |                   |                  |                 |
| PSERS Commodities                                      | 34.72           | N/A               | N/A              | N/A             |
| DJ AIG Commodity Index                                 | 41.53           | N/A               | N/A              | N/A             |
|  |                 |                   |                  |                 |
| PSERS Real Estate (4)                                  | -5.22           | 19.43             | 21.50            | 14.88           |
| Real Estate Index (5)                                  | 5.41            | 14.63             | 15.14            | 12.81           |
|  |                 |                   |                  |                 |
| PSERS Alternative Investments (4)                      | 19.14           | 25.65             | 24.48            | 13.21           |
| Venture Economics Median Return, Vintage Year Weighted | 6.23            | 10.34             | 8.81             | 3.54            |
|  |                 |                   |                  |                 |
| Total Fund   | -2.82           | 11.25             | 13.21            | 7.76            |
| Policy Index   | -1.84           | 9.17              | 10.81            | 6.24            |

#### Annualized Total Returns (%)

(1) – 30% hedged to the U.S. dollar effective July 1, 2006; previously unhedged.

(2) – Returns presented are a blend of the Barclays Capital U.S. Universal Index, Barclays Capital U.S. TIPS Index, and the Credit Suisse High Yield Index.

(3) – Lehman Brothers Multiverse Index effective April 1, 2007; previously was the Lehman Brothers Global Aggregate Bond Index.

(4) – Returns reported on a one-quarter lag, except for publicly traded real estate security investments.

(5) – Returns presented are a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index. The NCREIF Index is reported on a one-quarter lag. 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.

## Investment Performance Net of Fees (unaudited) (Preliminary - for the period ended December 31, 2008)

| Asset Class  | <u>One Year</u> | <u>Three Year</u> | <u>Five Year</u> | <u>Ten Year</u> |
|--|-----------------|-------------------|------------------|-----------------|
|  |                 |                   |                  |                 |
| PSERS U.S. Equities                                    | -41.65          | -11.12            | -3.42            | -0.19           |
| Dow Jones Wilshire 5000 Index                          | -37.23          | -8.44             | -1.69            | -0.64           |
| PSERS Non-U.S. Equities                                | -43.81          | -5.88             | 3.66             | 3.79            |
| MSCI All-Country World Index Ex. U.S. (1)              | -44.31          | -6.86             | 2.80             | 2.17            |
| PSERS U.S. Fixed Income                                | -7.85           | 1.00              | 2.53             | 4.75            |
| U.S. Fixed Income Policy Index (2)                     | -6.08           | 1.50              | 2.39             | 4.48            |
| PSERS Global Fixed Income                              | -3.08           | 3.76              | 3.44             | 4.34            |
| Global Fixed Income Policy Index (3)                   | 3.78            | 6.52              | 4.75             | 5.02            |
| PSERS Commodities                                      | -42.37          | N/A               | N/A              | N/A             |
| DJ AIG Commodity Index                                 | -35.65          | N/A               | N/A              | N/A             |
| PSERS Real Estate (4)                                  | -23.17          | 7.26              | 14.84            | 12.21           |
| Real Estate Index (5)                                  | -4.83           | 9.12              | 12.37            | 11.32           |
| PSERS Alternative Investments (4)                      | -3.32           | 18.17             | 20.37            | 12.24           |
| Venture Economics Median Return, Vintage Year Weighted | -0.78           | 7.54              | 8.06             | 3.13            |
| Total Fund   | -29.70          | -1.88             | 3.88             | 4.15            |
| Policy Index   | -25.57          | -1.79             | 2.95             | 2.99            |

#### **Annualized Total Returns (%)**

(1) – 30% hedged to the U.S. dollar effective July 1, 2006; previously unhedged.

(2) – Returns presented are a blend of the Barclays Capital U.S. Universal Index, Barclays Capital U.S. TIPS Index, and the Credit Suisse High Yield Index.

(3) – Barclays Capital Multiverse Index effective April 1, 2007; previously was the Lehman Brothers Global Aggregate Bond Index.

(4) - Returns reported on a one-quarter lag, except for publicly traded real estate security investments.

(5) – Returns presented are a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index. The NCREIF Index is reported on a one-quarter lag. 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.

# Asset Allocation 12



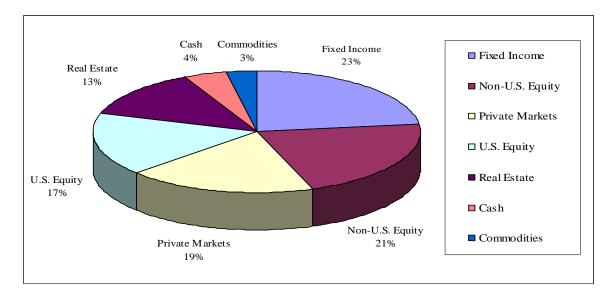
### Asset Allocation (as of December 31, 2008)

The Board reviews the long-term asset allocation targets of the System at least annually. In establishing the asset allocation plan, the Board will consult with its actuary, consultants, investment staff, and other sources of information it deems appropriate in formulating this allocation. The purpose of the asset allocation is to meet the long-term financial needs and investment objectives of the System.

The following represents PSERS' asset allocation as of December 31, 2008 (unaudited):

| Asset Class                      | <u>(i</u> | Market<br>Value<br><u>n millions)</u> | Percentage<br><u>of Total</u> | Target<br><u>Allocation</u> | Target<br>Allocation<br><u>Range</u> |
|----------------------------------|-----------|---------------------------------------|-------------------------------|-----------------------------|--------------------------------------|
| Fixed Income                     | \$        | 10,444.8                              | 23.0%                         | 22.0%                       | 12 - 32%                             |
| Non-U.S. Equity                  |           | 9,719.6                               | 21.4                          | 23.3                        | 18 - 28                              |
| Private Markets                  |           | 8,442.8                               | 18.6                          | 18.5                        | -                                    |
| U.S. Equity                      |           | 7,726.9                               | 17.0                          | 18.2                        | 13 - 23                              |
| Real Estate (Public and Private) |           | 5,839.0                               | 12.8                          | 13.0                        | -                                    |
| Cash*                            |           | 1,840.9                               | 4.1                           | 0.0                         | -                                    |
| Commodities                      |           | 1,401.3                               | 3.1                           | 5.0                         | 1 - 9                                |
| Totals                           | \$        | <u>45,415.3</u>                       | <u>100.0%</u>                 | <u>100.0%</u>               |                                      |

\*- Cash represents the total short-term investment fund (STIF) managed by PSERS in the PSERS Proprietary Fund. Cash is unitized and the managers in the various asset classes are allocated units of STIF. For purposes of this schedule, units of STIF are not included in the various asset classes. For example, a U.S. Equity manager may manage \$200 million, but if that manager has \$10 million in STIF, \$190 million would be included in U.S. Equity and \$10 million would be included in Cash.



#### Asset Allocation (as of December 31, 2008) (continued)

### **Number of Investment Managers and Portfolios**

#### Public Market Asset Classes (ex. Real Estate):

PSERS public market equity, fixed income, and commodity asset classes used 67 external investment managers who were responsible for 70 portfolios, and 6 internal portfolio managers who were responsible for 11 portfolios. There were 7 external public market investment managers with portfolios in multiple asset classes. A further breakdown of the external and internal portfolio managers follows:

|                           | <b>Portfolio Managers</b> | Portfolios/Accounts |
|---------------------------|---------------------------|---------------------|
| U.S. Equity investments:  |                           |                     |
| External*                 | 30                        | 33                  |
| Internal                  | 5                         | 8                   |
| Non-U.S. investments:     |                           |                     |
| External*                 | 23                        | 24                  |
| Internal                  | 1                         | 1                   |
| Fixed Income investments: |                           |                     |
| External*                 | 18                        | 21                  |
| Internal**                | 3                         | 3                   |
| Commodity investments:    |                           |                     |
| External                  | 5                         | 5                   |
| Cash:                     |                           |                     |
| Internal                  | 1                         | 1                   |
| Securities Lending        |                           |                     |
| External                  | 1                         | 1                   |
| TOTAL                     | 87                        | 97                  |
|                           |                           |                     |
| External*                 | 77                        | 84                  |
| Internal                  | 10                        | 13                  |
| TOTAL                     | 87                        | 97                  |

\* The Public Market Emerging Investment Manager Program consisted of 14 portfolio managers each managing a single portfolio. There were 9 U.S. Equity, 2 Non-U.S. Equity, and 3 Fixed Income portfolios in the Program.
 \*\* PSERS managed \$175.9 million for the System's healthcare account.

#### **Private Markets and Real Estate:**

PSERS private markets and real estate (public and private markets) asset classes used 41 active external general partners to invest in 79 limited partnership interests of various private market real estate, private debt, private equity, and venture capital funds. PSERS also used 6 external and 2 internal real estate investment managers who were responsible for 7 public market real estate portfolios. Finally, PSERS had 6 external and 2 internal real estate asset managers who oversee the direct management of 6 separate real estate accounts.

# **Investment Program Summary** 13



## Investment Program Summary Summary of PSERS' U.S. Equity Investments (as of December 31, 2008)

U.S. Equities represent one of six major asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies equity investments and balances equity management styles. PSERS contracts with external investment managers and hires internal portfolio managers to manage U.S. portfolios.

### Policy

U.S. Equities are utilized by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The U.S. Equity asset class is to be managed on a total return basis.

U.S. Equity investments shall consist almost entirely of publicly-traded securities listed on the New York, American, and Nasdaq Stock Exchanges or derivatives such as swaps or listed futures to replicate the performance of U.S. equity indexes such as the S&P 500 Index. Swaps and futures are employed by PSERS to equitize cash and portable alpha portfolios.

PSERS' Asset Allocation targets an eventual allocation of 18.2% of assets to U.S. Equities. It assigns (i) the investment of 80% of U.S. Equities in large capitalization stocks and 20% in medium/small/micro capitalization stocks, and (ii) 42% of U.S. Equities to be passively managed, 38% to be actively managed in portable alpha strategies, and 20% to be actively managed in stock selection strategies.

Market Value as of December 31, 2008: \$7,726.9 million, or 17.0% of the Fund's total market value.

**Number of External Investment Managers:** PSERS had contracts with 28 external investment managers responsible for various U.S. Equity portfolios (including 8 Public Market Emerging Manager Program managers).

**Number of Internal Portfolio Managers:** PSERS had three employees managing various U.S. Equity portfolios.

### **Types of Investment Portfolios at December 31, 2008:**

- 87.4% large capitalization stock strategies, 9.9% medium/small capitalization stock strategies, and 2.7% in micro capitalization stock strategies
- 35.8% passively-managed portfolios, 44.3% actively-managed large portable alpha portfolios, and 19.9% actively-managed stock selection portfolios
- 35.8% was managed by internal portfolio managers and 64.2% is managed by external investment managers

# Summary of PSERS' U.S. Equity Portfolios (unaudited) (as of December 31, 2008)

|  | Market Value<br>(in millions) | % of<br>U.S.<br><u>Equities</u> | % of<br>Total<br><u>Fund</u> |
|--|-------------------------------|---------------------------------|------------------------------|
| Passively Managed Portfolios               |                               |                                 |                              |
| PSERS S&P 400 Index Fund                   | \$ 312.5                      | 4.0%                            | 0.7%                         |
| PSERS S&P 500 Index Fund                   | 2,114.0                       | 27.4%                           | 4.7%                         |
| PSERS S&P 600 Index Fund                   | 319.1                         | 4.1%                            | <u>0.7%</u>                  |
| Total Passively Managed U.S. Equity        | <u>\$ 2,745.6</u>             | 35.5%                           | 6.1%                         |
| Actively Managed Large Cap Portfolios      |                               |                                 |                              |
| AQR Capital Management                     | \$ 513.7                      | 6.7%                            | 1.1%                         |
| Barclays Global Investors, N.A.            | 588.2                         | 7.6%                            | 1.3%                         |
| Biondo Group                               | 9.3                           | 0.1%                            | 0.0%                         |
| Boston Company Asset Management            | 178.4                         | 2.3%                            | 0.4%                         |
| Bridgewater Associates, Inc.               | 694.6                         | 9.0%                            | 1.5%                         |
| Denali Advisors, LLC                       | 11.3                          | 0.1%                            | 0.0%                         |
| First Quadrant, L.P.                       | 565.0                         | 7.3%                            | 1.2%                         |
| Franklin Templeton                         | 232.4                         | 2.9%                            | 0.5%                         |
| FX Concepts, Inc.                          | 5.3                           | 0.1%                            | 0.0%                         |
| Goldman Sachs                              | 135.2                         | 1.8%                            | 0.3%                         |
| Great Companies, Inc.                      | 30.0                          | 0.4%                            | 0.1%                         |
| Hanseatic Management Services, Inc.        | 36.2                          | 0.5%                            | 0.1%                         |
| Hyperion Brookfield Asset Management, Inc. | 242.9                         | 3.1%                            | 0.5%                         |
| Pacific Investment Mgmt. Co. (PIMCO)       | 237.0                         | 3.1%                            | 0.5%                         |
| PSERS Enhanced S&P 500 Index               | 426.0                         | 5.5%                            | 0.9%                         |
| PSERS Portable Alpha Overlay               | 88.0                          | 1.1%                            | 0.2%                         |
| Other (Includes PSERS Equity Rebalance)    | 16.0                          | 0.2%                            | <u>0.0%</u>                  |
| Total Actively Managed                     |                               |                                 |                              |
| Large Cap U.S. Equity                      | <u>\$ 4,009.4</u>             | 51.9%                           | 8.8%                         |

# Summary of PSERS' U.S. Equity Portfolios (unaudited)

(as of December 31, 2008)

(continued)

|  | Market Value<br>(in millions) |                | % of<br>U.S.<br><u>Equities</u> | % of<br>Total<br><u>Fund</u> |
|--|-------------------------------|----------------|---------------------------------|------------------------------|
| Actively Managed Mid and Small Cap Portfolios  |                               |                |                                 |                              |
| AH Lisanti Capital Growth, LLC                 | \$                            | 20.2           | 0.3%                            | 0.0%                         |
| Boston Company Asset Management                |                               | 100.6          | 1.3%                            | 0.2%                         |
| Conestoga Capital Advisors                     |                               | 35.7           | 0.5%                            | 0.1%                         |
| Emerald Advisors, Inc.                         |                               | 99.6           | 1.3%                            | 0.2%                         |
| First Pacific Advisors, Inc.                   |                               | 145.6          | 1.9%                            | 0.3%                         |
| Harvest MLP II                                 |                               | 30.6           | 0.4%                            | 0.1%                         |
| NorthPointe Capital, LLC                       |                               | 110.7          | 1.4%                            | 0.2%                         |
| Opus Capital Management                        |                               | 25.6           | 0.3%                            | 0.1%                         |
| Wellington Mgmt. Co., LLP                      |                               | 111.0          | 1.4%                            | 0.2%                         |
| William Blair & Co.                            |                               | 81.7           | 1.1%                            | 0.2%                         |
| Other  |                               | 0.1            | <u>0.0%</u>                     | <u>0.0%</u>                  |
| Total Actively Managed Mid and                 |                               |                |                                 |                              |
| Small Cap U.S. Equity                          | \$                            | <u>761.5</u>   | 9.9%                            | 1.7%                         |
| Actively Managed MicroCap Portfolios           |                               |                |                                 |                              |
| Ativo Capital Management                       | \$                            | 15.6           | 0.2%                            | 0.0%                         |
| Donald Smith & Co., Inc.                       |                               | 25.6           | 0.3%                            | 0.1%                         |
| NorthPointe Capital, LLC                       |                               | 37.1           | 0.5%                            | 0.1%                         |
| Oberweis Asset Management, Inc.                |                               | 38.7           | 0.5%                            | 0.1%                         |
| Thomson Horstman & Bryant, Inc.                |                               | 32.4           | 0.4%                            | 0.1%                         |
| Turner Investment Partners                     |                               | 61.0           | <u>0.8%</u>                     | <u>0.1%</u>                  |
| Total Actively Managed<br>MicroCap U.S. Equity | <u>\$</u>                     | <u>210.4</u>   | 2.7%                            | 0.5%                         |
| Total U.S. Equity                              | <u>\$</u>                     | <u>7,726.9</u> | <u>100.0%</u>                   | <u>17.0%</u>                 |

### Summary of PSERS' Non-U.S. Equity Investments (as of December 31, 2008)

Non-U.S. Equities represent one of six major asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies equity investments and balances equity management styles. PSERS contracts with external investment managers and hires internal portfolio managers to manage Non-U.S. portfolios.

### Policy

Non-U.S. Equities are utilized by the Fund primarily because their expected large return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Non-U.S. Equity asset class is to be managed on a total return basis.

Non-U.S. Equity investments shall consist almost entirely of publicly-traded securities listed on the exchanges in the countries approved by PSERS that provide PSERS with an equity interest in private sector concerns (i.e. common stock, preferred stock, convertible preferred stock, convertible bonds, etc.) or derivatives such as swaps or listed futures to replicate the performance of Non-U.S. Equity indexes such as the ACWI x-U.S. Index.

PSERS' Asset Allocation targets an eventual allocation of 23.3% of assets to Non-U.S. Equities. It assigns the investment of 75% of Non-U.S. Equities in generally large capitalization stocks of developed and emerging markets, 15% of Non-U.S. Equities in generally small capitalization stocks of developed and emerging markets, and 10% of Non-U.S. Equities in medium/small capitalization stocks in emerging markets. Non-U.S. Equities are targeted to be 57% actively-managed and 43% passively-managed.

Market Value as of December 31, 2008: \$9,719.6 million, or 21.4% of the Fund's total market value.

**Number of External Investment Managers:** PSERS had contracts with 23 external investment managers responsible for various Non-U.S. Equity portfolios (including 1 Public Market Emerging Investment Manager Program manager).

**Number of Internal Portfolio Managers:** PSERS had 1 employee managing a Non-U.S. Equity portfolio.

### **Types of Investment Portfolios at December 31, 2008:**

- 81.6% large capitalization stock strategies, 8.0% small capitalization strategies, 12.2% emerging market stock strategies, and (1.8)% currency hedge
- 40.6% passively-managed portfolios (managed internally) and 59.4% actively-managed portfolios (managed externally)

# Summary of PSERS' Non-U.S. Equity Portfolios (unaudited)

(as of December 31, 2008)

|  | Market<br>(in mill |                | % of<br>Non-U.S.<br><u>Equities</u> | % of<br>Total<br><u>Fund</u> |
|--|--------------------|----------------|-------------------------------------|------------------------------|
| <u>Passively Managed Portfolio</u><br>PSERS ACWI x-US Index Fund | <u>\$</u>          | 3,947.0        | 40.6%                               | 8.7%                         |
| Actively Managed Developed Large Cap                             |                    |                |                                     |                              |
| <u>Portfolios</u>  |                    |                |                                     |                              |
| Alliance Bernstein Inst. Investment Mgmt.                        | \$                 | 554.2          | 5.7%                                | 1.2%                         |
| Baillie Gifford Overseas Ltd.                                    |                    | 710.5          | 7.3%                                | 1.6%                         |
| Barclays Global Investors, N.A.                                  |                    | 543.5          | 5.6%                                | 1.2%                         |
| John Hsu Capital Group, Inc.                                     |                    | 42.4           | 0.4%                                | 0.1%                         |
| Marathon Asset Management Limited                                |                    | 714.4          | 7.4%                                | 1.6%                         |
| Martin Currie, Inc.<br>Mercator Asset Management                 |                    | 642.3<br>740.9 | 6.6%<br>7.6%                        | 1.4%<br>1.6%                 |
| e  |                    | 740.9<br>31.3  |                                     |                              |
| Shah Capital Management  |                    | <u>31.3</u>    | <u>0.3%</u>                         | <u>0.1%</u>                  |
| Total Actively Managed   |                    |                |                                     |                              |
| Developed Large Cap Non-U.S. Equity                              | <u>\$</u>          | <u>3,979.6</u> | 40.9%                               | 8.8%                         |
| Actively Managed Emerging Market Portfolios                      |                    |                |                                     |                              |
| Batterymarch Financial Mgmt., Inc.                               | \$                 | 143.3          | 1.5%                                | 0.3%                         |
| Boston Co. Asset Management                                      |                    | 206.8          | 2.1%                                | 0.5%                         |
| Templeton Investment Counsel, Inc.                               |                    | 181.5          | 1.9%                                | 0.4%                         |
| Wellington Management Co., LLP                                   |                    | 164.2          | 1.7%                                | 0.4%                         |
| William Blair & Co.  |                    | 78.9           | <u>0.8%</u>                         | <u>0.2%</u>                  |
| Total Actively Managed   |                    |                |                                     |                              |
| <b>Emerging Market Non-U.S. Equity</b>                           | <u>\$</u>          | 774.7          | 8.0%                                | 1.7%                         |
| Actively Managed Developed Small Cap                             |                    |                |                                     |                              |
| <u>Portfolios</u>  |                    |                |                                     |                              |
| Acadian Asset Management   | \$                 | 136.2          | 1.4%                                | 0.3%                         |
| AXA Rosenberg Investment Management                              |                    | 174.3          | 1.8%                                | 0.4%                         |
| Batterymarch Small Cap   |                    | 118.3          | 1.2%                                | 0.3%                         |
| Globeflex Capital, L.P.  |                    | 125.5          | 1.3%                                | 0.3%                         |
| Munder Capital Management  |                    | 140.9          | 1.4%                                | 0.3%                         |
| Oberweis Asset Management  |                    | 41.1           | 0.4%                                | 0.1%                         |
| Pyramis Global Advisors  |                    | 63.8           | 0.7%                                | 0.1%                         |
| Victory Capital Management                                       |                    | 110.8          | 1.1%                                | 0.2%                         |
| Wasatch Advisors, Inc.   | 4                  | 182.8          | 1.9%                                | 0.4%                         |
| Wasatch Advisors – Small Cap Emerging Marke                      | ets                | 95.4           | <u>1.0%</u>                         | <u>0.2%</u>                  |
| Total Actively Managed Developed Small                           |                    |                |                                     |                              |
| Cap Non-U.S. Equity  | <u>\$</u>          | 1,189.0        | 12.2%                               | 2.6%                         |
| Numbers may not add due to rounding.                             |                    |                |                                     |                              |

### Summary of PSERS' Non-U.S. Equity Portfolios (unaudited) (as of December 31, 2008)

(continued)

|  | Market Value<br>(in millions) | % of<br>Non-U.S.<br><u>Equities</u> | % of<br>Total<br><u>Fund</u> |
|--|-------------------------------|-------------------------------------|------------------------------|
| <u>Actively Managed Currency Hedge Portfolio</u><br>Pareto Investment Management, Ltd. | <u>\$-170.6</u> a             | a -1.8%                             | -0.4%                        |
| Total Non-U.S. Equity  | <u>\$    9,719.6</u>          | <u>100.0%</u>                       | <u>21.4%</u>                 |

a - The Market Value represents the cumulative net loss on unsettled foreign exchange contracts.

