

Commonwealth of Pennsylvania

State Employees' Retirement System

Comprehensive Annual Financial Report

For the year ended December 31, 2004



A Component Unit of the Commonwealth of Pennsylvania

Commonwealth of Pennsylvania

State Employees' Retirement System

Comprehensive Annual Financial Report

For the year ended December 31, 2004

Prepared by the staff of the
Pennsylvania State Employees' Retirement System

Eric Henry
Executive Director

Francis J. Donlevy
Director, Office of Financial Management

State Employees' Retirement System
30 North Third Street
Harrisburg, PA 17101

A Component Unit of the Commonwealth of Pennsylvania



Nicholas J. Maiale
CHAIRMAN

Commonwealth of Pennsylvania
State Employees' Retirement System
30 North Third Street
Harrisburg, Pennsylvania 17101
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June 2005

Honorable Edward G. Rendell, Governor
Commonwealth of Pennsylvania

Members, Pennsylvania General Assembly

Members, Pennsylvania State Employees' Retirement System

Dear Governor Rendell, Legislators and Members:

The Board of the Pennsylvania State Employees' Retirement System ("SERS") is pleased to present our Comprehensive Annual Financial Report ("CAFR") on the SERS Fund for calendar year 2004. The CAFR provides us with a vehicle to compile and publicly disclose extensive financial, investment, and actuarial reports with introductions from SERS management and the fund's consulting actuary.

This 2004 report reflects another strong year for the Fund's investment performance, with an overall return on the portfolio of 15.1 percent, or more than \$3 billion. Our efforts won national recognition when SERS was chosen as the nation's Large Public Plan of the Year for 2004 in the Fourth Annual Public Pension Awards Program. The award was based on both our successful investment program and our superior service to members. (The Commonwealth's Deferred Compensation program, which the SERS Board also oversees, also earned important recognition: a first-place "Eddy Award" from two national publications, recognizing the educational value of our Deferred Compensation marketing materials.)

We believe that as a result of long-term investment portfolio planning and the prudent management of Fund assets, the System is well prepared to meet its obligations again this year and in the future.

The 11-member SERS Board represents the interest of public employees, public employers, and the taxpayer, in careful balance. SERS Board, staff, and I will continue to pursue prudent long-term investment strategies to assure the solvency of the Fund and the quality of pension-related services to all SERS members.

Sincerely,

Nicholas J. Maiale
SERS Board Chairman

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SERS Board

Honorable Nicholas J. Maiale
Chairman



Michael J. Acker
Senior Vice President Triad Strategies



Honorable Gibson E. Armstrong
State Senator



Honorable Robert A. Bittenbender
Former State Secretary of the Budget



Honorable Robert P. Casey, Jr.
State Treasurer



SERS Board

David R. Fillman
Executive Director, AFSCME Council 13



Honorable Robert W. Godshall
State Representative



Honorable Raphael J. Musto
State Senator



Honorable Thomas G. Paese
Former State Secretary of Administration



Honorable M. Joseph Rocks
Retired Member and Former State Senator



Honorable Michael R. Veon
State Representative



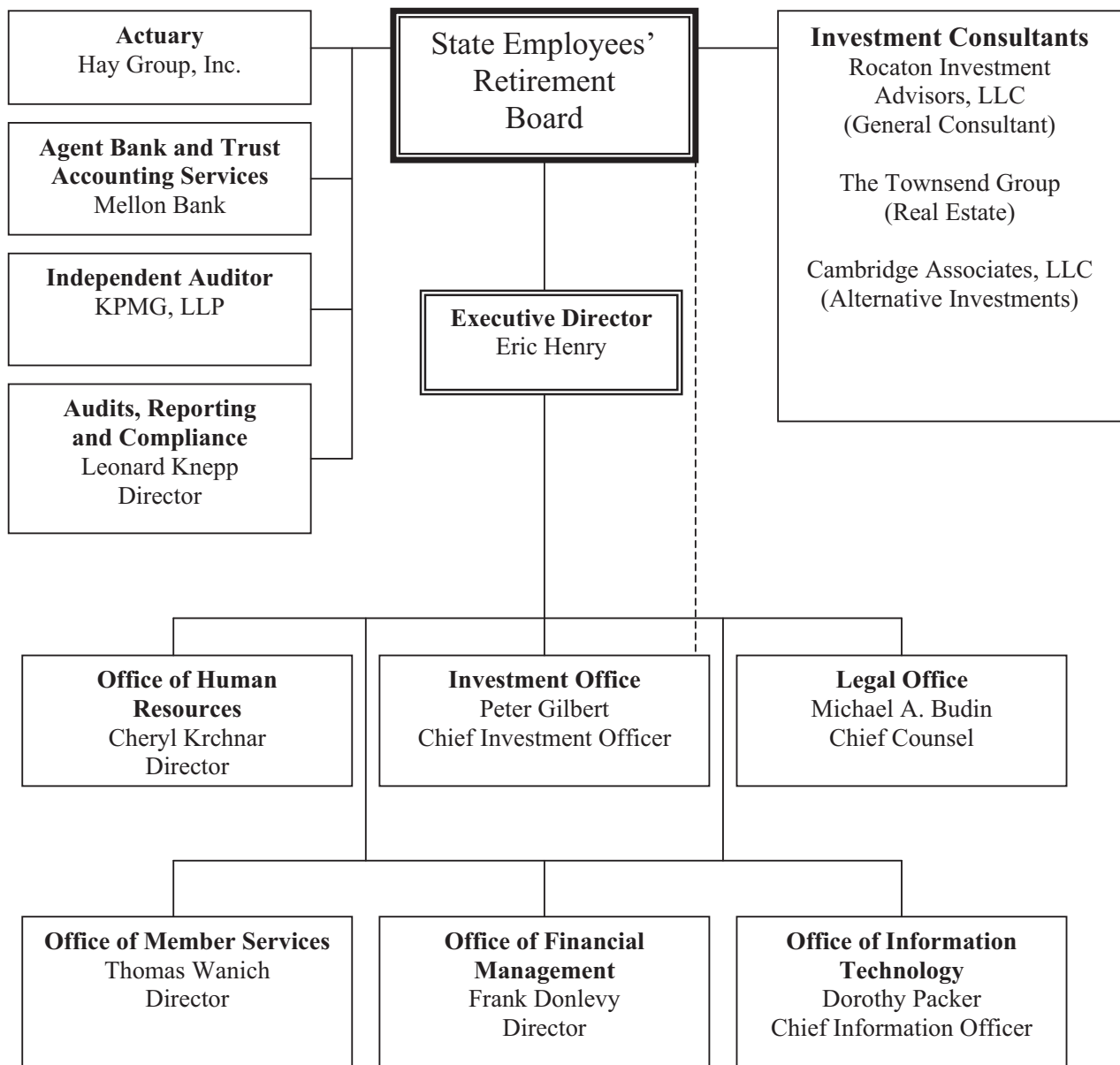
SERS Mission & Organizational Chart

Plan Administration: To administer the retirement benefits plan for state employees and elected officials in accordance with Pennsylvania statutes;

Member Services: To provide effective services to all active and retired members;

Management of Retirement Fund Assets: To accumulate, manage and disburse the retirement Fund assets in accordance with fiduciary standards and at a reasonable cost to Commonwealth taxpayers;

Investment Policy: To maximize investment returns while exercising a prudent person investment policy.



Certificate of Achievement for Excellence in Financial Reporting

Presented to

Commonwealth of Pennsylvania
State Employees' Retirement
System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
December 31, 2003

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



Nancy L. Ziehl

President

Jeffrey R. Emer

Executive Director

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Commonwealth of Pennsylvania
State Employees' Retirement System

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May 23, 2005

Mr. Chairman and Members of the Board:

We are pleased to present you with the Comprehensive Annual Financial Report (CAFR) of the Pennsylvania State Employees' Retirement System ("the System" or "SERS") for the calendar year ended December 31, 2004.

Financial Information

The System's management is responsible for the preparation, accuracy and objectivity of the information included in this report. The basic financial statements are prepared in accordance with generally accepted accounting principles as promulgated by the Governmental Accounting Standards Board. Users of the financial statements are encouraged to review the Management's Discussion and Analysis ("MD&A"), which accompanies the basic financial statements and discusses the market conditions, legislation and changes in operations that affected the financial results and funded status of the System.

SERS maintains an effective system of internal controls designed to provide reasonable assurance that assets are properly safeguarded, transactions are properly executed and that the financial statements conform to generally accepted accounting principles. The System's internal Audits, Reporting and Compliance department provides a continuing review of the adequacy and effectiveness of the System's internal control structure. Also, our independent external auditors, KPMG, conduct an annual audit of the financial statements in accordance with generally accepted auditing standards. Their audit includes tests and procedures designed to provide reasonable assurance that the financial statements are fairly presented. The external auditors have full and unrestricted access to the SERS Board members to discuss their audit and related findings regarding the integrity of financial reporting and adequacy of the internal control structure.

The System also receives independent financial audits on all of its private equity, venture capital, pooled real estate, and absolute return fund-of-funds limited partnerships, as well as audits for its directly held real estate portfolios. Additionally, the System receives audited statements on investments in collective trust funds, for example the BGI S&P 500 index fund and certain emerging market funds.

Membership, Funding and Contribution Trends

SERS, founded in 1923, is a mature pension plan with the number of annuitants and active members rapidly approaching a 1:1 ratio; as of December 31, 2004 the System had 108,405 active and 98,727 retired members. As a mature plan, SERS pays out far more in benefits and refunds each year than it receives in contributions: \$1.86 billion in payouts versus \$417 million in contributions in 2004. The difference must come from the Fund's earnings and accumulated reserves, necessitating an investment policy that maintains the short-term liquidity required to fund payouts, while pursuing long-term returns of at least the actuarially assumed rate of 8.5%.

SERS achieved that goal again in 2004. The System posted an overall return of 15.1%, which placed it among the top 10 percent of all public pension funds nationwide. Although the 2004 return significantly exceeded the actuarial assumption, the System's funded ratio nonetheless declined. That is because SERS uses a five-year smoothing to establish its return for actuarial purposes. In updating the funded ratio, the 2004 return was added to the calculation and the 1999 return of 19.9% was dropped. That brought the five-year average return down from 4.6% to 3.7%. Largely as a result of that lower average return, SERS' funded status dropped from 104.9% to 96.1%, as discussed in more detail in the MD&A. A funded status of less than 100 percent is not cause for concern however, and SERS remains among the best-funded public pension plans in the United States.

Although the purpose of the CAFR is to provide information regarding SERS status as of December 31, 2004, readers also should be aware of two anticipated future developments:

First, as the Fund continues to mature, the number and percentage of retired members is expected to continue to grow, while the number of active members is expected to remain relatively constant. As the number of retirees grows, the amount that must be paid out in benefits is expected to continue to increase. It is projected that by 2010 the number of retired members will exceed the number of active members and by 2012 annual benefit payments will reach \$3 billion, 61% more than in 2004.

Second, while employer contribution rates remain near historically low levels, as also discussed in more detail in the MD&A, it is anticipated that those rates will rise dramatically in future years. Act 2003-40, which changed the amortization period of SERS' unfunded liability, is expected to maintain employer contributions in single digits through 2011, followed by a steep increase to 23.5% for the 2012-13 fiscal year and to 25% by the 2015-16 fiscal year, based on current projections.

Awards

We are very pleased to note that the Government Finance Officers Association of the United States and Canada ("GFOA") again awarded the Certificate of Achievement for Excellence in Financial Reporting to the Pennsylvania State Employees' Retirement System for the year ended December 31, 2003. The Certificate of Achievement is a national award, recognizing conformance with the highest standards for preparation of a state and local government financial report.

In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

SERS also received an award recognizing it as the nation's outstanding large public pension plan for 2004. The Large Public Plan of the Year Award was presented to SERS as part of the Fourth Annual Public Pension Awards Program, sponsored by Money Management Letter. SERS was cited for its "outstanding" investment returns and "improved services for members."

Acknowledgements

This report reflects the dedicated efforts of the SERS staff under the direction of the SERS Board. We would like to take this opportunity to express our gratitude to the Board, the staff, our advisors and others who have worked diligently to administer the System, enhance delivery of member services and manage the Fund's assets in a prudent fashion.

We will continue to strive to administer the System in a manner that ensures the accurate, timely payment of benefits, prompt and courteous service, and prudent management of the Fund's assets on behalf of our members and the Commonwealth's taxpayers.

Respectfully submitted,



Eric Henry
Executive Director



Francis J. Donlevy
Director, Office of Financial Management



Financial Section



Independent Auditors' Report



KPMG LLP
Suite 200
30 North Third Street
PO Box 1190
Harrisburg, PA 17108-1190

Members of the Board
Commonwealth of Pennsylvania
State Employees' Retirement System:

We have audited the accompanying statements of plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System (a component unit of the Commonwealth of Pennsylvania) as of December 31, 2004 and 2003, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System as of December 31, 2004 and 2003, and its changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

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

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in Supplemental Schedules 1 and 2 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The introductory section, investment section, actuarial section and statistical section as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The introductory, investment, actuarial and statistical sections have not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

KPMG LLP

May 16, 2005

Management's Discussion and Analysis

This section presents Management's Discussion and Analysis of the Pennsylvania State Employees' Retirement System's (the "System's") financial statements and the significant events and conditions which affected the operations and performance of the System during the years ended December 31, 2004 and 2003.

The Management's Discussion and Analysis includes forward-looking statements that involve certain risks and uncertainties. Actual results and performance may differ materially from those expressed or implied in the forward looking statements due to a wide range of factors including: changes in securities markets, general economic conditions, interest rates, energy policies, legislation and global conflicts.

Overview of the Financial Statements and Accompanying Information

1) Fund Financial Statements. The System presents Statements of Plan Net Assets as of December 31, 2004 and 2003 and Statements of Changes in Plan Net Assets for the years then ended. These statements reflect resources available for the payment of benefits as of year-end, and the sources and use of those funds during the year.

2) Notes to Financial Statements. The notes to financial statements are an integral part of the financial statements. We encourage our readers to review them because the additional detailed information will provide a better understanding of the financial statements. Information in the notes discloses the System's organization, benefits and contributions, how asset values are determined, the use of derivatives in managing the System's assets, and contingencies and commitments.

3) Required Supplementary Information. The required supplementary information consists of:

- Two schedules concerning the funded status of the System and employer contributions,
- Related notes to those schedules discussing actuarial assumptions and information, and this
- Management's Discussion and Analysis.

4) Other Supplementary Schedules. Other schedules include detailed information on administrative expenses incurred by the System, a breakout of investment manager fees by asset class, and fees paid to consultants for professional services.

Financial Analysis

The System provides retirement benefits to the employees of the Commonwealth of Pennsylvania and certain other public agencies. The System's benefits are funded through member and employer contributions, and investment income. The net assets of the System increased approximately \$2.1 billion and \$3.7 billion during the years ending December 31, 2004 and 2003 respectively, as reflected in the table on page 8. The increase was reflective of the continued strong rebound in global equity markets that began in early 2003. As explained in the funded ratio section, despite these strong returns, System funding status has dropped from 104.9% in 2003 to 96.1% in 2004. By comparison, as reported in the "2005 Wilshire Report on State Retirement Systems," by Wilshire Associates, which compiled 2004 data on 64 pension plans, the average funding level of the 64 plans was just 83%. Every five years the System undergoes an Actuarial Liability study to determine whether the assumptions used in the annual actuarial valuation are representative of current and anticipated trends. Annually, the System reviews and modifies, if necessary, its five-year investment plan. These processes enable the System to position itself to respond to changing dynamics and fulfill its mission. The System has experienced a large increase in retirements resulting in higher benefit payments. The System expects this trend to continue as the baby boomer generation continues to enter into retirement years. Accordingly, the System is and expects that it will in the coming years continue to process more retirements than the historical norm, and pay more benefits. Contributing to that expectation are the fact that more than 8,000 current employees have 30 years or more of service and average salaries of \$59,000, and the fact that recent changes to retiree health care provisions, which raise certain costs and reduce certain options, create an incentive to retire.

Management's Discussion and Analysis

Funded Ratio

The funded ratio of the plan measures the ratio of actuarially determined assets against actuarial liabilities and is a good indicator of a pension fund's fiscal strength and ability to meet its obligations to its members. The System is required by statute to perform an annual actuarial valuation. The actuarial process to develop the funded ratio is highly dependent on estimates and assumptions, particularly those regarding investment returns, payroll increases, inflation and demographics. In addition, the selection of methods, such as amortization periods, affects employer contribution rates and the funded ratio of the plan. The 2004 valuation showed the funded status of the System declining to 96.1% at December 31, 2004 from 104.9% at December 31, 2003. This status reflects the fact that actuarially determined liabilities increased approximately \$1.8 billion and actuarially determined assets decreased approximately \$600 million from December 31, 2003 to December 31, 2004. The increase in liabilities is attributed primarily to the increase in employee pay, and the increase in number of annuitants and beneficiaries. The decrease in assets is primarily due to the 5-year amortization of investment returns which were significantly below actuarial assumptions for the years 2000 - 2002.

Member Contributions

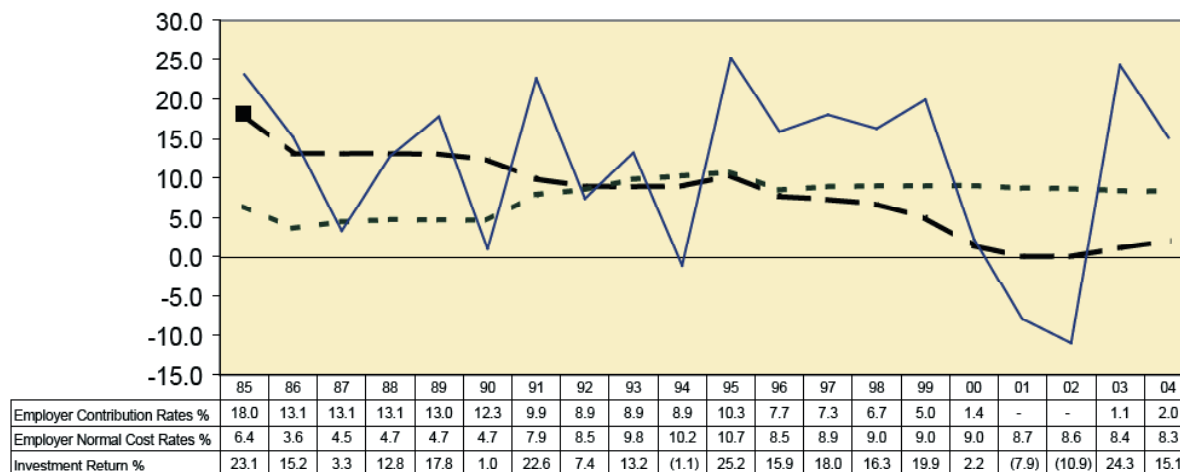
Additions to plan net assets include employer and member contributions and net income from investment activities. Member contributions were approximately \$310 million, \$308 million, and \$304 million for the years ended December 31, 2004, 2003 and 2002, respectively, an increase of approximately \$2 million in 2004. The change was minimal due to relatively flat payroll levels of \$4.9 billion in 2004 and 2003. The employee rate of 6.25% of Gross Salary for most members has remained unchanged.

Employer Contributions

Employer contribution rates are near historically low levels. The composite employer rate, which had exceeded 12% as recently as 1990 and was as high as 18% in the early 1980's, was 2.03% in 2004. This resulted in employer contributions decreasing from over \$419 million in 1990 to \$107 million in 2004. Over this time period the active membership payroll has grown from \$3.2 billion in 1990 to over \$4.9 billion. The benefits of reduced employer contributions pass directly back to the participating Commonwealth agencies and the taxpayers of Pennsylvania. The chart on the next page, presents the relationship between investment returns and contribution rates. The Normal Cost is the cost of benefits to be earned in the coming year. In theory, if the unfunded actuarial liability were zero, and there was no deviation from the actuarial assumptions or amendments to the Retirement code, the normal cost would be that amount required to fund the on-going liabilities for plan participants. When returns are strong, as in the 1990's, the employer's level of contributions are below the Normal Cost. Conversely, when investment returns lag the actuarially assumed rate of 8.5%, those losses are amortized into the fund through increased employer contributions as reflected in the chart below.

Management's Discussion and Analysis

History of SERS Employer Contribution Rates and Investment Returns



Employer contributions, which had been approximately \$51 million in 2002, increased to approximately \$69 million in 2003 and \$107 million in 2004. The increase was due to the composite employer contribution rate increasing to 2.03% as of July 1, 2004 from a rate that was 1.07% of reported payroll, at July 1, 2003. This continues the reversal in the direction of rates in recent years. The increase in the rate is due mostly to amortizing the difference of recent actual investment returns versus the 8.5% estimate used for actuarial valuations, and the invoking of the minimum required contribution rate of 2% in 2004. The employer rate is projected to increase in future years. Ultimately, the employer rate is based on the outcome of market returns, changes in plan demographics and selection of actuarial methods and assumptions.

Net Investment Income

Investment portfolio performance produced investment returns of 15.1%, 24.3%, and -10.9% for the years 2004, 2003 and 2002, respectively. That performance generated net investment income totaling approximately \$3.6 billion during 2004, \$4.9 billion in 2003, and a loss of \$2.7 billion in 2002. Strong global equity markets continued to fuel performance in 2004 as the domestic Russell 3000 index returned 12% and the MSCI World ex US Index returned 20.8%. For the 10-year period ended December 31, 2004, the System earned a compounded rate of return of 11.1%, which exceeded the actuarial assumption of 8.5%.

The most significant deduction from investment income is investment manager fees. The System's assets are managed 100% by external investment advisors hired by the Board. Many of these managers are paid a fee based on the assets under management. Accordingly, those managers were generally compensated more in 2004 than in prior years because of the effect of increasing asset values. However, the industry practice for the limited partnership holdings is for the limited partners to pay fees to the general partner based on commitments to the partnership during the initial years. The \$9.7 million increase in investment expenses in 2004 was due primarily to an increase of \$8.6 million associated with the System's absolute return fund-of-funds strategies additional funding and growth. The remaining increase was due to overall net asset value increases in the public market portfolios. The increase in management fees for the public markets were offset by approximately \$3.5 million in lower fees paid in the real estate and alternative investment classes. These lower fees were mainly due to the sale of certain direct real estate holdings and larger fee offsets in alternative asset fees. Offsets are direct reimbursement to the limited partnerships from the underlying investments purchased by the partnerships.

Management's Discussion and Analysis

Benefits, Refunds and Expenses

The most significant recurring deduction to Plan Net Assets is benefit payments. During 2004 and 2003, the System paid out approximately \$1.86 billion and \$1.63 billion, respectively, in benefits and refunds, an increase of approximately 14.1% in 2004. Those higher payments were due primarily to an increase in the number of retirees, and six months effect of Phase 2 of a Cost of Living Adjustment (COLA), which became effective July 2, 2003. The average benefit increase for the Phase 2 COLA was 6.99%. There were 7,905 new retirees added to the annuity payroll in 2004 with an average annual benefit of \$25,079. These new additions are retiring with a much higher annual benefit than those being removed from rolls. Retirees removed from the rolls were 3,590 with an average annual benefit of \$10,384. The System expects retirees to be added to the rolls at increased rates for the next several years, thereby increasing annual benefit expenses. The System was established in 1923 but did not pay more than \$1 billion in annual benefits until 1997. Based on recent actuarial projections, the System expects benefit payments to reach \$2 billion by 2006 and \$3 billion by 2012. Benefits paid in 2003 increased due to the increased number of retirees, and the effects of the COLA. The table below shows the increase in retirees and monthly benefit payments since 2002.

| | Growth in Monthly Benefits | | |
|--------------------------|-----------------------------------|------------------|------------------|
| | Dec. 2004 | Dec. 2003 | Dec. 2002 |
| Monthly Benefit Payments | \$124 million | \$111 million | \$97 million |
| Retirees | 98,727 | 94,412 | 91,228 |

The administrative costs of the System represented less than .08% of average assets in 2004 and less than 0.11% in 2003. All costs were within budget.

Plan Assets

During 2004, investments allocated to domestic and international equity portfolios increased approximately \$495 million and \$305 million, respectively. The increase continues to reflect the strong rebound in global equity markets that started in early 2003. This rebound was also responsible for an increase of \$2.1 billion and \$1.4 billion, respectively for 2003. Conversely, declines in the equity portfolios during the year 2002 were the results of one of the worst-ever periods for equity markets in the modern era as the total fund return fell to -10.9% in 2002. One year returns on asset classes are presented in the table below:

| Asset Class | 2004 | 2003 | 2002 |
|-------------------------|--------------|--------------|---------------|
| Domestic Equities | 14.9% | 34.3% | -19.1% |
| International Equities | 20.6 | 40.6 | -16.0 |
| Fixed Income Securities | 7.7 | 12.7 | 6.8 |
| Cash / STIF | 1.7 | 1.3 | 2.4 |
| Real Estate | 14.6 | 10.8 | 5.2 |
| Private Equity | 25.7 | 11.9 | -6.9 |
| Venture Capital | -2.6 | -14.8 | -27.0 |
| Inflation Protection | 20.2 | 20.7 | 31.8 |
| Total Fund | 15.1% | 24.3% | -10.9% |

The System values its assets at "fair value" as discussed in the accounting policies footnote 2(c) to the financial statements. Fair value is the value the System expects to receive in a current sale between a willing buyer and a willing seller that are equally motivated; that is, other than a forced or liquidation sale. The value of publicly traded securities, stocks

Management's Discussion and Analysis

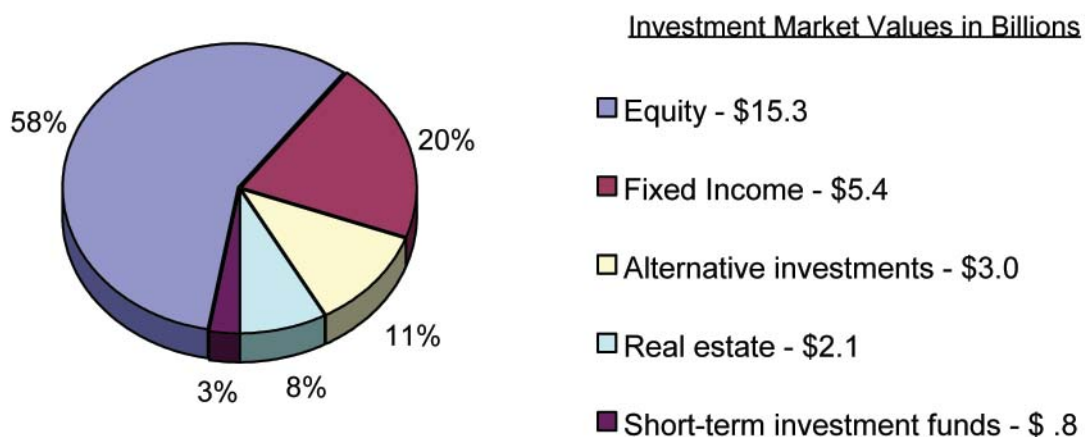
and bonds, are determined using the latest quote from national exchanges or pricing services. Those prices reflect the securities' pricing at the close of business and are affected by such items as liquidity, current events and the size of lots being traded. Real Estate is valued using appraised values by approved appraisers who meet specified professional qualifications. The appraisal process involves a significant amount of judgment and estimating. As a result, the ultimate value on sale of the asset may differ from the appraised value.

