

COMMONWEALTH OF PENNSYLVANIA

State Employees' Retirement System

A Component Unit of the
Commonwealth of Pennsylvania

COMPREHENSIVE ANNUAL FINANCIAL REPORT

for the year ended December 31, 2002



Including the Independent Auditors' Report of Financial Statements
for the years ended December 31, 2002 and 2001

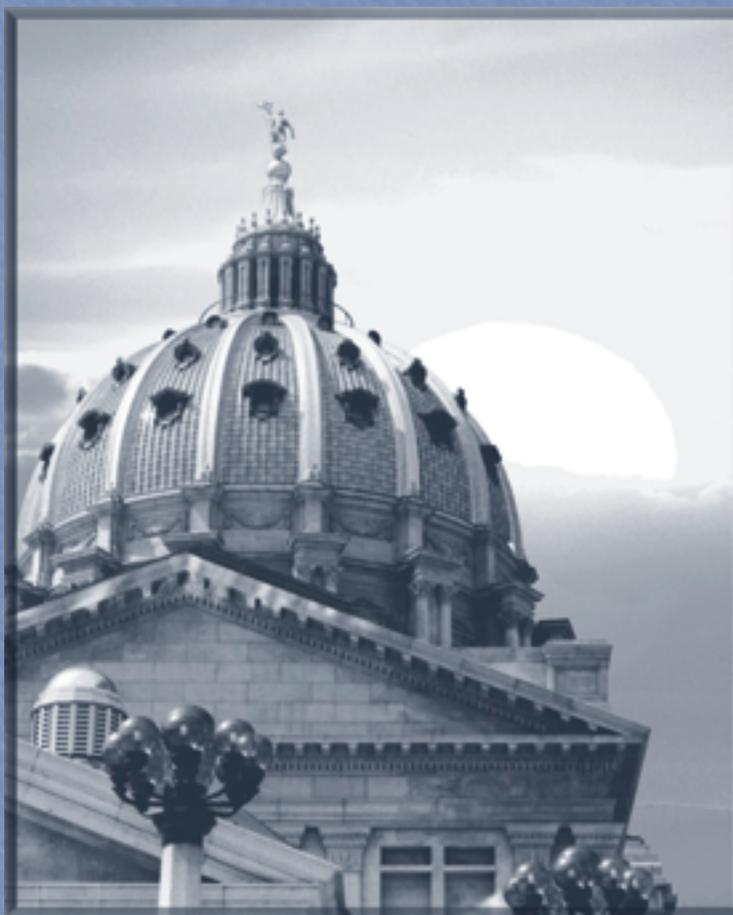
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John R. Brosius
Executive Director

Francis J. Donlevy
Director, Office of Financial Management

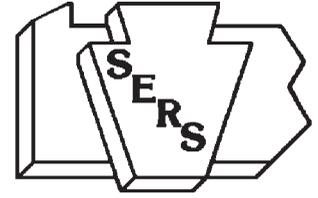
State Employees' Retirement System
30 North Third Street • P.O. Box 1147
Harrisburg, PA 17108-1147

Including the Independent Auditors' Report of Financial Statements
for the years ended December 31, 2002 and 2001



NICHOLAS J. MAIALE
CHAIRMAN

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
30 NORTH THIRD STREET
P.O. BOX 1147
HARRISBURG, PENNSYLVANIA 17108-1147
PHONE HARRISBURG: (717) 787-6293



June 2003

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 Trustees 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 2002.

Within the CAFR, you will find relevant financial, investment, and actuarial reports with introductions from SERS management and the funds' consulting actuary. Given the state of global investment markets and overall financial environment, SERS continues to encounter many challenges. However, 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 and again this year maintains the fully funded status it has enjoyed since 1992.

SERS Board of Trustees has adopted several proactive corporate governance initiatives, such as *Investment Protection Principles*, which are designed to eliminate conflicts of interest among investment managers and broker dealers. In addition, Peter M. Gilbert, SERS Chief Investment Officer, had the honor of serving on The Conference Board's Blue Ribbon Commission on Public Trust and Private Enterprise, which was convened to address the circumstances which led to the recent corporate scandals and the subsequent decline of confidence in American capital markets. SERS' Board formally endorsed the Commission's *Findings and Recommendations on Executive Compensation, Corporate Governance, and Auditing and Accounting*, which recommend corporate best practices to rebuild confidence in the integrity, reliability and transparency of the capital markets.