# Summary of PSERS' Fixed Income Investments

(as of December 31, 2008)

Fixed Income represents one of six major asset classes that PSERS uses to diversify the investments of the Fund. PSERS' investment plan diversifies Fixed Income investments and balances Fixed Income management styles. PSERS contracts with external investment managers and hires internal portfolio managers to manage portfolios.

## Policy

Fixed Income investments are utilized by the Fund primarily because of their ability to serve as a hedge against disinflation and/or deflation (in the case of nominal bonds), their ability to serve as a hedge against inflation (in the case of Treasury Inflation-Protected Securities (TIPS)), and because such investments help diversify the overall Fund. The Fixed Income class is to be managed on a total return basis.

PSERS' Asset Allocation targets an eventual allocation of 22% of assets to Fixed Income, 36% of which is designated to core/core plus strategies, 23% of which is designated to TIPS strategies, 23% is designated to high yield and opportunistic fixed income strategies, and 18% which is designated to global core/core plus strategies. Of the total Fixed Income allocation, 70% is assigned to U.S. fixed income portfolios and 30% is assigned to global fixed income portfolios. Fixed Income Investments are targeted to be 100% actively managed.

Market Value as of December 31, 2008: \$10,444.8 million, or 23.0% of the Fund's total market value.

**Number of External Investment Managers:** PSERS had contracts with 18 external investment managers responsible for various Fixed Income portfolios (including 3 Public Market Emerging Investment Manager Program managers).

**Number of Internal Portfolio Managers:** PSERS had 3 employees managing various Fixed Income portfolios.

### **Types of Investment Portfolios at December 31, 2008:**

- 87.6% U.S. fixed income portfolios and 12.4% global fixed income portfolios
- 42.8% core/core plus strategy portfolios, 24.1% TIPS portfolios, 20.7% collectively in the high yield, absolute return, and credit opportunity strategy portfolios, and 12.4% global core/core plus strategy portfolios
- 32.1% was managed by internal portfolio managers and 67.9% is managed by external investment managers

# Summary of PSERS' Fixed Income Portfolios (unaudited)

(as of December 31, 2008)

|   | Market Value      | % of<br>Total Fixed | % of<br>Total |
|---|-------------------|---------------------|---------------|
|   | (in millions)     | Income              | <u>Fund</u>   |
| Actively Managed U.S. Core/Core Plus Fixed                | <u>(m minons)</u> | <u>meome</u>        | <u>1 6110</u> |
| Income Portfolios   |                   |                     |               |
| Aberdeen Asset Management, Inc.                           | \$ 403.3          | 3.9%                | 0.9%          |
| Barclays Global Investors, N.A.                           | 880.5             | 8.4%                | 1.9%          |
| BlackRock Financial Management, Inc.                      | 619.8             | 5.9%                | 1.4%          |
| Pacific Investment Mgmt. Co. (PIMCO)                      | 642.1             | 6.1%                | 1.4%          |
| Piedmont Investment Advisors                              | 17.3              | 0.2%                | 0.0%          |
| PSERS Active Aggregate                                    | 1,249.5           | 12.0%               | 2.8%          |
| Pugh Capital Management, Inc.                             | 17.5              | 0.2%                | 0.0%          |
| Western Asset Management Co.                              | 386.8             | 3.7%                | 0.9%          |
| Other   | 255.8             | <u>2.4%</u>         | <u>0.6%</u>   |
| Total Actively Managed U.S. Core/Core Plus                |                   |                     |               |
| Fixed Income  | <u>\$4,472.7</u>  | 42.8%               | 9.9%          |
| Actively Managed Treasury Inflation-Protected Securities  |                   |                     |               |
| (TIPS) Portfolios   |                   |                     |               |
| Bridgewater Associates, Inc.                              | \$ 667.8          | 6.4%                | 1.5%          |
| PSERS TIPS Portfolio                                      | 1,846.9           | <u>17.7%</u>        | <u>4.1%</u>   |
| Total Actively Managed Treasury Inflation-Protected       |                   |                     |               |
| Securities (TIPS)   | <u>\$ 2,514.7</u> | 24.1%               | 5.5%          |
| <u>Actively Managed High Yield Fixed Income Portfolio</u> |                   |                     |               |
| MacKay-Shields Financial Corporation                      | <u>\$ 339.1</u>   | 3.2%                | 0.7%          |
| Actively Managed Absolute Return Portfolio                |                   |                     |               |
| Brigade Capital Management                                | <u>\$ 426.7</u>   | 4.1%                | 0.9%          |
| Actively Managed Credit Opportunity Portfolios            |                   |                     |               |
| BlackRock Mortgage (Offshore) Investors                   | \$ 326.0          | 3.1%                | 0.7%          |
| Hyperion Brookfield Asset Management, Inc.                | 331.1             | 3.2%                | 0.7%          |
| LBC Credit Partners II, LP                                | 18.0              |                     | 0.0%          |
|   | 10.0              | 0.270               | 0.070         |

### Summary of PSERS' Fixed Income Portfolios (unaudited) (as of December 31, 2008)

(continued)

|   |                      | % of          | % of         |
|---|----------------------|---------------|--------------|
|   | Market Value         | Total Fixed   | Total        |
|   | <u>(in millions)</u> | Income        | <u>Fund</u>  |
| Actively Managed Credit Opportunity Portfolios (cont'd) |                      |               |              |
| Oaktree Loan Fund                                       | \$ 243.9             | 2.3%          | 0.5%         |
| Sankaty Credit Opportunities Fund IV, LP                | 238.4                | 2.3%          | 0.5%         |
| Stillwater Capital Partners, Inc.                       | 50.9                 | 0.5%          | 0.1%         |
| TCW Credit Opportunities Fund, LP                       | 187.1                | 1.8%          | 0.4%         |
| Total Actively Managed Credit Opportunity               |                      |               |              |
| Fixed Income  | <u>\$ 1,395.4</u>    | 13.4%         | 3.1%         |
| Total Actively Managed U.S.                             |                      |               |              |
| Fixed Income  | <u>\$ 9,148.6</u>    | 87.6%         | 20.2%        |
|   |                      |               |              |
| Actively Managed Global Core Plus Fixed                 |                      |               |              |
| Income Portfolios                                       |                      |               |              |
| Aberdeen Asset Management, Inc.                         | \$ 396.7             | 3.8%          | 0.9%         |
| Fischer, Francis, Trees & Watts, Inc.                   | 428.6                | 4.1%          | 0.9%         |
| Rogge Global Partners                                   | 470.8                | <u>4.5%</u>   | <u>1.0%</u>  |
| Total Actively Managed Global Core Plus                 |                      |               |              |
| Fixed Income  | <u>\$ 1,296.1</u>    | 12.4%         | 2.9%         |
|   | <u> </u>             | -             |              |
| Total Fixed Income                                      | <u>\$ 10,444.8</u>   | <u>100.0%</u> | <u>23.0%</u> |
|   |                      |               |              |

# Summary of PSERS' Commodity Investments

(as of December 31, 2008)

Commodities represent one of six major asset classes that PSERS uses to diversify the investments of the Fund. PSERS investment plan diversifies Commodity Investments and balances Commodity management styles. PSERS contracts with external investment managers to manage commodity portfolios.

### Policy

The Fund benchmarks its Commodity Investments to the Dow Jones-AIG Commodity Index (DJ AIG). The DJ AIG is a broadly diversified basket of 20 commodities from 4 sectors (energy, industrial metals, precious metals, and agriculture).

Commodity investments are utilized by the Fund for diversification within the portfolio and to act as a hedge against unanticipated inflation. The prices of commodities are determined primarily by near-term events in global supply and demand conditions and are positively related with both the level of inflation and the changes in the rate of inflation. However, stock and bond valuations are based on longer-term expectations and react negatively to inflation. Therefore, commodity returns have had a historically negative correlation to stock and bond returns. As such, commodities, when combined with stocks and bonds, lower the risk of a portfolio.

PSERS' Asset Allocation currently targets an allocation of 5.0% of assets to Commodity Investments, 40% of which is designated to full discretion active strategies and 60% of which is designated to core/enhanced strategies. Full discretion strategies permit the use of both commodity derivatives (futures and swaps) and commodity-related stocks to gain commodity exposure. Core/enhanced strategies use only commodity derivatives to gain commodity exposure. Commodity Investments are targeted to be 100.0% actively managed.

Market Value of December 31, 2008: \$1,401.3 million, or 3.1% of the Fund's total market value.

**Number of External Investment Managers:** PSERS had contracts with 5 external investment managers to manage Commodity portfolios.

### Number of Internal Portfolio Managers: None.

### **Type of Investment Portfolios at December 31, 2008:**

- 49.4% full discretion strategy portfolio and 50.6% core/enhanced strategy portfolio
- 100.0% was managed by external investment managers

# Summary of PSERS' Commodity Portfolios (unaudited)

(as of December 31, 2008)

|   | Market V<br>(in mill |               | % of<br>Total<br><u>Commodities</u> | % of<br>Total<br><u>Fund</u> |
|---|----------------------|---------------|-------------------------------------|------------------------------|
| Full Discretion Commodity Portfolios            |                      |               |                                     |                              |
| Deutsche Asset Management                       | \$                   | 255.6         | 18.2%                               | 0.6%                         |
| Wellington Management Company, LLP              |                      | 437.0         | <u>31.2%</u>                        | <u>1.0%</u>                  |
| <b>Total Full Discretion Commodities</b>        | <u>\$</u>            | <u>692.7</u>  | 49.4%                               | 1.5%                         |
| Core/Enhanced Commodity Portfolios              |                      |               |                                     |                              |
| Credit Suisse Asset Management                  | \$                   | 248.6         | 17.7%                               | 0.5%                         |
| Neuberger Inv. Mgmt. (formerly Lehman Brothers) |                      | 244.6         | 17.5%                               | 0.5%                         |
| Schroders Investment Management                 |                      | 215.4         | <u>15.4%</u>                        | <u>0.5%</u>                  |
| <b>Total Core/Enhanced Commodities</b>          | <u>\$</u>            | <u>708.6</u>  | 50.6%                               | 1.6%                         |
| Total Commodities                               | <u>\$ 1</u>          | <u>,401.3</u> | <u>100.0%</u>                       | <u>3.1%</u>                  |

### Summary of PSERS' Real Estate Investments (as of December 31, 2008)

Real Estate represents one of six major asset classes that PSERS uses to diversify the investments of the Fund. The primary objective of the real estate program is to invest in real property directly or indirectly through global publicly-traded real estate securities (PTRES), direct investments, commingled fund investments, limited partnerships, and direct private placements. This is done in a prudent manner to create a diversified real estate portfolio of high quality investments which will enhance PSERS' overall long-term investment performance, diversify the asset base, and reduce the volatility of returns of the total investment portfolio.

### Policy

The real estate program is designed to create the highest possible risk-adjusted returns in a controlled, coordinated, and comprehensive manner. Recognizing that real estate market conditions and PSERS' objectives for real estate may change over time, the program is reviewed periodically and updated as needed. The existing target allocation is 13.0% of total assets.

Investments are made through global PTRES, direct investments, commingled fund investments, limited partnerships, and direct private placements. It is PSERS' intent to liquidate any investment at the point in time when its value has been maximized. PSERS seeks to diversify its real estate portfolio by investing in a mix of Opportunistic (50%), Value Added (30%) and Core (20%) real estate investments.

**Opportunistic** real estate investing is the financing, acquisition or investment in real estate assets, real estate companies, portfolios of real estate assets, private and public REIT's that do not have access to traditional public equity or debt financing. Opportunistic real estate consists of investment strategies that seek to exploit market inefficiencies with an emphasis on total return. Opportunistic investments require specialized expertise and the flexibility to respond quickly to market imbalances or changing market conditions. Investments may include non-traditional property types and/or assets that involve development, re-development, or leasing risks.

<u>Value Added</u> real estate investing typically focuses on both income growth and appreciation potential, where opportunities created by dislocations and inefficiencies between and within segments of the real estate capital markets are capitalized upon to enhance returns. Investments can include high-yield equity and debt investments and undervalued or impaired properties in need of repositioning, re-development or leasing.

<u>Core</u> real estate investing is the financing, acquisition or investment in real estate assets, real estate companies, portfolios of real estate assets, private REITs that are broadly diversified by property type and location, focused primarily on completed, well-leased properties with modest levels of leasing risk, using relatively low leverage, and investing mainly in institutional property types and qualities allowing for relative ease of resale.

### Summary of PSERS' Real Estate Investments (as of December 31, 2008) (continued)

**Market Value as of December 31, 2008:** \$5,839.0 million or 12.8% of the Fund's total market value. This market value represents the combination of December 31, 2008 and September 30, 2008 market values adjusted for cash flows that occurred during the fourth quarter of 2008.

**Number of External Investment Managers:** PSERS had contracts with 7 external public market real estate investment managers, 5 external directly managed real estate asset managers, and 79 external general partners to manage the real estate separate account, public securities, and pool fund portfolios.

**Number of Internal Portfolio Managers:** PSERS had 2 employees managing real estate portfolios.

### Type of Investment Portfolios at December 31, 2008

- 4.9% Separate Account Portfolio
- 10.5% Public Securities Portfolio
- 84.6% Pooled Fund Portfolio

# Summary of PSERS' Real Estate Portfolios (unaudited)

(as of December 31, 2008)

| Separate Accounts   |           | ket Value<br><u>nillions)</u> | % of Total<br><u>Real Estate</u> | % of Total<br><u>Fund</u> |
|---|-----------|-------------------------------|----------------------------------|---------------------------|
| Charter Oak Advisors, Inc.  | \$        | 114.4                         | 2.0%                             | 0.3%                      |
| GF Management, Inc.   |           | 100.1                         | 1.7%                             | 0.2%                      |
| Grandbridge Real Estate Capital, LLC  |           | 3.2                           | 0.1%                             | 0.0%                      |
| Grosvenor Investment Management U.S., Inc.  |           | 7.6                           | 0.1%                             | 0.0%                      |
| L&B Realty Advisors, LLP  |           | 36.3                          | 0.6%                             | 0.1%                      |
| Prudential Agricultural Group   |           | 24.6                          | 0.4%                             | <u>0.1%</u>               |
| Total Real Estate Separate  |           |                               |                                  |                           |
| Accounts  | <u>\$</u> | 286.3                         | 4.9%                             | 0.6%                      |
| <u>Public Securities</u><br><u>Actively Managed Publicly Traded Real Estate Securities</u><br><u>Portfolios</u> |           |                               |                                  |                           |
| Cohen and Steers Capital Management, Inc.   | \$        | 50.6                          | 0.9%                             | 0.1%                      |
| European Investors Inc.   |           | 100.4                         | 1.7%                             | 0.2%                      |
| LaSalle Investment Management   |           | 46.4                          | 0.8%                             | 0.1%                      |
| Morgan Stanley Investment Mgmt., Inc.   |           | 203.0                         | 3.5%                             | 0.4%                      |
| ProLogis Trust  |           | 13.9                          | 0.2%                             | 0.0%                      |
| Security Capital Research & Management, Inc Preferred   |           |                               |                                  |                           |
| Growth  |           | 114.4                         | 2.0%                             | 0.2%                      |
| Security Capital Research & Management, Inc.  |           | 80.1                          | <u>1.4%</u>                      | 0.2%                      |
| Total Actively Managed Publicly Traded Real Estate Securities   | <u>\$</u> | <u>608.8</u>                  | 10.5%                            | 1.3%                      |

# Summary of PSERS' Real Estate Portfolios (unaudited)

(as of December 31, 2008)

| (C | ontin                      | ned) |  |
|----|----------------------------|------|--|
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|   | Market Value         | % of Total  | % of Total |
|---|----------------------|-------------|------------|
| <b>Pooled Funds</b>                                 | <u>(in millions)</u> | Real Estate | Fund       |
|   |                      |             |            |
| Apollo European Real Estate Fund III, L.P.          | \$ 27.9              | 0.5%        | 0.1%       |
| Apollo Real Estate Finance Corp.                    | 73.4                 | 1.3%        | 0.2%       |
| AREFIN Co-Invest Corp.                              | 11.9                 | 0.2%        | 0.0%       |
| AvalonBay Value Added Fund, L.P.                    | 78.6                 | 1.4%        | 0.2%       |
| Avenue Real Estate Fund Parallel, L.P.              | 65.5                 | 1.1%        | 0.1%       |
| Beacon Capital Strategic Partners V, L.P.           | 102.9                | 1.8%        | 0.2%       |
| Berwind Property Group, Fund IV                     | 0.2                  | 0.0%        | 0.0%       |
| Berwind Property Group, Fund V                      | 23.7                 | 0.4%        | 0.1%       |
| Blackstone Real Estate Partners V. TE.1, L.P.       | 201.5                | 3.5%        | 0.4%       |
| Blackstone Real Estate Partners VI. TE.1, L.P.      | 175.5                | 3.0%        | 0.4%       |
| BPG Co-Investment Partnership, L.P.                 | 22.1                 | 0.4%        | 0.0%       |
| BPG Investment Partnership VI, L.P.                 | 53.2                 | 0.9%        | 0.1%       |
| Broadway Partners Parallel Fund P III, L.P.         | 93.3                 | 1.6%        | 0.2%       |
| Cabot Industrial Value Fund III, L.P.               | 1.5                  | 0.0%        | 0.0%       |
| Carlyle Europe Real Estate Partners III-A, L.P.     | 65.9                 | 1.1%        | 0.1%       |
| Carlyle Realty III, L.P.                            | 71.0                 | 1.2%        | 0.2%       |
| Carlyle Realty IV, L.P.                             | 101.6                | 1.8%        | 0.2%       |
| Carlyle Realty V, L.P.                              | 188.5                | 3.3%        | 0.4%       |
| Centerline High Yield CMBS Fund III, LLC            | 91.1                 | 1.6%        | 0.2%       |
| Centerline RE Special Situations Mortgage Fund, LLC | 68.9                 | 1.2%        | 0.2%       |
| Cornerstone Patriot Fund, L.P.                      | 96.2                 | 1.7%        | 0.2%       |
| CS Strategic Partners IV Real Estate, L.P.          | 47.2                 | 0.8%        | 0.1%       |
| CSFB Strategic Partners II RE, L.P.                 | 24.3                 | 0.4%        | 0.1%       |
| CSFB Strategic Partners III RE, L.P.                | 52.6                 | 0.9%        | 0.1%       |
| DLJ Real Estate Capital Partners II, L.P.           | 38.6                 | 0.7%        | 0.1%       |
| DLJ Real Estate Capital Partners III, L.P.          | 112.4                | 1.9%        | 0.2%       |
| DLJ Real Estate Capital Partners IV, L.P.           | 44.2                 | 0.8%        | 0.1%       |
| DRA Growth and Income Fund VI, L.P.                 | 45.5                 | 0.8%        | 0.1%       |
| Filmore West Fund, L.P.                             | 79.4                 | 1.4%        | 0.2%       |
| Five Arrows Realty Securities V, L.P.               | 14.8                 | 0.3%        | 0.0%       |
| Fortress Investment Fund IV, L.P.                   | 89.6                 | 1.5%        | 0.2%       |
| Fortress Investment Fund V (Fund A), L.P.           | 61.9                 | 1.1%        | 0.1%       |
| Fortress PSERS Investment, L.P.                     | 81.6                 | 1.4%        | 0.2%       |
| Hines U.S. Office Value Added Fund, L.P.            | 78.1                 | 1.3%        | 0.2%       |
| JPMCB Strategic Property Fund                       | 25.3                 | 0.4%        | 0.1%       |
|   |                      |             |            |