Values for investments in private equity and venture capital limited partnerships are determined by the general partners and by valuation committees. The partnerships' investments, as well as the assumptions and estimates used in developing the investment values, are subject to annual independent audits. Because the investments in those partnerships are generally illiquid and holding periods may last for several years, the ultimate value realized by the System on the disposition may differ from the estimated values reflected in our financial statements, and those differences could be material.

During 2004, the System allocated an additional \$350 million dollars to the absolute return fund-of-funds strategies. The absolute return fund-of-funds strategies, is comprised of two components. For the first component, the advisors for the fund-of-funds invest in other fund managers with diverse investment strategies designed to provide positive returns, independent of the underlying financial markets, in both favorable and unfavorable market conditions. These combinations of funds are designed to be beta neutral. To reintroduce the market return, and maintain the strategic asset allocation policy, the second component of the absolute return fund-of-funds strategies uses derivatives by entering into S&P 500 swap contracts. The combination of the S&P 500 swaps and the absolute return funds-of-funds, if successful, will earn S&P 500 returns plus an excess return from the absolute return funds-of-funds. On December 31, 2004 the System's total net asset value in the absolute return strategy was \$5.6 billion or 21% of the SERS fund.

The total investment portfolio market value of \$26.6 billion dollars was as follows:

Investments at Market Value and Distribution Percentages As of December 31, 2004



Management's Discussion and Analysis

The System earns additional investment income by lending investment securities to brokers. The brokers provide collateral to the System for borrowed securities equal to 102% of the borrowed securities. The System invests the collateral to earn interest. Income, net of expenses, from security lending is dependent on the volume of lending generated at the custodian bank. Net lending revenue during 2004 and 2003 was approximately \$8.5 million and \$7.3 million, respectively. Although volume was up significantly, \$40.9 million as compared to \$16.2 million for 2003, net security lending revenue was up only \$1.2 million in 2004. This disparity reflects the increase in the lower margin investment grade fixed income security lending volume in 2004 from higher margin small cap equity lending volume in 2003.

Derivatives

The System uses derivatives as a means to provide market exposure to domestic stocks and commodity asset classes and to manage interest rate risk in the fixed income portfolios. Used properly, these derivatives deliver returns similar to indexed returns in the respective asset classes in a cost efficient manner without disrupting the liquidity needs of the System. The System's investment advisors manage counterparty credit risk by entering into contracts with parties with strong credit ratings and by establishing collateral requirements. The System monitors derivative levels and types to ensure that portfolio derivatives are consistent with the intended purpose and at the appropriate level.

Liquidity

As part of the Five-Year Annual Investment Plan, the Board has approved the establishment of a benefit reserve equal to three years of benefits payments, or 20% of the total fund. The function of the reserve is to provide ample liquidity during periods of distressed equity markets in order to mitigate the need to sell equities at distressed prices to meet benefit needs. Investments in Real Estate, Venture Capital and Private Equity Limited Partnerships and High Yield are generally considered illiquid. Holdings in the fund-of-funds investments also have liquidity constraints governed by the respective partnership agreements.

GASB 40

The System has implemented Government Accounting Standards Board (GASB) Statement No. 40 "Deposit and Investment Risk Disclosures" for the year ended December 31, 2004. GASB 40 requires the System to note information regarding investment risks related to credit risk, interest rate risk, and foreign currency risk. The various risks disclosures required by GASB 40 are presented in the footnotes of the Financial Statements.

Management's Discussion and Analysis

CONDENSED FINANCIAL INFORMATION

Net Assets (in Millions)

| Assets | 2004 | Increase (Decrease) | 2003 | Increase (Decrease) | 2002 |
|------------------------------------|-----------|------------------------|--------|------------------------|--------|
| Total Receivables | \$ 325 | 161 | 164 | (291) | 455 |
| Total Investments | 26,604 | 1,796 | 24,808 | 3,449 | 21,359 |
| Security Lending Collateral Pool | 2,929 | 1,361 | 1,568 | 333 | 1,235 |
| Total Assets | 29,858 | 3,318 | 26,540 | 3,491 | 23,049 |
| Liabilities | | | | | |
| Accounts Payable | 36 | (12) | 48 | 8 | 40 |
| Investment Purchases Payable | 252 | (136) | 388 | (506) | 894 |
| Obligations Under Security Lending | 2,929 | 1,361 | 1,568 | 333 | 1,235 |
| Total Liabilities | 3,217 | 1,213 | 2,004 | (165) | 2,169 |
| Total Net Assets | \$ 26,641 | 2,105 | 24,536 | 3,656 | 20,880 |

Changes in Net Assets

| Additions | 2004 | Increase (Decrease) | 2003 | Increase (Decrease) | 2002 |
|-----------------------------------|----------|------------------------|-------|------------------------|---------|
| Member Contributions | \$ 310 | 2 | 308 | 4 | 304 |
| Employer Contributions | 107 | 38 | 69 | 18 | 51 |
| Investment Income (Loss) | 3,569 | (1,366) | 4,935 | 7,666 | (2,731) |
| Total Additions (Deductions) | 3,986 | (1,326) | 5,312 | 7,688 | (2,376) |
| Benefits and Refunds | 1,860 | 228 | 1,632 | 202 | 1,430 |
| Administrative Expenses | 21 | (3) | 24 | 4 | 20 |
| Total Deductions | 1,881 | 225 | 1,656 | 206 | 1,450 |
| Increase (Decrease) in Net Assets | \$ 2,105 | (1,551) | 3,656 | 7,482 | (3,826) |

(numbers may not add due to rounding)

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
 STATE EMPLOYEES' RETIREMENT SYSTEM
 (a component unit of the Commonwealth of Pennsylvania)
 Statements of Plan Net Assets
 December 31, 2004 and 2003
 (Amounts in thousands)

| | <u>2004</u> | <u>2003</u> |
|---|----------------------|-------------------|
| Assets: | | |
| Receivables: | | |
| Plan members | \$ 10,236 | 1,256 |
| Employers | 7,075 | 2,411 |
| Investment income | 96,323 | 65,238 |
| Investment proceeds | 197,578 | 80,379 |
| Miscellaneous | 13,593 | 15,348 |
| Total receivables | <u>324,805</u> | <u>164,632</u> |
| Investments: | | |
| Short-term investment funds | 770,250 | 778,027 |
| United States government securities | 2,549,600 | 1,855,903 |
| Corporate and foreign bonds and notes | 2,459,363 | 2,833,899 |
| Common and preferred stocks | 12,197,850 | 11,338,319 |
| Collective trust funds | 3,498,043 | 3,123,620 |
| Real estate | 2,137,445 | 2,235,786 |
| Alternative investments | 2,991,248 | 2,642,342 |
| Total investments | <u>26,603,799</u> | <u>24,807,896</u> |
| Securities lending collateral pool | <u>2,929,639</u> | <u>1,567,791</u> |
| Total assets | <u>29,858,243</u> | <u>26,540,319</u> |
| Liabilities: | | |
| Accounts payable and accrued expenses | 35,533 | 48,122 |
| Investment purchases | 251,672 | 388,457 |
| Obligations under securities lending | 2,929,639 | 1,567,791 |
| Total liabilities | <u>3,216,844</u> | <u>2,004,370</u> |
| Net assets held in trust for pension benefits | \$ <u>26,641,399</u> | <u>24,535,949</u> |
| (A Schedule of Funding Progress is presented on page 24.) | | |

See accompanying notes to financial statements.

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Statements of Changes in Plan Net Assets
Years ended December 31, 2004 and 2003
(Amounts in thousands)

| | <u>2004</u> | <u>2003</u> |
|--|----------------------|-------------------|
| Additions: | | |
| Contributions: | | |
| Plan members | \$ 309,923 | 308,014 |
| Employers | 106,703 | 68,604 |
| Total contributions | <u>416,626</u> | <u>376,618</u> |
| Investment gain: | | |
| Net appreciation in fair value of investments | 2,807,290 | 3,423,081 |
| Collective trust fund appreciation and income | 391,248 | 1,165,463 |
| Interest | 280,221 | 237,786 |
| Dividends | 124,099 | 113,634 |
| Real estate | 148,133 | 168,427 |
| Miscellaneous | 6,722 | 7,138 |
| | <u>3,757,713</u> | <u>5,115,529</u> |
| Investment expenses | <u>(196,859)</u> | <u>(187,139)</u> |
| Net gain from investing activities | <u>3,560,854</u> | <u>4,928,390</u> |
| From securities lending activities: | | |
| Securities lending income | 40,854 | 16,163 |
| Securities lending expenses | (32,385) | (8,854) |
| Net income from securities lending activities | <u>8,469</u> | <u>7,309</u> |
| Total net investment gain | <u>3,569,323</u> | <u>4,935,699</u> |
| Total additions | <u>3,985,949</u> | <u>5,312,317</u> |
| Deductions: | | |
| Benefits | 1,853,117 | 1,627,166 |
| Refunds of contributions | 6,138 | 5,115 |
| Administrative expenses | 21,244 | 23,646 |
| Total deductions | <u>1,880,499</u> | <u>1,655,927</u> |
| Net increase | 2,105,450 | 3,656,390 |
| Net assets held in trust for pension benefits: | | |
| Balance, beginning of year | <u>24,535,949</u> | <u>20,879,559</u> |
| Balance, end of year | <u>\$ 26,641,399</u> | <u>24,535,949</u> |

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COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Financial Statements
December 31, 2004 and 2003
(Dollar amounts in thousands)

(1) Organization and Description of the System

(a) Organization

The Commonwealth of Pennsylvania State Employees' Retirement System (the System) was established as of June 27, 1923, under the provisions of Public Law 858, No. 331. The System was developed as an independent administrative board of the Commonwealth and is directed by a governing board that exercises control and management of the System, including the investment of its assets. The System's board has eleven members including the State Treasurer (ex officio), two Senators or former Senators, two members or former members of the House of Representatives, and six members appointed by the Governor, one of whom is an annuitant of the System. At least five board members are active members of the System and at least two have ten or more years of credited service.

The System is the administrator of a cost-sharing multiple-employer defined benefit retirement system established by the Commonwealth of Pennsylvania (Commonwealth) to provide pension benefits for employees of state government and certain independent agencies. The System is a component unit of the Commonwealth and is included in the Commonwealth's financial report as a pension trust fund. Administration costs are financed through contributions and investment earnings.

Membership in the System is mandatory for most state employees. Members and employees of the General Assembly, certain elected or appointed officials in the executive branch, department heads, and certain employees in the field of education are not required, but are given the option to participate. At December 31, 2004 and 2003, System membership consisted of:

| | 2004 | 2003 |
|--|---------|---------|
| Retirees and beneficiaries currently receiving benefits | 98,727 | 94,412 |
| Terminated employees entitled to benefits but not yet receiving them | 5,609 | 5,741 |
| Current active employees | 108,405 | 109,018 |
| Total members | 212,741 | 209,171 |
| Number of participating agencies | 108 | 106 |

(b) Pension Benefits

The System provides retirement, death, and disability benefits. Cost of living adjustments (COLA) are provided at the discretion of the General Assembly. Article II of the Commonwealth of Pennsylvania's Constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly.

Employees who retire at age 60 with 3 years of service, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the General Assembly and certain employees classified in hazardous duty positions can retire with full benefits at age 50, with at least 3 years of service.

Most members of the System, and all state employees hired after June 30, 2001 (except State Police officers and certain members of the judiciary and legislators), are Class AA members. The multiplier for Class AA is 1.25, which

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COMMONWEALTH OF PENNSYLVANIA
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Notes to Financial Statements
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(Dollar amounts in thousands)

translates into an annual benefit of 2.5% of the member's highest three-year average salary times years of service and became effective for members July 1, 2001. The general annual benefit for Class A members is 2% of the member's highest three-year average salary times years of service. State police are entitled to a benefit equal to a percentage of their highest annual salary, excluding their year of retirement. The benefit is 75% of salary for 25 or more years of service and 50% of salary for 20-24 years of service. Judges are entitled to a benefit of 4% of final average salary for each of the first 10 years of service and 3% for subsequent years. District Justices are entitled to a benefit of 3% of final average salary for each year of service. Act 9 also created a new class of service for current legislators, Class D-4. The multiplier for Class D-4 is 1.5, which translates into an annual benefit of 3% of the final average salary for each year of service. Most members vest with 5 years of credited service.

According to the Retirement Code, all obligations of the System will be assumed by the Commonwealth should the System terminate.

(c) Contributions

The System's funding policy, as set by the System's Board, provides for periodic active member contributions at statutory rates. The System's funding policy also provides for periodic employer contributions at actuarially-determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. A variation of the entry-age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits, including superannuation, withdrawal, death, and disability benefits, and to determine employer contribution rates. The significant difference between the method used for the System and the typical entry-age normal actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. The System believes that this variation should produce approximately the same results as the typical method over the long run. These rates are computed based upon actuarial valuations on the System's fiscal year end of December 31 and applied to the Commonwealth based on its fiscal year end June 30; therefore, the employer contribution rates, in effect for the System's year-end of December 31, reflect a blended average of calculated rates. The blended contribution rates were as follows:

| | <u>2004</u> | <u>2003</u> |
|--|--------------|--------------|
| Employer normal cost | 8.38% | 8.54% |
| Amortization of unfunded actuarial assets in excess of liabilities | (14.11) | (11.90) |
| Amortization of supplemental annuities | 4.85 | 3.89 |
| Act 2003-40 minimum rate factor | 2.40 | - |
| Total employer cost | <u>1.52%</u> | <u>0.53%</u> |

In addition to the employer normal cost, the total employer cost includes other costs and credits resulting from COLAs, differences between actual investment results and actuarial estimated returns, and changes in benefits. These additional costs and credits are amortized over a period of future years as set by the Legislature. On December 10, 2003, Act 2003-40 (Act 40) revised the amortization periods of these additional costs and credits to the following amortization periods:

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| | |
|-------------------------------|----------|
| Pre-Act 2001-9 funding credit | 10 years |
| Act 2001-9 Liability | 30 years |
| Post 2000 gains and losses | 30 years |
| Existing and future COLAs | 10 years |

Additionally, Act 40 revised minimum contributions to 2%, 3%, and 4% effective July 1, 2004, 2005, and 2006, respectively.

The general membership contribution rate for all Class A and Class AA members is 5% and 6.25% of salary, respectively. The contribution rate for Class D-4 members is 7.5%. Judges and district justices have the option of electing special membership classes requiring a contribution of 10% and 7.5%, respectively. All employee contributions are recorded in an individually identified account that is credited with interest, calculated at 4% per annum, as mandated by statute. Accumulated employee contributions and credited interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

(d) Benefits Completion Plan (BCP)

Act 2002-234 amended the State Employees Retirement Code by adding Section 5941 to the Code. Section 5941 directs the State Employees Retirement Board to establish and serve as trustee of a retirement benefit plan that is in conformity with Internal Revenue Code (IRC) Section 415(m), the Benefits Completion Plan. The BCP is a separate trust fund established to provide benefits to all annuitants of the SERS Defined Benefit Plan and their survivor annuitants and beneficiaries whose retirement benefit exceeds the IRC Section 415(b) limits.

The BCP is funded on an annual basis. A monthly annuity or death benefit is paid under the BCP only if a corresponding monthly annuity or death benefit is paid from the Defined Benefit Plan to the extent permitted by IRC Section 415(b) and the Retirement Code. At December 31, 2004, there were 6 members in the BCP.

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting

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

(b) Use of Estimates

Management of the System has made certain estimates and assumptions relating to the reporting of assets and liabilities, and the disclosure of contingent assets and liabilities, to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

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Investments in venture capital, alternative investments, and real estate are generally illiquid. Because of the inherent uncertainty in valuing privately held securities, the fair value may differ from the values that would have been used had a ready market for such securities existed, and the difference can be material. Accordingly, the realized value received upon the sale of the asset may differ from the fair value.

(c) Investments

The System's investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller – that is, other than in a forced or liquidation sale. The investments in short-term investment funds, including those managed by the Treasurer of the Commonwealth of Pennsylvania, are reported at cost plus allocated interest, which approximates fair value. The security lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at cost plus accrued interest, which approximates fair value. U.S. government obligations, corporate and foreign bonds and notes, and common and preferred stocks, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Securities that are not traded on a national security exchange are valued by the asset manager or third parties based on similar sales. The System has entered into certain swap contracts with a notional amount equivalent to the System's original investment in the absolute return fund-of-funds limited partnerships to provide S&P 500 returns. The combination of the swaps and the underlying investments are designed to provide a return consistent with an actively managed equity portfolio. Accordingly, those investments have been classified as common stocks on the statement of net assets. Real estate is primarily valued based on appraisals performed by independent appraisers or, for properties not appraised, at the present value of the projected future net income stream. Alternative investments, which include interests in limited partnerships invested in venture capital, leveraged buyouts, private equities, and other investments are valued based on amounts established by valuation committees, which are subject to an annual independent audit. The values for real estate and alternative investments are reported on a one-quarter lag (September 30), adjusted for cash flows through December 31. Foreign exchange and futures contracts are marked-to-market daily with changes in fair value recognized as part of investments and investment income. The fair value of swaps are determined no less than monthly based on the return of the underlying indices, which is generally exchanged for a short-term rate plus a spread.

The Collective Trust Funds (CTF) consist primarily of domestic and international institutional mutual and index funds. The funds do not pay interest or dividends to shareholders, and reinvest all income earned on securities held by the fund. The fair value of CTF is based on the reported share value of the respective fund.

Unsettled investment sales are reported as investment proceeds receivable and unsettled investment purchases are reported as investment purchases payable. Investment expenses consist of investment managers' fees and those expenses directly related to the System's investment operations.

(d) Commitments

As of December 31, 2004 and 2003, the System had contractual commitments totaling approximately \$2.5 billion to fund future alternative investments, and \$196 million and \$181 million, respectively, to fund future real estate investments.

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(e) *Compensated Absences*

The System accrues a liability for vacation leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through paid time off or some other means, such as cash payments at termination or retirement. Vacation leave vests 100% at the time it is earned up to 45 days, which is carried over to the next year at December 31. The System also accrues a liability for sick leave as the benefits are earned by the employees to the extent the System will compensate the employee for the benefits through cash payments at termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between 30% and 100% of sick days available at retirement, up to 163 maximum days. As of December 31, 2004 and 2003, \$2.4 million and \$2.7 million, respectively, were accrued for unused vacation and sick leave for the System's employees.

(f) *Federal Income Taxes*

Management believes the System meets the definition of a Governmental Plan. In the System's communications with the Internal Revenue Service (IRS), it has been treated as a qualified plan, and is, therefore, considered exempt from federal income taxes. Therefore, the System has not requested a determination letter from the IRS relating to the status of the System under the Internal Revenue Code.

(g) *Risk Management*

The System is exposed to various liabilities and risks of loss related to theft or destruction of assets, injuries to employees, and court challenges to fiduciary decisions. As an administrative agency of the Commonwealth, the System is accorded sovereign immunity. The System participates in certain Commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage. Purchased insurance for director and officer liability was effective until January 14, 2004. Since that time the System has elected self-insurance for fiduciary and director and officer liability. During the past three fiscal years, insurance settlements did not exceed insurance coverage.

(h) *Reclassification*

Certain 2003 balances have been reclassified to conform with the 2004 presentation.

(3) *Description of Funds*

The Retirement Code requires the System to maintain the following funds representing the net assets held for future and current benefit payments:

The *Member Savings Account* accumulates contributions and interest earnings of active employees. Member balances are transferred to the Annuity Reserve Accounts as members retire.

The *State Accumulation Account* accumulates contributions of the employer and the net earnings of the fund. Funds are transferred to the Annuity Reserve Accounts as members retire. The amount transferred is determined actuarially.

The *Supplemental Annuity Account* accumulates contributions for supplemental annuities. The negative balances represent the liability for past cost of living adjustments that are being amortized to actuarial required contributions. The balance in this account is actuarially determined.

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The *Annuity Reserve Accounts* are the accounts from which all death and retirement benefits and supplemental annuities are paid. The balance in this account is actuarially determined.

The *Interest Reserve Account* accumulates all income earned by the fund and from which all administrative and investment expenses incurred by the fund and the Board necessary for operation of the System are paid. Any balance in this reserve is transferred to the State Accumulation Account at year-end.

The *Benefit Completion Plan (BCP) Reserve Account* accumulates all BCP employer contributions, net earnings of the fund less any benefits paid out of the fund.

Fund balances at December 31, 2004 and 2003 are as follows:

| | <u>2004</u> | <u>2003</u> |
|---|----------------------|-------------------|
| Members Savings Account | \$ 3,596,576 | 3,588,664 |
| State Accumulation Account | 11,499,301 | 11,460,022 |
| Supplemental Annuity Account | (1,481,733) | (1,617,929) |
| Annuity Reserve Accounts: | | |
| Annuitants and Beneficiaries | 11,793,079 | 9,935,594 |
| State Police | 1,192,785 | 1,132,394 |
| Enforcement Officers | 42,549 | 36,481 |
| Benefit Completion Plan Reserve Account | 1,842 | 723 |
| Total | <u>\$ 26,641,399</u> | <u>24,535,949</u> |

(4) Investments

As provided by statute, the System's Board has exclusive control and management responsibility of System funds and full power to invest the funds. In exercising its fiduciary responsibility to System membership, the Board is governed by the "prudent person" rule in establishing investment policy. The "prudent person" rule, requires the exercise of that degree of judgement, 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 permanent disposition of the funds, considering the probable income to be derived therefrom, as well as the probable safety of their capital. The Board has adopted its Statement of Investment Policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System.

The System's investments have investments that are subject to various risks. Among these risks are custodial credit risk, credit risk, interest rate risk, and foreign currency risk. Each one of these risks is discussed in more detail below.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, SERS would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Pursuant to Title 71, Pennsylvania Consolidated Statutes Section 5931 [c], the State Treasurer serves as custodian of the fund. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments, where securities are used as evidence of the investment, are held by the

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custodian in book-entry form in the System's name. Those investments are defined as insured or registered investments for which the securities are held by the System or its agent and, therefore, have very minimal level of custodial credit risk losses. All remaining investments do not have securities that are used as evidence of the investments. These investments are primarily in collective trust funds and limited partnerships, which include real estate, alternative investments, and absolute return fund-of-funds.

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating agencies such as Moody's Investors Services (Moody's). As directed by the SERS investment policy, each year the Board approves an Annual Five-Year Investment Plan. This plan manages the overall credit risk of the fixed income asset class through a clearly defined long-term asset allocation policy. This policy, established a long-term target allocation of the fixed income asset class at 24% of the Fund. Of the 24% allocation, 15% of the Fund will be allocated to a core segment of the fixed income asset class and composed of primarily investment grade, relatively liquid public domestic securities. These securities will be comprised of two components: a) intermediate duration, and b) longer duration strategies based on the Lehman Aggregate Index. In addition to the core segment, the system will also allocate fixed income investments to a high yield segment. The high yield segment is composed primarily of less liquid, public and private securities and has a target allocation of 5% of the Fund. The high yield component will focus on debt instruments offering higher return premiums and different risk characteristics than traditional core fixed income securities. The fixed income class also has dedicated a 4% allocation of the fund to emerging market debt. Emerging market debt investments are made using dollar denominated sovereign debt as well as local currency sovereign and corporate debt. For securities exposed to credit risk in the fixed income portfolio, the following table discloses aggregate market value, by major Moody's credit quality rating category at December 31, 2004:

Fixed Income Securities Exposed to Credit Risk

| <u>Moody's Rating*</u> | <u>Market Value</u> |
|------------------------|---------------------|
| AGY** | \$ 665,193 |
| AAA | 290,970 |
| AA | 90,519 |
| A | 155,033 |
| P-1 | 25,348 |
| BAA | 329,418 |
| BA | 514,035 |
| B | 677,397 |
| CAA | 148,590 |
| CA | 33,676 |
| C | 1,738 |
| NA*** | 128,332 |
| STIF**** | <u>770,250</u> |
| Total | <u>\$ 3,830,499</u> |

Notes: * The Moody's rating represents all of the securities that fall within subcategories of the ratings shown in this table. For example, a security with a rating of Ba1 is shown as a rating of BA in this table.

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- ** AGY rating is assigned to securities issued by privately owned government sponsored enterprises (GSEs) such as Federal National Mortgage Association (Fannie Mae), Federal Home Loan Bank Corporation (Freddie Mac) and several others entities. Although created by Congress as a publicly chartered entity, GSE issued securities are not U.S backed government securities and, therefore, subject to credit risk.
- *** NA represents securities that were either not rated by Moody's agency, or had a withdrawn rating. NA also includes the market value of certain swaps, which by nature do not have credit quality ratings. See footnote (6) for additional information regarding the nature of these swap agreements.
- **** Short-Term Investments represent investments in the Commonwealth's Short-Term Investment Pool. This pool is comprised of short-term, high credit quality securities, which are mainly U.S. Treasuries, agencies, or repurchase agreements. Short-Term investments also include cash and cash equivalents of the System's Market Neutral investment strategy. Those investments represents deposits for short sales and cash collateral and are invested primarily in U.S. Treasuries.

U.S. Treasuries with a market value of \$1.9 billion were not included in the above table because they are not subject to credit quality risk.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As a means for limiting SERS' exposure to fair value losses arising from rising interest rates, SERS' long-term asset allocation policy diversifies its fixed income core segment between intermediate duration and longer duration strategies based on the Lehman Aggregate Index. Duration is a measure of an investment's sensitivity to changes in interest rates. The higher the duration, the greater the changes in fair value when interest rates change. SERS measures interest rate risk using option adjusted duration, which takes into account the effect of embedded options on cash flows. At December 31, 2004 the System's fixed income portfolio had the following option-adjusted durations by fixed income sector:

| <u>Fixed Income Sector</u> | <u>Market Value</u> | <u>Option-Adjusted Duration</u> |
|---------------------------------|---------------------|---------------------------------|
| Agencies | \$ 227,841 | 3.1 |
| Asset Backed Securities | 217,031 | 1.1 |
| CMBS and CMO | 79,249 | 0.9 |
| Corporates | 1,199,491 | 4.7 |
| Government | 2,038,326 | 3.8 |
| Sovereign Debt | 509,402 | 6.7 |
| U.S. Govt Mortgages | 336,669 | 2.2 |
| U.S. Private Placements | 349,849 | 4.6 |
| S-T Investments Treasury | 467,707 | 0.1 |
| S-T Investments Market Neutral* | 302,543 | N/A |
| Other** | 51,105 | N/A |
| Total Fixed Income | <u>\$ 5,779,213</u> | |

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- Notes:
- * S-T Investments - Market Neutral represents cash and cash equivalents held by prime brokers for the margin accounts and deposits for short sales associated with the Market Neutral investment strategy.
 - ** Other represents certain securities with maturities ranging through the year 2040.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. As part of the System's program to manage risk and enhance returns, the System invests in global markets. As provided in SERS Annual Five-Year Investment Plan, SERS contracts with certain advisors to overlay foreign currency exposure in the international equity asset class by entering into foreign exchange contracts to hedge foreign currency exposure. At December 31, 2004, SERS had the following currency exposures:

| Currency | Equity | Fixed Income | Total |
|------------------------|--------------------|-----------------|------------------|
| Euro Currency Unit | \$1,501,601 | 394 | 1,501,995 |
| British Pound Sterling | 1,042,550 | — | 1,042,550 |
| Japanese Yen | 829,247 | — | 829,247 |
| Swiss Franc | 330,395 | — | 330,395 |
| Swedish Krona | 127,695 | — | 127,695 |
| Hong Kong Dollar | 111,354 | — | 111,354 |
| South Korean Won | 106,976 | — | 106,976 |
| Other Currencies (24) | 475,655 | — | 475,655 |
| Total | \$4,525,473 | 394 | 4,525,867 |

(5) Securities Lending

In accordance with a contract between the Commonwealth's Treasurer and its custodian, the System participates in a securities lending program. State statutes neither specifically authorize nor prohibit the lending of the System's securities.

The custodian, acting as lending agent, lends the System's equity, debt, and money market securities for cash, securities, or letter-of-credit collateral. Collateral is required at 102% of the fair value of the securities loaned except for the equity securities of non-U.S. corporations, for which collateral of 105% is required. Collateral is marked-to-market daily. If the collateral falls below guidelines for the fair value of the securities loaned, additional collateral is obtained. Cash collateral is invested by the lending agent in accordance with investment guidelines approved by the Board. The lending agent cannot pledge or sell securities collateral unless the borrower defaults.

As of December 31, 2004 and 2003, the System's credit exposure to individual borrowers was limited because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The Treasurer's contract with the lending agent requires the agent to indemnify the System if the borrowers fail to return the underlying securities and the collateral is inadequate to replace the loaned securities or if the borrowers fail to pay income distributions on the loaned securities.

(continued)

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)

Notes to Financial Statements
December 31, 2004 and 2003
(Dollar amounts in thousands)

All securities loans at December 31, 2004 and 2003 could be terminated on demand by either the lending agent or the borrower. Cash collateral is invested, together with the cash collateral on securities loans of other Commonwealth entities, in a short-term collective investment pool. The duration of the investments in the pool at December 31, 2004 and 2003 was 29 days and 35 days, respectively. The relationship between the average maturities of the investment pool and the System's loans is affected by the maturities of the loans made by other entities in the investment pool. In addition, the interest rate risk posed by mismatched maturities is affected by other program features, such as the lending agent's ability to reallocate securities loans among all of its lending customers.

As of December 31, 2004 and 2003, respectively, the fair value of loaned securities was \$3.1 billion and \$1.7 billion; the fair value of the associated collateral was \$3.2 billion and \$1.7 billion, of which \$2.9 billion and \$1.6 billion was cash. The securities lending collateral pool is not categorized because securities are not used as evidence of the investment.

(6) Derivative and Structured Financial Instruments and Restricted Assets

The System enters into certain derivative and structured financial instruments primarily to enhance the performance and reduce the volatility of its portfolio. It enters into foreign exchange contracts to hedge foreign currency exposure, futures contracts to gain or hedge exposure to certain equity markets and to manage interest rate risk, and swaps to gain equity exposure on its absolute return fund-of-funds investments, as well as hedge against the effects of inflation.

Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. The System uses these contracts primarily to hedge the currency exposure of its investments. To reduce the risk of counterparty nonperformance, the System generally enters into these contracts with institutions regarded as meeting high standards of credit worthiness. The unrealized gain/loss on contracts is included in the System's net assets and represents the fair value of the contract on December 31. At December 31, 2004 and 2003, the System's contracts to purchase and sell by major foreign currencies were as follows:

Contracts as of December 31, 2004

| <u>Currency</u> | <u>Purchases</u> | <u>Unrealized Gain/(Loss)</u> | <u>Sells</u> | <u>Unrealized Gain/(Loss)</u> |
|------------------------|---------------------|-----------------------------------|------------------|-----------------------------------|
| British Pound Sterling | \$ 2,134,039 | 124,074 | 2,226,564 | (145,630) |
| Euro Currency Unit | 2,067,917 | 152,275 | 2,049,503 | (170,539) |
| Japanese Yen | 1,553,365 | 66,758 | 1,555,695 | (80,339) |
| Swiss Frank | 383,183 | 22,436 | 423,547 | (27,523) |
| Australian Dollar | 132,071 | 11,625 | 133,941 | (13,666) |
| Swedish Krona | 124,590 | 10,521 | 124,470 | (12,274) |
| Other | 947 | (1) | 2,455 | (14) |
| Total | <u>\$ 6,396,112</u> | <u>387,688</u> | <u>6,516,175</u> | <u>(449,985)</u> |

(continued)

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Financial Statements
December 31, 2004 and 2003
(Dollar amounts in thousands)

Contracts as of December 31, 2003

| <u>Currency</u> | <u>Purchases</u> | <u>Unrealized Gain/(Loss)</u> | <u>Sells</u> | <u>Unrealized Gain/(Loss)</u> |
|------------------------|---------------------|-----------------------------------|------------------|-----------------------------------|
| Euro Currency Unit | \$ 2,309,330 | 190,419 | 2,252,275 | (208,585) |
| British Pound Sterling | 810,547 | 60,325 | 887,279 | (69,449) |
| Japanese Yen | 586,761 | 15,588 | 618,333 | (19,594) |
| Swiss Frank | 387,611 | 23,499 | 404,090 | (28,619) |
| Swedish Krona | 71,071 | 6,838 | 111,638 | (9,323) |
| Other | 131,211 | 3,828 | 176,883 | (5,772) |
| Total | <u>\$ 4,296,531</u> | <u>300,497</u> | <u>4,450,498</u> | <u>(341,342)</u> |

Futures contracts are standardized, exchange-traded contracts to purchase or sell a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Because of daily settlement, the futures contracts have no fair value.

The System has entered into certain futures contracts maturing through March 2005. The notional value of these contracts at December 31, 2004 and 2003 is as follows:

| | 2004 | | 2003 | |
|--------------------|--------------------------|---------------------------|--------------------------|---------------------------|
| | <u>Buy contracts</u> | <u>Sell contracts</u> | <u>Buy contracts</u> | <u>Sell contracts</u> |
| Eurodollar futures | \$ — | — | — | 9,631 |
| Euro bond futures | — | — | 59,491 | 24,399 |
| Japan bond futures | — | — | 42,462 | — |
| Treasury futures | 50,023 | 15,091 | 119,114 | 119,683 |
| S&P futures | 308,887 | — | 272,652 | — |

The exchange on which futures contracts are traded assumes the counterparty risk and generally requires margin payments to minimize such risk. The System pledges investment securities to provide the initial margin requirements on the futures contracts it buys. In addition to that collateral, the System also pledges securities on sales of securities that it does not presently own (short sales). The System enters into those short sales to neutralize the market risk of certain equity positions.

Swap agreements provide for periodic payments between parties based on the net difference in the cash flows of underlying assets, indexes, or rates. During 2004 and 2003, the System entered into swap arrangements to purchase commodity futures. Under the arrangement, the System receives the net return of the Goldman Sachs Commodity Index

(continued)

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Financial Statements
December 31, 2004 and 2003
(Dollar amounts in thousands)

from the swap counterparty in return for a short-term interest rate plus a spread, which it pays to the counterparty. The commodity swaps are used as an inflation hedge. In addition, the System also uses swap arrangements to gain equity exposure on its absolute return fund-of-funds investments. Under those arrangements, the System receives the net return of the S&P 500 Total Return Index in exchange for a short-term rate plus a spread. The System uses multiple contracts with counterparties as well as collateral posting requirements to manage its credit risk. The System's swap contracts have varying maturity dates ranging from March 18, 2005 through December 31, 2005.

The table below presents the System's swap exposure at December 31:

| | Notional value | | Receivable/(payable) | |
|----------------------------------|----------------|-----------|----------------------|---------|
| | 2004 | 2003 | 2004 | 2003 |
| Goldman Sachs Commodity Index | \$ 1,289,353 | 479,324 | (162,078) | 29,841 |
| S&P 500 Total Return Index | 5,094,937 | 4,315,510 | 363,022 | 264,408 |

The System mitigates its legal risk on investment holdings, including the previously discussed instruments, by carefully selecting portfolio managers and extensively reviewing their documentation. It manages its exposure to market risk within risk limits set by management.

The System also indirectly holds foreign exchange contracts, futures contracts, and certain swap contracts through its investments in collective trust funds. Those collective trust funds directly and indirectly (through a securities lending collateral pool) invest in those instruments to hedge foreign exchange exposure, to synthetically create equity returns, and to manage interest rate risk by altering the average life of the portfolio.

(7) Commission Recapture Program

The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investments directly to the System. During the years ended December 31, 2004 and 2003, the System earned \$818 and \$870 of benefits resulting from a commission recapture program, respectively. The System used the program to pay approximately \$498 and \$1,072 of consulting, advisory, and other expenditures for the years ended December 31, 2004 and 2003, respectively. At December 31, 2004 and 2003, the System has accumulated \$2,197 and \$1,877, respectively, of benefits that are available for future expenditures.

(8) Pension Plan for Employees of the System

The System also makes employer contributions. The System's employees' contribution requirements and benefits are described in note 1 to these financial statements. The System's contributions for the years ended December 31, 2004, 2003 and 2002 were \$93, \$25, and \$0, respectively, which were equal to the required contributions each year.

Financial Statements

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Financial Statements
December 31, 2004 and 2003
(Dollar amounts in thousands)

(9) *Litigation and Contingencies*

The System is involved in various individual lawsuits, generally related to benefit payments, which, if settled adversely, could increase estimated actuarial liabilities by approximately \$1 billion. The individual cases involve legal issues that, if extended to the entire membership, may result in significant costs to the System. If such an event were to occur, the additional costs would be recovered by the System through adjustments to the employer contribution rate.

(10) *COLA*

On April 23, 2002, the Governor of Pennsylvania signed Act 2002-38 (Act 38) into law. HB 27 provided for, among other things, a two phase COLA for retired members. The bill excluded those members in Class AA, T-D and D-4. For annuitants retiring before July 2, 1990 the bill provided the following COLA:

| | <u>Percent Increase</u> |
|---|-----------------------------|
| Phase One, effective July 1, 2002: | |
| Date of retirement | |
| Before July 2, 1980 | 25.00% |
| Between July 2, 1980 through July 1, 1983 | 15.00% |
| Between July 2, 1983 through July 1, 1988 | 10.00% |
| Between July 2, 1988 through July 1, 1990 | 8.00% |
| Average expected increase | 13.86% |
| Phase Two, effective July 2, 2003: | |
| Date of retirement | |
| Between July 2, 1990 through July 1, 1994 | 9.00% |
| Between July 2, 1994 through July 1, 1998 | 7.50% |
| Between July 2, 1998 through July 1, 1999 | 6.35% |
| Between July 2, 1999 through July 1, 2000 | 4.87% |
| Between July 2, 2000 through July 1, 2001 | 3.08% |
| Between July 2, 2001 through July 1, 2002 | 2.27% |
| Average expected increase | 6.99% |

The increased actuarial liabilities for the COLA were approximately \$257 million for Phase One and \$396 million for Phase Two. Funding for Phase One commenced on July 1, 2003 and funding for Phase Two began on July 1, 2004. The effect on the employer contribution rate is expected to be 0.77% and 1.21% for Phase One and Phase Two, respectively. The cost of the COLA will be amortized under a 10-year level amortization schedule.

Required Supplementary Information

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Required Supplemental Schedule 1 - Schedule of Funding Progress
(Unaudited)
(Dollar Amounts in Millions)

| <u>Actuarial valuation year</u> | <u>Actuarial value of assets</u> | <u>Actuarial accrued liabilities (AAL)</u> | <u>Unfunded actuarial accrued liabilities (UAAL)</u> | <u>Ratio of assets to AAL</u> | <u>Covered payroll</u> | <u>UAAL as a percentage of covered payroll</u> |
|---|--|--|--|---------------------------------------|----------------------------|--|
| 2004 | \$ 26,900 | \$ 27,999 | \$ 1,099 | 96.1 % | \$ 5,094 | 21.6 % |
| 2003 | 27,466 | 26,180 | (1,286) | 104.9 | 4,965 | (25.9) |
| 2002 | 27,498 | 25,650 | (1,848) | 107.2 | 5,093 | (36.3) |
| 2001 | 27,505 | 23,659 | (3,846) | 116.3 | 4,872 | (78.9) |
| 2000 | 26,094 | 19,702 | (6,392) | 132.4 | 4,769 | (134.0) |
| 1999 | 23,624 | 19,092 | (4,532) | 123.7 | 4,519 | (100.3) |

Required Supplemental Schedule 2 - Schedule of Employer Contributions
(Unaudited)
(Dollar Amounts in Thousands)

| <u>Year ended December 31,</u> | <u>Annual required contributions</u> | <u>Percentage contributed</u> |
|------------------------------------|--|-----------------------------------|
| 2004 | \$ 105,229 | 100.0 % |
| 2003 | 55,079 | 123.4 |
| 2002 | 22,906 | 221.9 |
| 2001 | 52,104 | 147.2 |
| 2000 | 168,002 | 100.0 |
| 1999 | 269,869 | 100.3 |

During the years 2003, 2002, and 2001, actual contributions exceeded the annual required contributions (ARC). For the period July 1, 2001 through June 30, 2003 the ARC was set at zero. However, the System required payment from certain agencies that provided age 50 retirement and from special classes for payment of past liabilities for retroactive benefit enhancements. Collection of those amounts resulted in the actual contributions exceeding the ARC. See accompanying notes to required supplemental schedules of funding progress and employer contributions.

See accompanying notes to required supplemental schedules of funding progress and employer contributions.

Required Supplementary Information

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Required Supplemental Schedules of Funding Progress and Employer Contributions
December 31, 2004 and 2003

Actuarial information as of the latest actuarial valuation:

| | |
|-----------------------------------|---|
| Valuation date | December 31, 2004 |
| Actuarial cost method (b) | Variation of entry age actuarial cost method |
| Amortization method (a) | 10 year and 30 year schedules with level payments |
| Remaining amortization period (a) | 7-30 years, closed |
| Asset valuation method | 5-year smoothed market |
| Actuarial assumptions: | |
| Investment rates of return (c) | 8.5% |
| Projected salary increases (c) | 5.16% - 8.98%, average of 6.8% |
| Cost-of-living adjustments (d) | As described below |

GASB 25 establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The scheduled payments for the year beginning July 1, 2005 are below the minimum amount required to meet the GASB 25 minimum. This is a temporary result of financing implemented by Act 2003-40 in December 2003. After 2011, the SERS contribution is expected to exceed the GASB 25 minimum.

- (a) The December 31, 2001 valuation included the effect of Act 9, which increased the actuarial accrued liabilities by approximately \$2.7 billion. Act 2003-40 revised the amortization method and remaining amortization periods as discussed in footnote 1(c) to the audited financial statements.
- (b) A variation of the entry-age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits including superannuation, withdrawal, death and disability benefits. The significant difference between the method used for the System and the typical entry-age normal actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run.
- (c) Includes inflation at 3%.
- (d) Information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. The effects of COLAs granted to annuitants were included in the respective valuations as presented in the table below:

| Valuation Year | Effective Retirement Date | COLA Range (based on date of retirement) | Effective Date of COLA | Increase to Actuarial Accrued Liabilities |
|----------------|---------------------------------------|--|------------------------|---|
| 2002 | Between July 2, 1990 and July 1, 2002 | 2.27% - 9.0% | July 1, 2003 | \$396 million |
| 2002 | On or before July 1, 1990 | 8.0% - 25.0% | July 1, 2002 | \$257 million |
| 1997 | On or before June 30, 1997 | 1.86% - 25.0% | July 1, 1998 | \$478 million |

Additional Financial Information

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Supplemental Schedule 1 - Schedule of Administrative Expenses
Year ended December 31, 2004
(Amounts in thousands)

| | | |
|--|------------|------------------|
| Personnel services: | | |
| Salaries | \$ 9,364 | |
| Benefits | 3,386 | |
| Temporary personnel wages, overtime, and outservice training | <u>278</u> | |
| Total personnel services | | \$ 13,028 |
| Professional services: | | |
| Consultant fees | 2,301 | |
| Consultant contractual services vendor provided | 695 | |
| Commonwealth Central services | 438 | |
| Consultant services EDP | 432 | |
| Treasury Department services | 327 | |
| Legal fees | <u>110</u> | |
| Total professional services | | 4,303 |
| Rentals: | | |
| Real estate rent | 1,687 | |
| Other equipment rental | <u>616</u> | |
| Total rentals | | 2,303 |
| Communication: | | |
| Postage | 293 | |
| Telephone | 263 | |
| Printing and advertising | <u>97</u> | |
| Total communication | | 653 |
| Other expenses: | | |
| EDP Software | 281 | |
| Supplies | 277 | |
| Travel and conferences | 144 | |
| EDP and office equipment | 106 | |
| Subscriptions and memberships | 111 | |
| Maintenance | <u>38</u> | |
| Total other expenses | | <u>957</u> |
| Total administrative expenses | | <u>\$ 21,244</u> |

Additional Financial Information

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Supplemental Schedule 2 - Schedule of Investment Expenses and Consulting Fees
Year ended December 31, 2004
(Amounts in thousands)

Investment Expenses

| | Fees |
|---|-------------------|
| Investment manager fees: | |
| Alternative investments | \$ 79,560 |
| Stocks | 83,644 |
| Real estate | 17,113 |
| Fixed income | 12,224 |
| Commodities | 1,830 |
| | <hr/> |
| Total investment manager fees | 194,371 |
| Investment Related Expenses: | |
| Alternative investments | 2,356 |
| Real estate | 63 |
| Legal | 41 |
| Legal - reimbursement of prior years expenses | (264) |
| Custodial | 218 |
| Fixed income | 74 |
| | <hr/> |
| Total other fees | 2,488 |
| | <hr/> |
| Total investment expenses | <u>\$ 196,859</u> |

Consulting Fees

| Firm | Category | Fees |
|------------------------------------|--------------------|-----------------|
| Cambridge Associates, LLC | Private Equity | \$ 983 |
| Rocaton Investments Advisors, LLC | General Consultant | 407 |
| Hay Group Inc. | Actuary | 269 |
| The Townsend Group | Real Estate | 214 |
| Pension Consulting Alliance | Special Projects | 150 |
| Institutional Shareholder Services | Proxy Services | 113 |
| Other | | 165 |
| | | <hr/> |
| Total consulting fees | | <u>\$ 2,301</u> |

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Investment Section



Report on Investment Activity

Peter M. Gilbert
Chief Investment Officer

June 2005

Dear Members:

The year 2004 was an outstanding year for SERS investment program. Economic growth was steady, interest rates remained low and the dollar continued to weaken, thereby contributing to the improvement in corporate profits. The improving economy and corporate profits had a positive effect on investor psychology, driving financial markets higher.

In keeping with historic recoveries, the financial markets continued their recovery in 2004 following the 2000–2002 bear market correction. As a result, the Fund produced a return of 15.1% for 2004, on top of a 24.3% return in 2003. This year's return placed SERS among the top public pension funds in the nation. Although significant declines in the financial markets between 2000 and 2002 took a toll on Fund performance, SERS annualized return of 11.1% over the past ten years ended 2004 handily exceeds the Fund's actuarial assumed rate of return of 8.5%. Thus, in spite of declines in 2001 and 2002, the Fund continues to enjoy a well-funded status to meet ever-increasing benefit obligations.

The solid investment performance results were the result of a broadly diversified investment program, complemented by a host of innovative, non-traditional investment strategies. These strategies include significant commitments to venture capital, private equity, real estate and funds of hedge funds. SERS was an early investor in each of these investment strategies. Having earned confidence through actual investment experience, SERS' commitments to those strategies make the Fund look quite different from many of our peers. Commitment to these alternative asset classes and strategies has produced the strong near-term and long-term performance record that has put SERS in the top quartile of performance for all public pension funds. These performance results and innovative investment strategies are among the reasons that SERS was honored as the Outstanding Large Public Pension Fund for 2004 awarded by Money Management Letter at the Public Plans Summit conference in Phoenix.

Most importantly, these returns have been earned in accordance with the investment policy and objectives set out by the Board operating as fiduciaries in the sole interest of the beneficiaries and members of the Fund. The primary investment objective is to assure the adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth while preserving the principal of the Fund against erosion from inflation. The objectives further state that the Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location. As a long-term investor, this concept of diversification is key, as it allows the Fund to achieve its return objectives while at the same time controlling risk.

The SERS Investment Office, in conjunction with the Fund's four consultants, performs a review of the asset allocation annually, recommending modifications to asset classes and future allocations as appropriate. The results are reviewed and adopted by the Board. The asset allocation decisions are among the most important decisions the Board makes in striving to achieve the Fund's investment objectives. Enabled by the passage of the Prudent Person legislation in 1994, the Fund has successfully broadened the range of diversification of asset classes and strategies in which we are able to invest over the past decade. Perusal

Report on Investment Activity

of the Investment Summary in the following pages will reveal the diversification of the asset classes and investment manager styles. In addition, the structure has been implemented in such a manner as to ensure broad diversification by industry and geographic location within, and across asset classes.

SERS' Investment Office continuously monitors economic and market events and works to position the Fund through broad diversification to be in a position to face a variety of different economic scenarios. Under the supervision and guidance of the Board, SERS Fund structure is sound and has the ability to endure under a variety of market environments. The Fund is well positioned to ensure that SERS' members receive the financial security that they have earned and that is due them.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter M. Gilbert", is written over a light gray rectangular background.

Peter M. Gilbert
Chief Investment Officer

Investment Policies

The State Employees' Retirement Board adopted a formal Statement of Investment Policy in 1979. It has been revised periodically, principally to reflect and incorporate legislative changes governing investments. The purpose of the statement is to formalize the Board's investment objectives, policies, and procedures; to establish guidelines for the investment of Fund assets, and to define the duties and responsibilities of the various entities involved in the investment process. The major elements of the statement are:

- As fiduciaries, the Board will exercise 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 in investment matters;
- The Fund's overall investment objective is to provide a total rate of return, over full economic cycles, which exceeds the return of a fully diversified market portfolio within each asset class. The Board seeks to meet this objective within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, quality and geographic location;
- The Board employs an investment staff and also contracts with investment advisors and consultants to provide expert, professional judgment in all investment decisions;
- An annual Investment Plan is prepared to control the allocation of funds during the year among investment advisors and categories of assets;
- Guidelines are established for each category of assets used by the Fund's investment advisors to provide a framework for monitoring quality, diversification and liquidity; and
- Where investment characteristics, including yield, risk and liquidity, are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania.

Investment Objectives

To assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation, the long-term investment objectives of the Fund, are:

- Achieve a net total return equivalent to the actuarial interest rate assumption, or preferably in excess of this rate in order to improve the funded ratio of the Fund through investment earnings;
- Achieve in Domestic Stocks a total return that exceeds the total return of the Russell 3000 Index;
- Achieve in International Stocks a total return that exceeds the total return of the SERS Custom International Stock Index;
- Achieve in the Fixed Income asset class a total return that exceeds the total return of the SERS Fixed Income Custom Index;
- Achieve in the Equity Real Estate asset class a total return that exceeds the total return of the Townsend Stylized Benchmark;
- Achieve in the Cash asset class a total return that exceeds the total return on U.S. Treasury Bills (90 days);
- Achieve in the Venture Capital asset class a total return that exceeds either the Venture Economics' relevant Vintage Year Median Returns or relevant returns furnished for benchmark purposes by SERS's Venture Capital/Alternative Investments consultant;
- Achieve in the Alternative Investments asset class a total return that exceeds either market returns for similar types of alternative investments or relevant returns furnished for benchmark purposes by SERS's Venture Capital/Alternative Investments consultant;
- Achieve in the Inflation Protection Investment asset class a return that replicates the Goldman Sachs Commodity Index.

Total return includes income and both realized and unrealized gains and losses and is computed on market value. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location.

Investment Results

Schedule of Portfolio Returns* After Fees For the period ending December 31, 2004

| <u>Asset Class</u> | <u>1 Year Total Return</u> | <u>3 Year Total Return</u> | <u>5 Year Total Return</u> | <u>10 Year Total Return</u> |
|---|--------------------------------|--------------------------------|--------------------------------|---------------------------------|
| Domestic Stocks | 14.9% | 6.9% | 0.8% | 12.6% |
| <i>Russell 3000 Index</i> ^{1/} | 12.0% | 4.8% | -1.2% | 11.8% |
| International Stocks | 20.6% | 12.5% | 2.3% | 8.4% |
| SERS Custom International Stock Benchmark (26% Hedged) ^{2/} | 22.6% | 13.5% | 1.3% | 6.2% |
| Fixed Income | 7.7% | 9.0% | 8.0% | 8.5% |
| <i>SERS Custom Fixed Income Benchmark</i> | 5.7% | 7.9% | 7.1% | 7.8% |
| Cash | 1.7% | 1.8% | 3.0% | 4.4% |
| <i>90 day U.S. T-bills</i> | 1.3% | 1.4% | 3.0% | 4.1% |
| Real Estate ^{3/} | 14.6% | 10.1% | 10.1% | 10.8% |
| <i>Townsend Stylized Benchmark</i> | 15.0% | 10.3% | 10.7% | 10.8% |
| Private Equity ^{3/} | 25.7% | 9.4% | 7.1% | 15.6% |
| <i>Cambridge Private Equity Index</i> | 18.2% | 6.7% | 4.0% | 13.7% |
| Venture Capital ^{3/} | -2.6% | -15.4% | -5.7% | 10.5% |
| <i>Cambridge Venture Capital Index</i> | 8.9% | -12.2% | 0.1% | 22.9% |
| Commodities ^{4/} | 20.2% | 24.1% | N/A | N/A |
| <i>Goldman Sachs Commodities Index</i> | 17.3% | 23.2% | 13.8% | 9.1% |
| Total Fund | 15.1% | 8.4% | 3.7% | 11.1% |
| <i>Total Fund Benchmark</i> | <i>14.2%</i> | <i>7.8%</i> | <i>2.6%</i> | <i>10.1%</i> |

* Returns for periods longer than one year are annualized.