### Summary of PSERS' Real Estate Portfolios (unaudited) (as of December 31, 2008)

(continued)

|  | Market Value  | % of Total  | % of Total  |
|--|---------------|-------------|-------------|
| <b>Pooled Funds (cont'd)</b>                           | (in millions) | Real Estate | <u>Fund</u> |
| Legg Mason Real Estate Capital, Inc.                   | \$ 15.2       | 0.3%        | 0.0%        |
| Legg Mason Real Estate Capital II, Inc.                | 66.5          | 1.1%        | 0.1%        |
| Lehman Brothers PSERS Real Estate, L.P.                | 94.2          | 1.6%        | 0.2%        |
| Lehman Brothers Real Estate Pension Partners II, L.P.  | 151.2         | 2.6%        | 0.3%        |
| Lehman Brothers Real Estate Pension Partners III, L.P. | 59.8          | 1.0%        | 0.1%        |
| LEM Real Estate Mezzanine Fund II, L.P.                | 26.4          | 0.5%        | 0.1%        |
| LF Strategic Realty Investors I, L.P.                  | 2.5           | 0.0%        | 0.0%        |
| LF Strategic Realty Investors II, L.P.                 | 100.0         | 1.7%        | 0.2%        |
| Lubert-Adler Real Estate Fund II, L.P.                 | 4.4           | 0.1%        | 0.0%        |
| Lubert-Adler Real Estate Fund III, L.P.                | 40.1          | 0.7%        | 0.1%        |
| Lubert-Adler Real Estate Fund IV, L.P.                 | 68.2          | 1.2%        | 0.2%        |
| Lubert-Adler Real Estate Fund V, L.P.                  | 86.7          | 1.5%        | 0.2%        |
| Lubert-Adler Real Estate Fund VI, L.P.                 | 29.9          | 0.5%        | 0.1%        |
| Madison Marquette Retail Enhancement Fund, L.P.        | 26.8          | 0.5%        | 0.1%        |
| MGPA Asia Fund III, L.P.                               | 32.0          | 0.6%        | 0.1%        |
| MGPA Europe Fund III, L.P.                             | 23.5          | 0.4%        | 0.1%        |
| Morgan Stanley Real Estate Fund II L.P.                | 33.3          | 0.6%        | 0.1%        |
| Morgan Stanley Real Estate Fund IV Sp. Dom. L.P.       | 43.8          | 0.8%        | 0.1%        |
| Morgan Stanley Real Estate Fund IV Sp. Int'l L.P.      | 40.2          | 0.7%        | 0.1%        |
| Morgan Stanley Real Estate Fund V Sp. Int'l L.P.       | 164.5         | 2.8%        | 0.4%        |
| Morgan Stanley Real Estate Fund V Sp. U.S. L.P.        | 106.1         | 1.8%        | 0.2%        |
| Morgan Stanley Real Estate Fund VI Sp. Int'l L.P.      | 190.3         | 3.3%        | 0.4%        |
| O'Connor North American Property Partners, L.P.        | 101.4         | 1.7%        | 0.2%        |
| O'Connor North American Property Partners II, L.P.     | 69.7          | 1.2%        | 0.2%        |
| Paladin Realty Latin America III, L.P.                 | 19.3          | 0.3%        | 0.0%        |
| Peabody Global Real Estate Partners, L.P.              | 10.1          | 0.2%        | 0.0%        |
| Prime Property Fund, LLC                               | 54.8          | 0.9%        | 0.1%        |
| PRISA  | 111.6         | 1.9%        | 0.2%        |
| ProLogis North American Industrial Fund, L.P.          | 171.3         | 3.0%        | 0.4%        |
| RCG Longview Debt Fund IV, L.P.                        | 65.7          | 1.1%        | 0.1%        |
| RCG Longview Equity Fund PA PSERS, L.P.                | 42.5          | 0.7%        | 0.1%        |
| RREEF America REIT II, Inc.                            | 11.4          | 0.2%        | 0.0%        |
| Stockbridge Real Estate Fund I, L.P.                   | 183.8         | 3.2%        | 0.4%        |

### Summary of PSERS' Real Estate Portfolios (unaudited) (as of December 31, 2008)

(continued)

| Pooled Funds (cont'd)                           |           | ket Value<br>nillions) | % of Total<br><u>Real Estate</u> | % of Total<br><u>Fund</u> |
|---|-----------|------------------------|----------------------------------|---------------------------|
| Stockbridge Real Estate Fund II-A, L.P.         | \$        | 69.3                   | 1.2%                             | 0.2%                      |
| Stockbridge Real Estate Fund III, L.P.          |           | 28.3                   | 0.5%                             | 0.1%                      |
| Strategic Partners Value Enhancement Fund, L.P. |           | 46.9                   | 0.8%                             | 0.1%                      |
| UBS Trumbull Property Fund, L.P.                |           | 83.9                   | 1.4%                             | 0.2%                      |
| Westbrook Real Estate Fund, L.P.                |           | 1.2                    | 0.0%                             | 0.0%                      |
| Whitehall Street Real Estate V & VI, L.P.       |           | 0.3                    | 0.0%                             | 0.0%                      |
| Whitehall Street Real Estate VII & VIII, L.P.   |           | 3.6                    | 0.1%                             | 0.0%                      |
| William E. Simon & Sons Realty Partners, L.P.   |           | 53.1                   | <u>0.9%</u>                      | 0.1%                      |
| Total Real Estate Pooled Fund                   | <u>\$</u> | <u>4,943.9</u>         | 84.6%                            | 10.8%                     |
| Total Real Estate                               | <u>\$</u> | <u>5,839.0</u>         | 100.0%                           | 12.8%                     |

### Summary of PSERS' Private Market Investments (as of December 31, 2008)

Private Market Investments represents one of six major asset classes that PSERS uses to diversify the investments of the Fund. The Private Market Investments program is a portion of PSERS asset allocation used to diversify the Fund. 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 PSERS for the purpose of investing in and managing private equity and unlisted-subordinated debt positions on behalf of PSERS and other limited partners. PSERS' Asset Allocation currently targets an allocation of 18.5% to Private Market Investments. Private Market Investment sub-asset class explanations are as follows:

**<u>Private Equity</u>** involves investments in private companies which normally do not have technology risk associated with traditional venture capital investments. It has evolved to include the financing of more mature, profitable companies that do not have access to, or qualify for, public equity and debt funding. Private Equity strategies include:

<u>Buyouts</u> - Investment strategy is to acquire the assets of a publicly or privately held company. A subset of this category is the leveraged buyout, where financing enables companies to be acquired through the use of borrowed funds. Typically, the assets of target companies serve as collateral for loans originated in the transaction.

<u>Secondary Partnerships</u> - An investment strategy to acquire interests in established limited partnerships. Secondary investing can often be lucrative due to the fact that the partnerships are purchased at significant discounts to net asset value and the timing of the purchase frequently occurs as the acquired partnerships begin to realize profits.

**Venture Capital** is considered the financing of young, relatively small, rapidly growing companies. In traditional venture capital investments, companies have a 5-10 year investment horizon and develop technology for a particular market, such as pharmaceuticals, software, medical products, etc. Venture capital strategies are typically classified as follows:

<u>Seed</u> - An investment strategy that involves companies that are still in the conceptual stage of growth. Seed stage investing involves product viability risk.

*Early Stage* - An investment strategy involving financing portfolio companies for product development and initial marketing, manufacturing and sales activities. Typically, early stage companies have been formed, but revenues have not been realized. Early stage investment involves risks associated with defining competitive markets, developing production and marketing channels.

<u>Later Stage</u> - An investment strategy involving financing portfolio companies for rapid expansion. Risk at this stage revolves around capturing market share while increasing production and delivery capabilities and building sales volume.

<u>Balanced</u> - An investment strategy including a variety of portfolio company development stages (Seed, Early, Later, etc.).

#### Summary of PSERS' Private Market Investments (as of December 31, 2008) (continued)

**<u>Private Debt</u>** involves investments in the secured and/or unsecured debt obligations of private and/or public companies. This debt is typically acquired through directly negotiated or competitively bid transactions. Owners of these debt instruments typically take either an active or passive role in the management of the firm. Private Debt strategies are typically classified as follows:

<u>Mezzanine</u> - Investments in unsecured or junior debt securities with equity enhancements such as warrants or nominally priced equity.

<u>*Distressed Debt*</u> - Investments in the debt obligations of under-performing companies that are in need of operating or financial restructuring, and are either in or out of bankruptcy.

<u>Structured Products</u> - Investments in the debt tranche of a security that is generally leveraged and backed by a diversified pool of assets. Assets include bank debt, investment grade debt, non-investment grade debt, or mortgages.

### Policy

For the Private Market Investments program, PSERS long-term investment objective is to achieve a risk-adjusted total return, net of fees, that exceeds market returns for similar investments, or benchmark returns furnished by Venture Economics on a vintage year weighted basis.

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### Summary of PSERS' Private Market Investments (as of December 31, 2008)

(continued)

**Market Value as of December 31, 2008:** \$8,442.8 million, or 18.6% of the Fund's total market value. Sub-asset class market values (unaudited) and fund percentages were as follows:

|                 | Total Commitments  | Market Value      | Percent Allocation |
|-----------------|--------------------|-------------------|--------------------|
|                 | (in millions)      | (in millions)     | to Total Fund      |
| Private Equity  | \$ 15,711.8        | \$ 5,904.1        | 13.0%              |
| Venture Capital | 2,046.6            | 716.9             | 1.6%               |
| Private Debt    | 4,011.5            | 1,821.8           | 4.0%               |
| Totals          | <u>\$ 21,769.9</u> | <u>\$ 8,442.8</u> | <u> </u>           |

# Summary of PSERS' Private Market Investments

(as of December 31, 2008)

(continued)

An objective of PSERS' Private Market Investments program is to maintain investment diversification by industry, geographic location, and investment strategy. Diversification levels as of December 31, 2008, are as follows:

| Industry diversification (by number of companies in each industry):        |       |               |       |                |       |  |
|--|-------|---------------|-------|----------------|-------|--|
| Secondary funds  | 28.2% | Financial     | 10.1% | Transportation | 3.0%  |  |
| Services   | 12.4% | Medical       | 9.2%  | Energy         | 1.7%  |  |
| Industrial   | 11.0% | Communication | 6.6%  | Real Estate    | 1.7%  |  |
| Computer   | 10.5% | Consumer      | 4.9%  | Other          | 0.7%  |  |
| Geographical diversity (by percentage of companies located in each state): |       |               |       |                |       |  |
| International  | 23.7% | Texas         | 3.8%  | Maryland       | 1.7%  |  |
| New York   | 18.6% | New Jersey    | 3.1%  | Ohio           | 1.4%  |  |
| California   | 15.3% | Illinois      | 2.8%  | Michigan       | 1.3%  |  |
| Pennsylvania   | 5.1%  | Connecticut   | 2.0%  | Colorado       | 1.1%  |  |
| Massachusetts  | 5.1%  | Florida       | 1.9%  | Other          | 13.1% |  |

PSERS' **Private Equity** program has committed a total of \$15,711.8 million to 99 partnerships through December 31, 2008. 12 of these partnerships are located in Pennsylvania. 24 of the 29 international investment partnerships are included within the private equity sector. The international investments serve to increase the diversification of this asset class while providing the opportunity of increasing total returns.

PSERS' Venture Capital program consists of 36 partnerships with committed capital totaling \$2,046.6 million through December 31, 2008. A significant number of the venture capital partnerships, 20 out of 36, are located in Pennsylvania. 1 of the 29 international partnerships is included within the venture capital sector.

PSERS **Private Debt** program has committed \$4,011.5 million to 25 partnerships through December 31, 2008. Four of the 29 international partnerships are included within the private debt sector.

# Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited)

(as of December 31, 2008)

| <u>Private Equity</u>                            | Vintage<br><u>Year</u> | Capital<br><u>Committed</u> | Capital<br><u>Drawn</u> | Distributions * |
|--|------------------------|-----------------------------|-------------------------|-----------------|
| ABS Capital Partners II                          | 1996                   | \$ 40,000,000               | \$ 39,291,734           | \$ 45,555,770   |
| Actis Emerging Markets III, L.P.                 | 2008                   | 200,000,000                 | 21,365,625              | -71,836         |
| Allegheny New Mountain Partners, L.P.            | 2004                   | 100,000,000                 | 75,373,873              | 11,240,210      |
| Apax Europe VII, L.P.                            | 2007                   | 281,300,000                 | 116,019,550             | -119,052        |
| BG Media Investors, L.P.                         | 1997                   | 25,000,000                  | 24,629,069              | 20,000,769      |
| Baring Asia Private Equity Fund III, L.P.        | 2005                   | 122,500,000                 | 123,263,938             | 136,574,109     |
| Baring Asia Private Equity Fund IV, L.P.         | 2007                   | 300,000,000                 | 144,617,295             | 111,224         |
| Blue Point Capital Partners II (B), L.P.         | 2007                   | 100,000,000                 | 38,702,391              | -834,453        |
| Blue Point Capital Partners, L.P.                | 2001                   | 103,750,000                 | 81,091,925              | 98,546,453      |
| Bridgepoint Capital II (Secondary)               | 1998                   | 84,714,906                  | 81,290,641              | 162,520,963     |
| Bridgepoint Europe I                             | 1998                   | 79,622,624                  | 75,126,567              | 132,241,583     |
| Bridgepoint Europe II                            | 2001                   | 437,490,000                 | 308,986,530             | 509,226,332     |
| Bridgepoint Europe III A, L.P.                   | 2005                   | 281,300,000                 | 226,530,556             | -               |
| Bridgepoint Europe IV, L.P.                      | 2008                   | 421,950,000                 | -                       | -               |
| Bruckmann, Rosser, Sherrill & Co.                | 1995                   | 25,000,000                  | 24,363,888              | 42,767,075      |
| CS Strategic Partners IV, L.P.                   | 2008                   | 100,000,000                 | 27,500,000              | -486,066        |
| CSFB Strategic Partners II, L.P.                 | 2003                   | 300,000,000                 | 248,162,665             | 335,342,989     |
| CSFB Strategic Partners III-B, L.P.              | 2005                   | 200,000,000                 | 164,292,639             | 48,567,129      |
| CVC Capital Partners Asia Pacific III, L.P.      | 2008                   | 300,000,000                 | 68,229,074              | 106,557         |
| CVC European Equity Partners V (A), L.P.         | 2008                   | 421,950,000                 | 64,497,853              | -               |
| Capital International Private Equity Fund V L.P. | 2007                   | 200,000,000                 | 73,952,645              | 109,049         |
| Catterton Growth Partners, L.P.                  | 2008                   | 75,000,000                  | 19,512,169              | -48,247         |
| Catterton Partners V, L.P.                       | 2004                   | 100,000,000                 | 96,711,488              | 44,295,663      |
| Catterton Partners VI, L.P.                      | 2006                   | 130,000,000                 | 75,954,382              | 3,880,755       |
| Cinven Fund (Fourth), L.P.                       | 2006                   | 210,975,000                 | 114,460,269             | -               |
| Clarity Partners                                 | 2000                   | 203,590,000                 | 190,696,408             | 113,119,460     |
| Clarity PSERS II, L.P.                           | 2008                   | 31,383,333                  | 8,878,250               | -               |
| Credit Suisse Equity Partners                    | 1998                   | 137,172,500                 | 112,858,565             | 22,089,623      |
| Credit Suisse Int'l Equity Partners              | 1997                   | 83,000,000                  | 75,461,399              | 88,801,226      |
| Crestview Partners, L.P.                         | 2005                   | 150,000,000                 | 134,040,866             | 6,932,230       |
| Crestview Partners II (PF), L.P.                 | 2008                   | 200,000,000                 | -                       | -               |
| DLJ Merchant Banking Partners III, L.P.          | 2000                   | 300,000,000                 | 296,628,288             | 373,106,260     |
| DLJ Strategic Partners                           | 2001                   | 200,000,000                 | 184,372,790             | 247,206,676     |
| Deutsche European Partners IV                    | 1999                   | 200,000,000                 | 182,925,445             | 223,056,915     |
| Dubin Clark Fund II                              | 2000                   | 24,083,333                  | 23,435,569              | 14,973,837      |
| Edgewater Growth Capital Partners, L.P.          | 2001                   | 59,196,500                  | 56,828,640              | 32,684,212      |
| Edgewater Private Equity Fund III, L.P.          | 1998                   | 39,000,000                  | 39,000,000              | 13,627,787      |
| Evergreen Pacific Partners, L.P.                 | 2004                   | 50,000,000                  | 30,457,261              | 3,483           |
| Evergreen Pacific Partners II, L.P.              | 2008                   | 80,954,545                  | 1,140,514               | -               |
| First Reserve Fund XI, L.P.                      | 2006                   | 200,000,000                 | 147,405,668             | -               |

\*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitment.

## Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited)

(as of December 31, 2008) (continued)

|   | Vintage      | Capital                    | Capital                   |                 |
|---|--------------|----------------------------|---------------------------|-----------------|
| Private Equity (cont'd)   | Year         | Committed                  | Drawn                     | Distributions * |
|   |              |                            |                           |                 |
| Furman Selz II  | 1998         | \$ 56,250,000              | \$ 1,479,146              | \$ 84,359,369   |
| Furman Selz III   | 2000         | 100,000,000                | 83,771,367                | 176,821,659     |
| Graham Partners   | 1999         | 56,671,214                 | 45,390,146                | 40,321,467      |
| Green Equity Investors II   | 1994         | 25,000,000                 | 24,151,005                | 50,388,992      |
| Greenpark International Investors III L.P.                              | 2007         | 140,650,000                | 91,646,097                | 9,162,866       |
| Greenwich Street Capital Partners II<br>HSBC Privae Equity Fund 6, L.P. | 1998<br>2008 | 200,000,000<br>200,000,000 | 192,779,634<br>31,788,868 | 181,418,947     |
| Halifax Capital Partners  | 2008<br>1999 | 50,000,000                 | 39,469,823                | 52,372,972      |
| Heritage Fund I   | 1994         | 25,000,000                 | 24,999,999                | 23,298,166      |
| Irving Place Capital Partners II, L.P.                                  | 2000         | 300,000,000                | 273,296,935               | 220,974,595     |
| Irving Place Capital Partners III, L.P.                                 | 2006         | 150,000,000                | 56,529,940                | -               |
| Jefferies Capital Partners IV, L.P.                                     | 2005         | 100,000,000                | 51,927,175                | -5,541,361      |
| KKR 2006 Fund L.P.  | 2006         | 300,000,000                | 209,420,761               | 182,759         |
| KRG Capital Fund I  | 1999         | 50,000,000                 | 43,230,634                | 91,089,559      |
| KRG Capital Fund II   | 2001         | 100,000,000                | 71,141,048                | 112,626,471     |
| KRG Capital Fund III, L.P.  | 2005         | 88,000,000                 | 66,794,602                | 3,509,805       |
| KRG Capital Fund IV L.P.  | 2007         | 300,000,000                | 15,581,143                | -               |
| Landmark Equity Partners III  | 1993         | 27,085,010                 | 27,085,010                | 75,002,434      |
| Landmark Equity Partners IV   | 1994         | 10,533,687                 | 10,242,502                | 15,226,383      |
| Landmark Equity Partners XIII, L.P.                                     | 2006         | 100,000,000                | 74,003,649                | 18,522,154      |
| Landmark Equity Partners XIV, L.P.                                      | 2008         | 150,000,000                | 10,500,000                | -               |
| Landmark Mezzanine Partners   | 1995         | 75,000,000                 | 59,315,512                | 106,243,575     |
| Lehman Bros. Merchant Banking Partners II                               | 1997         | 158,552,133                | 158,552,133               | 200,513,826     |
| Lehman Bros. Merchant Banking Prtnrs IV, L.P.                           | 2007         | 100,000,000                | 24,414,021                | -               |
| Lexington Capital Partners I  | 1996         | 50,000,000                 | 49,613,120                | 62,083,942      |
| Lindsay Goldberg & Bessemer L.P.  | 2002         | 300,000,000                | 281,975,156               | 427,855,027     |
| Milestone Partners II, L.P.   | 2004         | 29,890,000                 | 23,311,091                | 15,696,071      |
| Milestone Partners III, L.P.  | 2008         | 57,351,687                 | 9,762,847                 | -               |
| Morgan Stanley Dean Witter IV   | 1998         | 300,000,000                | 227,851,338               | 426,916,959     |
| Navis Asia Fund V LP  | 2007         | 100,000,000                | 50,966,649                | 130             |
| New Mountain Partners   | 2000         | 192,509,033                | 156,713,311               | 168,022,275     |
| New Mountain Partners III L.P.  | 2007         | 300,000,000                | 39,932,142                | 296,821         |
| New York Life Capital Partners I  | 1999         | 200,000,000                | 203,529,314               | 155,458,446     |
| New York Life Capital Partners II                                       | 2001         | 200,000,000                | 182,244,375               | 380,723,927     |
| New York Life Capital Partners III-A, L.P.                              | 2001         | 200,000,000                | 185,887,702               | 10,836,186      |
| New York Life Capital Partners IV-A, L.P.                               | 2003         | 200,000,000                | 25,294,872                | 9,845           |
| Nordic Capital VII Beta, L.P.   | 2008         | 210,975,000                | 40,275,188                | -854,617        |
| PAI Europe III, L.P.  |              |                            |                           |                 |
| r Ai Europe III, L.P.   | 2001         | 421,950,000                | 313,204,204               | 800,590,942     |

\*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitment.

## Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited)

(as of December 31, 2008) (continued)

| <b>Private Equity (cont'd)</b>              | Vintage<br><u>Year</u> | Capital<br>Committed |               | • •       |               | Distributions * |                     |
|---|------------------------|----------------------|---------------|-----------|---------------|-----------------|---------------------|
|   |                        |                      |               |           |               |                 |                     |
| PAI Europe IV-B2                            | 2005                   | \$                   | 140,650,000   | \$        | 97,783,017    | \$              | 26,906,406          |
| PAI Europe V L.P.                           | 2007                   |                      | 281,300,000   |           | 34,188,018    |                 | -12,048             |
| PNC Equity Partners I, L.P.                 | 2001                   |                      | 43,154,458    |           | 38,948,908    |                 | 50,957,909          |
| PNC Equity Partners II, L.P.                | 2006                   |                      | 68,065,386    |           | 18,504,009    |                 | 398,129             |
| Palladium Equity Partners II                | 2000                   |                      | 57,750,000    |           | 53,423,763    |                 | 27,524,365          |
| Partners Group Secondart 2008, L.P.         | 2008                   |                      | 210,975,000   |           | 16,685,931    |                 | -336,347            |
| Permira IV L.P.                             | 2006                   |                      | 175,812,500   |           | 82,424,916    |                 | -                   |
| Platinum Equity Capital Partners-A II, L.P. | 2007                   |                      | 300,000,000   |           | 111,883,457   |                 | 8,408,486           |
| Platinum Equity Capital Partners-A, L.P.    | 2004                   |                      | 125,000,000   |           | 95,474,687    |                 | 176,509,594         |
| Providence Equity Partners VI LP            | 2007                   |                      | 300,000,000   |           | 136,908,258   |                 | 1,192,497           |
| Quadrangle Capital Partners                 | 2001                   |                      | 270,422,415   |           | 215,236,017   |                 | 214,544,827         |
| Quadrangle Capital Partners II L.P.         | 2005                   |                      | 250,000,000   |           | 158,368,066   |                 | 12,010,189          |
| Sterling Capital Partners, L.P.             | 2002                   |                      | 75,000,000    |           | 70,896,713    |                 | 60,711,884          |
| Sunrise Capital Partners, L.P.              | 1998                   |                      | 57,388,755    |           | 56,607,546    |                 | 16,736,372          |
| TPG Partners II                             | 1997                   |                      | 50,000,000    |           | 53,834,244    |                 | 88,774,937          |
| TPG Partners V, L.P.                        | 2006                   |                      | 250,000,000   |           | 204,952,602   |                 | 3,648,808           |
| TPG Partners VI, L.P.                       | 2008                   |                      | 360,000,000   |           | 20,955,251    |                 | -21,100             |
| U.S. Equity Partners                        | 1996                   |                      | 75,000,000    |           | 70,245,530    |                 | 64,442,845          |
| U.S. Equity Partners II                     | 2001                   |                      | 300,000,000   |           | 241,390,687   |                 | 165,986,187         |
| Wicks Communications and Media              | 1999                   |                      | 87,500,000    |           | 83,549,655    |                 | 102,182,738         |
| Willis Stein & Partners                     | 1996                   |                      | 25,000,000    |           | 25,000,000    |                 | 53,543,217          |
| Total Private Equity Investments            |                        | <u>\$ 1</u> :        | 5,711,829,019 | <u>\$</u> | 9,241,927,53( | <u>\$</u> 7     | <u>,703,918,563</u> |

\*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitment.

#### Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited)

(as of December 31, 2008)

(continued)

| <u>Venture Capital</u>                      | Vintage<br><u>Year</u> | Capital<br><u>Committed</u> | Capital<br><u>Drawn</u> | Distributions *       |
|---|------------------------|-----------------------------|-------------------------|-----------------------|
| Adams Capital Management                    | 1997                   | \$ 12,500,000               | \$ 12,500,000           | \$ 22,671,838         |
| Aisling Capital II                          | 2006                   | 50,000,000                  | 32,443,116              | 82,187                |
| Aisling Capital III, L.P.                   | 2008                   | 50,000,000                  | - , - , -               | - ,                   |
| CS Stragetic Partners IV, L.P.              | 2008                   | 50,000,000                  | 7,500,000               | -93,750               |
| CSFB Strategic Partners III-VC, L.P.        | 2005                   | 50,000,000                  | 44,121,019              | 11,575,380            |
| Co-Investment Fund 2000                     | 2000                   | 135,000,000                 | 135,000,000             | 135,000,000           |
| Co-Investment Fund II, L.P.                 | 2006                   | 135,000,000                 | 39,825,000              | -                     |
| Cross Atlantic Technology Fund              | 1999                   | 30,141,666                  | 29,840,250              | 25,277,310            |
| Cross Atlantic Technology Fund II           | 2001                   | 21,119,734                  | 21,119,734              | 10,555,316            |
| Edison Venture Fund III                     | 1994                   | 14,807,690                  | 14,807,690              | 27,838,435            |
| Franklin Capital Partners III               | 1995                   | 15,000,000                  | 15,000,000              | 9,626,580             |
| Jefferson Partners Fund IV (PA) L.P.        | 2003                   | 29,438,614                  | 22,830,285              | -9                    |
| KBL Healthcare Ventures                     | 1999                   | 13,593,334                  | 13,593,333              | 6,563,009             |
| LLR Equity Partners                         | 1999                   | 62,500,000                  | 61,250,000              | 115,546,801           |
| LLR Equity Partners II, L.P.                | 2004                   | 75,000,000                  | 63,750,000              | 14,294,246            |
| LLR Equity Partners III, L.P.               | 2008                   | 187,500,000                 | 24,375,000              | 236,943               |
| Landmark Equity Partners II                 | 1992                   | 25,000,000                  | 25,000,000              | 39,012,414            |
| Landmark Equity Partners V                  | 1995                   | 49,060,283                  | 48,478,943              | 58,173,230            |
| Lehman Brothers Communications              | 1999                   | 12,500,000                  | 11,442,260              | 5,164,360             |
| Lehman Brothers Venture Partners 2003, L.P. | 2003                   | 75,000,000                  | 67,132,315              | 14,796,205            |
| Lehman Brothers Venture Partners V, L.P.    | 2007                   | 75,000,000                  | 16,712,568              | -                     |
| NEPA Venture Fund II                        | 1992                   | 5,000,000                   | 5,000,000               | 23,252,576            |
| Novitas Capital, L.P.                       | 1998                   | 30,000,000                  | 29,550,000              | 32,320,641            |
| Novitas Capital II, L.P.                    | 2000                   | 75,000,000                  | 72,187,500              | 6,837,257             |
| P/A Fund                                    | 1993                   | 30,000,000                  | 30,000,000              | 66,195,394            |
| Perseus-Soros BioPharmaceutical Fund        | 2001                   | 112,206,666                 | 94,622,185              | 131,525,603           |
| Psilos Group Partners III, L.P.             | 2006                   | 62,500,000                  | 29,687,499              | -5,475                |
| Quaker Bio-Ventures                         | 2003                   | 69,350,000                  | 62,415,000              | 136,334,005           |
| Quaker Bio-Ventures, II L.P.                | 2006                   | 100,000,000                 | 15,999,125              | 593,823               |
| SCP Private Equity Partners                 | 1996                   | 62,500,000                  | 62,500,000              | 24,516,269            |
| SCP Private Equity Partners II              | 2000                   | 125,000,000                 | 118,288,826             | 24,134,558            |
| StarVest Partners II (Parallel), L.P.       | 2007                   | 50,000,000                  | 6,434,972               | 80,588                |
| StarVest Partners, L.P.                     | 1999                   | 67,500,000                  | 65,649,343              | 17,752,884            |
| Sterling Venture Partners                   | 2000                   | 33,986,000                  | 33,291,218              | 26,242,116            |
| TDH III                                     | 1993                   | 7,350,750                   | 7,350,750               | 3,302,026             |
| TL Ventures III                             | 1997                   | <u>50,000,000</u>           | 50,000,000              | <u>68,925,720</u>     |
| <b>Total Venture Capital Investments</b>    |                        | <u>\$ 2,046,646,421</u>     | <u>\$ 1,389,697,931</u> | <u>\$ 935,627,481</u> |

\*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitment.

Numbers may not add due to rounding.

#### Summary of PSERS' Active Private Market Investments Committed, Drawn, and Distributed (unaudited)

(as of December 31, 2008)

(continued)

| Private Debt                                     | Vintage<br><u>Year</u> | Capital<br><u>Committed</u> |             | Capital<br><u>Drawn</u> | Distributions *         |
|--|------------------------|-----------------------------|-------------|-------------------------|-------------------------|
|  | 2001                   | ¢ 220 000 000               | ¢           | 220,000,000             | ¢ 244 750 005           |
| Avenue Asia Special Situations Fund II, L.P.     | 2001                   | \$ 220,000,000              | \$          | 220,000,000             | \$ 344,758,005          |
| Avenue Asia Special Situations Fund III, L.P.    | 2003                   | 100,000,000                 |             | 76,892,230              | 43,525,368              |
| Avenue Asia Special Situations Fund IV, LP       | 2006                   | 300,000,000                 |             | 108,385,509             | -95,596                 |
| Avenue Europe Special Situations Fund, L.P.      | 2008                   | 281,300,000                 |             | 125,909,187             | 74,412                  |
| Avenue Special Situations Fund II, L.P.          | 2000                   | 125,000,000                 |             | 125,000,000             | 195,141,573             |
| Avenue Special Situations Fund III, L.P.         | 2002                   | 205,156,000                 |             | 151,715,376             | 252,429,544             |
| Avenue Special Situations Fund IV, L.P.          | 2006                   | 115,000,000                 |             | 115,000,000             | 29,782,669              |
| Avenue Special Situations Fund V, L.P.           | 2007                   | 300,000,000                 |             | 170,205,320             | -1,095,120              |
| Cerberus Institutional Partners, L.P. (Series 2) | 2001                   | 200,000,000                 |             | 172,004,532             | 391,108,810             |
| Cerberus Institutional Partners, L.P. (Series 3) | 2003                   | 100,000,000                 |             | 81,000,000              | 47,186,601              |
| Cerberus Institutional Partners, L.P. (Series 4) | 2006                   | 400,000,000                 |             | 222,000,000             | -284,722                |
| GSC Partners CDO Investors III, L.P.             | 2001                   | 80,000,000                  |             | 80,000,000              | 146,903,688             |
| GSC Partners CDO Investors IV, L.P.              | 2003                   | 80,000,000                  |             | 80,000,000              | 65,096,000              |
| GSC Recovery II, L.P.                            | 2000                   | 280,000,000                 |             | 279,170,771             | 325,501,439             |
| GSC Recovery III Parallel Fund, L.P.             | 2005                   | 200,000,000                 |             | 149,400,697             | -                       |
| Gleacher Mezzanine Fund, L.P.                    | 2001                   | 75,000,000                  |             | 63,273,236              | 89,887,055              |
| Gleacher Mezzanine Fund II, L.P.                 | 2006                   | 100,000,000                 |             | 18,362,218              | 123,860                 |
| Gold Hill Venture Lending 03-A, L.P.             | 2004                   | 50,000,000                  |             | 64,798,339              | 13,168,950              |
| NYLIM Mezzanine Prtnrs II Parallel Fund, L.P.    | 2006                   | 150,000,000                 |             | 115,199,116             | 4,707,470               |
| NYLIM Mezzanine Partners Parallel Fund, L.P.     | 2003                   | 75,000,000                  |             | 64,141,286              | 57,308,548              |
| OCM Opportunities Fund VII, L.P.                 | 2007                   | 75,000,000                  |             | 75,000,000              | -                       |
| OCM Opportunities Fund VII-b, L.P.               | 2008                   | 225,000,000                 |             | 67,500,000              | -                       |
| Versa Capital Fund I, L.P.                       | 2005                   | 75,000,000                  |             | 63,750,000              | 25,594,626              |
| Versa Capital Fund II, L.P.                      | 2008                   | 150,000,000                 |             | 1,500,000               | -                       |
| Windjammer Senior Equity Fund III, L.P.          | 2006                   | 50,000,000                  |             | 18,377,011              | 316,732                 |
| Total Private Debt Investments                   |                        | <b>\$ 4,011,456,000</b>     | <u>\$</u> 2 | 2,689,943,542           | <u>\$ 2,031,139,911</u> |
| Total Active Private Market Investments          |                        | <u>\$21,769,931,440</u>     |             | 3,321,569,004           | <u>\$10,670,685,955</u> |

\*Includes capital contributions for management fees, late interest, etc. that are not applied to the capital commitment.

Numbers may not add due to rounding.

# **Investment Advisory Fees** 14



### Summary of Investment Advisory Fees Fiscal Year Ended June 30, 2008

(Dollar Amounts in Thousands)

| External Management                | Fees              | Basis<br><u>Points</u> |
|------------------------------------|-------------------|------------------------|
| U.S. Equity                        | \$ 68,780         | 85                     |
| Non-U.S. Equity                    | 55,379            | 28                     |
| Fixed Income                       | 33,886            | 32                     |
| Real Estate                        | 79,884            | 87                     |
| Private Markets:                   |                   |                        |
| Private Equity and Debt            | 113,567           | 93                     |
| Venture Capital                    | 19,143            | 136                    |
| Commodities                        | 15,975            | 70                     |
| Total External Management          | 386,614           | 61                     |
| Total Internal Management          | 8,444             | 4                      |
| <b>Total Investment Management</b> | <u>\$ 395,058</u> | 47                     |
| Custodian Fees                     | 495               |                        |
| Investment Consultant Fees         | 394               |                        |
| Total Investment Expenses          | <u>\$ 399,136</u> | 47                     |

#### Investment Advisory Fees Fiscal Years Ended June 30, 2003 - 2007 (Dollar Amounts in Thousands)

| Fiscal      |           | Basis         |
|-------------|-----------|---------------|
| <u>Year</u> | Fees      | <u>Points</u> |
| 2003        | \$179,056 | 39            |
| 2004        | 191,300   | 37            |
| 2005        | 192,677   | 36            |
| 2006        | 211,279   | 35            |
| 2007        | 313,758   | 41            |

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands)

External Management fees are treated as a reduction of the investment revenue of the Fund rather than as a budgeted administrative expense.

| Manager                                       | <b>Location</b> |    | <u>Amount</u> |
|---|-----------------|----|---------------|
| U.S. Equity                                   |                 |    |               |
| Acorn Derivatives Management Corporation      | White Plains    | NY | \$ 600        |
| AQR Capital Management, L.L.C.                | Greenwich       | СТ | 9,061         |
| Ativo Capital Management, L.L.C.              | Chicago         | IL | 7             |
| Barclays Global Investors, N.A.               | San Francisco   | CA | 2,936         |
| Biondo Group, L.L.C. (The)                    | Milford         | PA | 69            |
| Boston Company Asset Management, L.L.C.       | Boston          | MA | 1,202         |
| Bridgewater Associates, Inc.                  | Westport        | СТ | 16,183        |
| Charter Financial Group, Inc.                 | Washington      | DC | 10            |
| Conestoga Capital Advisors, Inc.              | Radnor          | PA | 151           |
| Connors Investor Services, Inc.               | Wyomissing      | PA | 273           |
| Denali Advisors, L.L.C.                       | San Deigo       | CA | 73            |
| Donald Smith & Co., Inc.                      | New York        | NY | 490           |
| Emerald Advisors, Inc.                        | Lancaster       | PA | 641           |
| First Pacific Advisors, Inc.                  | Los Angeles     | CA | 1,817         |
| First Quadrant, L.P.                          | Greenwich       | CT | 12,296        |
| FX Concepts, Inc.                             | New York        | NY | 6,250         |
| Global Capital Management, Inc.               | Conshohocken    | PA | 17            |
| Goldman Sachs Asset Management International  | London          | UK | 2,336         |
| Great Companies, Inc.                         | Tampa           | FL | 180           |
| Hanseatic Management Services, Inc.           | Albuquerque     | NM | 204           |
| Mellon Capital Management Corporation         | San Francisco   | CA | 2,742         |
| Mellon Equity Associates, L.L.P.              | Pittsburgh      | PA | 40            |
| NorthPointe Capital, L.L.C.                   | Troy            | MI | 1,752         |
| Oberweis Asset Management, Inc.               | North Aurora    | IL | 756           |
| Opus Capital Management, Inc.                 | Cincinnati      | OH | 195           |
| Piedra Capital, Inc.                          | Houston         | TX | 17            |
| Pacific Investment Management Company (PIMCO) | Newport Beach   | CA | 3,791         |
| Profit Investment Management, Inc.            | Silver Spring   | MD | 12            |
| Smith Breeden Associates, Inc.                | Chapel Hill     | NC | 1,054         |
| Smithbridge Asset Management, Inc.            | Chadds Ford     | PA | 10            |
| Thomson Horstmann & Bryant, Inc.              | Saddle Brook    | NJ | 757           |
| Turner Investment Partners, Inc.              | Berwyn          | PA | 786           |
| Wellington Management Company, L.L.P.         | Boston          | MA | 1,100         |
| West Chester Capital Advisors                 | West Chester    | PA | 12            |
| William Blair & Company, L.L.C.               | Chicago         | IL | 960           |
| Total-U.S. Equity                             |                 |    | 68,780        |

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands) (continued)

| <u>Manager</u>                                    | <b>Location</b> |         | <u>Amount</u> |
|---|-----------------|---------|---------------|
| Non-U.S. Equity                                   |                 |         |               |
| Acadian Asset Management                          | Boston          | MA      | \$ 1,260      |
| Alliance Bernstein Institutional Investment Mgmt. | New York        | NY      | 4,725         |
| AXA Rosenberg Investment Management               | Orinda          | CA      | 1,918         |
| Baillie Gifford Overseas Ltd.                     | Edinburgh       | UK      | 3,649         |
| Barclays Global Investors, N.A.                   | San Francisco   | CA      | 6,598         |
| Batterymarch Financial Management, Inc.           | Boston          | MA      | 2,904         |
| Boston Company Asset Management, L.L.C.           | Boston          | MA      | 5,338         |
| GlobeFlex Capital, L.P.                           | San Diego       | CA      | 1,566         |
| John Hsu Capital Group, Inc.                      | New York        | NY      | 296           |
| Marathon Asset Management Limited                 | London          | UK      | 4,481         |
| Martin Currie, Inc.                               | Edinburgh       | UK      | 2,715         |
| Mercator Asset Management, L.P.                   | Ft. Lauderdale  | FL      | 3,565         |
| Oberweis Asset Management, Inc.                   | North Aurora    | IL      | 3             |
| Pareto Investment Management, Ltd.                | New York        | NY      | 3,550         |
| Shah Capital Management, Inc.                     | Raleigh         | NC      | 169           |
| Templeton Investment Counsel, Inc.                | Nassau          | Bahamas | 4,942         |
| Wasatch Advisors, Inc.                            | Salt Lake City  | UT      | 3,204         |
| Wellington Management Company, L.L.P.             | Boston          | MA      | 2,825         |
| William Blair & Company, L.L.C.                   | Chicago         | IL      | 1,671         |
| Total-Non-U.S. Equity                             | -               |         | 55,379        |
| Fixed Income                                      |                 |         |               |
| Aberdeen Asset Management, Inc.                   | Philadelphia    | PA      | 1,945         |
| Barclays Global Investors, N.A.                   | San Francisco   | CA      | 5,946         |
| BlackRock Financial Management, Inc.              | New York        | NY      | 1,423         |
| BlackRock Mortgage (Offshore) Investors, L.P.     | New York        | NY      | 1,797         |
| Bridgewater Associates, Inc.                      | Westport        | СТ      | 7,880         |
| Brigade Capital Management, L.L.C.                | New York        | NY      | 5,314         |
| Brown Brothers Harriman & Co.                     | New York        | NY      | 193           |
| Delaware Investment Advisors                      | Philadelphia    | PA      | 993           |
| Fischer Francis Trees & Watts, Inc.               | New York        | NY      | 1,064         |
| Hyperion Brookfield Asset Management, Inc.        | New York        | NY      | 429           |
| MacKay-Shields Financial Corporation              | New York        | NY      | 1,613         |
| Oaktree Loan Fund, L.P.                           | Los Angeles     | CA      | 1,082         |
| Pacific Investment Management Company (PIMCO)     | Newport Beach   | CA      | 1,980         |
| Piedmont Investment Advisors                      | Durham          | NC      | 43            |
| Pugh Capital Management, Inc.                     | Seattle         | WA      | 42            |
| Rogge Global Partners                             | London          | UK      | 1,027         |
| Western Asset Management Company                  | Pasadena        | CA      | 1,115         |
| Total-Fixed Income                                |                 |         | 33,886        |