^{1/} The Domestic Stocks Benchmark is the Wilshire 5000 Index through 12/31/98, and the Russell 3000 thereafter.

^{2/} The International Stocks Composite and the Custom International Index were unhedged prior to 5/1/96.

^{3/} Results for the Real Estate, Private Equity, Venture Capital and Indices are lagged one quarter.

^{4/} Commodities were initially funded in November 2001.

Note: The performance calculations were prepared using a time-weighted rate of return based on the market rate of return in accordance with AIMR's Performance Presentation Standards.

Largest Assets Held

| Domestic Equity | | International Equity | |
|----------------------|--------------|------------------------------|--------------|
| Holding | Fair Value | Holding | Fair Value |
| NTL Inc | \$64,157,230 | UBS AG | \$53,670,537 |
| General Electric Co | 63,186,202 | British Petroleum | 51,516,329 |
| Exxon Mobil Corp | 55,273,331 | Nestle | 50,102,757 |
| Microsoft Corp | 49,629,540 | Vodafone Group | 47,113,843 |
| Citigroup Inc | 46,786,638 | Telefonica | 45,458,980 |
| Wal-Mart Stores Inc | 38,684,259 | Novartis | 42,204,919 |
| Bank Of America Corp | 37,221,418 | France Telecom | 42,126,784 |
| Johnson & Johnson | 37,039,252 | Shell Transport & Trading Co | 41,524,235 |
| Telewest Global Inc | 35,985,838 | ENI SPA | 41,515,565 |
| Pfizer Inc | 33,761,388 | Total SA | 38,910,291 |

International Fixed Income

| | |
|---|--------------|
| Russian Federation Bond STEP, March 31, 2030 | \$71,865,360 |
| Federative Republic of Brazil, 8% April 15 2014 | 54,749,389 |
| Federative Republic of Brazil, Variable Rate April 15, 2012 | 41,018,569 |
| Mexico Notes 6.625%, March 3, 2015 | 29,447,840 |
| Mexico Government Bonds, 8.125% December 30, 2019 | 27,259,505 |
| Mexico Notes 5.875%, January 15, 2014 | 25,271,045 |
| Federative Republic of Brazil, 12.25% March 6, 2030 | 20,209,200 |
| Republic of Turkey, 9.5%, January 15, 2014 | 18,232,375 |
| Republic Of Ecuador, 12% November 15, 2012 | 17,520,538 |
| Republic of Columbia, 10.75% January 15, 2013 | 17,044,350 |

US Government and Government Related

| | |
|---|---------------|
| U S Treasury Inflation Index Note, 3.625% January 15, 2008 | \$376,182,137 |
| U S Treasury Inflation Index Note, 3.875% January 15, 2009 | 318,305,943 |
| U S Treasury Inflation Index Note, 4.25% January 15, 2010 | 231,700,214 |
| U S Treasury Inflation Indexed Note, 3.5% January 15, 2011 | 211,596,641 |
| U S Treasury Inflation Index Note, 0.875% April 15, 2010 | 120,662,964 |
| U S Treasury Note, 3.5% November 15, 2006 | 57,498,750 |
| Federal National Mortgage Association Debenture 4.25% May 15, 2009 | 54,923,783 |
| U S Treasury Bond Stripped Principal Payment 0.875% August 15, 2020 | 50,016,287 |
| U S Treasury Note, 2.75% August 15, 2007 | 45,517,693 |
| U S Treasury Note 6.5% February 15, 2010 | 37,032,750 |

Domestic Corporate Fixed Income

| | |
|--|--------------|
| Comcast Corp Sr Sub Deb, 10.625% July 15, 2012 | \$18,210,319 |
| General Electric Cap Sv Disc, March 21, 2005 | 18,004,021 |
| Citibank Credit Card 2000-A3, 6.875% November 16, 2009 | 12,934,564 |
| Stone Container Corp Sr Note, 9.75% February 1, 2011 | 12,811,500 |
| Adelphia Comms Corp Sr Note, 9.375 %November 15, 2009 | 12,361,750 |
| Medpartners Inc New Sr Note, 7.375% October 1, 2006 | 12,221,552 |
| Nextel Communications Inc Sr Note, 6.875% October 31, 2013 | 12,017,250 |
| Century Communication Corp Sr Disc Note | 10,441,000 |
| ChevronTexaco Fdg Disc Note, January 6, 2005 | 9,990,044 |
| Abbey Natl. NA LLC Disc, February 1, 2005 | 9,961,150 |

*A detailed list of SERS' investment holdings at December 31, 2004, may be viewed at www.sers.state.pa.us

Schedule of Broker Commissions

Year Ended December 31, 2004

| <u>BROKER</u> | <u>COMMISSIONS</u> | <u>BROKER</u> | <u>COMMISSIONS</u> |
|-------------------------------|--------------------|---------------------------------|--------------------|
| Merril Lynch | \$1,041,327 | Fortis Securities | \$108,190 |
| First Boston Corp | 948,346 | Oppenheimer | 101,605 |
| Deutsche Bank | 643,411 | Execution Services | 95,875 |
| Lehman Brothers | 572,304 | Hoare Govett | 94,822 |
| Goldman Sachs | 525,849 | SK International Securities | 93,294 |
| Bear Stearns | 484,530 | KBC Bank N V | 83,211 |
| Salomon Smith Barney | 464,810 | Jones & Associates | 83,000 |
| Morgan Stanley | 444,198 | Neue Zurich Bank | 81,167 |
| Nomura Bank International | 385,992 | Thomas & Weisel | 80,007 |
| Instinet | 378,124 | Wilshire Associates | 79,692 |
| Cheuvreux De Virieu | 321,926 | Den Danske Bank | 78,563 |
| J. P. Morgan | 316,440 | ING Bank | 77,901 |
| Union Bank of Switzerland | 313,707 | Davy Stockbrokers | 77,459 |
| Citibank | 305,423 | Daiwa Bank | 75,147 |
| U.B.S. Securities | 284,500 | Berenborg Gossler | 72,192 |
| Jefferies & Company | 268,280 | Raymond James & Assoc. Inc. | 72,044 |
| Warburg Dillon Read | 227,510 | Heflin & Co. LLC | 68,869 |
| Credit Lyonnais | 226,454 | UFJ International | 65,854 |
| Weeden & Company | 211,911 | Legg Mason | 65,454 |
| Paine Webber | 211,420 | Prudential Securities | 63,760 |
| B Trade Services | 211,381 | Charles Schwab | 58,325 |
| HSBC Securities | 210,860 | Mogavceo Lee & Co. | 56,858 |
| Carnegie | 202,047 | Anderson & Strudwick | 56,322 |
| Investment Technology Group | 200,351 | Credit Agricole | 56,152 |
| Cazenove | 185,275 | SG Securities | 55,612 |
| Kleinwort Benson | 173,915 | Dain Rauscher | 55,069 |
| Cantor Fitzgerald | 173,157 | Saritoga Capital | 54,828 |
| Liquidnet | 157,612 | Westminster Research Associates | 53,805 |
| Donaldson, Lufkin, & Jenrette | 153,889 | Deutsche Securities | 53,022 |
| Exane | 145,038 | Citation Group | 52,506 |
| Bank Of America | 132,677 | Rabo Securities | 51,785 |
| First Union Capital Markets | 131,954 | ABG Securities | 50,843 |
| Julius Baer Securities | 127,277 | Sanford C. Bernstein & Co. | 50,537 |
| Petercam | 124,387 | First Albany | 50,066 |
| ABN Amro | 120,573 | Oien Securities Inc. | 46,888 |
| Kay Hian James Capel Ptd | 116,997 | SG Cowen Securities | 45,185 |
| Williams Capital Group | 113,611 | Intermonte Sec. Cim | 42,561 |

Schedule of Broker Commissions

Schedule of Broker Commissions (Continued)

| <u>BROKER</u> | <u>COMMISSIONS</u> | <u>BROKER</u> | <u>COMMISSIONS</u> |
|---------------------------------|--------------------|---------------------------------|----------------------------|
| Mizuho Securities | \$41,686 | Pulse Trading | \$23,803 |
| Sal Oppenheim | 41,207 | PCS Securities | 23,694 |
| Samsung Securities | 41,045 | NYFix Transaction Services | 23,104 |
| Friedman Billings | 40,775 | A.G. Edwards & Sons Inc. | 22,921 |
| RBC Dominion Securities Corp. | 39,275 | Standard & Poors Securities | 22,008 |
| Investec Bank Ltd. | 38,611 | Piper Jaffray & Hopwood | 21,899 |
| Blaylock Partners L.P. | 38,241 | Fox-Pitt Kelton | 21,396 |
| Pershing | 37,905 | Mitsubishi Finance Int. | 21,351 |
| Henderson Brothers Inc. | 36,263 | Magna Securities Corp. | 21,277 |
| Ci Nordic Securities | 35,395 | Stephens | 20,237 |
| Banque Pictet (Luxembourg) SA | 34,800 | Neuberger & Berman | 20,054 |
| BNP Capital Markets | 33,537 | Leerink Swann & Co. | 19,868 |
| Jackson Securities | 33,161 | Seslia Securities | 19,705 |
| Spear Leeds & Kellogg | 33,035 | Brewin Dolphin Bell Lawrie Ltd. | 19,164 |
| Arcadia Investment Corp | 32,666 | National Financial Services | 18,635 |
| Macquarie Bank | 31,779 | NCB Stockbroker | 18,187 |
| Gget LLC | 31,724 | Caib Securites | 17,836 |
| Enskilda Securities | 31,339 | Keefe Bruyette & Woods | 17,825 |
| Bridge Trading Company | 31,098 | CJS Securities | 16,671 |
| Scott Stringfellow Inc. | 30,312 | Charles Stanley | 16,512 |
| Banco Santander | 30,183 | Parker/Hunter Inc. | 16,502 |
| Harborside Securities | 29,885 | Sturdivant & Company | 16,270 |
| Green Street Advisors | 29,731 | Intersecurities | 16,055 |
| Euromobiliare | 28,961 | Williams De Broe | 15,913 |
| Capital Institutional Investors | 28,932 | Terra Nova Institutional | 15,238 |
| Source Capital Group | 28,481 | Banco De Portugal | 14,797 |
| Lazard Freres | 27,200 | Ragen Mackenzie | 14,635 |
| Svenska Handelsbanken | 27,069 | U.S. Clearing Corp. | 14,537 |
| Fidelity Capital Markets | 26,997 | Allen & Company | 14,221 |
| William Blair & Company | 26,529 | Knight Securities Broadcort | 14,128 |
| Status Securities Inc. | 26,046 | Commerzbank | 13,601 |
| McDonald & Company Securities | 25,965 | Redburn Partners | 13,556 |
| Rochdale Securities | 25,611 | Henderson Crosthwaite & Co. | 13,223 |
| CDC Gestitres | 25,601 | CIBC World Mkts Inc. | 13,117 |
| Numis Securities Ltd | 24,912 | West Deutsche Landesbanken | 13,071 |
| J Vontobel | 24,738 | Oddo Securities | 12,784 |
| Collins Stewart | 24,548 | Natexis Internationale | 12,646 |
| First Clearing LLC | 24,511 | Buckingham Research Group Inc. | 11,738 |
| Pereire-Tod Ltd. | 24,400 | Other | <u>654,100</u> |
| | | Total Commissions | <u>\$16,306,366</u> |

Investment Summary

The assets of the State Employees' Retirement System (SERS) are administered by the SERS Board (Board). The Board has adopted an Investment Policy (Policy) that incorporates the provisions of the Retirement Code which govern the investment of SERS' assets. The Policy provides investment objectives and guidelines. An Investment Plan is reviewed and updated annually for strategic asset allocation purposes, as well as for diversification needs within each asset class.

Market Value as of December 31, 2004: SERS' assets had an unaudited market value of approximately \$26,626.7 million on December 31, 2004.

SERS Asset Allocation

| Asset Class | Market Value | | 2004 Target Allocation | Long-Term Target Allocation |
|-------------------------|--------------|--------|------------------------------|-----------------------------------|
| | \$ (mil) | % | | |
| Domestic Stocks | \$9,937.5 | 37.3% | 35.8% | 30.0% |
| International Stocks | 5,738.9 | 21.6% | 19.0% | 17.0% |
| Currency Overlay | (60.3) | -0.2% | 0.0% | 0.0% |
| Fixed Income | 4,061.3 | 15.2% | 17.0% | 24.0% |
| Cash | 168.6 | 0.6% | 0.0% | 0.0% |
| Inflation Protection | 1,667.5 | 6.3% | 7.0% | 7.0% |
| Real Estate | 2,155.5 | 8.1% | 9.5% | 8.0% |
| Alternative Investments | 2,957.8 | 11.1% | 11.7% | 14.0% |
| Total | \$26,626.7 | 100.0% | 100.0% | 100.0% |

Number of Investment Advisors: SERS had 163 external investment advisory firms managing portfolios. There are 48 advisors in the Public Markets domain and 135 alternative investments and real estate advisors. Fifteen of these advisors managed portfolios across asset classes.

- 16 U.S. Stock advisors
- 14 International Stock advisors
- 2 Currency Overlay advisors
- 13 Fixed Income advisors
- 1 Cash advisor
- 2 Inflation Protection advisors
- 24 Real Estate advisors
- 48 Venture Capital general partners managing limited partnerships
- 63 Private Equity general partners managing limited partnerships

In addition, Board appointments include one venture capital manager, and three fixed income firms.

Number of Investment Portfolios: SERS had 324 investment portfolios/accounts. Fifty-seven of these accounts are public market investments, while 267 covered private markets.

- 21 U.S. Stock portfolios
- 18 International Stock portfolios
- 2 Currency Overlay portfolios
- 13 Fixed Income portfolios
- 1 Cash portfolio
- 2 Inflation Protection portfolios
- 45 Real Estate portfolios
- 94 Venture Capital limited partnership interests
- 128 Private Equity limited partnership interests

In addition, Board appointments include two private equity partnerships and three venture capital partnerships, one international stock portfolio and three fixed income managers.

Investment Summary - U.S. Stock Investments

U.S. and International Stocks comprise the Stock asset class. U.S. stocks are one of eight major asset classes which SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

Policy: Stock investments are employed by the Fund primarily because their expected return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Stock asset class is managed on a total return basis.

SERS' long term investment objective in the U.S. Stock component of the Stock asset class is to achieve a total return, net of fees, that exceeds the total return of the Russell 3000 Index.

Stock investments shall emphasize, but not be limited to, publicly traded securities, which provide SERS with an equity interest in private sector concerns (e.g., common stock, preferred stock, convertible preferred stock, convertible bonds, derivative instruments providing stock like returns).

SERS' 2005 Investment Plan targeted a long-term allocation of 30.0% of assets to U.S. Stocks. The U.S. stocks structure reflects the broad U.S. market in terms of capitalization (large, medium, small). SERS U.S. stock portfolio, in aggregate, will strive to reflect the risk characteristics of the Russell 3000 Index, which is a good proxy for the broad, investable U.S. market. At December 31, 2004, U.S. Stocks had 79.6% exposure to the S&P 500 including index funds that replicate the S&P 500 (17.0%), market neutral strategies (3.1%), enhanced indexing (3.0%), equitization of the absolute return strategies (3.7%) as well as the absolute return strategies (52.8%).

Market Value as of December 31, 2004: U.S. Stocks had a \$9,937.5 million market value, 37.3% of the total fund's \$26,626.7 million market value on December 31, 2004.

Number of Investment Advisors: SERS had contracts with 16 external investment advisors to manage U.S. Stock portfolios.

Number of Investment Portfolios: SERS had 21 U.S. Stock portfolios managed by the 16 investment advisors.

Type of Investment Portfolios: As of December 31, 2004, 79.6% of SERS U.S. Stock allocation was in large capitalization stock strategies, including the equitized fund-of-funds absolute return strategies, and 20.4% was in medium/small capitalization stock strategies. SERS had 18 actively managed portfolios (83.0% of U.S. Stocks) and one indexed portfolio (17.0% of U.S. Stocks). The active managers search out superior investment opportunities, while the indexed portfolio provides broad core diversification and is designed to provide market performance at a low cost. SERS has one equitization manager for the absolute return strategies. SERS also utilizes one manager to manage the stock distributions that originate in the alternative investments segment of the portfolio.

Investment Summary - U.S. Stock Investments

| U.S. Stock Investment Advisor | Investment Style | *Market Value as of 12/31/04 (\$ Millions) |
|---|--|--|
| 1. Barclays Global Investors | S&P 500 index Enhanced index | \$1,692.1 300.6 |
| 2. AXA Rosenberg Investment Management | Russell 2500, risk controlled | 350.1 |
| 3. Artemis | Small cap relative value stocks | 138.5 |
| 4. Blackstone Alternative Asset Management (BAAM) | Absolute return fund-of-funds | 1,582.8 |
| 5. Emerald | PA stocks | 174.1 |
| 6. First Quadrant | Equitized long/short U.S. market neutral | 69.3 |
| 7. Iridian Asset Management | Mid-cap private business value | 353.0 |
| 8. Martingale Asset Management | Equitized long/short U.S. market neutral | 86.8 |
| 9. Mellon Equity Associates | PA stocks | 193.8 |
| The Boston Company | Russell 2500, risk controlled (Special) | 235.4 |
| | Equitized long/short U.S. market neutral | 80.4 |
| 10. Mesirow Financial | Absolute return fund-of-funds | 1,208.2 |
| 11. Morgan Stanley Alternative Investment Partners | Absolute return strategy equitization | 363.1 |
| | Absolute return fund-of-funds | 1,024.6 |
| 12. PAAMCO Absolute Return | Absolute return fund-of-funds | 1,427.6 |
| 13. Provident Investment Counsel (PIC) | Mid cap aggressive growth stocks | 134.6 |
| PIC Stellar Fund | Small cap growth stocks | 205.7 |
| 14. OFI Institutional | Small cap low p/e stocks | 209.5 |
| 15. Twin Market Neutral | Equitized long/short U.S. market neutral | 73.2 |
| 16. Warburg-Pincus | Stock distribution manager | <u>34.1</u> |
| Total U.S. Stocks | | <u><u>\$9,937.5</u></u> |

**Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.*

Investment Summary - International Stock Investments

International and U.S. Stocks comprise the Stock asset class. International stocks are one of eight major asset classes that SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies stock investments while maintaining a reasonable risk posture relative to the benchmarks. SERS contracts with external investment advisors to manage portfolios.

Policy: Stock investments are employed by the Fund primarily because their expected return premiums versus inflation will, if realized, help preserve and enhance the real value of the Fund over long periods of time. The Stock asset class is managed on a total return basis.

SERS' long term investment objective for the international stock component of the stock asset class is to achieve a total return, net of fees, that exceeds the total return of the S&P/Citigroup World Equity Broad Market Index-Europe and Pacific, a proxy for large cap and small cap stocks in non-U.S. developed markets, and the MSCI Emerging Markets Index, a proxy for stocks in emerging markets.

SERS' 2005 Investment Plan targeted a long-term allocation of 13% of total Fund assets to stocks in non-U.S. developed markets and 4% of total Fund assets to stocks in emerging markets. Within the non-U.S. developed markets segment, 3% of total Fund assets are to dedicated small-cap stocks.

Market Value as of December 31, 2004: International Stocks had a \$5,738.9 million market value or 21.6% of the total Fund's \$26,626.7 million market value on December 31, 2004. In addition, the fair value of forward exchange contracts in the currency overlay program amounted to \$ (60.3) million.

Number of Investment Advisors: SERS had contracts with 14 external investment advisors to manage international stock portfolios. In addition, SERS had contracts with 2 external advisors to manage the currency overlay program.

Number of Investment Portfolios: SERS had 18 stock portfolios managed by the 14 investment advisors and 2 accounts for the currency overlay program.

Type of Investment Portfolios: As of December 31, 2004, SERS had 17 actively managed international portfolios and one indexed portfolio. 13.8% of total Fund assets was allocated to stocks in non-U.S. developed markets, 3.5% of total Fund assets was allocated to dedicated small-cap stocks in non-U.S. markets, and 4.3% was allocated to stocks in emerging markets.

Investment Summary - International Stock Investments

| | International Stock Investment Advisor | Investment Style | *Market Value as of 12/31/04 (\$ Millions) |
|-----|---|--|--|
| 1. | Artisan Partners Limited Partnership | Growth stocks | \$479.9 |
| 2. | Capital International, Inc. Emerging Markets Growth Fund, Inc. | Emerging markets - value and growth | 182.1 |
| 3. | GAM International Management Ltd GAM Institutional Group Trust | Pacific Basin ex Japan - value | 144.5 |
| 4. | Harris Associates L.P. | Small cap - intrinsic value | 282.4 |
| 5. | Marathon Asset Management Limited | Europe - relative value sectors | 561.5 |
| 6. | Marvin & Palmer Emerging Markets Equity, L.P. | Emerging markets - growth momentum | 87.3 |
| 7. | Merrill Lynch Investment Managers International Limited | Small cap - growth | 318.0 |
| 8. | J.P. Morgan Investment Management Inc. | Japan - benchmark risk control | 361.4 |
| 9. | Morgan Stanley Investment Management Inc London team Morgan Stanley Investment Management Inc. Singapore team | Free cash flow value Pacific Basin ex Japan - growth | 808.2 135.5 |
| 10. | Oaktree Capital Management, LLC OCM Emerging Markets Feeder Fund, L.P. | Small emerging Asia - long/short | 148.7 |
| 11. | Pictet International Management Limited Emerging markets equity team International small cap equity team | Emerging markets - mid cap, core with a value bias Small cap - value with growth | 184.9 332.6 |
| 12. | Scottish Widows Investment Partnership Ltd | Europe - growth and value | 360.0 |
| 13. | State Street Global Advisors | Europe - index | 218.6 |
| 14. | Templeton Investment Counsel, LLC Templeton Investment Counsel, Ltd. Global emerging markets team Templeton Strategic Emerging Markets Fund, L.P. TIFI Emerging Markets Series | 5-year stock value Emerging markets private equity Emerging markets - value | 811.1 141.8 180.5 |
| | Total International Stocks | | \$5,738.9 |

*Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.

Investment Summary - International Stock Investments

| Currency Overlay Investment Advisor | Investment Style | *Market Value as of 12/31/04 (\$ millions) |
|--|------------------|--|
| 1. Pareto Partners | Currency overlay | \$ (7.1) |
| 2. Record Treasury | Currency overlay | (53.2) |
| Total Currency Overlay | | \$ (60.3) ^{1/} |
| Total International and Currency Overlay | | \$ 5,678.6 |

**Includes stocks and cash which the manager had available for investment. Numbers may not add due to rounding.*

^{1/} The market value of the currency overlay represents amounts receivable (payable) due to changes in the underlying exchange rates of forward currency contracts. The contracts are used to hedge the effect of currency fluctuations in international stock holdings.

Investment Summary - Fixed Income Investments

Fixed Income is one of eight major asset classes that SERS uses to diversify the investments of the Fund. The SERS' Investment Plan diversifies Fixed Income investments and balances Fixed Income management styles. SERS contracts with external investment advisors to manage portfolios.

Policy: The Fixed Income asset class is employed by the Fund because of its ability to generate current income from interest payments, increase the value of the Fund through the reinvestment of those interest payments, serve as a Benefit Payment Reserve during periods of financial stress, serve as a hedge against disinflation and/or deflation, and to help diversify the overall Fund. The Fixed Income asset class is managed on a total return basis.

In the Fixed Income asset class, SERS' long-term investment objective is to achieve a total return, net of fees, that exceeds the total return of the SERS Custom Fixed Income Index which is comprised of the Lehman Intermediate, Lehman Aggregate, the Salomon High Yield and Salomon World Government Bond indexes.

SERS' 2005 Investment Plan targets a long-term allocation of 24.0% of assets of the total Fund to the Fixed Income asset class. Of this amount, 63% is targeted to the core strategies and 37% to specialty strategies (High-yield and emerging market debt).

The specialty strategies consist of two corporate high yield portfolios, one emerging market debt portfolio, three subordinated debt portfolios, and one high yield commercial mortgage-backed securities portfolio.

Market Value as of December 31, 2004: Fixed Income had a \$4,061.3 million market value, 15.2% of the total Fund's \$26,626.7 million market value on December 31, 2004.

Number of Investment Advisors: SERS had contracts with 13 external investment advisors to manage portfolios within the Fixed Income asset class as of December 31, 2004.

Number of Investment Portfolios: SERS had a total of 13 portfolios within the Fixed Income asset class.

Type of Investment Portfolios: The Fixed Income asset class is divided into core and specialty segments. Core portfolios invest in relatively liquid, high quality, fixed income securities that meet return, disinflation/deflation, benefit reserve payments and diversification needs of the Fund. The specialty strategy portfolios (high-yield, emerging market debt, subordinated debt and commercial mortgage-backed securities) focus on debt instruments offering higher return premiums and different risk characteristics than traditional fixed income securities.

Core: SERS had six actively managed core bond portfolios with a market value of \$1,782.4 million and one passively managed core bond portfolio with a market value of \$250.3 million. The combination of core portfolios represented 50% of the asset class and 7.6% of the total Fund.

Specialty: The specialty segment represents 7.6% of the total Fund at December 31, 2004 and contains four distinct strategies. High yield and emerging market debt amount to 6.5% of the total Fund. The subordinated debt allocation amounts to 0.2% of the total Fund and the commercial mortgage-backed securities 0.9%.