# **Investment Managers' Fees** Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands) (continued)

| Manager  | <b>Location</b> |    | <u>Amount</u> |
|--|-----------------|----|---------------|
| Real Estate-Publicly Traded                            |                 |    |               |
| Cohen & Steers Capital Management, Inc.                | New York        | NY | \$ 720        |
| E.I.I. Realty Securities Corporation, Inc.             | New York        | NY | 1,277         |
| LaSalle Investment Management (Securities), L.P.       | Balitmore       | MD | 522           |
| Morgan Stanley Investment Management, Inc.             | New York        | NY | 2,284         |
| Security Capital Research & Management, Inc.           | Chicago         | IL | 1,249         |
| Subtotal-Real Estate-Publicly Traded                   | -               |    | 6,052         |
| Real Estate-Direct Ownership                           |                 |    |               |
| Charter Oak Advisors, Inc.                             | King of Prussia | PA | 972           |
| GF Management, Inc.                                    | Philadelphia    | PA | 131           |
| Grandbridge Real Estate Capital, L.L.C.                | Charlotte       | NC | 22            |
| Grosvenor Investment Management U.S., Inc.             | Philadelphia    | PA | 32            |
| L&B Realty Advisors, L.L.P.                            | Dallas          | ΤX | 32            |
| Subtotal-Real Estate-Direct Ownership                  |                 |    | 1,189         |
| Real Estate-Partnerships/Funds                         |                 |    |               |
| Apollo European Real Estate Fund III, L.P.             | Purchase        | NY | 2,170         |
| Apollo Real Estate Finance Corporation                 | New York        | NY | 1,807         |
| AvalonBay Value Added Fund, L.P.                       | Alexandria      | VA | 934           |
| Avenue Real Estate Fund Parallel, L.P.                 | New York        | NY | 1,250         |
| Beacon Capital Strategic Partners V, L.P.              | Boston          | MA | 4,242         |
| Berwind Investment Partnership IV, L.P.                | Philadelphia    | PA | 40            |
| Berwind Investment Partnership V, L.P.                 | Philadelphia    | PA | 201           |
| Berwind Investment Partnership VI, L.P.                | Philadelphia    | PA | 351           |
| BPG Co-Investment Partnership, L.P.                    | Philadelphia    | PA | 189           |
| Blackstone Real Estate Partners VI.TE.1, L.P.          | New York        | NY | 5,000         |
| Broadway Partners Parallel Fund P II, L.P.             | New York        | NY | 1,563         |
| Broadway Partners Parallel Fund P III, L.P.            | New York        | NY | 2,585         |
| Carlyle Europe Real Estate Partners III-A, L.P.        | Washington      | DC | 3,311         |
| Carlyle Realty Partners III, L.P.                      | Washington      | DC | 243           |
| Carlyle Realty Partners IV, L.P.                       | Washington      | DC | 1,040         |
| Carlyle Realty Partners V, L.P.                        | Washington      | DC | 3,000         |
| Centerline Diversified Risk CMBS Fund II, L.L.C.       | Irving          | TX | 638           |
| Centerline High Yield CMBS Fund III, L.L.C.            | Irving          | TX | 1,923         |
| Centerline RE Special Situations Mortgage Fund, L.L.C. | Irving          | ΤX | 1,114         |
| Cornerstone Patriot Fund, L.P.                         | Hartford        | CT | 273           |
| CS Strategic Partners IV RE, L.P.                      | New York        | NY | 141           |
| CSFB Strategic Partners II RE, L.P.                    | New York        | NY | 311           |
| CSFB Strategic Partners III RE, L.P.                   | New York        | NY | 699           |
| DLJ Real Estate Capital Partners II, L.P.              | New York        | NY | 463           |
| DLJ Real Estate Capital Partners III, L.P.             | New York        | NY | 1,283         |

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands)

(continued)

| <u>Manager</u>  | <b>Location</b> |    | <u>A</u> | <u>mount</u> |
|---|-----------------|----|----------|--------------|
| Real Estate-Partnerships/Funds (continued)              |                 |    |          |              |
| DLJ Real Estate Capital Partners IV, L.P.               | New York        | NY | \$       | 1,614        |
| DRA Growth and Income Fund VI, L.P.                     | New York        | NY |          | 953          |
| Fillmore West Fund, L.P.                                | San Francisco   | CA |          | 451          |
| Five Arrows Realty Securities V, L.P.                   | New York        | NY |          | 1,009        |
| Fortress/PSERS Investment, L.P.                         | New York        | NY |          | 147          |
| Fortress Investment Fund IV, L.P.                       | New York        | NY |          | 653          |
| Fortress Investment Fund V (Fund A), L.P.               | New York        | NY |          | 2,294        |
| Hines U.S. Office Value Added Fund, L.P.                | Houston         | ΤX |          | 588          |
| JPMCB Strategic Property Fund                           | New York        | NY |          | 193          |
| Legg Mason Real Estate Capital, Inc.                    | Los Angeles     | CA |          | 235          |
| Legg Mason Real Estate Capital II, Inc.                 | Los Angeles     | CA |          | 1,254        |
| Lehman Brothers/PSERS Real Estate, L.P.                 | New York        | NY |          | 1,038        |
| Lehman Brothers Real Estate Pension Partners II, L.P.   | New York        | NY |          | 2,547        |
| Lehman Brothers Real Estate Pension Partners III, L.P.  | New York        | NY |          | 1,959        |
| LEM Real Estate Mezzanine Fund II, L.P.                 | Philadelphia    | PA |          | 937          |
| LF Strategic Realty Investors II, L.L.C.                | New York        | NY |          | 844          |
| Lubert-Adler Real Estate Fund II, L.P.                  | Philadelphia    | PA |          | 26           |
| MGP Europe Fund III, L.P.                               | London          | UK |          | 2,793        |
| Morgan Stanley Real Estate Fund II, L.P.                | New York        | NY |          | 41           |
| Morgan Stanley Real Estate Fund IV Special Domestic, L. | P. New York     | NY |          | 456          |
| Morgan Stanley Real Estate Fund IV Special Int'l, L.P.  | New York        | NY |          | 365          |
| Morgan Stanley Real Estate Fund V Special Int'l, L.P.   | New York        | NY |          | 1,260        |
| Morgan Stanley Real Estate Fund V Special U.S., L.P.    | New York        | NY |          | 1,199        |
| Morgan Stanley Real Estate Fund VI Special Int'l, L.P.  | New York        | NY |          | 1,876        |
| O' Connor North American Property Partners, L.P.        | New York        | NY |          | 1,105        |
| O'Connor North American Property Partners II, L.P.      | New York        | NY |          | 1,311        |
| Peabody Global Real Estate Partners, L.P.               | New York        | NY |          | 152          |
| Prime Property Fund, L.L.C.                             | New York        | NY |          | 639          |
| PRISA   | Parsippany      | NJ |          | 874          |
| ProLogis North American Industrial Fund, L.P.           | Denver          | CO |          | 848          |
| RCG Longview Equity Fund, L.P.                          | New York        | NY |          | 3,018        |
| RREEF America REIT II, Inc.                             | Chicago         | IL |          | 341          |
| Stockbridge Real Estate Fund, L.P.                      | New York        | NY |          | 1,154        |
| Stockbridge Real Estate Fund II, L.P.                   | New York        | NY |          | 1,148        |
| Strategic Partners Value Enhancement Fund, L.P.         | Los Angeles     | CA |          | 825          |
| UBS RESA  | Hartford        | CT |          | 954          |
| Whitehall Street Real Estate L.P. V & VI                | New York        | NY |          | 8            |
| Whitehall Street Real Estate L.P. VII &VIII             | New York        | NY |          | 10           |
| William E. Simon & Sons Realty Partners, L.P.           | Los Angeles     | CA |          | 571          |
| Subtotal-Real Estate-Partnerships/Funds                 |                 |    |          | 72,461       |

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands)

(continued)

| <u>Manager</u>   | <b>Location</b> |            | <u>Amount</u>               |
|--|-----------------|------------|-----------------------------|
| Real Estate - Farmland<br>Prudential Agricultural Group<br>Subtotal-Real Estate-Farmland | Lisle           | IL         | \$ <u>182</u><br><b>182</b> |
| Total Real Estate  |                 |            | 79,884                      |
| Private Equity   |                 |            |                             |
| ABS Capital Partners II, L.P.  | Baltimore       | MY         | 34                          |
| Actis Emerging Markets 3, L.P.   | London          | UK         | 2,827                       |
| Allegheny New Mountain Partners, L.P.  | New York        | NY         | 659                         |
| Apax Europe VII-B, L.P.  | St. Peter Port  | Guernsey   | 4,101                       |
| Baring Asia Private Equity Fund III, L.P.  | Hong Kong       | China      | 2,142                       |
| Baring Asia Private Equity Fund IV, L.P.   | Hong Kong       | China      | 5,976                       |
| Bear Stearns Merchant Banking Partners III, L.P.   | New York        | NY         | 945                         |
| BG Media Investors, L.P.   | Wayne           | PA         | -19 *                       |
| Blue Point Capital Partners II (B), L.P.   | Cleveland       | OH         | 464                         |
| Bridgepoint Capital II Partnership, L.P.   | London          | UK         | 116                         |
| Bridgepoint Europe IA, L.P.  | London          | UK         | 91                          |
| Bridgepoint Europe IIA, L.P.   | London          | UK         | 1,319                       |
| Bridgepoint Europe IIIA, L.P.  | London          | UK         | 2,726                       |
| Capital International Private Equity Fund V, L.P.  | San Francisco   | CA         | 3,000                       |
| Catterton Growth Partners, L.P.  | Greenwich       | CT         | 754                         |
| Catterton Partners V, L.P.   | Greenwich       | CT         | 1,205                       |
| Catterton Partners VI, L.P.  | Greenwich       | CT         | 1,767                       |
| Cinven Fund (Fourth), L.P. (The)   | London          | UK         | 2,276                       |
| Clarity Partners, L.P.   | Beverly Hills   | CA         | 1,546                       |
| Clarity Partners II, L.P.  | Beverly Hills   | CA         | 304                         |
| Credit Suisse First Boston Equity Partners, L.P.   | New York        | NY         | -102 *                      |
| Credit Suisse First Boston Int'l Equity Partners, L.P.                                   | New York        | NY         | 61                          |
| Crestview Capital Partners, L.P.   | New York        | NY         | 1,660                       |
| CS Strategic Partners IV, L.P.   | New York        | NY         | 250                         |
| CSFB Strategic Partners II, L.P.   | New York        | NY         | 976                         |
| CSFB Strategic Partners III-B, L.P.  | New York        | NY         | 500                         |
| CVC Capital Partners Asia III Pacific, L.P.  | George Town     | Cayman Is. | 2,047                       |
| Deutsche European Partners IV, L.P.  | London          | UK         | 329                         |
| DLJ Merchant Banking Partners III, L.P.  | New York        | NY         | 739                         |
| DLJ Strategic Partners, L.P.   | New York        | NY         | 500                         |
| Edgewater Growth Capital Partners, L.P.  | Chicago         | IL         | 288                         |
| Edgewater Private Equity Fund III, L.P.  | Chicago         | IL         | 287                         |
| Evergreen Pacific Partners, L.P.   | Seattle         | WA         | 33                          |

\*Represents reversal of amount accrued in prior fiscal year.

### Investment Managers' Fees Fiscal Year Ended June 30, 2008

(Dollar Amounts in Thousands) (continued)

| (continued)  |                 |            |    |       |
|--|-----------------|------------|----|-------|
| Manager  | <b>Location</b> |            | Ar | nount |
| Private Equity (continued)                           |                 |            |    |       |
| First Reserve Fund XI, L.P.                          | Greenwich       | СТ         | \$ | 1,807 |
| Furman Selz Investors III, L.P.                      | New York        | NY         |    | 111   |
| Graham Partners Investments (B), L.P.                | Newtown Square  | PA         |    | 174   |
| Greenpark International Investors III, L.P.          | London          | UK         |    | 1,886 |
| Greenwich Street Capital Partners II, L.P.           | New York        | NY         |    | 958   |
| GS Mezzanine Partners, L.P.                          | New York        | NY         |    | -6 *  |
| Halifax Capital Partners, L.P.                       | Washington      | DC         |    | 15    |
| HSBC Private Equity Fund 6, L.P.                     | George Town     | Cayman Is. |    | 1,307 |
| Jefferies Capital Partners IV, L.P.                  | New York        | NY         |    | 1,443 |
| KKR 2006 Fund, L.P.                                  | New York        | NY         |    | 734   |
| KRG Capital Fund IV (PA), L.P.                       | Denver          | CO         |    | 3,457 |
| Landmark Equity Partners XIII, L.P.                  | Simsbury        | СТ         |    | 626   |
| Landmark Mezzanine Partners, L.P.                    | Simsbury        | СТ         |    | 6     |
| Lehman Brothers Merchant Banking Partners II, L.P.   | New York        | NY         |    | 76    |
| Lehman Brothers Merchant Banking Partners IV-P, L.P. | New York        | NY         |    | 1,623 |
| Lexington Capital Partners I, L.P.                   | New York        | NY         |    | 5     |
| Lindsay Goldberg & Bessemer, L.P.                    | New York        | NY         |    | 337   |
| Milestone Partners II, L.P.                          | Rosemont        | PA         |    | 103   |
| Milestone Partners III, L.P.                         | Rosemont        | PA         |    | 229   |
| Morgan Stanley Dean Witter Capital Partners IV, L.P. | New York        | NY         |    | 411   |
| Navis Asia Fund V, L.P.                              | Kuala Lumpur    | Malaysia   |    | 2,552 |
| New Mountain Partners, L.P.                          | New York        | NY         |    | 346   |
| New Mountain Partners III, L.P.                      | New York        | NY         |    | 4,496 |
| New York Life Capital Partners, L.P.                 | New York        | NY         |    | 425   |
| New York Life Capital Partners II, L.P.              | New York        | NY         |    | 650   |
| New York Life Capital Partners III, L.P.             | New York        | NY         |    | 2,000 |
| New York Life Capital Partners IV, L.P.              | New York        | NY         |    | 962   |
| PAI Europe III, L.P.                                 | Paris           | France     |    | 2,088 |
| PAI Europe IV, L.P.                                  | Paris           | France     |    | 2,269 |
| Permira IV, L.P. 2                                   | London          | UK         |    | 2,331 |
| Platinum Equity Capital Partners II, L.P.            | Los Angeles     | CA         |    | 4,272 |
| PNC Equity Partners, L.P.                            | Pittsburgh      | PA         |    | 108   |
| PNC Equity Partners II, L.P.                         | Pittsburgh      | PA         |    | 978   |
| Providence Equity Partners VI, L.P.                  | Providence      | RI         |    | 1,165 |
| Quadrangle Capital Partners II, L.P.                 | New York        | NY         |    | 546   |
| Quadrangle Capital Partners, L.P.                    | New York        | NY         |    | 639   |
| Sterling Capital Partners, L.P.                      | Northbrook      | IL         |    | 595   |
| Sunrise Capital Partners, L.P.                       | New York        | NY         |    | 78    |

\*Represents reversal of amount accrued in prior fiscal year.

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands) (continued)

| <u>Manager</u>                                       | Location      |    | Amount  |
|--|---------------|----|---------|
| Private Equity (continued)                           |               |    |         |
| TPG Partners II, L.P.                                | Fort Worth    | TX | \$ 4    |
| TPG Partners V, L.P.                                 | Fort Worth    | ΤX | 154     |
| TPG Partners VI, L.P.                                | Fort Worth    | ΤX | 432     |
| US Equity Partners, L.P.                             | New York      | NY | 975     |
| US Equity Partners II, L.P.                          | New York      | NY | 208     |
| Wicks Communications & Media Partners, L.P.          | New York      | NY | 112     |
| Subtotal-Private Equity                              |               |    | 83,488  |
| Private Debt   |               |    |         |
| Avenue Asia Special Situations Fund III, L.P.        | New York      | NY | 814     |
| Avenue Asia Special Situations Fund IV, L.P.         | New York      | NY | 4,500   |
| Avenue Europe Special Situations Fund, L.P.          | New York      | NY | 401     |
| Avenue Special Situations Fund IV, L.P.              | New York      | NY | 1,438   |
| Avenue Special Situations Fund V, L.P.               | New York      | NY | 4,336   |
| Cerberus Institutional Partners, L.P. (Series Two)   | New York      | NY | 324     |
| Cerberus Institutional Partners, L.P. (Series Three) | New York      | NY | 665     |
| Cerberus Institutional Partners, L.P. (Series Four)  | New York      | NY | 6,000   |
| Gleacher Mezzanine Fund, L.P.                        | New York      | NY | 217     |
| Gleacher Mezzanine Fund II, L.P.                     | New York      | NY | 1,321   |
| Gold Hill Venture Lending 03-A, L.P.                 | Santa Clara   | CA | 750     |
| GSC Partners CDO Investors IV, L.P.                  | New York      | NY | 1,707   |
| GSC Recovery III, L.P.                               | New York      | NY | 2,500   |
| NYLIM Mezzanine Partners Parallel Fund, L.P.         | New York      | NY | 491     |
| NYLIM Mezzanine Partners Parallel Fund II, L.P.      | New York      | NY | 1,875   |
| OCM Opportunities Fund VII, L.P.                     | Los Angeles   | CA | 1,661   |
| OCM Opportunities Fund VII-B, L.P.                   | Los Angeles   | CA | 588     |
| Windjammer Senior Equity Fund III, L.P.              | Newport Beach | CA | 491     |
| Subtotal-Private Debt                                |               |    | 30,079  |
| Total-Private Equity and Debt                        |               |    | 113,567 |
| Venture Capital                                      |               |    |         |
| Aisling Capital II, L.P.                             | New York      | NY | 953     |
| Co-Investment 2000 Fund, L.P. (The)                  | Radnor        | PA | 437     |
| Co-Investment Fund II, L.P. (The)                    | Radnor        | PA | 1,859   |
| Cross Atlantic Technology Fund, L.P.                 | Radnor        | PA | 159     |
| Cross Atlantic Technology Fund II, L.P.              | Radnor        | PA | 284     |
| CS Strategic Partners IV VC, L.P.                    | New York      | NY | 94      |
| CSFB Strategic Partners III-VC, L.P.                 | New York      | NY | 500     |
| Franklin Capital Associates III, L.P.                | Franklin      | TN | 90      |

#### Investment Managers' Fees Fiscal Year Ended June 30, 2008 (Dollar Amounts in Thousands) (continued)

| Manager  | <b>Location</b> |        |    | Amount           |
|--|-----------------|--------|----|------------------|
| Venture Capital (continued)                        |                 |        |    |                  |
| Jefferson Partners Fund IV (PA), L.P.              | Toronto         | Canada | \$ | 586              |
| KBL Partnership, L.P.                              | New York        | NY     |    | 274              |
| Landmark Equity Partners V, L.P.                   | Simsbury        | CT     |    | 30               |
| Lehman Brothers Venture Partners 2003-P, L.P.      | New York        | NY     |    | 844              |
| Lehman Brothers Ventures Partners V, L.P.          | New York        | NY     |    | 857              |
| LLR Equity Partners, L.P.                          | Philadelphia    | PA     |    | 292              |
| LLR Equity Partners II, L.P.                       | Philadelphia    | PA     |    | 1,301            |
| LLR Equity Partners III, L.P.                      | Philadelphia    | PA     |    | 838              |
| Novitas Capital, L.P.                              | Wayne           | PA     |    | 232              |
| Novitas Capital II, L.P.                           | Wayne           | PA     |    | 1,500            |
| Perseus-Soros BioPharmaceutical Fund, L.P.         | New York        | NY     |    | 748              |
| Psilos Group Partners III, L.P.                    | New York        | NY     |    | 2,092            |
| Quaker BioVentures, L.P.                           | Philadelphia    | PA     |    | 1,410            |
| Quaker BioVentures II, L.P.                        | Philadelphia    | PA     |    | 1,025            |
| SCP Private Equity Partners, L.P.                  | Wayne           | PA     |    | 250              |
| SCP Private Equity Partners II, L.P.               | Wayne           | PA     |    | 1,176            |
| Starvest Partners II, L.P.                         | New York        | NY     |    | 954              |
| Sterling Venture Partners, L.P.                    | Baltimore       | MD     |    | 368              |
| TDH III, L.P.                                      | Rosemont        | PA     |    | 22               |
| TL Ventures III, L.P.                              | Wayne           | PA     |    | -32 *            |
| Total-Venture Capital                              |                 |        |    | 19,143           |
| Commodities  |                 |        |    |                  |
| Credit Suisse Asset Management, L.L.C.             | New York        | NY     |    | 665              |
| Deutsche Asset Management Americas, Inc.           | New York        | NY     |    | 5,386            |
| Lehman Brothers Asset Management, Inc.             | New York        | NY     |    | 699              |
| Schroder Investment Management North America, Inc. | New York        | NY     |    | 1,141            |
| Wellington Management Company, L.L.P.              | Boston          | MA     |    | 8,084            |
| Total-Commodities                                  |                 |        |    | <u>15,975</u>    |
| Total External Management                          |                 |        | \$ | 386,614          |
| i our Externar management                          |                 |        | Ψ  | 500,017          |
| Total Internal Management                          |                 |        |    | <b>8,4</b> 44 ** |
| Total Investment Management                        |                 |        | \$ | <u>395,058</u>   |

\*Represents reversal of amount accrued in prior fiscal year.

\*\*Internal Management fees include salaries and fringe benefits of \$4,597 and operating expenses of \$3,847.

# Internal Equity Trading Desk 15



### **Internal Equity Trading Desk**

One of the benefits of managing a significant amount of assets internally is that PSERS can have its own trading desk. A majority of the U.S. equity trades for the Fund are executed by PSERS' internal trading desk. Two of the internal U.S. equity managers as well as a number of the external U.S. equity managers utilize the trading desk to execute trades. The objectives of PSERS' internal trading desk include:

- to obtain best execution; and
- to pay the lowest possible commissions consistent with obtaining best execution

The trading desk provides PSERS with access to information on the markets from sell-side brokers which helps in the management of the investments of the Fund. The trading desk also provides portfolio transition management services to the System. When portfolio managers are terminated, the trading desk handles the liquidation of the portfolio or the transition from one portfolio manager to another, minimizing the costs of those transitions.

The order flow generated by the trading desk provides the System with access to initial public offerings (IPOs). IPOs can be a source of incremental returns since most generally trade higher after being issued. This IPO access generated approximately \$17 million in profits for PSERS since 1999.

PSERS' trading desk executed approximately 27,000 U.S. and Non-U.S. orders for the purchase and sale of stock, currency, futures, and options during the fiscal year ended June 30, 2008. The total dollar amount of U.S. and Non-U.S. orders traded during the fiscal year ended June 30, 2008, was approximately \$114.0 billion.

# Public Market Emerging Investment16Manager Program



#### Summary of PSERS' Public Market Emerging Investment Manager (PMEIM) Program (as of December 31, 2008)

The Public Market Emerging Investment Manager (PMEIM) Program is a sub-section of PSERS U.S. Equity, Non-U.S. Equity, and Fixed Income Investment classes.

#### Policy

Consistent with the Board's fiduciary responsibilities, PSERS has established the (PMEIM) Program to:

- 1. Locate and fund managers with successful histories of generating positive alpha with risk commensurate with the alpha generated (positive risk adjusted returns).
- 2. Provide a source of potential managers for the main fund; and
- 3. Assist public market emerging investment management firms with positive risk adjusted returns grow through the use of the System's name in the managers marketing efforts.

The Board has allocated up to \$1.0 billion to the PMEIM Program. Funding for each investment manager will come from assets allocated within the main fund similar to or most closely related to the investment manager's mandate. The maximum number of investment managers in the program at any one time shall not exceed 25. The program may run with less than 25 investment managers.

Investment Managers desiring to participate in the program must meet the following required criteria:

- Firms must be registered under the Investment Advisors Act of 1940 or be exempt therefrom (and will maintain such registration or exemption);
- Firms must provide transparency of positions and transactions;
- Firms must provide at least monthly liquidity;
- Firms, the portfolio manager, or any combination thereof must have a three-year historical, performance record verified by at least one consultant or accounting firm in accordance with the Global Investment Performance Standards (GIPS);
- Firms must have no more than \$1.5 billion of total assets under management when hired (existing investment managers will be terminated within a reasonable period of time from the PMEIM Program when the total assets under management exceeds \$3.0 billion);

Preference will be given to investment managers deemed by Investment Office Staff (IOS) as able to meet the objectives, goals, and required criteria noted above plus having one or more of the following characteristics:

- Pennsylvania investment management firms headquartered or incorporated within the Commonwealth: and/or
- Minority and/or women-owned investment management firms approved by the Office of Minority and Women Business Enterprise in accordance with the criteria established by Executive Order No. 1987-18 and 4 Pennsylvania Code, Section 68.204

Market Value as of December 31, 2008: \$383.8 million, or 0.8% of the total market value of the Fund.

**Number of External Investment Managers:** PSERS had contracts with 14 external investment managers in the PMEIM Program.

# **PSERS' PMEIM Portfolios**

(Dollar Amounts in Millions) (as of December 31, 2008) (unaudited)

| External Manager                            | <u>Market Value</u> |
|---|---------------------|
| Ativo Capital                               | \$ 15.7             |
| Biondo Group                                | 9.6                 |
| Conestoga Capital Advisors                  | 36.8                |
| Denali Advisors                             | 11.4                |
| Great Companies, Inc. (formerly EDMP, Inc.) | 30.9                |
| Hanseatic Management Services, Inc.         | 37.5                |
| Harvest Funds                               | 34.4                |
| John Hsu Capital Group, Inc.                | 43.1                |
| AH Lisanti                                  | 20.6                |
| Opus Capital Management                     | 26.4                |
| Piedmont Investment Advisors                | 17.5                |
| Pugh Capital Management, Inc.               | 17.8                |
| Shah Capital Management                     | 31.3                |
| Stillwater Capital                          | 50.9                |
| Total PSERS' PMEIM Portfolios               | <u>\$ 383.8</u>     |

Numbers may not add due to rounding.

# Section 4 Commitment to Pennsylvania



# Pennsylvania-Based Investment Managers 17



#### Commitment to Pennsylvania-Based Investment Managers (as of December 31, 2008)

As noted above under the Investment Policy section, the members of the Board and Staff are fiduciaries and must act solely in the interests of the members of the System and for the exclusive benefit of the System's members. In creating the investment program, the Board hires external investments managers and internal investment managers. The Board has determined that it is in the best interest of the System to manage assets internally when (1) the System's staff has the proven ability to internally manage portfolios at least as well as the external investment managers, and (2) the cost of investing those assets is no greater than the cost that would have been incurred to have those assets externally managed. The Board will also consider the diversification benefits that may be achieved by allocating assets to external portfolio managers even when conditions (1) and (2) are met.

The Board evaluates external mangers based on a variety of factors, including, (1) their expected future performance; (2) their investment philosophy and style; (3) their investment process; (4) their personnel; (5) cost; and (6) how their philosophy and style fits in with the existing investment structure. In selecting external managers, PSERS will favor Pennsylvania-based managers should all of these criteria be similar among two or more managers competing for a portfolio.

PSERS has shown a tremendous commitment to the financial services industry in Pennsylvania by having asset managed by firms based in Pennsylvania or by firms with offices in Pennsylvania. The following is a list of both the assets managed internally by PSERS and externally from offices located in Pennsylvania, as of December 31, 2008:

|                                  | Market Value<br><u>(in millions)</u> | Percentage of<br><u>the Fund</u> |
|----------------------------------|--------------------------------------|----------------------------------|
| Internal Management              |                                      |                                  |
| U.S. Equity:                     |                                      |                                  |
| S&P 500 Index                    | \$ 2,114.0                           | 4.7%                             |
| PSERS Enhanced S&P 500 Index     | 426.0                                | 0.9%                             |
| S&P 400 Index                    | 312.6                                | 0.7%                             |
| S&P 600 Index                    | 319.1                                | 0.7%                             |
| PSERS Global Macro Overlay       | 88.0                                 | 0.0%                             |
| Non-U.S. Equity:                 |                                      |                                  |
| MSCI ACW ex. U.S. Index          | 3,947.0                              | 8.7%                             |
| Fixed Income:                    |                                      |                                  |
| PSERS U.S. Core Fixed Income     | 1,249.5                              | 2.8%                             |
| PSERS TIPS Portfolio             | 1,846.9                              | 4.1%                             |
| PSERS STIF                       | 1,840.9                              | 4.1%                             |
| Total Internal Management        | \$ 12,144.0                          | 26.7%                            |
| External Management              |                                      |                                  |
| U.S. Equity:                     |                                      |                                  |
| Biondo Group                     | \$ 9.3                               | 0.0%                             |
| Conestoga Capital Advisors       | 36.8                                 | 0.1%                             |
| Turner Investment Partners, Inc. | 61.0                                 | 0.1%                             |
| Fixed Income:                    |                                      |                                  |
| Aberdeen Asset Management, Inc.  | \$ 800.0                             | 1.8%                             |

#### Commitment to Pennsylvania-Based Investment Managers

(as of December 31, 2008)

(continued)

| (continued)                                |                     |               |
|--|---------------------|---------------|
|  | Market Value        | Percentage of |
|  | (in millions)       | the Fund      |
| Real Estate:                               |                     |               |
| Berwind Investment Partnership IV, LP      | \$ 0.2              | 0.0%          |
| Berwind Investment Partnership V, LP       | 23.7                | 0.1%          |
| BPG Co-Investment Partnership, LP          | 22.1                | 0.1%          |
| BPG Investment Partnership, LP             | 53.2                | 0.1%          |
| Charter Oak Advisors, Inc.                 | 114.4               | 0.3%          |
| GF Management, Inc.                        | 100.1               | 0.2%          |
| Grandbridge Real Estate Capital, LLC       | 3.2                 | 0.0%          |
| Grosvenor Investment Management U.S., Inc. | 7.6                 | 0.0%          |
| LEM Real Estate Mezzanine Fund II, L.P.    | 26.4                | 0.1%          |
| Lubert-Adler Real Estate Fund II, L.P.     | 4.4                 | 0.0%          |
| Lubert-Adler Real Estate Fund III, L.P.    | 40.1                | 0.1%          |
| Lubert-Adler Real Estate Fund IV, L.P.     | 68.2                | 0.2%          |
| Lubert-Adler Real Estate Fund V, L.P.      | 86.7                | 0.2%          |
| Lubert-Adler Real Estate Fund VI, L.P.     | 29.9                | 0.1%          |
| Private Equity and Debt:                   |                     |               |
| Graham Partners, L.P                       | 27.2                | 0.1%          |
| Milestone Partners II, L.P.                | 29.0                | 0.1%          |
| Milestone Partners III, L.P.               | 14.6                | 0.0%          |
| PNC Equity Partners I, L.P.                | 15.9                | 0.0%          |
| PNC Equity Partners II, L.P.               | 20.8                | 0.1%          |
| Versa Capital Fund I, L.P.                 | 64.6                | 0.1%          |
| Venture Capital:                           |                     |               |
| Adams Capital Management, L.P.             | 2.3                 | 0.0%          |
| Co-Investment Fund 2000, L.P.              | 47.0                | 0.1%          |
| Co-Investment Fund II, L.P.                | 30.0                | 0.1%          |
| Cross Atlantic Technology Fund, L.P.       | 22.8                | 0.1%          |
| Cross Atlantic Technology Fund II, L.P.    | 7.5                 | 0.0%          |
| LLR Equity Partners, L.P.                  | 18.4                | 0.0%          |
| LLR Equity Partners II, L.P.               | 62.9                | 0.1%          |
| NEPA Venture Fund II, L.P.                 | 1.1                 | 0.0%          |
| P/A Fund, L.P.                             | 0.6                 | 0.0%          |
| Quaker Bio-Ventures L.P.                   | 41.7                | 0.1%          |
| Quaker Bio-Ventures, II L.P.               | 12.0                | 0.0%          |
| SCP Private Equity Partners, L.P.          | 2.1                 | 0.0%          |
| SCP Private Equity Partners II, L.P.       | 78.7                | 0.2%          |
| TDH III, L.P.                              | 0.9                 | 0.0%          |
| TL Ventures III, L.P.                      | 0.2                 | 0.0%          |
| Technology Leaders, L.P.                   | 0.0                 | 0.0%          |
|  |                     |               |
| Total External Management                  | <u>\$   1,993.3</u> | 6.0%          |
| Total Investment Portfolios Managed in PA  | <u>\$ 14,143.6</u>  | <u>32.6%</u>  |

In FY 2008, investment manager fees paid to external firms managing PSERS' assets from offices located in Pennsylvania amounted to \$18.4 million, or 4.76% of the total external investment manager fees.

# **Investments in Pennsylvania** 18



Where investment characteristics including yield, risk, and liquidity are equivalent, the Board's policy favors investments that have a positive impact on the economy of Pennsylvania. The Board, in managing the investment portfolio, will also be cognizant of concentration risk to any one region, including Pennsylvania. The Fund will continue to seek investments in Pennsylvania-based companies when the investment characteristics are equivalent to other favorable investments subject to diversification considerations.

The following is a table of Pennsylvania-based investments and other statistics at December 31, 2008 (\$'s in millions):

| Asset Class         | Total<br>Market<br>(PSE)<br>Portic | Value<br>RS     | Total<br>Market<br>(Tot<br>Invest | Value<br>al   | # of People<br>Employed | Dox        | roll          |
|---------------------|------------------------------------|-----------------|-----------------------------------|---------------|-------------------------|------------|---------------|
|                     |                                    |                 |                                   |               | <u>Employeu</u><br>*    |            | *             |
| U.S. Equities       | \$                                 | 75.6            | \$                                | 75.6          | *                       |            | *             |
| Fixed Income        |                                    | 90.0            |                                   | 90.9          | *                       | :          | *             |
| Private Real Estate |                                    | 245.9           | 2                                 | ,542.2        | 1,119                   | \$         | 19.5          |
| Private Markets:    |                                    |                 |                                   |               |                         |            |               |
| Venture Capital     |                                    | 127.6           |                                   | 410.7         | 6,303                   |            | 308.9         |
| Private Equity      |                                    | 683.3           | 4                                 | ,552.7        | 32,015                  |            | 817.7         |
| Private Debt        |                                    | 234.4           | <u>3</u>                          | ,793.4        | <u>19,018</u>           |            | 822.0         |
| Total               | <u>\$ 1</u>                        | l <b>,456.7</b> | <u>\$11</u>                       | <u>,496.6</u> | <u>58,455</u>           | <u>\$1</u> | <u>,968.1</u> |

\* - statistics for publicly traded companies not included due to the difficulty in obtaining the information.

#### U.S. Equities

PSERS invests in the stock of Pennsylvania-based companies through the various U.S. Equity portfolios managed by external and internal portfolio managers. PSERS has always had substantial investments in large national firms located in Pennsylvania, a list of which is included on pages 72-73.

#### **Fixed Income Securities**

PSERS invests in the debt of Pennsylvania-based companies through the various Fixed Income portfolios managed by external and internal portfolio managers. PSERS has always had substantial investments in large national firms located in Pennsylvania, a list of which is included on pages 74-75.

#### **Private Real Estate**

PSERS has invested directly in the Pennsylvania commercial real estate market for many years. In addition, PSERS has investments in limited partnerships that have invested in Pennsylvania real estate properties as well. PSERS has committed \$312.5 million in four funds (Fund IV, Fund V, Fund VI, and a Co-Investment Fund) managed by the Berwind Property Group, located in Philadelphia. PSERS has committed \$550 million in four funds (Lubert-Adler Funds II, III, IV, V and VI) managed by Lubert-Adler, another Pennsylvania-based real estate manager. Finally, PSERS has committed \$75 million in one fund (LEM Real Estate Mezzanine Fund II) managed by LEM Mezzanine Partners, located in Philadelphia.

As of December 31, 2008, PSERS' Pennsylvania real estate portfolio contained 67.9 million square feet of office, retail, and warehouse space and 174,550 apartment, hotel and condominium units. The gross market value of the Pennsylvania real estate portfolio investments totaled \$2.5 billion, of which PSERS' ownership share was \$245.9 million. The portfolio contains numerous notable Pennsylvania real estate investments, including:

- <u>5 North Fifth Street</u> PSERS owns a 100% interest in this major downtown Harrisburg, PA, office building that contains 71,080 square feet of office space. The building is PSERS' headquarters and is fully occupied by PSERS.
- <u>Harrisburg Mall</u> This mall is located in Harrisburg, PA. The Harrisburg Mall is an 838,232 square feet, three-anchor, enclosed regional mall. This investment was made by Lubert-Adler Real Estate Funds III and IV.
- <u>King of Prussia Business Center</u> This office building is located in King of Prussia, PA. The King of Prussia Business Center contains approximately 175,000 square feet in 14 buildings on 12.5 acres. The King of Prussia Market is the largest suburban office market in the Philadelphia region and is in close proximity to most of the region's primary highways. This investment was made by the Berwind Property Group V.
- <u>The National at Old City</u> This condominium complex is located in Philadelphia, PA. The National at Old City consists of 153 units totaling 208,919 square feet of condominium space, 11,000 square feet of retail space and 200 underground parking spaces. Lehman Brothers Real Estate Pension Partners II made this investment.

#### Venture Capital

PSERS' Venture Capital program has committed \$2,046.6 million to 36 partnerships since the inception of the program. An objective of this program is to target partnerships that demonstrate an ability to invest in Pennsylvania-based companies. Selected partnerships offer diversification according to geographic region and financing stage within Pennsylvania. From the inception of this program to December 31, 2008, 20 of the 36 partnerships were headquartered in Pennsylvania.

A key objective of PSERS' venture capital program is to attract both national and regional funds into the Pennsylvania small business community. Venture capital investments serve to accelerate economic growth in both the business sector and the community due to an increase in employment and revenues within the Commonwealth. Following are a sample of Pennsylvania companies invested in by PSERS through the Venture Capital program:

- <u>Ciradiant Systems, Inc.</u>, Allentown, PA Ciradiant provides optical component developers, network equipment manufacturers, and telecom service providers with award winning test systems. Circadiant's Optical Standards Testers generate real-world optical test signals that greatly improve network reliability and interoperability. This investment was made by Pennsylvania Early Stage Partners.
- <u>E-Duction, Inc.</u>, Blue Bell, PA E-Duction was launched to capitalize on a growing trend that has emerged in payment technology payroll deduction. In 2002, E-Duction introduced the first payroll deduction card, CLEAR, that gives employees interest-free purchasing power, 365 days per year. CLEAR is an innovative employee program that allows employees to make purchases at over 33 million MasterCard acceptance locations worldwide and spread payments out over future paychecks. Pennsylvania Early Stage Partners made this investment.
- <u>Immunicon Corporation</u>, Huntingdon Valley, PA Immunicon Corporation is developing and commercializing proprietary cell- and molecular-based human diagnostic and life science research products, and is providing certain analytical services to pharmaceutical and biotechnology companies to assist them in developing new therapeutic agents, with an initial focus on cancer disease management. Immunicon has developed platform technologies to identify, count and characterize a small number of rare cells in blood, such as circulating tumor cells and circulating endothelial cells that are important in many diseases and biological processes. Immunicon's products and underlying technology platforms also have application in cancer research and may have applications in other fields of medicine, such as cardiovascular and infectious diseases. TL Ventures III made this investment.
- <u>I-trax, Inc.</u>, Chadds Ford, PA I-trax, Inc. is a leading provider of integrated workplace health and productivity management solutions. Serving nearly 100 clients at over 200 locations nationwide, I-trax offers on-site health centers through its CHD Meridian Healthcare, LLC subsidiary, which delivers primary care, acute care corporate health, occupational health, and pharmacy care management services as well as integrated disease management, wellness, and disability management programs. I-trax provides a comprehensive solution utilizing telephonic and e-health tools to enhance the trusted relationship established by our clinicians at the worksite. CHD Meridian is focused on making the workplace safe, helping companies achieve employer of choice status, reducing costs while improving the quality of care received, and the productivity of the workforce. Franklin Capital Associates III made this investment.

- <u>Neuronyx, Inc.</u>, Malvern, PA Neuronyx is focused on neurological diseases and disorders. With a multi-faceted approach to address brain diseases, Neuronyx balances the significant but long-term promise of stem cell and gene-based therapies with the more conventional development time and risk of both scientific and regulatory nature of small molecule therapies. Rather than utilizing stem cells derived from embryonic and fetal sources, Neuronyx has developed a proprietary process for isolating and expanding adult bone marrow stem cells to provide extremely large, homogenous populations with desirable therapeutic characteristics. Pennsylvania Early Stage Partners made this investment.
- <u>Neutronics, Inc.</u>, Malvern, PA Neuronetics, Inc. is a privately held medical device company focused on developing non-invasive therapies for psychiatric and neurological disorders using MRI-strength magnetic field pulses. Neuronetics is the leader in the development of TMS Therapy, a non-invasive form of neuromodulation. KBL Healthcare Ventures made this investment.
- <u>Speech Vantage, Inc.</u>, Horsham, PA SpeechVantage is a leading open systems packaged and custom speech applications and services provider that works with global enterprises to define, develop and deploy speech recognition and text-to-speech solutions that reduce operational costs, enhance customer service and provide a measurable return on investment. The company's flagship product, the OLIVE Suite of business applications, provides a speech-enabled auto attendant, a voice-activated emergency contact list, a speech-enabled password reset system, a voice-activated dialing system, and voice-activated Outlook & Lotus Notes and can be easily customized to improve customer service and reduce operational expenses. Pennsylvania Early Stage Partners made this investment.
- <u>Traffic.com</u>®, Wayne, PA Traffic.com® is the leading provider of personalized traffic information for drivers coast to coast. Through the industry's most comprehensive data collection infrastructure, Traffic.com offers consumers real-time customized traffic reports in 83 U.S. markets. These personalized consumer reports are complete with predictive traffic trends, vehicle speeds, congestion levels, travel times, and delay times delivered via Web, wireless device, radio, television, and in-vehicle navigation systems. Traffic.com's® ability to distribute traffic information via specialized data feeds and across multiple platforms creates unique, powerful branding opportunities for advertisers, enabling them to expand their reach and target consumers with useful, relevant content multiple times per day. TL Ventures III made this investment.
- <u>ZOLL LIFECOR, Inc.</u>, Pittsburgh, PA ZOLL LIFECOR, Inc., a subsidiary of ZOLL Medical Corporation, manufacturers and markets the LifeVest wearable defibrillator, which is worn by a patient at risk for sudden cardiac arrest. Sudden cardiac arrest leads to death within a few minutes if not treated by an electrical shock from a defibrillator. TheLifeVest device monitors the patient's heart continuously and, if the patient goes into a life threatening heart rhythm, delivers a shock treatment to restore the patient's heart to normal rhythm. TDH III, L.P. made this investment.