Investment Summary - Fixed Income Investments

| Fixed Income Investment Advisor | Investment Style | *Market Value as of 12/31/04 (\$ millions) |
|---------------------------------------|---------------------------------------|--|
| <u>Core</u> | | |
| 1. Goldman Sachs Asset Management | Active domestic intermediate duration | \$366.9 |
| 2. Legg Mason Real Estate Advisors | Whole-loan mortgages | 34.7 |
| 3. MDL Capital Management | Active domestic | 91.0 |
| 4. Standish (Mellon) | Domestic - index | 250.3 |
| 5. Morgan Stanley | Active domestic | 822.5 |
| 6. NISA Investment Advisors | Active domestic intermediate duration | 369.1 |
| 7. Taplin, Canida & Habacht | Active domestic | 98.3 |
| <u>Specialty</u> | | |
| 8. Berwind Financial Group | PA Capital Fund | 16.5 |
| 9. Fidelity Management Trust Company | Commercial mortgage backed securities | 255.2 |
| 10. Oaktree Capital Management | Mezzanine Fund | 34.6 |
| 11. PNC Equity Management | PA Capital Fund | 5.7 |
| 12. Salomon Brothers Asset Management | High yield /Emerging market debt | 1,114.7 |
| 13. W. R. Huff Asset Management | High yield bonds | <u>601.8</u> |
| Total Fixed Income | | <u><u>\$4,061.3</u></u> |

**Includes securities and cash that the manager had available for investment. Numbers may not add due to rounding.*

Investment Summary - Cash Investments

Cash is one of eight major asset classes that SERS uses for investments of the Fund. The SERS' Investment Plan calls for minimizing cash balances while meeting cash flow requirements.

Policy: Cash investments are employed by the Fund to provide for SERS' liquidity needs and to accumulate funds for future permanent investment. The Cash asset class is to be managed on a total return basis, with the exception that temporary investments such as overnight repurchase agreements ("repo"), commercial paper, and banker's acceptance may alternatively be evaluated on a yield-to-maturity basis given their extremely short maturities.

In the Cash asset class, SERS' long term investment objectives are to achieve a total return, net of fees, that exceeds the total return on 90 day U.S. Treasury Bills. SERS' current Investment Plan targets an allocation of 0% of assets to the Cash asset class.

Market Value as of December 31, 2004: Cash had a \$168.6 million market value, 0.6% of the total Fund's \$26,626.7 million market value on December 31, 2004.

Number of Investment Advisors: In accordance with SERS' 2005 Investment Plan, SERS utilizes the Pennsylvania State Treasury Department to manage its cash accounts. The Pennsylvania State Treasury Department, as sole custodian of the Fund, is responsible for selecting the cash managers that the Fund utilizes.

Number of Investment Portfolios: As determined by the Pennsylvania State Treasury, SERS' cash portfolio is managed primarily by Evergreen Investments, a unit of Wachovia Corporation. In addition, Valley Forge and Swarthmore manage a short-term duration segment of the portfolio to provide additional yield on assets not deemed necessary for immediate liquidity.

Type of Investment Portfolios: SERS Cash asset class currently employs a money market short-term investment strategy. The portfolio also contains the uninvested cash balances held by other SERS investment advisors in other asset classes.

In the aggregate, State Treasury managed approximately \$465 million on behalf of SERS and SERS' external investment advisors as of December 31, 2004.

Investment Summary - Inflation Protection Investments

Inflation Protection strategies are one of eight major asset classes that SERS uses for investments of the Fund. The SERS' 2005 Investment Plan completes the implementation from a total passive exposure to commodities through swap agreements to inclusion of an actively managed diversified inflation protection portfolio. The passively managed exposure involves a 5% allocation to the commodity markets by entering into swap agreements that provides the return that would be achieved by passively holding the underlying commodity futures contracts. The objective of this strategy is to replicate the returns of the Goldman Sachs Commodity Index, which is a "basket" of 26 commodities that are traded on U.S. exchanges. The passive strategy invests the underlying collateral portfolio in intermediate-duration Treasury Inflation Protection Securities (TIPS). These fixed-income securities are adjusted for actual changes in inflation, and therefore retain their real value.

The diversified inflation protection portfolio also involves a 2% allocation which over/under weights inflation-sensitive instruments including commodities, inflation-sensitive stocks, and bonds. While both portfolios include commodities, there is a significant difference in sector exposure. The Goldman Sachs Commodity Index is production-weighted and is primarily driven by energy, which currently represents approximately 70% - 75% of the index. The actively managed portfolio equal weights the commodity sectors (Energy, Agriculture and Livestock, Industrial Metals, Precious Metals). The inflation sensitive equities component of the strategy primarily consists of energy stocks using a global opportunity set, but also includes Metals and Mining, Forest and Paper Products and Real Estate companies. The inflation-indexed bond component of the portfolio includes TIPS, investment grade corporates, mortgages, commercial mortgage-backed securities, asset-backed securities, and fixed income derivatives to adjust the risk posture and characteristics of the portfolio. The objective of the diversified inflation protection portfolio is to provide returns consistent with U.S. Consumer Price Index plus 5% over the long-term.

Policy: Inflation Protection investments are employed by the Fund to provide diversification within the total portfolio and to act as a hedge against unexpected inflation. Commodities provide diversification to the portfolio due to the fact that their prices move independently of the broad market movements that affect other financial assets such as stocks and bonds. Commodities have had the highest correlation with inflation, considerably outperforming stocks and bonds during rising inflation periods, but underperforming when inflation was stable or falling.

Market Value as of December 31, 2004: The passive commodity portfolio had a \$1,287.3 million market value, 4.8% of the total Fund's \$26,626.7 million market value on December 31, 2004. The active strategy portfolio had a \$380.2 million market value, 1.4% of the total Fund.

Number of Investment Advisors: Two investment advisors manage the inflation protection program.

Number of Investment Portfolios: This strategy currently utilizes two investment portfolios.

Investment Summary - Real Estate Investments

Equity Real Estate is one of eight major asset classes that SERS uses to diversify the investments of the Fund. SERS' investment plan diversifies Real Estate investments and balances real estate management styles. In accordance with the plan, SERS contracts with external investment advisors to manage portfolios.

Policy: Equity Real Estate investments are generally long-term, illiquid investments that due to their high correlation with inflation provide an inflation hedge and, due to their low correlation with stocks and bonds, provide diversification within the total portfolio. It is expected that the long-term total return (income and appreciation) for real estate will fall between that of stocks and bonds. The Equity Real Estate asset class is managed on a total return basis.

In the Equity Real Estate asset class, SERS' long-term investment objective is to achieve a total net return that exceeds the total return of the NCREIF Index for rolling five year periods. SERS' 2005 Investment Plan targeted an eventual allocation of 8% of assets to the Equity Real Estate asset class.

Investments are made through commingled fund investments, limited partnerships, REITs and separate account portfolios where SERS contracts with external investment advisors to own properties directly or with other co-investors. SERS' Equity Real Estate portfolio provides for diversification by:

- Transaction structure;
- Property type;
- Geographic location; and
- Development phase.

Market Value as of December 31, 2004: Real Estate had an estimated \$2,155.5 million market value, approximately 8.1% of the total Fund's December 31, 2004 market value. This market value represents September 30, 2004 actual numbers adjusted for cash flows, which occurred in the fourth quarter 2004. Real estate market values and detailed property data is lagged by one quarter due to the timing of the receipt of the private market valuations and information.

Number of Investment Advisors: SERS had contracts with 24 external investment advisors to manage real estate portfolios as of December 31, 2004.

Number of Investment Portfolios: SERS had investments in 45 real estate portfolios managed by the 24 investment advisors.

Type of Investment Portfolios: As of September 30, 2004, the composition of the real estate portfolio was:

- 38% pooled funds, 62% separate accounts;
- 33% office, 6% industrial, 13% retail, 17% residential, 13% hotel/motel, 8% timber, 10% other;
- 17% Pennsylvania, 28% East excluding PA, 27% West, 17% South, 8% Midwest, 2% International, 1% Unclassified; and
- 36% of the market value of the separate accounts was represented by nineteen investments located in Pennsylvania.

Investment Summary - Real Estate Investments

| Real Estate Investment Advisor | Initial Funding | Property Type | Transaction Structure | *Market Value as of 9/30/04 (\$ millions) |
|--|--------------------|-------------------|--------------------------|---|
| 1. AEW CIIF-II | 08/08/88 | Industrial, other | equity ownership | \$ 0.1 |
| 2. Apollo - AREF III | 06/26/98 | Opportunistic | equity and debt | 37.7 |
| 3. Berwind - BPG Fund IV | 04/20/98 | Opportunistic | equity and debt | 13.6 |
| BPG Fund V | 11/29/99 | Opportunistic | equity and debt | 25.3 |
| BPG Fund VI | 09/09/02 | Opportunistic | equity and debt | 14.5 |
| 4. Blackstone - BREP II | 02/26/97 | Opportunistic | equity and debt | 4.2 |
| BREP III | 10/22/99 | Opportunistic | equity and debt | 23.7 |
| BREP IV | | Opportunistic | equity and debt | 6.6 |
| 5. Campbell Group | | Timber | equity ownership | - |
| 6. Cliffwood Select Equity Fund | 08/04/00 | Long/Short REITs | public securities | 29.9 |
| 7. CRA Securities | 01/31/96 | REITs | public securities | 392.6 |
| 8. Forest Investment Assoc. | 10/30/92 | Timber | equity ownership | 168.0 |
| 9. Heitman Capital Mgmt | 12/28/87 | Diversified | equity ownership | 124.3 |
| JMB Group Trust III | 12/31/84 | Office, retail | equity ownership | 0.1 |
| 10. LaSalle Investment Mgmt. | 10/01/93 | Diversified | equity ownership | 153.6 |
| 11. Legg Mason Real Estate Adv. | 10/01/93 | PA diversified | equity ownership | 153.9 |
| Eastern Retail Holdings | 01/07/99 | Retail | equity and debt | 48.7 |
| 12. Lowe Enterprises | 10/01/93 | Diversified | equity ownership | 339.5 |
| 13. Lubert-Adler Fund II | 10/30/98 | Opportunistic | equity and debt | 20.3 |
| Lubert-Adler Fund III | 11/10/00 | Opportunistic | equity and debt | 28.0 |
| Lubert-Adler Fund IV | 3/31/04 | Opportunistic | equity and debt | 5.1 |
| 14. Miller Global Fund III | 01/19/99 | Diversified | equity and debt | 3.5 |
| 15. Oaktree Capital Management: | | | | |
| TCW Fund VI | 04/20/94 | Opportunistic | equity and debt | 8.7 |
| OCM Opportunity Fund A | 05/09/96 | Opportunistic | equity and debt | 26.4 |
| OCM Opportunity Fund II | 12/15/98 | Opportunistic | equity and debt | 19.5 |
| OCM Opportunity Fund III | 03/05/03 | Opportunistic | equity and debt | 12.5 |
| 16. Oxford Development | 01/09/97 | Industrial | equity ownership | 23.1 |
| 17. Prudential Senior Housing I | 12/22/98 | Senior housing | equity and debt | 24.4 |
| Prudential Senior Housing II | 06/12/01 | Senior housing | equity and debt | 13.7 |
| 18. Rockpoint Fund I | 09/28/04 | Opportunistic | equity and debt | 1.7 |
| 19. Sentinel Corp. | 07/31/84 | Diversified | equity ownership | 62.9 |
| 20. Starwood: SOFI IV | 03/24/97 | Opportunistic | equity and debt | 12.3 |
| SOFI V | 05/14/99 | Opportunistic | equity and debt | 50.9 |
| SOFI VI | 03/27/03 | Opportunistic | equity and debt | 41.1 |
| 21. UBS-Brinson: PMSA | 09/30/83 | Diversified | equity mortgages | 58.2 |
| RESA | 06/3//84 | Diversified | equity ownership | 65.2 |
| Multifamily Trust | 08/02/99 | Residential | equity ownership | 46.9 |
| 22. Urdang Investment Mgmt. | 05/15/02 | REITs | public securities | 39.3 |
| 23. Westbrook Partners: WREF II | 06/16/97 | Opportunistic | equity and debt | 4.9 |
| WREF III | 09/01/98 | Opportunistic | equity and debt | 43.8 |
| WREF IV | 05/01/01 | Opportunistic | equity and debt | 38.2 |
| WREF V | | Opportunistic | equity and debt | - |
| 24. Goldman Sachs: | | | | |
| Whitehall V & VI | 04/20/94 | Opportunistic | equity and debt | 5.1 |
| Whitehall V-S & VI-S | 12/11/95 | Opportunistic | equity and debt | 1.1 |
| Whitehall VII & VIII | 05/28/96 | Opportunistic | equity and debt | 9.0 |
| September 30, 2004 Total | | | | \$2,201.8 |
| 4 th Quarter 2004 Net Cash Flow Adjustments | | | | (46.3) |
| December 31, 2004 Total | | | | \$2,155.5 |

*Real estate market values and detailed property data is lagged by one quarter due to the timing of the receipt of the private market valuations and information. Numbers may not add due to rounding.

Investment Summary - Alternative Investments

Alternative Investments is comprised of Venture Capital and Private Equity investments, both of which take the form of limited partnerships; Alternative Investments is one of eight major asset classes SERS uses to diversify the investments of the fund.

Venture Capital and Private Equity Defined

Venture Capital is the financing of young, rapidly growing companies, typically at three stages of development. (1) Seed and Early Stage: Seed is the form of venture capital that supports companies in their conceptual phase, i.e., a product and market are identified, and a corporation may have been formed. Early Stage financing supports companies pursuing a business plan but not yet generating meaningful revenues. The product has been developed and may have been shipped to customers for testing. Management positions have been filled and an operating team is in place. (2) Late Stage financing supports companies that have proven revenues, and are in the process of rolling out operations and building sales to achieve profitability. (3) Growth or Expansion Financing supports profitable or nearly profitable businesses that, lacking access to significant debt financing, need capital for growth and expansion. Companies at the later stage or growth or expansion stage may be nearing a strategic sale to another company or an initial public offering.

Private Equity primarily refers to investments in the equity and subordinated debt of established companies. Private Equity approaches undertaken by SERS' limited partnerships include: (1) Leveraged buyouts, by which companies are acquired through the use of borrowed funds, or a combination of borrowed funds and contributed equity capital. The acquired company's assets serve as collateral for the borrowed funds, which are repaid from the company's cash flows. (2) Distressed debt investing involves: (a) de-leveraging of debt-laden, but successful, companies by infusing capital to permit debt reduction in exchange for an equity stake in the company, or (b) acquiring debt of a troubled, sometimes bankrupt company, at steep discounts to face value, followed by assistance to return the company to profitability and sale of the debt securities at levels above the discounted purchase price. (3) Secondary interests in established private equity funds – these interests are purchased from other investors who seek liquidity or desire to realign or rebalance their investment portfolios, often for non-financial reasons. Such partnerships interests are often purchased at discounts to net asset value and often occur when the acquired partnerships begin to realize profits.

Investment Objective: SERS' long term investment objective for Alternative Investments is to achieve a risk-adjusted total return, net of fees, in excess of the return generated by the S&P 500 Index. SERS' 2005 Investment Plan anticipates a long-term allocation range with a normalized target of 14%; the current allocation is 11.1%.

Market Value as of December 31, 2004: Alternative Investments total market value stood at \$2,957.8 million after adjusting the September valuation for cash flows in the 4th quarter. Alternative investment market values lag one quarter due to timing of the receipt of private market valuations, reports and other information. These values do not include 4th quarter unrealized appreciation/depreciation. Sub-asset class market values and fund percentages were as follows:

| | Total Active Commitments (\$ mil) | Market Value (\$ mil) | Percent Allocation to Total Fund |
|-------------------------------|---|--------------------------|--|
| Venture Capital | \$2,694.8 | \$795.9 | 3.0% |
| Private Equity | <u>5,033.1</u> | <u>2,161.9</u> | <u>8.1%</u> |
| Total Alternative Investments | <u>\$7,727.9</u> | <u>\$2,957.8</u> | <u>11.1%</u> |

Number of Limited Partnerships: As of December 31, 2004, SERS had commitments to 222 active Alternative Investments limited partnerships; 94 to Venture Capital partnerships and 128 to Private Equity partnerships. (This does not include thirteen partnerships – ten Venture Capital and three Private Equity – that are “inactive,” or in the liquidation phase, and investments pending contract approval.)

Investment Summary - Alternative Investments

SERS Venture Capital Portfolio

SERS Venture Capital program includes commitments to 94 venture capital limited partnerships, comprising a fund portfolio that is well-diversified by stage of investment, industry focus, and geography. This fund portfolio holds investment interests in approximately 1,900 companies, the majority of them working to commercialize novel solutions to current and future challenges in information technology, communications, and life sciences.

The program's scope has expanded over the years to include top investment funds nationally and internationally, forty-six of these managers, via seventy-four funds, have investments that are either located in Pennsylvania or employ Pennsylvania citizens. This significant Pennsylvania component recognizes the program's initial statutory mandate, as well as its ongoing effort to invest in Pennsylvania venture capital funds whose expected returns are at least equal to those of investment opportunities elsewhere.

The Venture Capital program also includes investments in six funds-of-funds, which are limited partnerships that, in turn, invest in venture capital funds. Four of these fund-of-funds commitments have the strategic goal of enabling SERS to gain indirect exposure to top-tier venture capital funds that SERS would have difficulty accessing directly. The other two of these commitments are with funds investing in minority-focused venture capital funds.

SERS Private Equity Portfolio

The Private Equity program has commitments to 128 buyout-oriented partnerships, which are well-diversified by size of investment and geographic focus. This fund portfolio holds investment interests in over 1,400 companies. Hostile acquisitions are avoided; most transactions are privately negotiated rather than auctioned, and are usually completed with present management in place.

Of these buyout fund investments, nineteen are in distressed debt funds. These funds each conduct their distressed investment strategies in a differentiated manner, i.e., they employ control or non-control approaches, and accordingly, have differing degrees of active influence over the companies in which they invest.

SERS' twenty-two non-U.S. private equity fund investments include nineteen funds investing in companies based in the U.K. and Europe (including one Scandinavian fund) and three funds investing in Asian companies. The U.K./Europe funds are attempting to capitalize on recent trends favoring the restructuring of large companies, generational succession in businesses established after World War II, and the cross-border European business opportunities since the formation of the European Economic Union and currency harmonization. The Asian partnership investments focus on the expanded opportunities in the region created by attractive valuations, favorable demographic trends, economic growth, and changing attitudes regarding foreign investment.

The Private Equity program also includes investments in four international fund-of-funds, whose objective is to capture superior returns from select funds globally, many of which would be impractical for SERS limited staff to research because of their location. These fund-of-funds' holdings are well-diversified with a geographic emphasis on developed countries.

Finally, the program includes six partnerships that specialize in secondary purchases of interests in established buyout and venture capital partnerships.

Investment Summary - Alternative Investments

SERS Venture Capital Committed, Drawn and Distributed
as of December 31, 2004

The Capital Committed column represents total dollars allocated from SERS to each limited partnership. Capital Drawn is the portion of SERS capital commitments drawn by the General Partner to be invested with underlying portfolio companies. The Distributions column shows the value of original capital and profits returned to SERS.

| Limited Partnership | Financing Stage Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|---------------------------------------|-----------------------|----------------------|-------------------|---------------|---------------|
| 1. APEX Investment Fund IV | Early Stage | 8/31/99 | \$25,000,000 | \$25,000,000 | \$257,566 |
| APEX Investment Fund V | Early Stage | 7/25/01 | 20,000,000 | 9,200,000 | 0 |
| 2. Abingworth Bioventures IV, L.P. | Seed/Early Stage | 7/16/03 | 20,000,000 | 3,400,000 | 0 |
| 3. Accel Europe L.P. | Early Stage | 7/2/01 | 10,000,000 | 4,450,000 | 0 |
| 4. Adams Capital Management II | Early Stage | 9/30/99 | 30,000,000 | 28,350,000 | 0 |
| Adams Capital Management III | Early Stage | 10/25/00 | 30,000,000 | 17,550,000 | 0 |
| 5. Advanced Technology Ventures VI | Early Stage | 3/9/00 | 10,000,000 | 9,000,000 | 240,896 |
| Advanced Technology Ventures VII | Early Stage | 12/6/00 | 30,000,000 | 10,259,700 | 853,897 |
| 6. Alloy Annex I, L.P. | Seed/Early Stage | 7/16/03 | 5,000,000 | 2,500,000 | 0 |
| Alloy Ventures 2000 L.P. | Early Stage | 4/26/00 | 20,000,000 | 18,000,000 | 2,074,620 |
| Alloy Ventures 2002 L.P. | Early Stage | 3/20/02 | 25,000,000 | 8,250,000 | 2,602,018 |
| 7. Atlas Venture Fund IV | Early Stage | 3/23/99 | 26,000,000 | 19,715,506 | 3,322,163 |
| Atlas Venture Fund V L.P. | Early Stage | 1/28/00 | 40,000,000 | 30,594,960 | 3,034,325 |
| Atlas Venture Fund VI | Early Stage | 1/24/01 | 24,800,000 | 12,237,139 | 352,077 |
| 8. Austin Ventures VIII | Early Stage | 1/29/01 | 20,932,140 | 10,951,490 | 1,454,071 |
| 9. Bachow Investments III | Later Stage | 11/9/94 | 25,000,000 | 24,969,997 | 25,024,149 |
| 10. Charles River Partnership XI LP | Early Stage | 1/31/01 | 11,032,259 | 7,290,968 | 0 |
| 11. Clearstone Venture Partners III-A | Early/Late Stage | 12/22/04 | 25,000,000 | 2,500,000 | 0 |
| 12. Cross Atlantic Technology Fund | Early Stage | 2/14/00 | 20,000,000 | 18,800,000 | 198,860 |
| Cross Atlantic Technology Fund II | Early Stage | 12/28/01 | 32,900,000 | 12,665,158 | 1,499,189 |
| Novo Vita | Early Stage | 10/25/00 | 11,616,498 | 10,458,549 | 0 |
| 13. Draper Fischer Jurvetson VI | Early Stage | 8/13/99 | 8,000,000 | 6,800,000 | 50,908 |
| Draper Fisher Jurvetson Fund VII | Early Stage | 7/26/00 | 20,000,000 | 12,421,716 | 0 |
| 14. Draper Triangle Ventures | Early Stage | 8/31/99 | 20,000,000 | 16,371,960 | 1,882,338 |
| Draper Triangle Ventures II | Early Stage | 10/13/04 | 12,000,000 | 223,868 | 0 |
| 15. Edison Venture Fund III | Later Stage | 3/1/94 | 25,000,000 | 25,000,000 | 38,311,045 |
| 16. Fairview Capital | Fund of Funds | 9/28/94 | 10,000,000 | 10,000,000 | 4,273,128 |
| Fairview II | Fund of Funds | 3/1/98 | 10,000,000 | 8,900,000 | 1,457,757 |
| 17. APA Fostin | Early Stage | 9/30/87 | 20,000,000 | 20,000,000 | 76,979,572 |
| Fostin Capital II | Early Stage | 10/5/89 | 8,000,000 | 7,500,000 | 11,415,869 |

Investment Summary - Alternative Investments

SERS Venture Capital Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

| Limited Partnership | Financing Stage Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|---|-----------------------|----------------------|-------------------|---------------|---------------|
| 18. Frazier Healthcare III | Early Stage | 2/4/99 | \$30,000,000 | \$27,375,000 | \$1,428,575 |
| Frazier Healthcare IV | Early Stage | 3/14/01 | 30,000,000 | 14,250,000 | 2,350,506 |
| 19. Grotech PA III | Later Stage | 6/29/90 | 3,000,000 | 3,000,000 | 2,910,452 |
| Grotech Partners IV | Later Stage | 11/1/93 | 25,000,000 | 24,999,999 | 42,155,048 |
| Grotech Partners V | Later Stage | 9/18/98 | 25,000,000 | 24,421,549 | 22,378,391 |
| 20. Halpern Denny Fund II | Later Stage | 4/23/98 | 25,000,000 | 24,999,991 | 2,591,403 |
| Halpern Denny Fund III | Later Stage | 4/26/00 | 25,000,000 | 19,931,740 | 6,259,571 |
| 21. HarbourVest Partners VI | Fund of Funds | 5/7/99 | 200,000,000 | 134,000,000 | 25,893,406 |
| HarbourVest Partners VII | Fund of Funds | 4/24/02 | 75,000,000 | 7,125,000 | 0 |
| 22. Healthcare Ventures III | Early Stage | 7/9/92 | 15,000,000 | 15,000,000 | 29,287,783 |
| Healthcare Ventures V | Early Stage | 10/17/97 | 25,000,000 | 24,312,500 | 42,364,951 |
| Healthcare Ventures VI | Early Stage | 6/19/00 | 35,000,000 | 32,025,000 | 3,462,611 |
| Healthcare Ventures VII | Early Stage | 7/24/02 | 35,000,000 | 15,050,000 | 0 |
| 23. Highland Capital Partners VI | Early Stage | 10/25/00 | 25,000,000 | 11,687,500 | 0 |
| 24. Ignition Venture Partners II L.P. | Early Stage | 12/17/01 | 8,600,000 | 3,490,472 | 581,363 |
| Ignition Venture Partners III L.P. | Seed/Early Stage | 11/19/04 | 20,000,000 | 16,000 | 0 |
| 25. InterWest Partners VIII L.P. | Early Stage | 8/25/00 | 25,000,000 | 17,500,000 | 1,516,024 |
| InterWest Partners IX LP | Early Stage | * | 50,000,000 | 0 | 0 |
| 26. J.H. Whitney Equity Fund III LP | Later Stage | 3/12/98 | 20,000,000 | 19,971,316 | 28,877,769 |
| J.H. Whitney IV LP | Later Stage | 2/1/00 | 20,000,000 | 16,412,208 | 1,596,861 |
| 27. J.P. Morgan Venture Capital Investors | Fund of Funds | 7/8/99 | 100,000,000 | 80,713,672 | 6,595,784 |
| JP Morgan Venture Capital Investors II | Fund of Funds | 8/23/00 | 100,000,000 | 28,609,273 | 2,158,708 |
| 28. Keystone V | Later Stage | 12/26/97 | 25,000,000 | 25,000,000 | 332,845 |
| Keystone Venture IV | Later Stage | 7/13/93 | 15,000,000 | 14,980,880 | 9,687,679 |
| 29. Kline Hawkes Pacific LP | Early Stage | 8/30/00 | 15,000,000 | 11,100,000 | 0 |
| 30. Knightsbridge Venture Capital VI | Early Stage | 12/7/04 | 20,000,000 | 250,000 | 0 |
| 31. Meritech Capital Partners II | Later Stage | 10/25/00 | 18,750,000 | 8,655,597 | 1,462,355 |
| 32. Mid-Atlantic III | Early Stage | 4/1/97 | 20,008,308 | 20,000,000 | 2,717,446 |
| Mid-Atlantic Venture Fund IV L.P. | Early Stage | 5/4/00 | 30,000,000 | 26,400,000 | 217,297 |
| NEPA Venture-II | Early Stage | 7/24/92 | 7,500,000 | 7,500,000 | 26,108,544 |
| 33. Morgenthaler Partners VII L.P. | Early Stage | 7/26/01 | 35,000,000 | 17,500,000 | 349,283 |
| 34. New Enterprise Associates 11 | Early Stage | 10/29/03 | 50,000,000 | 7,500,000 | 0 |
| New Enterprise Associates IX | Early Stage | 10/28/99 | 20,000,000 | 19,600,000 | 765,090 |
| New Enterprise Associates VI | Early Stage | 3/2/94 | 25,000,000 | 25,000,000 | 195,958,198 |
| New Enterprise Associates X LP | Early Stage | 9/13/00 | 35,000,000 | 27,125,000 | 5,266,962 |
| New Enterprises Associates VII | Early Stage | 4/1/97 | 30,000,000 | 30,000,000 | 90,853,739 |
| 35. Oak Investment Partners XI | Later Stage | 6/9/04 | 50,000,000 | 6,794,118 | 0 |
| 36. APAX Excelsior VI | Later Stage | 7/3/00 | 35,000,000 | 25,322,868 | 7,763,816 |
| P/A Fund I | Later Stage | 6/2/93 | 30,000,000 | 29,999,999 | 64,201,030 |
| P/A Fund III | Later Stage | 4/1/97 | 100,000,000 | 99,016,750 | 128,281,098 |
| 37. PA Early Stage Partners III L.P. | Early Stage | 6/6/01 | 10,000,000 | 1,800,000 | 0 |
| 38. Pitango Venture Capital Fund IV | Diversified | 4/21/04 | 25,000,000 | 2,801,534 | 0 |