PSERS' is generally the lead investor in many of the venture capital funds in which PSERS invests. As a lead investor, PSERS provides Pennsylvania with capital from numerous out-of-state investors. As of December 31, 2008, PSERS' Venture Capital partnerships invested in 87 Pennsylvania locations employing approximately 6,303 employees with a combined payroll of \$308.9 million. The market value of these investments is \$410.7 million, of which PSERS' share is \$127.6 million.

#### **Private Equity**

PSERS' is generally the lead investor in many of the private equity funds in which PSERS invests. As a lead investor, PSERS provides Pennsylvania with capital from numerous out-of-state investors. As of December 31, 2008, PSERS' Private Equity partnerships invested in 462 Pennsylvania locations employing approximately 32,015 employees with a combined payroll of \$817.7 million. The market value of these investments is \$4.6 billion, of which PSERS' share is \$682.3 million.

The following companies are a sample of Pennsylvania investments funded through PSERS private equity partnerships:

- <u>AirClic</u>, Newtown, PA AirClic is a leading provider of mobile business process solutions that offer organizations real-time visibility to the "who, what, where, when, and why" of their entire field operations. Using AirClic-enabled wireless devices, managers and workers can easily and economically capture, exchange, and access critical data that represent people, assets and activity. With its unsurpassed user-adoption rate, AirClic is driving new levels of accountability and improved customer service for many of the world's leading companies. Edgewater Private Equity Fund III made this investment.
- <u>CODi</u>, Inc., Harrisburg, PA CODi, Inc. is a trusted provider of lightweight, highquality notebook computer cases and accessories to millions of users. Since 1992, CODi has been a pioneer in the notebook and tablet case industry. CODi products use only premium materials that provide a lifetime of use, even in today's demanding business environment. CODi's accumulated knowledge dealing with the "corporate road warrior" allows the company to uniquely service corporate and consumer needs with precision. CODi provides the most comprehensive business solutions by delivering cost savings without sacrificing quality. The investment was brought about through Milestone Partners II.
- <u>EnerSys, Inc.</u>, Reading, PA EnerSys, the world leader in stored energy solutions for industrial applications, manufactures and distributes reserve power and motive power batteries, chargers, power equipment, and battery accessories to customers worldwide. Motive power batteries are utilized in electric forklift trucks and other commercial electric powered vehicles. Reserve power batteries are used in the telecommunication and utility industries, uninterruptible power suppliers, and numerous applications requiring standby power. The company also provides aftermarket and customer support services to its customers in over 100 countries through its sales and manufacturing locations around the world. Morgan Stanley Dean Witter Capital Partners IV, L.P. made this investment.

- <u>Gorell Enterprises</u>, Indiana, PA Gorell Enterprises is a manufacturer of specially engineered, custom-manufactured windows for replacement and new-construction applications, patio doors, aluminum storm windows and doors, sunrooms, and conservatories. Gorell is well known in the industry for placing strong emphasis on designing and manufacturing strong, durable high-quality products. Gorell was the national winner of the 2006 ENERGY STAR® "Sustained Excellence" Award, given for their new window models to make homes more energy efficient as well as secure. The windows feature three panes of glass, two of which sandwich a PVB interlayer to keep the glass intact. Thick, multi-chambered frame construction, double locks add structural strength and durability. AIP windows incorporate a SolarControl Plus® Low-E coating and argon gas fill for cost-saving energy efficiency year round—and qualify them for the ENERGY STAR® label. PNC Equity Partners L.P. made this investment.
- <u>ICG Commerce, Inc.</u>, King of Prussia, PA ICG Commerce is a leading Procurement Services Provider exclusively focused on helping companies achieve greater control and increased value from their procurement organization. The company offers sourcing and on-going operational buying services that enable companies to better manage spending, increase sourcing effectiveness, ensure compliance, and drive continual improvements. By working with dozens of leading procurement organizations, ICG Commerce brings its execution-based and continually growing compound experience to every customer contract negotiated and transaction processed. Graham Partners Investments made this investment.
- <u>Interface Solutions, Inc.</u>, Lancaster, PA Interface Solutions Inc. (ISI) is a leading manufacturer of sealing systems and engineered composite materials, including a unique line of specialty papers. The organization enjoys long-established cooperative partnerships with customers in an array of worldwide markets. Recent acquisitions, expansions, and capital investments in research facilities empower ISI to offer both OEM and aftermarket customers unmatched technical and design support and application testing. ISI has an extraordinary depth of experience and engineering knowledge, with roots to predecessor companies dating back over 90 years. ISI was created as an independent, private corporation in 1999; formed from the organization previously known as Armstrong Industrial Specialties Inc. (AISI). PNC Equity Partners L.P. made this investment.
- <u>Keystone Automotive Operations, Inc.,</u> Exeter, PA Keystone Automotive Operations reigns as the largest distributor and marketer of specialty automotive parts in the world with more than a quarter of a million accessories and performance parts representing over 700 product lines. Keystone Automotive's main warehouse, the largest automotive aftermarket warehouse in the industry, consisting of 800,000 square-feet is located in northeastern Pennsylvania. Keystone prides itself on products and delivery capabilities. Keystone makes this evident by constantly expanding with a 185,000 square-foot hub in Kansas City, an 80,000 square-foot hub in Corona, California, and satellites in Alabama, Colorado, Florida, Georgia, Illinois, Indiana, Maryland, Massachusetts, New York, New Mexico, North Carolina, Ohio, Pennsylvania, Tennessee, Texas and Canada. In today's ever changing and expanding marketplace, Keystone Automotive Operations is shaping its future and the future of the automotive aftermarket industry through careful planning,

continued growth, and ongoing expansion. Bear Stearns Merchant Banking Partners II made this investment.

• <u>Tangent Rail Corporation</u>, Pittsburgh, PA – Tangent Rail Corporation serves the railroad industry with quality treated wood products and preservatives, rail grinding, switching and track maintenance services, and environmentally friendly railroad tie pickup and disposal solutions. PNC Equity Partners L.P. made this investment.

#### **Private Debt**

PSERS' is generally the lead investor in many of the private debt funds in which PSERS invests. PSERS has committed \$69.3 million Versa Capital Partners, LP (formerly known as Chrysalis Capital Partners L.P.) managed by Versa Capital Management, located in Wayne, Pennsylvania. As of December 31, 2008, PSERS' Private Debt partnerships invested in 180 Pennsylvania locations employing approximately 19,018 employees with a combined payroll of \$822.0 million. The market value of these investments is \$3.8 billion, of which PSERS' share is \$234.4 million.

The following companies are a sample of a Pennsylvania investments made through PSERS' Private Debt program:

- <u>PQ Corporation</u>, Berwyn, PA PQ Corporation is a leading producer of silicate, zeolite, and other performance materials serving the detergent, pulp and paper, chemical, petroleum, catalyst, water treatment, construction, and beverage markets. It is a global enterprise, operating in 19 countries on five continents. Potters Industries, a wholly owned subsidiary, is a leading producer of engineered glass materials serving the highway safety, polymer additive, metal finishing, and conductive particle markets. Gleacher Mezzanine Fund made this investment.
- <u>Rite Aid Corporation</u>, Camp Hill, PA Rite Aid is a United States retailer and pharmacy chain, operating over 5,100 stores in 31 states and the District of Columbia, with a strong presence on both the both coasts, and approximately 116,000 associates. Rite Aid is the largest drugstore chain on the East Coast and the third largest drugstore chain in the U.S. Rite Aid has pursued a growth through acquisition strategy acquiring the Brooks and Eckerd pharmacy chains. Avenue Special Situations Fund IV, L.P. made this investment.

# **Pennsylvania-Based Publicly Traded Stocks**

(as of December 31, 2008)

| <u>Security</u>                      | Shares<br><u>Outstanding</u> | <u>Market Value</u> |   |
|--------------------------------------|------------------------------|---------------------|---|
| Air Products & Chemicals, Inc.       | 100,643                      | \$ 5,059,324        | • |
| Airgas, Inc.                         | 90,170                       | 3,515,728           | , |
| Alcoa, Inc.                          | 99,073                       | 1,115,562           |   |
| Allegheny Energy, Inc.               | 30,928                       | 1,047,222           |   |
| Allegheny Technologies, Inc.         | 11,920                       | 304,318             | , |
| Amerisourcebergen Corp.              | 21,839                       | 778,779             | ) |
| Ametek, Inc.                         | 34,940                       | 1,055,537           | , |
| Ansys, Inc.                          | 94,651                       | 2,639,816           | ) |
| Aqua America, Inc.                   | 6,970                        | 143,512             |   |
| Auxilium Pharmaceuticals, Inc.       | 288,234                      | 8,197,375           | į |
| Brandywine Realty Trust              | 37,627                       | 290,104             | • |
| C & D Technologies, Inc.             | 307,500                      | 962,475             | į |
| Calgon Carbon Corp.                  | 61,980                       | 952,013             | j |
| Carpenter Technology Corp.           | 3,300                        | 67,782              |   |
| Central European Distribution Corp.  | 15,756                       | 310,393             | j |
| Cephalon, Inc.                       | 8,473                        | 652,760             | ) |
| Charming Shoppes, Inc.               | 2,015,000                    | 4,916,600           | ) |
| CIGNA Corp.                          | 34,025                       | 573,321             |   |
| CNX Gas Corp.                        | 81,400                       | 2,222,220           | ) |
| Comcast Corp. Class A                | 376,696                      | 6,358,628           | , |
| Consolidated Energy, Inc.            | 83,731                       | 2,393,032           |   |
| Dentsply International, Inc.         | 18,439                       | 520,717             | , |
| Dick's Sporting Goods, Inc.          | 43,140                       | 608,705             | , |
| Endo Pharmaceuticals Holdings, Inc.  | 33,100                       | 856,628             | , |
| Environmental Tectonics Corp.        | 100,572                      | 82,469              | ) |
| Equitable Resources, Inc.            | 79,999                       | 2,683,966           | ; |
| eResearch Technology, Inc.           | 18,100                       | 120,003             |   |
| Federated Investors, Inc. Class B    | 10,965                       | 185,966             | ) |
| FMC Corp.                            | 25,183                       | 1,126,436           | ) |
| H.J. Heinz Company                   | 38,925                       | 1,463,580           | ) |
| Harleysville Savings Financial Corp. | 4,333                        | 58,192              | , |
| Herley Industries, Inc.              | 8,350                        | 102,538             | , |
| Hershey Company                      | 28,032                       | 973,832             | , |
| Horsehead Holding Corp.              | 220,400                      | 1,035,880           | ) |
| Internet Capital Group, Inc.         | 91,540                       | 498,893             | Ì |
| Jones Apparel Group, Inc.            | 10,328                       | 60,522              | , |

# Pennsylvania-Based Publicly Traded Stocks (as of December 31, 2008)

(continued)

|  | Shares             |          |                     |
|--|--------------------|----------|---------------------|
| <u>Security</u>                            | <b>Outstanding</b> | <u>1</u> | <u>Market Value</u> |
| Kennametal, Inc.                           | 64,580             | \$       | 1,433,030           |
| Kensey Nash Corp.                          | 17,200             |          | 333,852             |
| Koppers Holdings, Inc.                     | 21,230             |          | 458,993             |
| L.B. Foster Company Class A                | 19,636             |          | 614,214             |
| Lannett Company, Inc.                      | 9,700              |          | 48,500              |
| Liberty Property Trust                     | 103,162            |          | 2,355,188           |
| Met Pro Corp.                              | 24,500             |          | 326,340             |
| Michael Baker Corp.                        | 14,140             |          | 521,907             |
| Mylan Labs, Inc.                           | 37,720             |          | 373,051             |
| Parkvale Financial Corp.                   | 13,300             |          | 165,186             |
| Penn Virginia Corp.                        | 97,740             |          | 2,539,285           |
| Pep Boys – Manny Moe & Jack                | 144,300            |          | 595,959             |
| PMA Capital Corp. Class A                  | 153,164            |          | 1,084,401           |
| PNC Financial Services Group, Inc.         | 500                |          | 24,500              |
| PPG Industries, Inc.                       | 20,328             |          | 862,517             |
| PPL Corp.                                  | 46,422             |          | 1,424,691           |
| Quaker Chemical Corp.                      | 3,430              |          | 56,424              |
| Rex Energy Corp.                           | 178,329            |          | 524,287             |
| Rohm & Haas Company                        | 327,087            |          | 20,210,706          |
| Sovereign Bancorp, Inc.                    | 67,397             |          | 200,843             |
| Spectrum Control, Inc.                     | 85,600             |          | 525,584             |
| Sunoco, Inc.                               | 21,667             |          | 941,648             |
| TF Financial Corp.                         | 13,300             |          | 256,690             |
| Toll Brothers, Inc.                        | 61,100             |          | 1,309,373           |
| Triumph Group, Inc.                        | 6,200              |          | 263,252             |
| II-VI, Inc.                                | 122,565            |          | 2,339,766           |
| UGI Corp.                                  | 39,960             |          | 975,823             |
| United States Steel Corp.                  | 36,538             |          | 1,359,214           |
| Universal Stainless & Alloy Products, Inc. | 19,500             |          | 282,555             |
| Wabtec Corp.                               | 48,050             |          | 1,909,988           |
| Wesco International, Inc.                  | 22,180             |          | 426,521             |
| West Pharmaceutical Services, Inc.         | 24,180             |          | 913,279             |
|  |                    |          |                     |

Total

<u>\$ 99,592,395</u>

### **Pennsylvania-Based Corporate Bonds**

(as of December 31, 2008)

| <u>Security</u>                   | Interest<br><u>Rate (%)</u> | Maturity<br><u>Date</u> | Par<br><u>Value</u> | Market<br><u>Value</u> |
|-----------------------------------|-----------------------------|-------------------------|---------------------|------------------------|
| Alcoa, Inc.                       | 5.900                       | 02/01/2027              | 10,000,000          | \$ 6,577,900           |
| Alcoa, Inc.                       | 6.000                       | 07/15/2013              | 1,050,000           | 949,389                |
| Allegheny County Hospital         | 5.000                       | 09/01/2018              | 2,000,000           | 1,939,600              |
| Allegheny Technologies, Inc.      | 8.375                       | 12/15/2011              | 80,000              | 85,149                 |
| Allentown PA Taxable              | 0.000                       | 10/01/2022              | 1,800,000           | 580,536                |
| Allentown PA Taxable              | 0.000                       | 10/01/2023              | 3,170,000           | 930,966                |
| Allentown PA Taxable              | 0.000                       | 10/01/2024              | 2,605,000           | 698,713                |
| Allentown PA Taxable              | 0.000                       | 10/01/2025              | 3,660,000           | 898,567                |
| Allentown PA Taxable              | 0.000                       | 10/01/2026              | 3,655,000           | 820,913                |
| Amerisourcebergen Corp. 144A      | 5.625                       | 09/15/2012              | 1,565,000           | 1,465,325              |
| Comcast Corp.                     | 10.625                      | 07/15/2012              | 32,569,000          | 34,590,232             |
| Comcast Corp.                     | 6.500                       | 01/15/2015              | 2,290,000           | 2,250,910              |
| Comcast Corp.                     | 5.900                       | 03/15/2016              | 1,025,000           | 978,691                |
| Comcast Corp.                     | 6.500                       | 01/15/2017              | 330,000             | 325,944                |
| Comcast Corp.                     | 8.875                       | 05/01/2017              | 640,000             | 683,424                |
| Comcast Corp.                     | 5.875                       | 02/15/2018              | 200,000             | 189,520                |
| Comcast Corp.                     | 7.050                       | 03/15/2033              | 470,000             | 490,252                |
| Comcast Corp.                     | 6.500                       | 11/15/2035              | 375,000             | 373,215                |
| Comcast Corp.                     | 6.450                       | 03/15/2037              | 50,000              | 49,756                 |
| Comcast Corp.                     | 6.950                       | 08/15/2037              | 1,300,000           | 1,368,965              |
| Consolidated Natural Gas Company  | 6.000                       | 10/15/2010              | 374,000             | 377,938                |
| Consolidated Natural Gas Company  | 6.250                       | 11/01/2011              | 13,529,000          | 13,597,727             |
| Consolidated Natural Gas Company  | 5.000                       | 03/01/2014              | 475,000             | 441,684                |
| Duquesne Light Company            | 6.700                       | 04/15/2012              | 12,134,000          | 11,669,510             |
| H.J. Heinz Company 144A           | 15.590                      | 12/01/2020              | 5,000,000           | 5,590,600              |
| Harsco Corp.                      | 5.750                       | 05/15/2018              | 2,000,000           | 2,025,820              |
| Hershey Company                   | 8.800                       | 02/15/2021              | 1,270,000           | 1,576,578              |
| Penn National Gaming, Inc.        | 6.875                       | 12/01/2011              | 1,270,000           | 1,174,750              |
| Penn National Gaming, Inc.        | 6.750                       | 03/01/2015              | 2,215,000           | 1,683,400              |
| Pittsburgh PA Taxable             | 6.500                       | 03/01/2014              | 2,000,000           | 2,089,320              |
| PNC Funding Corp.                 | 1.459                       | 06/12/2009              | 6,500,000           | 6,273,800              |
| PNC Funding Corp.                 | 1.805                       | 06/22/2011              | 5,000,000           | 4,994,650              |
| PNC Funding Corp.                 | 8.700                       | 02/19/2049              | 2,300,000           | 1,700,137              |
| PNC Mtg. Accep. Corp. 2000-C2 A-2 | 7.300                       | 10/12/2033              | 6,481,032           | 6,449,910              |
| PPL Capital Funding, Inc.         | 6.700                       | 03/30/2067              | 2,260,000           | 994,400                |
| PPL Energy Supply, LLC            | 5.400                       | 08/15/2014              | 935,000             | 798,378                |
| Rite Aid Corp.                    | 8.625                       | 03/01/2015              | 2,825,000           | 974,625                |
| Rite Aid Corp.                    | 9.375                       | 12/15/2015              | 840,000             | 294,000                |
| Rite Aid Corp.                    | 7.500                       | 03/01/2017              | 980,000             | 637,000                |
| Rite Aid Corp.                    | 9.500                       | 06/15/2017              | 1,075,000           | 373,563                |
| Sungard Data Systems, Inc.        | 9.125                       | 08/15/2013              | 3,215,000           | 2,780,975              |

#### Pennsylvania-Based Corporate Bonds

(as of December 31, 2008)

(continued)

| <u>Security</u>              | Interest<br><u>Rate (%)</u> | Maturity<br><u>Date</u> | Par<br><u>Value</u> |           | Market<br><u>Value</u> |
|------------------------------|-----------------------------|-------------------------|---------------------|-----------|------------------------|
| Sungard Data Systems, Inc.   | 4.875                       | 01/12/2014              | 240,000             | \$        | 165,600                |
| Sungard Data Systems, Inc.   | 10.625                      | 05/15/2015              | 1,830,000           |           | 1,564,650              |
| Susquehanna Bancshares, Inc. | 6.050                       | 11/01/2012              | 5,500,000           |           | 6,232,820              |
| Susquehanna Bancshares, Inc. | 4.750                       | 05/01/2014              | 2,000,000           |           | 1,985,580              |
| United States Steel Corp.    | 5.650                       | 06/01/2013              | 505,000             |           | 377,720                |
| Total                        |                             |                         |                     | <u>\$</u> | 133,073,102            |

# Real Estate Separate Account Pennsylvania Properties

(as of December 31, 2008)

| <b>Property</b>      | <b>Location</b> | <b>Description</b>                           | <u>Manager</u> |
|----------------------|-----------------|--|----------------|
| 5 North Fifth Street | Harrisburg      | 5-story office building (PSERS headquarters) | Grosvenor      |

Total market value (unaudited) of Pennsylvania-based properties was \$7.6 million as of December 31, 2008.