Investment Summary - Alternative Investments

SERS Venture Capital Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

| Limited Partnership | Financing Stage Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|--------------------------------------|-----------------------|----------------------|------------------------|------------------------|------------------------|
| 39. Polaris Venture Partners | Early Stage | 6/4/96 | \$15,000,000 | \$14,595,000 | \$45,978,188 |
| Polaris Venture Partners II | Early Stage | 9/8/98 | 25,000,000 | 24,000,000 | 24,859,455 |
| Polaris Venture Partners III L.P. | Early Stage | 1/6/00 | 50,000,000 | 44,000,000 | 1,006,955 |
| Polaris Venture Partners IV L.P. | Early Stage | 7/31/01 | 50,000,000 | 12,500,000 | 0 |
| 40. Quaker Bio Ventures | Early Stage | 2/25/03 | 20,000,000 | 4,000,001 | 0 |
| 41. Sprout VII | Early Stage | 2/24/95 | 18,000,000 | 18,000,000 | 32,628,761 |
| 42. Summit Accelerator Fund L.P. | Early Stage | 11/15/99 | 8,000,000 | 6,480,000 | 1,455,552 |
| Summit IV | Later Stage | 6/27/95 | 25,000,000 | 24,000,000 | 181,312,758 |
| Summit V | Later Stage | 3/1/98 | 37,500,000 | 35,062,500 | 26,646,827 |
| 43. TA/Advent VII | Later Stage | 7/30/93 | 25,000,000 | 25,000,000 | 87,096,851 |
| TA/Advent VIII | Later Stage | 2/3/97 | 30,000,000 | 29,400,000 | 39,751,276 |
| 44. TL Ventures III LP | Early Stage | 1/3/97 | 15,000,000 | 15,000,000 | 18,583,704 |
| TL Ventures IV | Early Stage | 5/13/99 | 35,000,000 | 31,850,000 | 7,974,759 |
| TL Ventures V | Early Stage | 7/13/00 | 40,000,000 | 22,800,000 | 290,721 |
| 45. Three Arch Capital L.P. | Early Stage | 12/20/00 | 20,000,000 | 11,500,000 | 2,090,011 |
| Three Arch Partners IV, L.P. | Early/Late Stage | 9/10/03 | 25,000,000 | 850,000 | 0 |
| 46. U S Venture Partners VII L.P. | Early Stage | 1/24/00 | 13,750,000 | 12,262,500 | 216,840 |
| US Venture Partners VIII L.P. | Early Stage | 12/6/00 | 26,250,000 | 17,092,500 | 0 |
| 47. Weston Presidio II | Later Stage | 11/27/95 | 20,000,000 | 17,000,000 | 41,383,117 |
| Weston Presidio III | Later Stage | 3/31/99 | 35,000,000 | 30,187,086 | 14,874,447 |
| Weston Presidio IV | Later Stage | 6/21/00 | 35,000,000 | 22,107,752 | 4,063,243 |
| 48. Worldview Technology Partners IV | Early Stage | 1/31/01 | 18,130,023 | 11,403,388 | 1,210,810 |
| Total | | | \$2,694,769,228 | \$1,773,689,704 | \$1,463,083,311 |

*Not funded at September 30, 2004

Commitments as of 12/31/04

Cash flows as of 12/31/04

Investment Summary - Alternative Investments

SERS Venture Capital Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

Inactive Funds

| <u>Limited Partnership</u> | <u>Financing Stage Focus</u> | <u>SERS Initial Funding</u> | <u>Capital Committed</u> | <u>Capital Drawn</u> | <u>Distributions</u> |
|----------------------------|--------------------------------------|-------------------------------------|------------------------------|--------------------------|----------------------|
| 1. CEO Venture Fund II | Diversified | 7/14/89 | \$7,500,000 | \$7,483,903 | \$5,194,904 |
| 2. CEO S | Diversified | 7/1/87 | 8,000,000 | 982,003 | 1,239,189 |
| 3. Fostin Capital | Diversified | 11/25/85 | 10,000,000 | 10,000,000 | 10,535,024 |
| 4. Keystone Ventures II | Middle/Later | 11/1/85 | 10,000,000 | 10,000,000 | 22,401,982 |
| 5. NEPA Venture I | Seed/Early | 8/29/85 | 2,000,000 | 2,000,000 | 11,936,763 |
| 6. PNC Ventures | Diversified | 11/25/85 | 5,000,000 | 5,000,000 | 12,055,375 |
| 7. Pittsburgh Seed Fund | Seed | 1/13/87 | 2,000,000 | 2,000,000 | 1,016,649 |
| 8. Point Ventures II | Diversified | 10/2/90 | 1,000,000 | 1,000,000 | 1,313,407 |
| 9. TDH II | Diversified | 11/25/85 | 9,000,000 | 9,000,000 | 15,990,106 |
| 10. Zero Stage II | Seed | 4/30/87 | 2,000,000 | 2,000,000 | 628,401 |
| Total | | | \$56,500,000 | \$49,465,906 | \$82,311,800 |

Investment Summary - Alternative Investments

SERS Private Equity Investments Committed, Drawn and Distributed as of December 31, 2004

The Capital Committed column represents total dollars allocated from SERS to each limited partnership. Capital Drawn is the portion of SERS capital commitments drawn by the General Partner to be invested with underlying portfolio companies. The Distributions column shows the value of original capital and profits returned to SERS.

| Limited Partnership | Financing Stage Geographic Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|---|---|----------------------------|----------------------|------------------|---------------|
| 1. ABACUS Fund Partners L.P. | Natl Hedge Fund | 4/24/00 | \$15,000,000 | \$15,000,000 | \$8,131,989 |
| 2. ABRY Broadcast Partners III | Internatl B/O | 4/1/97 | 25,000,000 | 25,283,511 | 17,749,298 |
| ABRY Broadcast Partners IV L.P. | Natl B/O | 7/26/00 | 35,000,000 | 24,641,270 | 5,710,574 |
| ABRY Mezzanine Partners | Natl Private Equity | 12/5/01 | 30,000,000 | 13,020,293 | 889,796 |
| 3. ABS Capital Partners III L.P. | Natl B/O | 1/26/99 | 35,000,000 | 27,903,033 | 15,029,605 |
| ABS Capital Partners IV L.P. | Natl B/O | 10/13/00 | 35,000,000 | 23,231,748 | 3,207,532 |
| 4. AG Capital Recovery Partners II L.P. | Natl Distressed Debt | 10/1/01 | 17,600,000 | 17,600,000 | 24,648,048 |
| AG Capital Recovery Partners III L.P. | Natl Distressed Debt | 3/20/02 | 20,000,000 | 16,000,000 | 23,216,075 |
| AG Capital Recovery Partners IV L.P. | Natl Distressed Debt | 1/23/03 | 50,000,000 | 24,185,728 | 11,685,728 |
| 5. APAX Capital Risque III (France) | France B/O | 11/29/90 | 5,000,000 | 5,103,877 | 9,775,420 |
| APAX Europe IV L.P. | Pan-Euro B/O | 3/31/99 | 35,000,000 | 28,359,986 | 14,059,596 |
| APAX Europe V L.P. | Pan-Euro B/O | 12/6/00 | 60,000,000 | 54,423,378 | 25,921,862 |
| APAX Europe VI L.P. | Pan-Euro Later Stage | * | 60,000,000 | 0 | 0 |
| APAX Germany | German B/O | 1/30/91 | 5,200,000 | 5,246,602 | 12,101,312 |
| APAX Germany II | German B/O | 7/15/97 | 8,737,262 | 8,455,477 | 15,885,342 |
| APAX UK Ventures VI | UK B/O | 12/9/97 | 9,000,000 | 6,604,235 | 11,048,300 |
| 6. Alpha Private Equity Fund 4 L.P. | Euro Mid Market B/O | 1/23/02 | 26,580,000 | 20,861,330 | 0 |
| 7. Apollo Investment Fund IV | Natl B/O | 8/3/98 | 75,000,000 | 70,405,456 | 39,023,910 |
| Apollo Investment Fund V | Natl B/O | 4/18/01 | 50,000,000 | 26,803,518 | 20,232,343 |
| 8. Asia Pacific Growth Fund III | Global Situations | 3/8/99 | 15,000,000 | 14,627,000 | 1,496,196 |
| 9. Audax Private Equity Fund L.P. | Natl Mid Market B/O | 5/25/00 | 35,000,000 | 26,492,713 | 7,606,561 |
| 10. Avenue Special Situations Fund III | Natl Distressed Debt | 7/16/03 | 50,000,000 | 48,529,892 | 0 |
| 11. AXA Secondary Fund III | Pan-Euro Secondaries | 11/19/04 | 26,000,000 | 3,848,609 | 231,111 |
| 12. B III Capital Partners | Natl Distressed Debt | 8/1/97 | 35,000,000 | 34,423,917 | 32,244,154 |
| 13. BC European Capital VII LP | Pan-Euro B/O | 7/27/00 | 35,000,000 | 26,253,850 | 9,621,104 |
| BC European Capital VII Top Up | Pan-Euro B/O | 3/14/01 | 10,000,000 | 7,256,820 | 2,576,687 |
| 14. Bain Capital Fund VII | Natl B/O | 7/6/00 | 25,000,000 | 23,000,000 | 8,275,284 |
| Bain Capital Fund VIII-E L.P. | Pan-Euro B/O | 12/15/04 | 10,000,000 | 1,005,375 | 0 |
| 15. Berkshire Fund VI LP | Natl Mid Market B/O | 9/28/01 | 20,000,000 | 3,970,831 | 4,155,849 |
| 16. Blackstone Capital II | Global B/O | 8/26/94 | 40,000,000 | 42,438,924 | 89,938,413 |
| Blackstone Capital III | Global B/O | 11/3/97 | 75,000,000 | 70,710,852 | 49,299,671 |
| Blackstone Capital IV | Global B/O | 10/31/01 | 75,000,000 | 36,019,844 | 9,197,199 |
| Blackstone Comm. Partners I L.P. | Global B/O | 8/29/00 | 25,000,000 | 10,394,696 | 7,307,098 |

Investment Summary - Alternative Investments

SERS Private Equity Investments Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

| Limited Partnership | Financing Stage Geographic Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|--|---|----------------------------|----------------------|------------------|---------------|
| 17. Cerberus Institutional Partners L.P. | Global Distressed Debt | 3/5/99 | \$35,000,000 | \$35,000,000 | \$21,337,362 |
| Cerberus Instit. Partners Series Three | Global Distressed Debt | 9/10/03 | 35,000,000 | 17,500,000 | 0 |
| Cerberus Instit. Partners Series Two | Global Distressed Debt | 10/9/01 | 35,000,000 | 28,000,793 | 0 |
| 18. Charterhouse Capital Partners VII | UK B/O | 12/4/02 | 50,000,000 | 17,396,544 | 7,096,019 |
| 19. Charterhouse Equity Partners II | Natl B/O | 3/30/94 | 40,000,000 | 42,757,327 | 96,810,448 |
| Charterhouse Equity Partners III | Natl B/O | 11/19/97 | 50,000,000 | 52,078,996 | 13,333,394 |
| 20. Clayton Dubilier & Rice V | US/Euro B/O | 5/3/95 | 50,000,000 | 49,236,502 | 49,826,483 |
| Clayton Dubilier & Rice VI | US/Euro B/O | 1/4/99 | 50,000,000 | 35,369,370 | 17,474,950 |
| 21. Code Hennessy & Simmons | Midwest B/O | 9/28/89 | 10,000,000 | 9,650,000 | 27,208,717 |
| Code Hennessy & Simmons II | Midwest B/O | 7/12/94 | 20,000,000 | 20,000,000 | 40,114,202 |
| Code Hennessy & Simmons III | Midwest B/O | 8/1/97 | 40,000,000 | 38,423,990 | 28,288,666 |
| Code Hennessy & Simmons IV | Natl Mid Market B/O | 8/31/99 | 100,000,000 | 81,170,000 | 28,183,200 |
| Code Hennessy & Simmons V | Natl Mid/Later Stage | * | 50,000,000 | 0 | 0 |
| 22. DLJ Merchant Banking Fund II | Global B/O | 5/22/97 | 75,000,000 | 77,617,172 | 71,793,294 |
| DLJ Merchant Banking Fund III | Internatl B/O | 6/6/01 | 85,000,000 | 73,204,520 | 46,885,039 |
| 23. Energy Spectrum Partners IV L.P. | Natl Mid Market B/O | 12/15/04 | 50,000,000 | 2,131,914 | 0 |
| 24. First Reserve Fund X L.P. | Global B/O | 10/28/04 | 30,000,000 | 3,537,118 | 0 |
| 25. Francisco Partners L.P. | Natl B/O | 5/8/00 | 50,000,000 | 36,000,000 | 14,361,719 |
| 26. Frontenac VII | Midwest B/O | 8/1/97 | 40,000,000 | 40,000,000 | 49,385,886 |
| 27. GTC&R V | Natl B/O | 4/25/97 | 11,400,000 | 11,400,000 | 9,733,643 |
| GTC&R VI | Natl B/O | 6/25/98 | 50,000,000 | 50,375,000 | 39,141,912 |
| GTC&R VII | Natl B/O | 3/15/00 | 41,250,000 | 46,131,250 | 23,189,041 |
| GTCR VIII | Natl B/O | 5/12/03 | 75,000,000 | 17,062,500 | 0 |
| 28. Great Hill Equity Partners | Natl B/O | 4/12/99 | 30,000,000 | 27,258,676 | 17,009,553 |
| Great Hill Equity Partners II L.P. | Natl B/O | 7/26/00 | 35,000,000 | 20,859,068 | 0 |
| 29. Gryphon Partners II L.P. | Natl B/O | 8/6/99 | 35,000,000 | 30,169,309 | 2,699,143 |
| Gryphon Partners III L.P. | Natl B/O | 9/8/04 | 30,000,000 | 4,398,148 | 0 |
| 30. Hancock IPEP II (Harbourvest II) | Global Fund of Funds | 4/1/97 | 25,000,000 | 24,357,775 | 23,224,732 |
| HarbourVest Inter III | Global Fund of Funds | 6/22/98 | 40,000,000 | 32,400,000 | 8,820,683 |
| Harbourvest Intl' Private Equity Partners IV | Global Fund of Funds | 12/6/00 | 40,000,000 | 13,600,000 | 1,152,811 |
| 31. Hellman & Friedman II | Global Situations | 1/7/92 | 21,130,323 | 23,218,222 | 39,736,483 |
| Hellman Friedman III | Global Situations | 6/14/95 | 50,000,000 | 40,308,123 | 77,761,721 |
| Hellman Friedman IV | Global Situations | 8/3/99 | 75,000,000 | 60,875,702 | 21,448,215 |
| Hellman Friedman V | US/Euro Diversified | 12/20/04 | 80,000,000 | 5,021,759 | 0 |
| 32. Invemed Catalyst Fund L.P. | Natl Mid Market B/O | 9/30/99 | 25,000,000 | 12,203,193 | 1,219,484 |
| 33. J.H. Whitney V L.P. | Natl Later Stage | 9/13/00 | 20,000,000 | 14,471,057 | 5,755,902 |
| 34. J.W. Childs Equity Partners III L.P. | Natl Mid/Later Stage | 1/23/02 | 40,000,000 | 18,997,832 | 1,224,326 |
| 35. JP Morgan US Corp Finance Investors II | US/UK Fund of Funds | 7/24/02 | 50,000,000 | 7,814,276 | 1,448,141 |

Investment Summary - Alternative Investments

SERS Private Equity Investments Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

| Limited Partnership | Financing Stage Geographic Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|---|---|----------------------------|----------------------|------------------|---------------|
| 36. Kelso Investment Associates V | Natl B/O | 1/26/94 | \$40,000,000 | \$53,807,706 | \$99,685,773 |
| Kelso VI | Natl B/O | 7/7/98 | 75,000,000 | 64,651,101 | 61,529,038 |
| Kelso VII | Natl B/O | 2/11/04 | 40,000,000 | 881,906 | 328,119 |
| 37. LLR Equity Partners LP | Mid-Atlan Mid Mkt. B/O | 1/24/00 | 25,000,000 | 19,983,915 | 8,375,096 |
| LLR Equity Partners II LP | Mid Atlan Mid Mkt B/O | 1/29/04 | 25,000,000 | 250,000 | 0 |
| 38. Landmark Equity IV | Natl Secondaries | 2/28/95 | 14,900,000 | 12,495,850 | 16,239,034 |
| Landmark Equity Partners V | Natl Secondaries | 1/27/96 | 19,624,113 | 19,391,580 | 22,509,370 |
| 39. Leeds Weld Equity Partners IV LP | PA Mid Market B/O | 11/12/04 | 20,000,000 | 747,157 | 0 |
| 40. Lexington Capital Partners II | Natl Secondaries | 4/1/98 | 40,000,000 | 38,674,000 | 27,882,000 |
| Lexington Capital Partners III L.P. | Natl Secondaries | 1/26/99 | 35,000,000 | 33,210,411 | 26,600,567 |
| Lexington Capital Partners V | Natl Secondaries | 7/25/01 | 75,000,000 | 35,688,199 | 12,965,665 |
| 41. Lime Rock Partners III LP | US/Euro Diversified | * | 15,000,000 | 0 | 0 |
| 42. Madison Dearborn Capital Partners | US/Euro B/O | 2/23/93 | 15,000,000 | 14,503,896 | 34,347,895 |
| Madison Dearborn Capital Partners IV | US/Euro B/O | 10/27/00 | 90,000,000 | 45,915,584 | 8,724,800 |
| Madison Dearborn Capital Ptners II | US/Euro B/O | 1/3/97 | 40,000,000 | 39,476,313 | 59,143,319 |
| Madison Dearborn III | US/Euro B/O | 4/6/99 | 75,000,000 | 71,615,034 | 30,119,313 |
| 43. Matlin Patterson Global Opportunities Partners II | Global Distressed Debt | 12/3/03 | 30,000,000 | 7,500,000 | 1,021,760 |
| MatlinPatterson Global Opportunities Partners LP | Global Distressed Debt | 5/4/01 | 35,000,000 | 33,452,304 | 27,300,175 |
| 44. Media/Communication III | Natl B/O | 6/2/97 | 25,000,000 | 22,968,750 | 19,963,053 |
| Media/Communications IV | Natl B/O | 2/5/99 | 25,000,000 | 23,125,000 | 0 |
| Media/Communications Ventures Fund V LP | Natl B/O | 7/26/00 | 35,000,000 | 25,562,081 | 0 |
| 45. Newbridge Asia II L.P. | Global Situations | 9/3/99 | 15,000,000 | 14,618,945 | 2,546,944 |
| Newbridge Asia III LP | Pan-Asia Early Stage | 7/6/00 | 15,000,000 | 11,210,092 | 4,072,448 |
| 46. Nordic Capital V L.P. | Scandinavia B/O | 12/4/02 | 40,000,000 | 8,917,989 | 0 |
| 47. OCM Opportunities Fund | Natl Distressed Debt | 1/12/96 | 24,000,000 | 24,000,000 | 33,996,800 |
| OCM Opportunities Fund II | Natl Distressed Debt | 2/5/98 | 40,000,000 | 40,000,000 | 39,648,116 |
| OCM Opportunities Fund III | Internatl Distressed Debt | 1/20/00 | 60,000,000 | 60,000,000 | 70,820,425 |
| OCM Opportunities Fund IV | Natl Distressed Debt | 12/31/01 | 70,000,000 | 68,250,000 | 98,753,865 |
| OCM Opportunities Fund V | US/Euro Distressed Debt | 7/14/04 | 40,000,000 | 23,000,000 | 43,836 |
| OCM Principal Opportunities | Natl Distressed Debt | 11/12/96 | 25,000,000 | 25,000,000 | 16,623,389 |
| OCM Principal Opportunities II | Natl Distressed Debt | 3/14/01 | 25,000,000 | 25,000,000 | 19,028,646 |
| Oaktree Capital Management LLC | Natl Diversified | 5/28/04 | 20,000,000 | 20,000,000 | 1,166,218 |
| 48. Oakhill Capital Partners | Natl B/O | 5/17/99 | 50,000,000 | 49,809,853 | 31,873,625 |
| 49. Palamon European Equity L.P. | Pan-Euro B/O | 7/23/99 | 30,000,000 | 24,746,606 | 6,210,158 |
| 50. Parthenon Investors II | Natl. Mid Market B/O | 9/25/01 | 20,000,000 | 9,864,207 | 4,792,587 |
| 51. Permira European Fund | Pan Euro B/O | 7/1/97 | 36,000,000 | 32,159,947 | 64,274,648 |
| Permira European Fund II | Pan Euro B/O | 6/7/00 | 50,000,000 | 37,408,893 | 15,447,491 |
| Permira European Fund III | Pan Euro B/O | 10/3/03 | 112,640,170 | 30,441,370 | 0 |
| Permira UK Venture Fund III | UK B/O | 8/29/89 | 9,063,438 | 8,946,988 | 26,106,191 |
| Permira UK Venture Fund IV | UK B/O | 4/2/96 | 15,000,000 | 15,794,739 | 19,109,576 |

Investment Summary - Alternative Investments

SERS Private Equity Investments Committed, Drawn and Distributed (*continued*)
as of December 31, 2004

| Limited Partnership | Financing Stage Geographic Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|---|---|----------------------------|-------------------------------|-------------------------------|-------------------------------|
| 52. Providence Equity Partners IV LP | US/Euro Mid/Later Stage | 10/25/00 | \$25,000,000 | \$16,596,469 | \$11,799,961 |
| Providence Equity Partners V LP | US/Euro Mid Market B/O | * | 50,000,000 | 0 | 0 |
| 53. RRZ Private Equity | Penn B/O | 11/7/96 | 20,000,000 | 18,922,630 | 0 |
| 54. SCP Private Equity Partners II L.P. | Natl B/O | 6/15/00 | 25,000,000 | 17,216,533 | 710,092 |
| 55. ShoreView Capital Partners | Natl B/O | 4/23/03 | 38,000,000 | 13,315,835 | 0 |
| 56. Sterling Capital Partners LP | Mid-Atlantic B/O | 10/15/02 | 15,000,000 | 6,312,337 | 986,951 |
| 57. Summit Ventures VI LP | Natl Later Stage | 1/11/01 | 62,000,000 | 30,070,000 | 5,596,222 |
| 58. TA/Advent IX | Natl Later Stage | 9/20/00 | 45,000,000 | 28,575,000 | 7,650,000 |
| 59. TCW Special Credits V | Natl Distressed Debt | 8/25/94 | 35,000,000 | 35,000,000 | 56,106,005 |
| 60. TPG Partners II | US/Euro B/O | 5/2/97 | 75,000,000 | 75,566,799 | 51,915,879 |
| TPG Partners III | US/Euro B/O | 12/15/99 | 75,000,000 | 56,771,570 | 32,336,463 |
| TPG Partners IV | US/Euro B/O | 12/3/03 | 30,000,000 | 6,404,517 | 391,270 |
| 61. Thomas H Lee Equity Fund V LP | Natl B/O | 7/1/00 | 100,000,000 | 64,923,103 | 23,978,007 |
| Thomas H. Lee Equity Fund IV LP | Natl B/O | 4/24/98 | 70,000,000 | 62,183,454 | 17,478,749 |
| 62. UMS Partners Fund I LP | Mid-Atlantic Distressed Debt | * | 10,000,000 | 0 | 0 |
| 63. Vestar Capital Partners III | US/Euro B/O | 5/7/97 | 25,000,000 | 21,427,298 | 17,422,777 |
| Vestar Capital Partners IV L.P. | US/Euro Mid Market B/O | 11/22/99 | <u>100,000,000</u> | <u>64,124,511</u> | <u>32,759,238</u> |
| Total | | | <u>\$5,033,125,306</u> | <u>\$3,492,579,373</u> | <u>\$2,436,312,780</u> |

Inactive Funds

| Limited Partnership | Financing Stage Geographic Focus | SERS Initial Funding | Capital Committed | Capital Drawn | Distributions |
|--------------------------|---|----------------------------|----------------------------|----------------------------|----------------------------|
| 1. Brentwood Buyout Fund | Natl B/O | 12/31/88 | \$12,500,000 | \$12,548,440 | \$21,718,848 |
| 2. Murphy & Partners | Natl B/O | 12/31/88 | 5,200,000 | 5,194,735 | 7,862,758 |
| 3. RRZ PA Fund #1 | PA B/O | 3/2/88 | <u>10,000,000</u> | <u>10,000,000</u> | <u>19,606,155</u> |
| Total | | | <u>\$27,700,000</u> | <u>\$27,743,175</u> | <u>\$49,187,761</u> |

*Not funded as of September 30, 2004

Commitments as of 12/31/04

Cash flows as of 12/31/04



Actuarial Section



Actuary's Certification

Hay Group. Inc.

Suite 500
4301 North Fairfax Drive
Arlington, VA 22203
USA

April 27, 2005

Mr. Eric Henry
Executive Director
State Employees' Retirement System
30 North Third Street
Harrisburg, PA 17108-1147



Dear Mr. Henry:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the State of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan. The results provided herein are based upon the December 31, 2004 annual actuarial valuation.

The funding objective of the plan is set forth in the SERS code. The annual employer contribution is equal to the sum of the following, but not less than 3.00 percent of payroll, for the fiscal year beginning July 1, 2005:

- (1) The employer share of the normal cost.
- (2) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
- (3) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
- (4) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
- (5) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.

The amortization payments are level amounts over the applicable amortization period. The employer cost is determined as a percent of payroll, and the employer contributes that percent of the payroll of all covered members during each fiscal year.

All costs and liabilities have been determined in conformance with generally accepted actuarial principles and procedures in accordance with the principles of practice prescribed by the American Academy of Actuaries. The calculations were performed on the basis of actuarial assumptions and methods, which are internally consistent, and reasonable (taking into account past experience under the SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

The actuarial valuation is based on financial and participant data, which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to their use in the actuarial valuation.

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Actuary's Certification

Mr. Eric Henry
 April 27, 2005
 Page 2

The actuarial valuation uses assumptions regarding future rates of investment return and rates of retirement, withdrawal, death, and disability among SERS members and their beneficiaries. The current set of assumptions used in the December 31, 2004 actuarial valuation was adopted by the Board and was based on actual experience of SERS during the years 1996 through 2000. The actuarial value of assets is developed by recognizing the difference between the expected actuarial value of assets and the market value of assets over a five-year period.


Governmental Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* establishes a range of actuarial cost and amortization methods for the Unfunded Actuarial Accrued Liability. The scheduled payments for the year beginning July 1, 2005 are below the minimum amount required to meet the GASB #25 minimum. This is a temporary result of financing changes implemented by Act 2003-40 in December 2003. After 2011, we expect the SERS contribution to exceed the GASB #25 minimum.


The "Schedule of Funding Progress" and "Schedule of Employer Contributions" included in the Financial Section are provided as part of the accounting disclosure statements in accordance with GASB #25. These two schedules were derived from the December 31, 2004 actuarial valuation.

With the exception of the "Schedule of Retirees and Beneficiaries Added to and Removed from Rolls" and the "Summary of Plan Provisions", the schedules appearing in the Actuarial Section were derived from the December 31, 2004 actuarial valuation.

Based upon the valuation results, it is our opinion that the Pennsylvania State Employees' Retirement System is in sound condition in accordance with generally accepted actuarial principles and procedures. The employer contribution is below the GASB #25 minimum for the year beginning July 1, 2005 and will likely remain below the minimum through June 30, 2012. However, the employer payments scheduled after that time are substantially above the GASB minimum and the plan is in sound condition over the long run.

Respectfully submitted,
 Hay Group

By 
 Edwin C. Husted, F.S.A.
 Member American Academy of Actuaries
 Enrolled Actuary No. 05-1499

By 
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Summary of Actuarial Assumptions and Methods

- The investment rate of return is 8.5% per year based on an underlying rate of inflation of 3.0% per year.
- The Plan uses a five-year smoothed market approach to value plan assets for actuarial purposes.
- Actuarial methods are specified by statute. Actuarial assumptions are suggested by the plan's actuary and approved by the SERS Board of Trustees.
- For current retirees, beneficiaries and survivors, and all active employees, the plan uses the 1983 Group Annuity Mortality Table for both males and females.
- The rates for probability of retirement and the probabilities of withdrawal from active service, including death, before age and service retirements are presented in the Schedule of Active Member Valuation Data.
- The projected average salary increase is 6.8% with a range of 5.16% to 8.98%. This increase includes an underlying assumption of 3.0% for inflation. The annual rate of salary increase for promotions and longevity for members is presented in the Schedule of Active Member Valuation Data. For the current valuation, the salary increase assumptions for general employees have been modified to reflect the negotiated increases in the latest collective bargaining agreement.
- The plan uses a variation of the entry-normal age actuarial cost method to determine the liabilities and costs related to the System's benefits. The method is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run. The Plan uses amortization periods of 10 years and 30 years as follows:
 - (1) The amortization of the December 31, 2001 liability for Act 2001-9 benefits over a 30-year period beginning July 1, 2002 and ending on June 30, 2032.
 - (2) The amortization of the remaining unfunded liabilities as of December 31, 2001 over a ten-year period beginning July 1, 2002 and ending on June 30, 2012.
 - (3) The amortization of all unfunded liabilities due to supplemental annuities (COLAs) after 2001, or other legislated benefit improvements after June 30, 2003, over ten-year periods beginning with the July first following the effective date of the change.
 - (4) The amortization of changes in liability due to actual experience differing from assumed experience after December 31, 2001 over 30-year periods beginning with the July first following the actuarial valuation determining such changes.
- The Plan does not use an assumption for cost-of-living adjustments in the determination of actuarial valuations.
- The Plan periodically prepares a study using actual experience in order to develop assumptions to be used in its actuarial valuations. The latest study was completed March 28, 2001, for the period January 1, 1996, through December 31, 2000.
- The most recent valuation was based on members of the Plan as of December 31, 2004. All census data was supplied by the Plan and was subject to reasonable consistency checks. Asset data was also supplied by the Plan.
- The actuarial computations were prepared by, or made under the supervision, of a Member of the American Academy of Actuaries (M.A.A.A.).

Schedule of Active Member Valuation

**Withdrawal From Active Employment Before Age & Service Retirement
Annual Rate of Active Members Separating Within the Next Year
As of December 31, 2004**

Table A*

| Sample Age | MALE | | | | | | FEMALE | | | | | |
|---------------|-------------------|-------|-------|-------|--------------|-------------------|-------------------|-------|-------|-------|--------------|-------------------|
| | <u>Withdrawal</u> | | | | <u>Death</u> | <u>Disability</u> | <u>Withdrawal</u> | | | | <u>Death</u> | <u>Disability</u> |
| | Years of Service | | | | | | Years of Service | | | | | |
| | 0 | 5 | 9 | 14+ | | | 0 | 5 | 9 | 14+ | | |
| 20 | 9.60% | 0.50% | 0.00% | 0.00% | 0.03% | 0.03% | 9.50% | 2.20% | 0.50% | 0.00% | 0.02% | 0.06% |
| 25 | 9.40 | - | - | - | 0.03 | 0.03 | 8.70 | 1.70 | 0.50 | - | 0.02 | 0.06 |
| 30 | 9.00 | 1.00 | - | - | 0.04 | 0.08 | 8.70 | 1.70 | - | - | 0.03 | 0.15 |
| 35 | 8.80 | 1.70 | - | - | 0.06 | 0.15 | 8.70 | 1.70 | - | - | 0.04 | 0.25 |
| 40 | 8.80 | 0.60 | - | - | 0.08 | 0.23 | 8.50 | 3.70 | 0.80 | - | 0.06 | 0.33 |
| 45 | 8.50 | 1.60 | - | - | 0.15 | 0.41 | 8.30 | 3.20 | 0.80 | - | 0.09 | 0.52 |
| 50 | 8.30 | 1.30 | - | - | 0.27 | 0.57 | 8.30 | 3.20 | - | - | 0.14 | 0.78 |
| 55 | 8.30 | - | - | - | 0.42 | 0.75 | 8.30 | 0.50 | - | - | 0.22 | 0.99 |
| 60 | - | - | - | - | 0.62 | - | - | - | - | - | 0.36 | - |

**Annual Rate of Retirement
Table B***

| Sample Age | <u>Full Benefits</u> | |
|---------------|----------------------|---------------|
| | <u>Male</u> | <u>Female</u> |
| 51-61 | 22.0% | 22.0% |
| 62 | 33.0 | 33.0 |
| 63-64 | 22.0 | 22.0 |
| 65 | 34.0 | 34.0 |
| 66 | 27.0 | 27.0 |
| 67-79 | 20.0 | 20.0 |
| 80 | 100.0 | 100.0 |

**Annual Rate of Salary Increase
Table C**

| <u>Age</u> | <u>Increase</u> |
|------------|-----------------|
| 20 | 5.5% |
| 25 | 5.5 |
| 30 | 5.3 |
| 35 | 4.6 |
| 40 | 4.0 |
| 45 | 3.5 |
| 50 | 2.8 |
| 55 | 2.1 |
| 60 | 1.8 |

Reduced Benefits

| Sample Age | <u>5-14 Years of Service</u> | | <u>>14 Years of Service</u> | |
|---------------|------------------------------|---------------|--------------------------------|---------------|
| | <u>Male</u> | <u>Female</u> | <u>Male</u> | <u>Female</u> |
| 20 | 4.0% | 4.0% | NA | NA |
| 25 | 4.0 | 4.0 | NA | NA |
| 30 | 3.0 | 4.0 | 3.0% | 4.0% |
| 35 | 2.0 | 3.0 | 2.0 | 2.0 |
| 40 | 2.0 | 1.0 | 2.0 | 2.0 |
| 45 | 1.0 | 1.0 | 2.0 | 2.0 |
| 50 | 1.0 | 1.0 | 2.0 | 2.0 |
| 55 | 3.0 | 3.0 | 3.0 | 3.0 |

* The assumptions presented in Table A and Table B on this page were based on a review of SERS's experience from 1996 through 2000. The rates are the probabilities that an event will occur in the year after the valuation. For instance, the male retirement rate of 33% at age 62 means that 330 of every 1,000 male employees age 62 and eligible for full benefits are expected to retire before they reach age 63.

Schedule of Active Member Valuation

Active Members by Age and Years of Service

| Age Group | Years of Service | | | | | | | Total | Average Salary |
|--------------|------------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|------------------|
| | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 Plus | | |
| Male | | | | | | | | | |
| < 20 | 23 | - | - | - | - | - | - | 23 | \$ 21,987 |
| 20 - 24 | 907 | 7 | - | - | - | - | - | 914 | 26,189 |
| 25 - 29 | 2,554 | 433 | 7 | - | - | - | - | 2,994 | 33,852 |
| 30 - 34 | 2,539 | 2,160 | 760 | 22 | - | - | - | 5,481 | 41,537 |
| 35 - 39 | 2,147 | 2,006 | 3,017 | 924 | 17 | - | - | 8,111 | 47,691 |
| 40 - 44 | 2,007 | 1,408 | 2,091 | 2,384 | 986 | 65 | - | 8,941 | 48,325 |
| 45 - 49 | 1,839 | 1,345 | 1,603 | 2,046 | 2,116 | 1,029 | 87 | 10,065 | 49,150 |
| 50 - 54 | 1,758 | 1,218 | 1,580 | 1,595 | 1,696 | 2,007 | 1,394 | 11,248 | 51,367 |
| 55 - 59 | 1,363 | 1,000 | 1,382 | 1,369 | 1,153 | 1,267 | 2,526 | 10,060 | 54,008 |
| 60 - 64 | 599 | 449 | 635 | 463 | 328 | 239 | 655 | 3,368 | 54,956 |
| 65+ | 244 | 184 | 316 | 174 | 114 | 70 | 261 | 1,363 | 58,789 |
| Total | 15,980 | 10,210 | 11,391 | 8,977 | 6,410 | 4,677 | 4,923 | 62,568 | \$ 48,801 |

Average Age: 46.14

Average Service: 13.03

| Age Group | Years of Service | | | | | | | Total | Average Salary |
|---------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|------------------|
| | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30 Plus | | |
| Female | | | | | | | | | |
| < 20 | 31 | - | - | - | - | - | - | 31 | \$ 21,660 |
| 20 - 24 | 995 | 26 | - | - | - | - | - | 1,021 | 25,358 |
| 25 - 29 | 2,105 | 486 | 31 | - | - | - | - | 2,622 | 31,049 |
| 30 - 34 | 1,803 | 1,130 | 576 | 52 | - | - | - | 3,561 | 34,991 |
| 35 - 39 | 1,702 | 1,031 | 1,127 | 756 | 48 | - | - | 4,664 | 37,433 |
| 40 - 44 | 1,738 | 1,092 | 1,157 | 1,231 | 1,005 | 106 | - | 6,329 | 39,503 |
| 45 - 49 | 1,830 | 1,147 | 1,327 | 1,273 | 1,379 | 1,221 | 185 | 8,362 | 42,219 |
| 50 - 54 | 1,458 | 1,043 | 1,280 | 1,350 | 1,264 | 1,479 | 1,716 | 9,590 | 44,645 |
| 55 - 59 | 934 | 673 | 951 | 1,090 | 930 | 873 | 1,201 | 6,652 | 44,744 |
| 60 - 64 | 311 | 301 | 461 | 386 | 306 | 223 | 245 | 2,233 | 43,673 |
| 65+ | 105 | 111 | 197 | 134 | 69 | 59 | 97 | 772 | 42,469 |
| Total | 13,012 | 7,040 | 7,107 | 6,272 | 5,001 | 3,961 | 3,444 | 45,837 | \$ 40,716 |

Average Age: 46.01

Average Service: 12.88

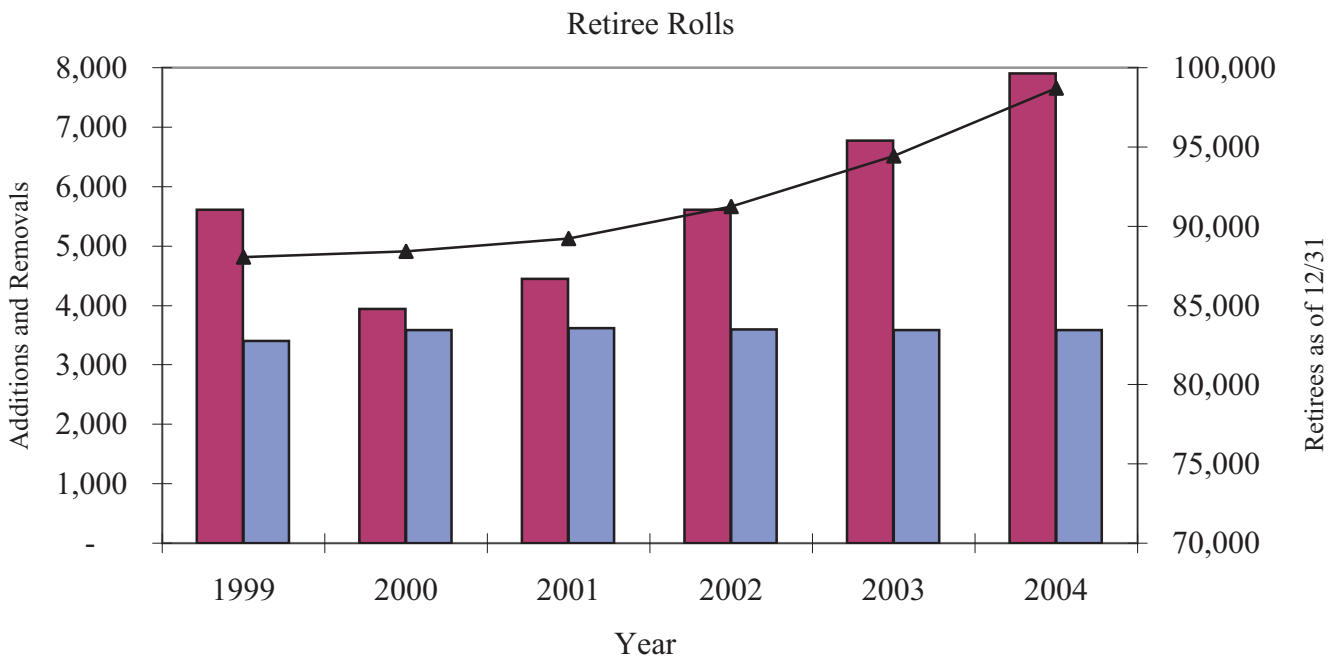
Active Member Valuation Data

| Valuation Date | Number Employers | Number Active Members | Annual Payroll | Annual Average Pay | % Increase in Average Pay |
|----------------|------------------|-----------------------|------------------|--------------------|---------------------------|
| 31-Dec-04 | 108 | 108,405 | \$ 4,920,000,000 | \$ 45,382 | 1.9% |
| 31-Dec-03 | 106 | 109,018 | 4,853,000,000 | 44,519 | 2.0 |
| 31-Dec-02 | 105 | 111,059 | 4,846,000,000 | 43,631 | 3.5 |
| 31-Dec-01 | 106 | 109,716 | 4,627,000,000 | 42,172 | 2.6 |
| 31-Dec-00 | 106 | 109,469 | 4,500,000,000 | 41,110 | 3.6 |
| 31-Dec-99 | 106 | 108,035 | 4,289,000,000 | 39,698 | 2.1 |

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Six Years Ended December 31, 2004

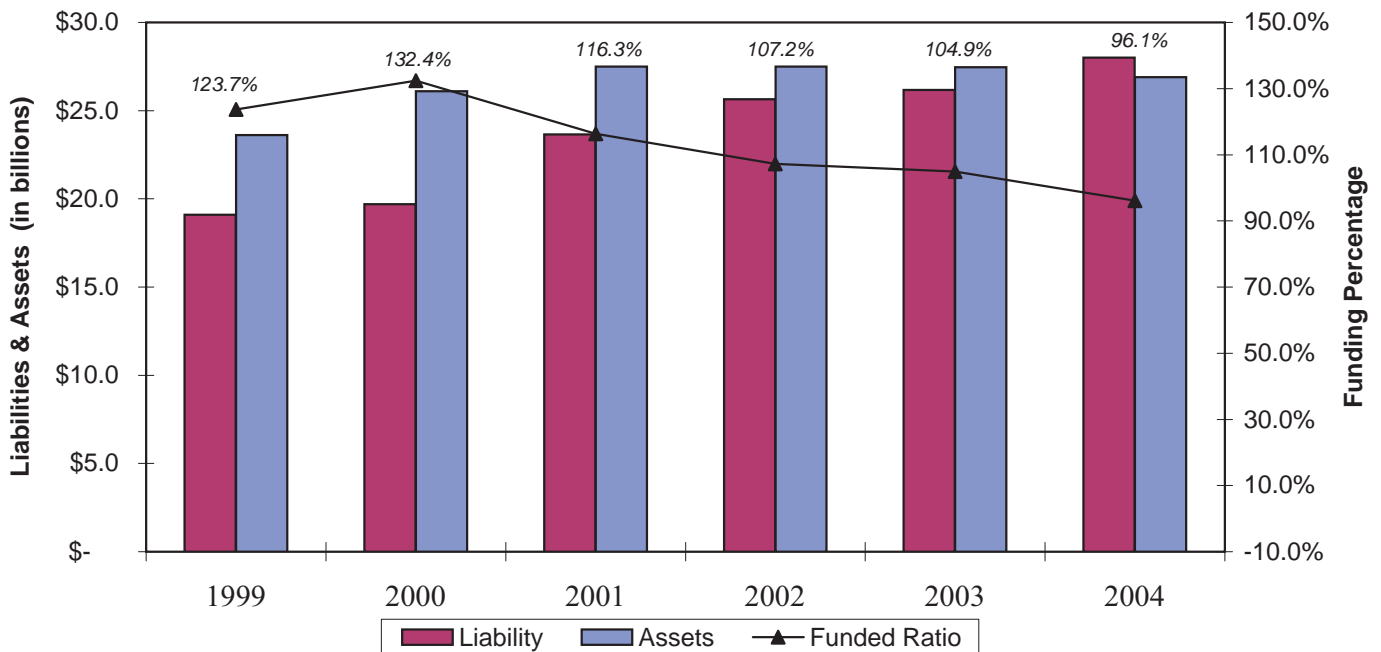
| Year | Added to Rolls | | Removed from Rolls | | Rolls-End of Year | | Percentage Change | |
|------|----------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| | No. | Annual Allowances | No. | Annual Allowances | No. | Annual Allowances | No. | Annual Allowance |
| 2004 | 7,905 | \$198,252,778 | 3,590 | \$ 37,279,580 | 98,727 | \$1,492,913,832 | 4.57% | 12.04% |
| 2003 | 6,769 | 161,875,423 | 3,585 | 36,430,746 | 94,412 | 1,332,443,772 | 3.49% | 14.28% |
| 2002 | 5,605 | 126,087,119 | 3,594 | 31,408,470 | 91,228 | 1,165,985,640 | 2.25% | 12.92% |
| 2001 | 4,444 | 81,715,244 | 3,619 | 30,654,172 | 89,217 | 1,032,589,104 | 0.93% | 5.00% |
| 2000 | 3,939 | 56,321,173 | 3,590 | 29,591,472 | 88,392 | 983,432,700 | 0.40% | 2.54% |
| 1999 | 5,610 | 95,487,334 | 3,401 | 27,375,031 | 88,043 | 959,067,216 | 2.57% | 7.40% |



Solvency Test

| Valuation Date | Aggregate Accrued Liabilities For | | | Total Actuarial Liability (AAL) | Actuarial Valuation of Assets | Portion of Accrued Liabilities Covered by Reported Assets | | | Funded Ratio |
|-------------------------------|-----------------------------------|--------------------------|--|---------------------------------|-------------------------------|---|--------|-------|--------------|
| | (1) | (2) | (3) | | | (1) | (2) | (3) | |
| | Active Member Contributions | Retirees & Beneficiaries | Active Members (Employer Financed Portion) | | | | | | |
| (Dollar amounts in thousands) | | | | | | | | | |
| 31-Dec-04 | \$ 3,593,576 | \$ 12,779,570 | \$11,625,880 | \$27,999,026 | \$26,900,027 | 100.0% | 100.0% | 90.5% | 96.1% |
| 31-Dec-03 | 3,588,664 | 11,296,520 | 11,294,577 | 26,179,761 | 27,465,615 | 100.0 | 100.0 | 100.0 | 104.9 |
| 31-Dec-02 | 3,498,672 | 10,129,669 | 12,022,048 | 25,650,389 | 27,497,464 | 100.0 | 100.0 | 100.0 | 107.2 |
| 31-Dec-01 | 3,344,107 | 8,684,734 | 11,629,916 | 23,658,757 | 27,505,494 | 100.0 | 100.0 | 100.0 | 116.3 |
| 31-Dec-00 | 3,182,776 | 8,148,876 | 8,370,626 | 19,702,278 | 26,094,306 | 100.0 | 100.0 | 100.0 | 132.4 |
| 31-Dec-99 | 2,989,489 | 7,779,993 | 8,322,358 | 19,091,840 | 23,624,467 | 100.0 | 100.0 | 100.0 | 123.7 |

Solvency



Analysis of Financial Experience

Gains & Losses in Accrued Liabilities Resulting from Differences Between Assumed Experience and Actual Experience

| Type of Activity | 2004 | 2003 | 2002 | 2001 |
|--|-----------------------|---------------------|-----------------------|-----------------------|
| Gain(Loss) from Investment Earnings | \$(1,372,930) | \$(1,034,701) | \$(1,204,242) | \$182,272 |
| Demographic Assumptions | 15,539 | 9,889 | 15,798 | (333,766) |
| Pay Increases different than assumptions | (156,133) | 182,236 | (23,957) | 108,201 |
| Other | (179,410) | (63,390) | (27,614) | 481,469 |
| Gain(Loss) During Year From Financial Experience | (1,692,934) | (905,966) | (1,240,015) | 438,176 |
| Non Recurring Items: | | | | |
| Contributions in excess of Requirements | | | 148,463 | 52,060 |
| Changes in Actuarial Methods and assumptions | (249,607) | 564,365 | (27,506) | (348,789) |
| Act 2001 - 9 Benefits | | | | (2,735,791) |
| Retiree COLA | | (31,000) | (621,300) | - |
| Composite Loss | <u>\$ (1,942,541)</u> | <u>\$ (372,601)</u> | <u>\$ (1,740,358)</u> | <u>\$ (2,594,344)</u> |

Summary of Plan Provisions

Benefit and Contribution Provisions as of December 31, 2004

The State Employees' Retirement System makes provision for retirement, disability, and death benefits for all State employees and certain other eligible groups. The major provisions may be summarized as follows:

Eligible Employees

- Class A All regular State employees and employees of certain Commissions and Authorities and employees of state-owned educational institutions and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System or TIAA-CREF) hired before July 1, 2001 who did not elect into the Class AA membership as of December 31, 2001. This excludes Judges, and District Justices who have elected Class E-1 or Class E-2.
- Class AA All regular State employees who are hired after July 1, 2001, and former Class A State employees hired before July 1, 2001 who elected into Class AA as of December 31, 2001. This includes employees of certain Commissions and Authorities and employees of state-owned educational institutions and the Pennsylvania State University (unless such employees have joined the Public School Employees' Retirement System or TIAA-CREF), but excludes State Police Troopers, Judges, and District Justices, and Legislators with Class D-3 or D-4.
- Class C Liquor Law enforcement officers and other officers and certain employees of the State Police who have been members and employees continuously since prior to March 1, 1974.
- Class D-3 Members of the General Assembly who have been members and employees continuously since prior to March 1, 1974.
- Class D-4 Legislators who are elected after July 1, 2001, and legislators hired before July 1, 2001 who elected into this class, excluding Class D-3 members.
- Class E-1 Judges
- Class E-2 District Justices

Age and Service Requirements for Superannuation (full formula benefits)

- Class AA/A Age 60, with three years of service, except for members of the General Assembly, enforcement officers, correction officers, psychiatric security aids, and officers of the Delaware River Port Authority; for whom the requirement is age 50 with three years of service. Members of Class AA/A with 35 years of credited service are entitled to full formula benefits regardless of age. State Police Officers can retire on full benefits after age 50 or with 20 years of service. Capitol Police and Park Rangers can retire on full benefits at age 50 with 20 years of Capitol Police or Park Ranger service.

Summary of Plan Provisions

Class C Age 50, with three years of service.

Class D-3 Age 50, with three years of service.

Class D-4 Age 50, with three years of service.

Class E-1 Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

Class E-2 Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

Formula for Superannuation Annuity

The standard single-life annuity for most members is 2% of the high three-year average salary of the member multiplied by years and fractions of credited service multiplied by the Multiplier of the Class of membership. The annuity paid to a member shall not exceed the member's highest salary during any period of 12 consecutive months of creditable service.

The multiplier for each of the major classes are as follows:

| <u>Class</u> | <u>Multiplier</u> | |
|--------------|-------------------|---|
| A | 1.00 | For State Police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary. |
| AA | 1.25 | |
| C | 1.00 | For State Police with years of service between 20 and 25, the minimum annuity is 50% of highest annual salary. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary. |
| D-3 | 3.75 | |
| D-4 | 1.50 | |
| E-1 | 2.00 | For each of the first 10 years of judicial service dropping to 1.5 for each subsequent year of judicial service. |
| E-2 | 1.50 | For each year of judicial service. |

NOTE: There are conditions under which long-service members or members retiring at advanced ages may receive somewhat larger benefits than those described above. Further, benefit limitations exist for most members of Class D-3.