### Pennsylvania-Based Private Equity/Venture Capital/Private Debt General Partners

(Dollar Amounts in Millions) (Since the inception of the program as of December 31, 2008)

|  | <b>T</b>        | PSERS Maximum      |
|--|-----------------|--------------------|
| <b>Partnership</b>                             | <b>Location</b> | Capital Commitment |
| Adams Capital Management, L.P.                 | Sewickley       | \$ 12.5            |
| APA/Fostin Venture Fund I (closed)             | King of Prussia | 20.0               |
| CEO Venture Fund I (closed)                    | Pittsburgh      | 1.0                |
| CEO Venture Fund II (closed)                   | Pittsburgh      | 15.0               |
| Co-Investment 2000 Fund, L.P.                  | Wayne           | 135.0              |
| Co-Investment Fund II, L.P.                    | Wayne           | 135.0              |
| Commonwealth Venture Partners I (closed)       | Philadelphia    | 20.0               |
| Commonwealth Venture Partners II (closed)      | Philadelphia    | 10.0               |
| Cross Atlantic Technology Fund, L.P.           | Radnor          | 30.1               |
| Cross Atlantic Technology Fund II, L.P.        | Radnor          | 21.1               |
| Graham Partners Investments, L.P.              | Newtown Square  | 56.7               |
| Keystone Minority Capital Fund (closed)        | Philadelphia    | 0.1                |
| Keystone Venture Fund IV (closed)              | Philadelphia    | 7.8                |
| LLR Equity Partners, L.P.                      | Wayne           | 62.5               |
| LLR Equity Partners II, L.P.                   | Wayne           | 75.0               |
| LLR Equity Partners III, L.P.                  | Wayne           | 187.5              |
| Loyalhanna Venture Fund (closed)               | Pittsburgh      | 15.0               |
| Milestone Partners II, L.P.                    | Rosemont        | 29.9               |
| Milestone Partners III, L.P.                   | Rosemont        | 57.4               |
| NEPA Venture Fund I (closed)                   | Bethlehem       | 1.0                |
| NEPA Venture Fund II                           | Bethlehem       | 5.0                |
| Novitas Capital I, L.P.                        | Wayne           | 30.0               |
| Novitas Capital II, L.P.                       | Wayne           | 75.0               |
| P/A Fund                                       | King of Prussia | 30.0               |
| PNC Equity Partners, L.P.                      | Pittsburgh      | 43.2               |
| PNC Equity Partners II, L.P.                   | Pittsburgh      | 56.5               |
| Quaker Bio-Ventures, L.P.                      | Wayne           | 69.4               |
| Quaker Bio-Ventures II, L.P.                   | Wayne           | 100.0              |
| SCP Private Equity Partners I, L.P.            | Wayne           | 62.5               |
| SCP Private Equity Partners II, L.P.           | Wayne           | 125.0              |
| TDH III, L.P.                                  | Rosemont        | 7.4                |
| Technology Leaders, L.P. (closed)              | Wayne           | 10.0               |
| TL Ventures III, L.P.                          | Wayne           | 50.0               |
| Versa Capital Partners, L.P. (f/k/a Chrysalis) | Wayne           | 75.0               |
| Versa Capital Partners III, L.P.               | Wayne           | 150.0              |

#### Total

<u>\$ 1,781.6</u>

### PSERS' PMEIM Program Minority/Women Investment Managers (Dollar Amounts in Millions)

(unaudited)

The following eight minority-owned or women-owned firms were under contract with PSERS to provide investment management services as of December 31, 2008:

| External Manager                            | <u>Status</u>  | <u>Market Value</u> |
|---|----------------|---------------------|
| Ativo Capital                               | Minority-owned | \$ 15.7             |
| Denali Advisors                             | Minority-owned | 11.4                |
| Great Companies, Inc. (formerly EDMP, Inc.) | Women-owned    | 30.9                |
| Hanseatic Management Services, Inc.         | Women-owned    | 37.5                |
| John Hsu Capital Group, Inc.                | Minority-owned | 43.1                |
| AH Lisanti Capital Growth, LLC              | Women-owned    | 20.6                |
| Opus Capital Management                     | Minority-owned | 26.4                |
| Piedmont Investment Advisors                | Minority-owned | 17.5                |
| Pugh Capital Management, Inc.               | Minority-owned | 17.8                |
| Shah Capital Management                     | Minority-owned | 31.3                |
| Total                                       |                | \$ <u>252.2</u>     |

Numbers may not add due to rounding

# Section 5 Other PSERS Programs



### Health Options Program 19



### **Health Options Program**

Pursuant to the Public School Retirees' Health Insurance Act, 24 Pa.C.S. §8701 et seq., PSERS sponsors a group health insurance program called the Health Options Program (HOP) for individuals who are annuitants or survivor annuitants or the spouse or dependents of an annuitant or survivor annuitant. The HOP is funded by and for eligible participants.

PSERS issued a request for proposal (RFP) in April 2008, for a nationwide Medicare Advantage private fee for service (MAPFFS) plan to replace, prospectively, regional Medicare Advantage and companion managed care plans for individuals not eligible for Medicare. As a result the existing HOP Medicare Advantage Plans were closed to new entrants. Highmark, Inc. was the successful bidder. During contract negotiations, Highmark was able to improve its premium rates by utilizing its FreedomBlue PPO in Pennsylvania and its MAPFFS outside Pennsylvania. The benefits provided by the PPO for in and out of network providers are the same as the benefits provided by the MAPFFS.

Effective January 1, 2009, HOP offers participants a choice among Medicare supplement plans, various Medicare prescription drug plans, and a Medicare Advantage plan. Participants under age 65 and not eligible for Medicare may elect to enroll in a high deductible health insurance plan with or without prescription drug coverage or a managed care plan. These options are available to new enrollees or HOP participants electing to change coverage during the 2009 option selection period. HOP participants enrolled in a legacy Medicare Advantage plan or companion managed care plan, for individuals not eligible for Medicare, during 2008 may continue to participate in that plan for 2009. The following is a list of HOP plans:

| For Individuals Eligible for Medicare:        | For Individuals Not Eligible for Medicare |
|---|---|
| HOP Medical Plan (Medicare supplement)        | HOP Pre-65 Medical Plan                   |
| Basic Medicare Rx Option (Medicare Part D)    | HOP Pre-65 Medical Plan w/ Rx coverage    |
| Enhanced Medicare Rx Option (Medicare Part D) |   |
| HOP Managed Care Plan by Highmark             | HOP Pre-65 Managed Care Plan by Highmark  |
| Legacy Medicare Advantage Plans               | Legacy Managed Care Plans                 |
| Aetna Golden Medicare                         | Aetna Patriot Plan                        |
| Aetna Medicare Value                          | Aetna Choice                              |
| Aetna Golden Choice                           | Keystone Health Plan East                 |
| Keystone 65                                   | Keystone Health Plan East                 |
| Keystone 65 Direct                            | Keystone Health Plan East                 |
| IBC Personal Choice 65                        | IBC Personal Choice                       |
| Keystone Central Senior Blue                  | Keystone Central                          |
| UPMC for Life Medicare                        | UPMC                                      |
| (PacifiCare) Secure Horizons                  | PacifiCare                                |
| Humana  | Humana                                    |

The premiums paid by participants generally vary by geographical area. The exceptions are the premiums for the Medicare Rx Options and the HOP Pre-65 Medical Plan. The following is a summary of the 2008 and 2009 premium costs in Pennsylvania for single coverage:

#### For Individuals Eligible for Medicare

| <b>Southeastern Region:</b> <i>Bucks, Chester, Delaware,</i><br><i>Montgomery, and Philadelphia Counties.</i> | 2008  | 2009  | Increase |
|---|-------|-------|----------|
| HOP Medical Plan  | \$180 | \$197 | 9%       |
| Age 65 Rates  | \$171 | \$188 | 10%      |
| HOP Managed Care Plan by Highmark <sup>†</sup>  | N/A   | \$244 | N/A      |
| Legacy Medicare Advantage Plans   | 2008  | 2009  | Increase |
| Aetna Value HMO (\$170 in Philadelphia Co.)   | \$179 | \$186 | 4%       |
| Aetna HMO (\$325 in Philadelphia County)  | \$314 | \$332 | 6%       |
| Aetna PPO (\$334 in Philadelphia County)  | \$365 | \$365 | 0%       |
| IBC's Personal Choice 65  | \$416 | \$564 | 36%      |
| Keystone East HMO   | \$294 | \$301 | 2%       |
| Keystone East POS   | \$313 | \$321 | 3%       |

| <b>Southwestern Region:</b> Allegheny, Fayette, Greene,<br>Indiana, Washington, and Westmoreland Counties | 2008        | 2009  | Increase    |
|---|-------------|-------|-------------|
| HOP Medical Plan  | \$168       | \$185 | 10%         |
| Age 65 Rates Single   | \$159       | \$176 | 11%         |
| HOP Managed Care Plan by Highmark <sup>†</sup>  | \$199       | \$232 | 17%         |
| Legacy Medicare Advantage Plans   | 2008        | 2009  | Increase    |
| Aetna HMO   | \$154-\$196 | \$176 | -10% to 14% |
| Aetna PPO   | \$359-\$393 | \$388 | -1% to 8%   |
| Highmark HMO  | \$189       | \$224 | 18%         |
| UPMC HMO  | \$129       | \$157 | 22%         |

† Formerly called Highmark FreedomBlue PPO

| <b>Northern &amp; -Central Region:</b><br>(All other counties in Pennsylvania) | 2008        | 2009        | Increase    |
|--|-------------|-------------|-------------|
| HOP Medical Plan   | \$149       | \$155       | 4%          |
| Age 65 Rates Single  | \$138       | \$148       | 7%          |
| HOP Managed Care Plan by Highmark <sup><math>\dagger</math></sup>              | \$188-\$199 | \$220       | 11% to 17%  |
| Legacy Medicare Advantage Plans  | 2008        | 2009        | Increase    |
| Aetna HMO  | \$205-\$322 | \$176-\$291 | -10 to -14% |
| Aetna PPO  | \$239-\$393 | \$312-\$388 | -1 to 30%   |
| Highmark HMO   | \$189       | \$224       | 18%         |
| Keystone Central HMO   | \$207       | \$189       | -9%         |
| Keystone Central PPO   | \$216       | \$197       | -9%         |
| UPMC HMO   | \$129       | \$157       | 22%         |

† Formerly called Highmark FreedomBlue PPO

| Medicare Rx Option: All Counties in Pennsylvania | 2008 | 2009 | Increase |
|--|------|------|----------|
| Basic Medicare Rx Option                         | \$25 | \$25 | 0%       |
| Enhanced Medicare Rx Option                      | \$78 | \$83 | 6%       |

#### For Individuals Not Eligible for Medicare

| All Counties in Pennsylvania.                         | 2008  | 2009  | Increase |
|---|-------|-------|----------|
| Pre-65 Medical Plan                                   | \$516 | \$566 | 11%      |
| Pre-65 Medical Plan w/ Prescription Drugs             | \$616 | \$682 | 10%      |
| HOP Pre-65 Managed Care Plan by Highmark <sup>†</sup> | N/A   | \$852 | N/A      |

† Formerly called Highmark PPOBlue

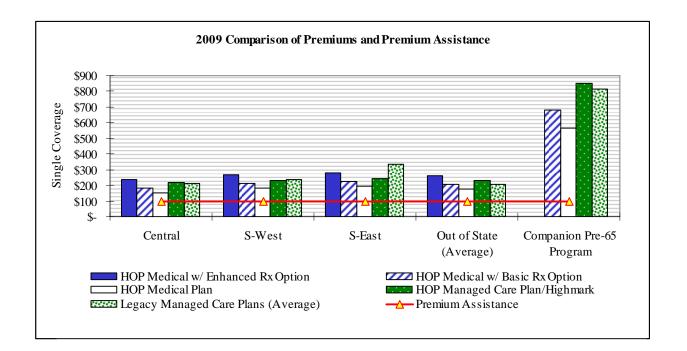
| Southeastern Region: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties. |       |       |     |  |  |  |
|---|-------|-------|-----|--|--|--|
| Legacy Managed Care Plans20082009Increa   |       |       |     |  |  |  |
| Aetna HMO   | \$740 | \$743 | 1%  |  |  |  |
| Aetna POS   | \$947 | \$984 | 4%  |  |  |  |
| IBC's Personal Choice 65  | \$714 | \$771 | 8%  |  |  |  |
| Keystone East HMO   | \$532 | \$778 | 46% |  |  |  |
| Keystone East POS   | \$529 | \$774 | 46% |  |  |  |

**Southwestern Region**: Allegheny, Fayette, Greene, Indiana, Washington, and Westmoreland Counties

| Legacy Managed Care Plans | 2008    | 2009    | Increase |
|---------------------------|---------|---------|----------|
| Aetna HMO                 | \$718   | \$710   | -1%      |
| Aetna POS                 | \$832   | \$846   | 1%       |
| Highmark HMO              | \$1,007 | \$1,251 | 24%      |
| Highmark PPO              | \$806   | \$973   | 21%      |
| UPMC HMO                  | \$950   | \$1,045 | 10%      |

| Northern & -Central Region: (All other counties in Pennsylvania) |               |             |          |  |  |
|--|---------------|-------------|----------|--|--|
| Legacy Managed Care Plans  | 2008          | 2009        | Increase |  |  |
| Aetna HMO  | \$708-\$763   | \$345-\$743 | 5%       |  |  |
| Aetna POS  | \$832-\$1,005 | \$450-\$984 | 18%      |  |  |
| Highmark PPO   | \$806         | \$973       | 21%      |  |  |
| Keystone Central HMO   | \$551         | \$624       | 13%      |  |  |
| Keystone Central PPO   | \$660         | \$774       | 17%      |  |  |
| UPMC EPO   | \$950         | \$1,045     | 22%      |  |  |

The following charts illustrate the premiums paid by PSERS retirees for single coverage compared with the PSERS Premium Assistance benefit. See additional information under the Premium Assistance tab. The premiums for 2-person and family coverage would be at least twice the cost of single coverage. Premium Assistance is an offset for the PSERS retiree's premium only.



|                                     | Central | S-West | S-East | Out of State<br>(Average) | Companion<br>Pre-65 Program |
|-------------------------------------|---------|--------|--------|---------------------------|-----------------------------|
| HOP Medical w/ Enhanced Rx Option   | \$ 238  | \$ 268 | \$ 280 | \$ 262                    |                             |
| HOP Medical w/ Basic Rx Option      | \$ 180  | \$ 210 | \$ 222 | \$ 204                    | \$ 682                      |
| HOP Medical Plan                    | \$ 155  | \$ 185 | \$ 197 | \$ 179                    | \$ 566                      |
| HOP Managed Care Plan/Highmark      | \$ 220  | \$ 232 | \$ 244 | \$ 232                    | \$ 852                      |
| Legacy Managed Care Plans (Average) | \$ 214  | \$ 240 | \$ 332 | \$ 207                    | \$ 816                      |
| Premium Assistance                  | \$ 100  | \$ 100 | \$ 100 | \$ 100                    | \$ 100                      |

The current Premium Assistance benefit covers, on average, 38% of the fee-for-service premium (with the enhanced prescription drug coverage) and 43% of the managed care premium for retirees eligible for Medicare. The Premium Assistance benefit covers, on average, 14% of the premium for retirees not eligible for Medicare.

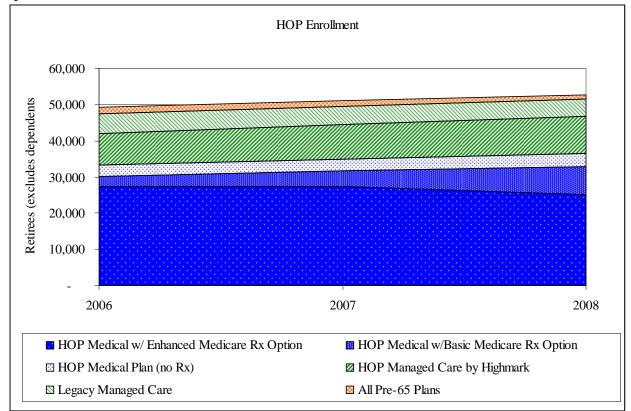
#### Enrollment

As of October 31, 2008 there are 65,104 participants (52,993 retirees plus their dependents) in the HOP. The majority of the HOP participants were enrolled in the HOP Medical Plan with Enhanced Medicare Rx Option. The total numbers of retirees by Option are:

| Participants Eligible for Medicare             | <b>Retirees</b> * |
|--|-------------------|
| Supplement to Original Medicare & Part D Plans |                   |
| HOP Medical w/ Enhanced Medicare Rx Option     | 25,191            |
| HOP Medical w/Basic Medicare Rx Option         | 7,761             |
| HOP Medical Plan (no Rx)                       | 3,530             |
| Enhanced or Basic Medicare Rx Option (Rx only) | 237               |
| Medicare Advantage                             |                   |
| HOP Managed Care by Highmark                   | 10,233            |
| Legacy Managed Care                            | 4,915             |
| Subtotal                                       | 51,867            |
| Participants not Eligible for Medicare)        |                   |
| Fee-For-Service Plans                          |                   |
| HOP Pre-65 Medical Plan w/Rx (High Option)     | 177               |
| HOP Pre-65 Medical Plan (Standard Option)      | 194               |
| Managed Care Plans                             |                   |
| HOP Pre-65 Managed Care by Highmark            | 135               |
| Legacy Pre-65 Managed Care Plans               | 620               |
| Subtotal                                       | 1,126             |
| Total  | 52,993            |

\* Does not include spouses and dependents

The following graph illustrates the number of retirees (not counting dependents) in the various options from 2006 to 2008:



#### Funding

A majority of the premium income is deducted from the retiree's monthly retirement benefit and transferred to the plans (claims administrator for the self-funded Options). Approximately 5,000 retirees submit monthly premium payments to the HOP Administration Unit, as their monthly retirement benefits, if any, are insufficient to cover the premium cost. In addition, individuals enrolled in a Medicare Rx Option without HOP Medical Plan coverage must submit monthly premium payments.

HOP income will total approximately \$214 million during the 2009 Plan Year. A majority of this income comes from premium payments from participants. Other sources of funding are premium assistance payments (for eligible retirees only) from PSERS, Medicare prescription drug payments (for participants enrolled in a Medicare prescription drug plan) from the Center for Medicare and Medicaid Services (CMS) and investment income. The following is a breakdown of these sources of income:

|   | 2009             |
|---|------------------|
| Income  | (in millions \$) |
| Participant Contributions (net of Premium Assistance) | \$138            |
| PSERS - Premium Assistance Payments                   | 49               |
| CMS - Medicare Prescription Drug Payments             | 23               |
| Interest Income                                       | 4                |
| Total   | \$214            |

Premium assistance payments are also made to eligible retirees who have an out of pocket premium expense from their former school district's (employer) health plan. These premium assistance payments are projected to equal \$33 million for 2009.

Contributions and interest income pay for the benefits provided to HOP participants plus administrative expenses. The following is a breakdown of the benefit expenses:

|  | 2009             |
|--|------------------|
| Benefit Expenses                                       | (in millions \$) |
| Self-funded Hospital, Medical & Major Medical Benefits | \$ 90            |
| Self-funded Prescription Drug Benefits                 | 55               |
| Managed Care Premiums                                  | 68               |
| Total  | \$ 213           |

In addition to these benefit expenses, the HOP will pay \$5 million in enrollment and administrative expenses.

As of June 30, 2008, HOP had net assets of \$89 million held in trust for the exclusive benefit of participants to pay the expenses of HOP.

# Premium Assistance Program 20



### **Premium Assistance Program**

In accordance with Section 8509 of the Public School Employees' Retirement Code 24 Pa.C.S. §8509, PSERS provides up to \$100 per month in Premium Assistance to eligible retirees to help cover the cost of their health insurance. The eligibility requirements for premium assistance are as follows:

- 24.5 years of credited service, or
- 15 years of credited service if termination of service and retirement occurred on or after superannuation age, or
- Receiving a disability annuity from PSERS;

and

• Have an out-of-pocket premium expense from their former school employer's health plan or the PSERS sponsored Health Options Program (HOP).

#### Funding

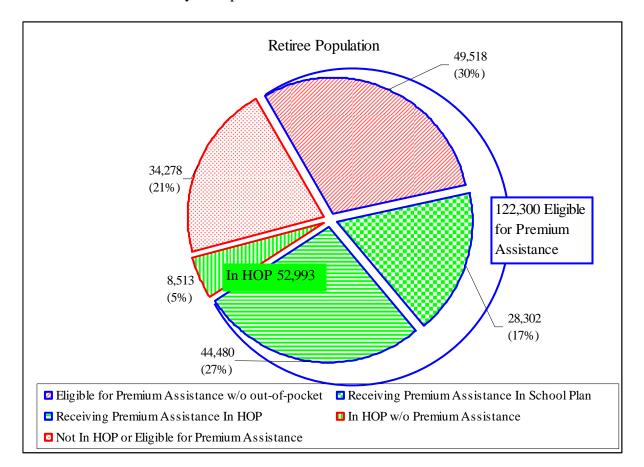
The premium assistance program is funded by contributions from the Commonwealth and school employers. For the year ended June 30, 2008, PSERS paid a total of \$85.6 million in benefit and administrative expenses for the premium assistance program. As of June 30, 2008, the premium assistance health insurance account had net assets of \$95.8 million. For the June 30, 2010 plan year the actuary has determines the premium assistance program will require contributions of \$100.4 million or 0.78% of membership payroll.

The actuarial accrued liability for Other Post Employment Benefits (OPEB) under GASB 43 is \$1.1 billion as of June 30, 2008.

#### Enrollment

According to the June 30, 2008 Actuarial Valuation, PSERS had 165,091 retirees (excluding survivor annuitants and beneficiaries) receiving a monthly benefit. Of these retirees 122,300 meet the service, service and age at termination of school service, or retirement type (disability) eligibility requirements for the premium assistance program. Of the retirees meeting these requirements, 49,518 are not receiving premium assistance payments because they do not have an out-of-pocket premium expense from an approved plan. That leaves 72,782 retirees receiving a monthly premium assistance benefit. Of the 72,782 retirees receiving premium assistance benefits, 44,480 are enrolled in HOP and 28,302 are participating in their former school employer's health plan and have an out-of-pocket premium expense.

#### Premium Assistance Program (continued)



A breakdown of retirees by their premium assistance status is as follows:

| June 30, 2008 Actuarial Valuation                  | Number  | Percentage |
|--|---------|------------|
| Eligible for Premium Assistance w/o out-of-pocket  | 49,518  | 30%        |
| Receiving Premium Assistance In School Plan        | 28,302  | 21%        |
| Receiving Premium Assistance In HOP                | 44,480  | 24%        |
| In HOP w/o Premium Assistance                      | 8,513   | 8%         |
| Not In HOP or Eligible for Premium Assistance      | 34,278  | 23%        |
| Total Retiree Population (excluding beneficiaries) | 165,091 | 100%       |
| Eligible   | 122,300 |            |