Statistical Section



Trend Data*

| | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 |
|------------------------------|---------------|------------|------------|------------|------------|------------|
| Contribution Rates | | | | | | |
| Employer** | 2.03% | 1.07% | 0.00% | 0.00% | 1.39% | 5.00% |
| Member | 6.25% | 6.25% | 6.25% | 5.00% | 5.00% | 5.00% |
| Contributions: | | | | | | |
| Employer | \$ 106,703 | 68,604 | 50,831 | 76,710 | 168,002 | 270,718 |
| Member | \$ 309,923 | 308,014 | 304,233 | 240,528 | 231,666 | 224,928 |
| Average Annual Compensation | \$ 45,382 | 44,519 | 43,631 | 42,172 | 41,110 | 39,698 |
| Market Value of Assets | \$ 26,641,399 | 24,535,949 | 20,879,559 | 24,706,063 | 27,880,467 | 28,093,181 |
| Actuarial Value of Assets | \$ 26,900,027 | 27,465,615 | 27,497,464 | 27,505,494 | 26,094,306 | 23,624,267 |
| Accrued Actuarial Liability | \$ 27,999,026 | 26,179,761 | 25,650,389 | 23,658,757 | 19,702,278 | 19,091,840 |
| Funded Ratio | 96.1% | 104.9% | 107.2% | 116.3% | 132.4% | 123.7% |
| Total Benefits and Refunds | \$ 1,859,255 | 1,632,281 | 1,430,417 | 1,245,129 | 1,176,785 | 1,229,348 |
| Average*** Pension | \$ 18,414 | 17,192 | 15,445 | 13,656 | 12,935 | 12,520 |
| Annuitants and Beneficiaries | 98,727 | 94,412 | 91,228 | 89,217 | 88,392 | 88,043 |
| Active Participants | 108,405 | 109,018 | 111,059 | 109,716 | 109,470 | 108,035 |

* All dollar amounts are in thousands, except Average Pension and Average Annual Compensation

** Employer rate represents total contributions as a percent of covered payroll as of the Actuarial Valuation Date of 12/31.

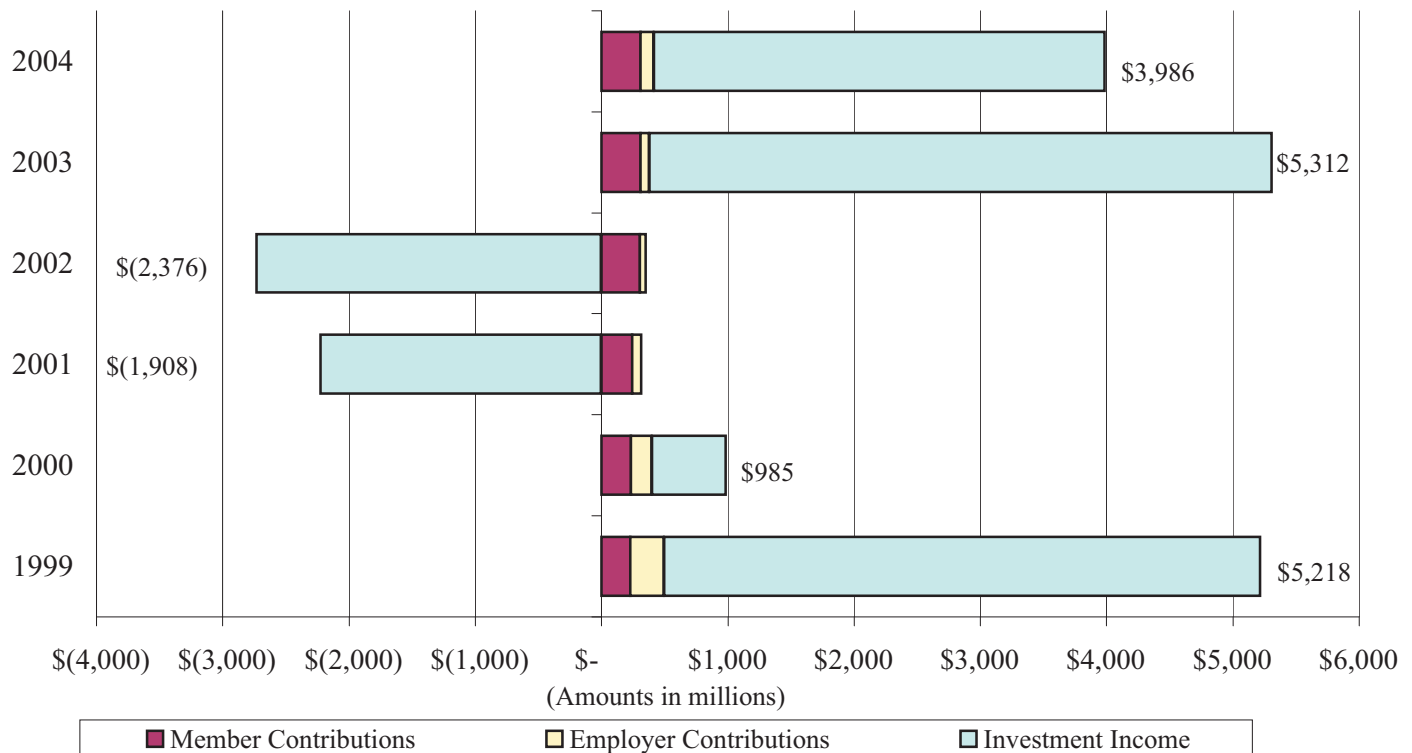
*** Average pension amount represents average annual pension for only members who have reached superannuation through age or service credits.

Schedule of Additions to Plan Net Assets

Six Years Ended December 31, 2004
(Dollar Amounts in thousands)

| Year Ending | Member Contributions | Employer | | Net Investment Income | Total |
|-------------|----------------------|---------------|-----------------------------|-----------------------|--------------|
| | | Contributions | % of Annual Covered Payroll | | |
| 2004 | \$ 309,923 | \$ 106,703 | 2.2% | \$ 3,569,323 | \$ 3,985,949 |
| 2003 | 308,014 | 68,604 | 1.4% | 4,935,699 | 5,312,317 |
| 2002 | 304,233 | 50,831 | 1.0% | (2,731,295) | (2,376,231) |
| 2001 | 240,528 | 76,710 | 1.7% | (2,225,627) | (1,908,389) |
| 2000 | 231,667 | 168,002 | 3.7% | 585,712 | 985,381 |
| 1999 | 224,928 | 270,718 | 6.3% | 4,722,671 | 5,218,317 |

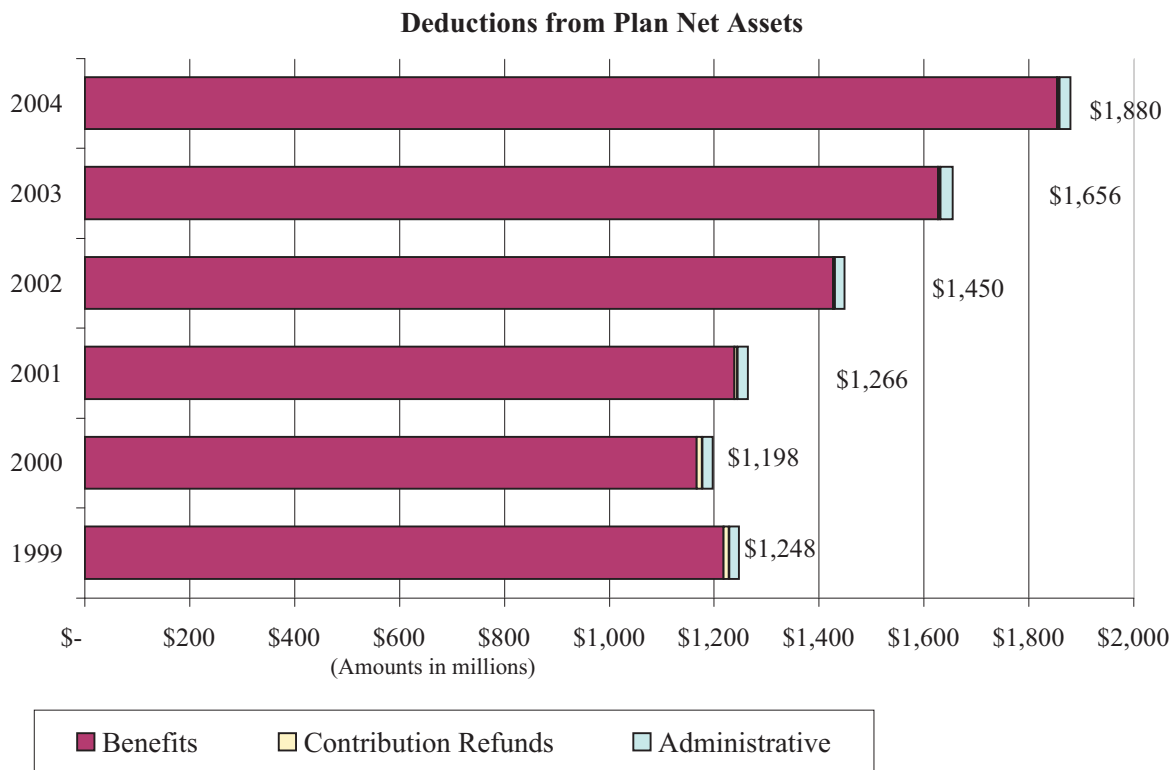
Additions to Plan Net Assets



Schedule of Deductions from Plan Net Assets

Six Years Ended December 31, 2004
(Amounts in thousands)

| Year | Benefits | Refund of Contributions | Administrative | Total |
|------|--------------|-------------------------|----------------|--------------|
| 2004 | \$ 1,853,117 | \$ 6,138 | \$ 21,244 | \$ 1,880,499 |
| 2003 | 1,627,166 | 5,115 | 23,646 | 1,655,927 |
| 2002 | 1,426,257 | 4,160 | 19,856 | 1,450,273 |
| 2001 | 1,237,953 | 7,176 | 20,887 | 1,266,016 |
| 2000 | 1,166,897 | 9,888 | 21,309 | 1,198,094 |
| 1999 | 1,218,133 | 11,215 | 19,146 | 1,248,494 |

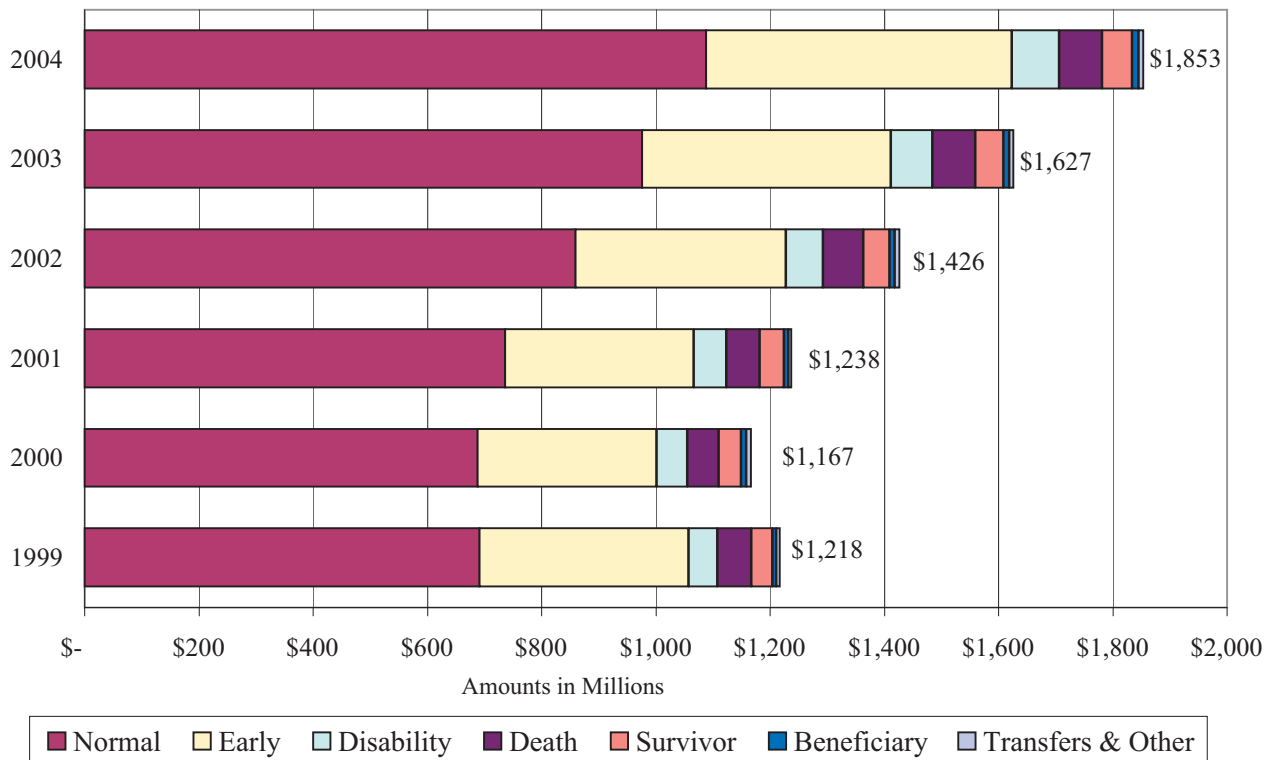


Schedule of Benefit Expenses by Type

Six Years Ended December 31, 2004
(Amounts in thousands)

| Year | Retirement | | Death | Disability | Survivor | Beneficiary | Transfers & Other | Total |
|------|-------------|------------|-----------|------------|-----------|-------------|----------------------|-------------|
| | Normal | Early | | | | | | |
| 2004 | \$1,088,129 | \$ 534,674 | \$ 76,216 | \$ 82,515 | \$ 51,946 | \$ 10,818 | \$ 8,819 | \$1,853,117 |
| 2003 | 976,102 | 436,325 | 75,368 | 72,880 | 48,687 | 9,876 | 7,928 | 1,627,166 |
| 2002 | 859,078 | 368,778 | 70,703 | 64,789 | 45,439 | 8,902 | 8,568 | 1,426,257 |
| 2001 | 735,919 | 331,445 | 57,744 | 57,254 | 42,689 | 8,115 | 4,787 | 1,237,953 |
| 2000 | 688,410 | 314,014 | 53,785 | 54,112 | 40,037 | 7,948 | 8,591 | 1,166,897 |
| 1999 | 690,840 | 366,515 | 58,675 | 50,496 | 36,830 | 7,283 | 7,494 | 1,218,133 |

Benefits by Type



Schedule of Retired Members by Type of Benefit

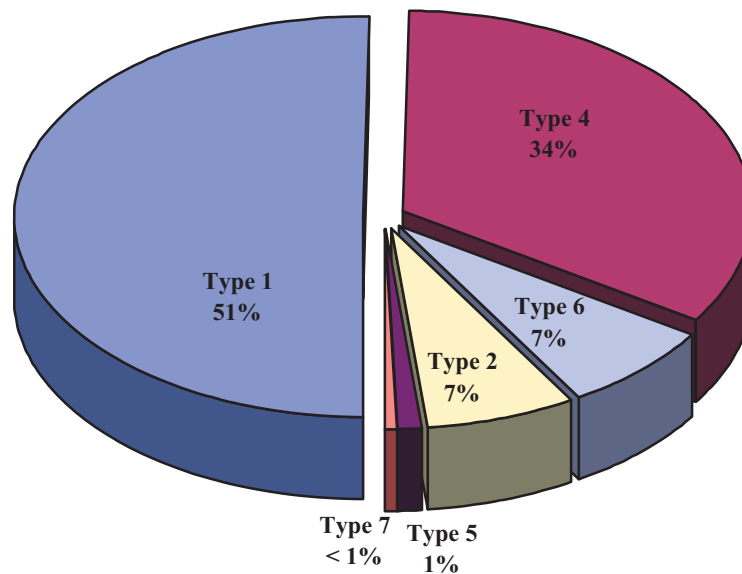
As of December 31, 2004

| Amount of Monthly Benefit | Total Monthly Benefits | Total Number of Retirees | Type of Retirement | | | | | | |
|---------------------------|------------------------|--------------------------|--------------------|--------------|---------------|--------------|--------------|------------|--|
| | | | 1 | 2 | 4 | 5 | 6 | 7 | |
| \$ 1 to 500 | \$ 7,570,454 | 29,801 | 9,180 | 805 | 14,723 | 618 | 4,286 | 189 | |
| 501 to 1,000 | 17,782,351 | 24,349 | 13,580 | 3,621 | 4,898 | 279 | 1,840 | 131 | |
| 1,000 to 1,500 | 18,287,888 | 14,862 | 8,671 | 1,372 | 4,013 | 109 | 626 | 71 | |
| 1,500 to 2,000 | 16,776,191 | 9,666 | 5,257 | 610 | 3,487 | 42 | 246 | 24 | |
| 2,000 to 2,500 | 14,691,557 | 6,582 | 3,814 | 229 | 2,353 | 24 | 151 | 11 | |
| 2,500 to 3,000 | 11,438,858 | 4,179 | 2,611 | 123 | 1,362 | 22 | 58 | 3 | |
| Over 3,000 | 37,862,187 | 9,288 | 6,646 | 94 | 2,420 | 42 | 83 | 3 | |
| Totals | \$ 124,409,486 | 98,727 | 49,759 | 6,854 | 33,256 | 1,136 | 7,290 | 432 | |

Type of Retirement

- 1 - Superannuation
- 2 - Disabled
- 4 - Early
- 5 - Beneficiary
- 6 - Survivor
- 7 - Alternate Payee

Retired Members by Type



Schedule of Retired Members by Option

As of December 31, 2004

| Amount of Monthly Benefit | Total Monthly Benefits | Total Number of Retirees | Option Selected | | | | | |
|---------------------------|------------------------|--------------------------|-----------------|---------------|---------------|---------------|--------------|--------------|
| | | | FRA | 1 | 2 | 3 | 4 | Other |
| \$ 1 to 500 | \$ 7,570,454 | 29,801 | 7,525 | 11,474 | 6,797 | 2,654 | 705 | 646 |
| 501 to 1,000 | 17,782,351 | 24,349 | 8,292 | 7,767 | 4,334 | 2,414 | 1,215 | 327 |
| 1,000 to 1,500 | 18,287,888 | 14,862 | 4,372 | 4,677 | 2,758 | 1,725 | 1,192 | 138 |
| 1,500 to 2,000 | 16,776,191 | 9,666 | 2,857 | 2,826 | 1,602 | 1,311 | 1,010 | 60 |
| 2,000 to 2,500 | 14,691,557 | 6,582 | 1,853 | 1,773 | 1,029 | 996 | 899 | 32 |
| 2,500 to 3,000 | 11,438,858 | 4,179 | 1,244 | 1,062 | 662 | 638 | 540 | 33 |
| Over 3,000 | 37,862,187 | 9,288 | 3,165 | 2,146 | 1,100 | 1,455 | 1,372 | 50 |
| Totals | \$ 124,409,486 | 98,727 | 29,308 | 31,725 | 18,282 | 11,193 | 6,933 | 1,286 |

Options

FRA - Full Retirement Allowance

Opt. 1 - Annuity for Life with beneficiary receiving remainder of Present Value when member dies.

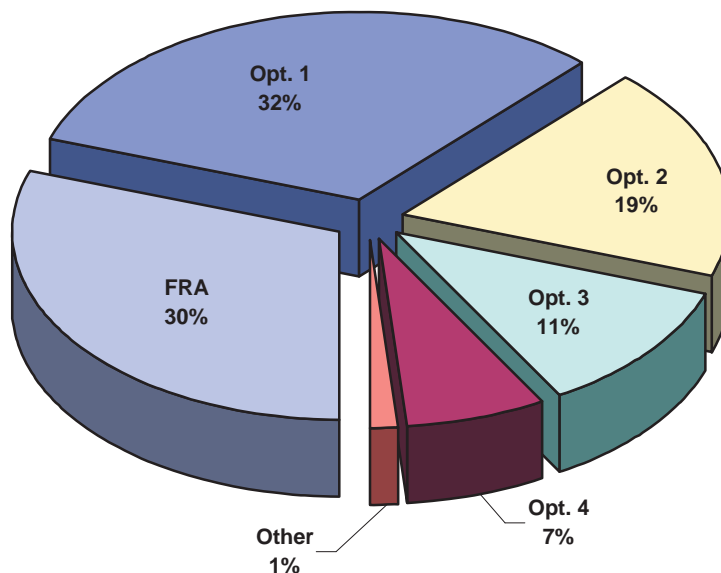
Opt. 2 - Annuity for Life with beneficiary receiving same annuity when member dies.

Opt. 3 - Annuity for Life with beneficiary receiving one half the members annuity amount when member dies.

Opt. 4 - Member designs a different plan approved by SERS not covered under the above option.

Other - Death Benefit and Domestic Relation Order

Retired Members by Option



Schedule of Average Annual Benefit Payment Amounts

As of December 31, 2004

| Age | Superannuation | | Early Retirement | | Disability | | Beneficiary and Survivor | |
|----------|----------------|-----------|------------------|----------|------------|-----------|--------------------------|----------|
| | Male | Female | Male | Female | Male | Female | Male | Female |
| Under 25 | - | - | - | \$ 432 | - | - | \$ 13,991 | \$ 7,212 |
| 25-29 | - | - | \$ 960 | 570 | - | - | 15,339 | 5,914 |
| 30-34 | - | - | 1,225 | 1,089 | \$ 9,834 | \$ 9,325 | 21,529 | 9,754 |
| 35-39 | - | - | 1,896 | 1,458 | 11,699 | 9,697 | 11,531 | 11,873 |
| 40-44 | - | - | 3,764 | 2,283 | 12,151 | 11,474 | 7,415 | 8,811 |
| 45-49 | - | - | 7,196 | 4,344 | 14,195 | 13,481 | 6,768 | 9,056 |
| 50-54 | \$ 29,970 | \$ 28,572 | 12,455 | 9,071 | 14,485 | 13,943 | 5,622 | 8,592 |
| 55-59 | 36,646 | 33,564 | 19,779 | 12,855 | 15,087 | 14,574 | 7,451 | 10,132 |
| 60-64 | 32,551 | 23,404 | 20,080 | 13,439 | 12,053 | 10,834 | 8,083 | 11,461 |
| 65-69 | 24,867 | 17,131 | 14,926 | 10,195 | 9,784 | 9,190 | 7,091 | 9,933 |
| 70-74 | 20,546 | 12,965 | 13,888 | 9,231 | 9,449 | 7,851 | 7,958 | 9,311 |
| 75-79 | 17,096 | 10,894 | 13,324 | 8,192 | 9,729 | 7,377 | 6,232 | 7,419 |
| 80-84 | 14,431 | 8,941 | 12,126 | 7,568 | 8,456 | 6,707 | 5,965 | 6,220 |
| 85-89 | 11,731 | 7,913 | 10,969 | 8,692 | 8,841 | 6,476 | 6,111 | 5,530 |
| 90 over | 12,019 | 8,611 | 11,164 | 9,701 | 6,593 | 5,668 | 2,386 | 4,969 |
| Total | \$ 22,015 | \$ 13,701 | \$ 15,880 | \$ 9,768 | \$ 12,519 | \$ 11,508 | \$ 7,438 | \$ 7,561 |

| | Superannuation | Early Retirement | Disability | Beneficiary and Survivor |
|-----------------|----------------|------------------|------------|--------------------------|
| Average Pension | \$18,414 | \$12,965 | \$11,989 | \$7,549 |
| Average Age: | | | | |
| Male & Female | 73.5 | 60.6 | 60.0 | 75.1 |

Schedule of Participating Employers

As of December 31, 2004

| | |
|--|---|
| Administrative Office-PA Courts | Department of State |
| Bloomsburg University Community Activities | Department of the Auditor General |
| Board of Probation and Parole | Department of Transportation |
| Bucks County Community College | East Stroudsburg University Student Association |
| Bucks County Health Department | Edinboro University Services Inc. |
| Bucks County Intermediate Unit | Environmental Hearing Board |
| California University Student Association | Erie County Health Department |
| Cambria County Area Community College | Executive Offices |
| Capitol Preservation Committee | Fish and Boat Commission |
| Center for Rural Pennsylvania | Game Commission |
| Central Susquehanna Intermediate Unit | Governor's Office |
| Chester County Health Department | Harrisburg Area Community College |
| Civil Service Commission | Historical and Museum Commission |
| Clarion University Student Association | House Appropriations Committee(D) |
| Community College of Allegheny County | House of Representatives |
| Community College of Philadelphia | Independent Regulatory Review Commission |
| Delaware County Community College | Indiana University Student Co-op |
| Delaware River Joint Toll Bridge | Insurance Department |
| Delaware River Port Authority | Intergovernmental Cooperation Authority |
| Delaware Valley Regional Planning Commission | Joint Legislative Conservation Committee |
| Department of Aging | Joint State Government Commission |
| Department of Agriculture | Kutztown University Student Services |
| Department of Banking | Lancaster-Lebanon Intermediate Unit |
| Department of Community & Economic Development | Legislative Budget & Finance Committee |
| Department of Conservation & Natural Resources | Legislative Data Processing Center |
| Department of Corrections | Legislative Reference Bureau |
| Department of Education | Lehigh Carbon Community College |
| Department of Environmental Protection | Lieutenant Governor's Office |
| Department of General Services | Liquor Control Board |
| Department of Health | Local Government Commission |
| Department of Labor and Industry | Lock Haven University Student Co-op |
| Department of Military and Veterans Affairs | Luzerne County Community College |
| Department of Public Welfare | Luzerne Intermediate Unit |
| Department of Revenue | Mansfield University Community Services |

Schedule of Participating Employers

As of December 31, 2004

Continued

| | |
|---|--|
| Milk Marketing Board | Public School Employees' Retirement System |
| Millersville Student Services | Public Utility Commission |
| Montgomery County Community College | Reading Area Community College |
| Northampton Community College | Riverview Intermediate Unit |
| Office of Attorney General | Securities Commission |
| Office of Liquidations | Senate of Pennsylvania |
| Pennsylvania College of Technology | Shippensburg Student Association |
| Pennsylvania Convention Center Authority | Slippery Rock Student Government |
| Pennsylvania Emergency Management Agency | State Employees' Retirement System |
| Pennsylvania Gaming Control Board | State Ethics Commission |
| Pennsylvania Health Care Cost Containment Council | State Public School Building Authority |
| Pennsylvania Higher Education Assistant Agency | State System of Higher Education |
| Pennsylvania Housing Finance Agency | State Tax Equalization Board |
| Pennsylvania Infrastructure Investment Authority | Susquehanna River Basin Commission |
| Pennsylvania Municipal Retirement System | Thaddeus Stevens College of Technology |
| Pennsylvania Port Authority | Treasury Department |
| Pennsylvania Public Television Network Commission | Turnpike Commission |
| Pennsylvania State Police | U.S. Property & Fiscal Office for Pennsylvania |
| Pennsylvania State University | West Chester University Student Services |
| Port Authority Transit Corporation | Westmoreland County Community College |



State Employees' Retirement System
30 North Third Street
Harrisburg, PA 17101