SERS 11-member 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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Prepared by the staff of the Pennsylvania State Employees' Retirement System

Board of Trustees

Honorable Nicholas J. Maiale
Chairman



Michael J. Acker
Senior Vice President Triad Strategies



David R. Fillman
Executive Director, AFSCME Council 13



Honorable Gibson E. Armstrong
State Senator



Honorable Robert W. Godshall
State Representative



Honorable Robert A. Bittenbender
Former State Secretary of the Budget



Honorable Barbara Hafer
State Treasurer



Honorable Raphael J. Musto
State Senator



Honorable M. Joseph Rocks
Retired Member and Former State Senator



Honorable Thomas G. Paese
Former State Secretary of Administration



Honorable Michael R. Veon
State Representative



Mission Statement

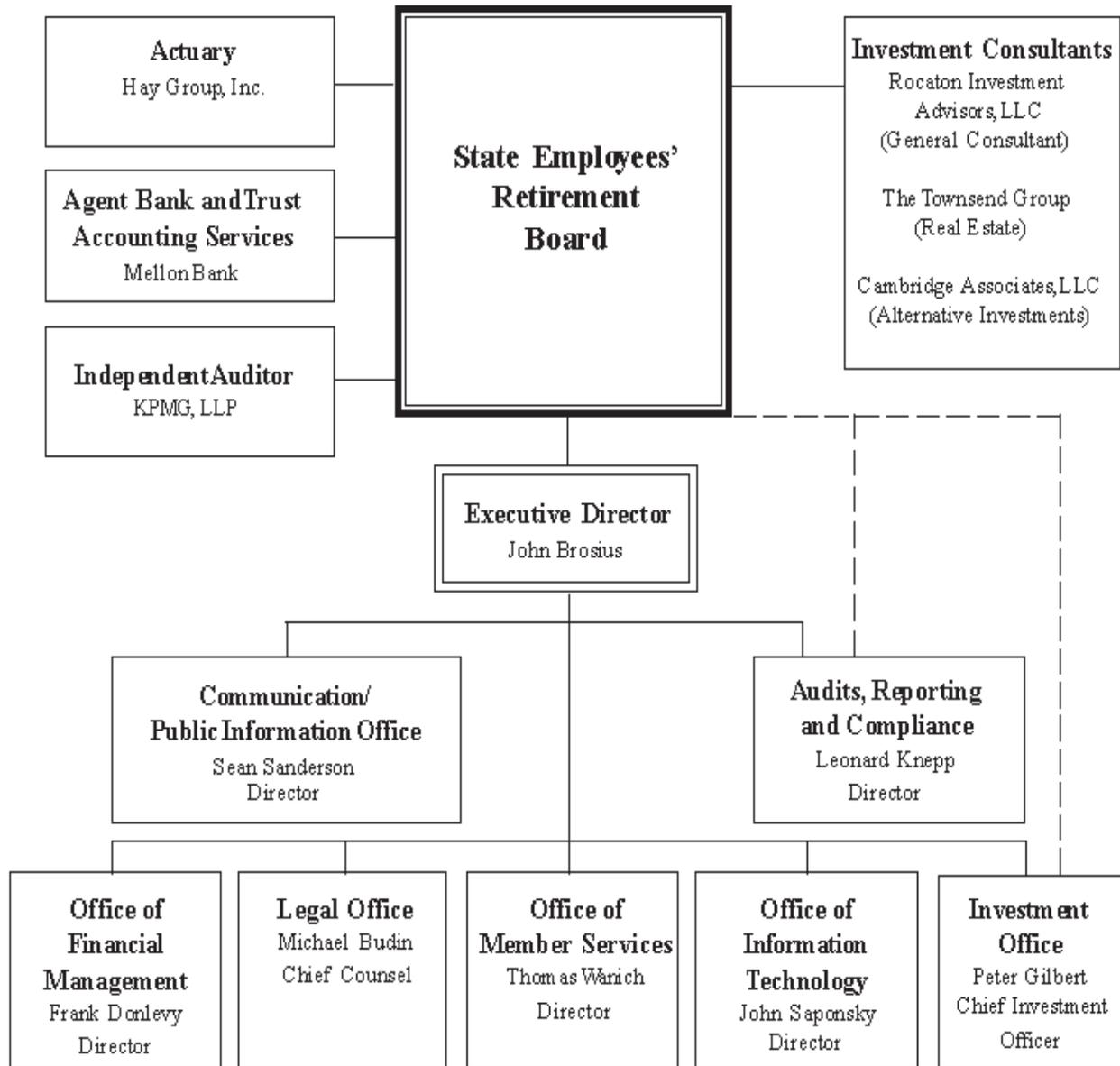
Plan Administration: To administer the retirement benefits plan for state employees and elected officials in accordance with Pennsylvania statutes;

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.

SERS Organizational Chart



Administrative Support

John Brosius
Executive Director

Francis J. Donlevy
Director, Office of Financial Management

Peter M. Gilbert
Chief Investment Officer

Michael A. Budin
Chief Counsel

Thomas F. Brier
Andrew Deitch

Leonard M. Knepp
Director, Audits, Reporting and Compliance

Bruce Feldman
David J. Kalman

Thomas Wanich
Director, Office of Member Services

Mark McGrath
Karen N. Nicely

Sean Sanderson
Director of Communications

Adam Tosh
John C. Winchester
Investment Office Directors

Investment Consultants

Rocaton Investment Advisors, LLC
General Consultant

The Townsend Group
Real Estate Consultant

Cambridge Associates, LLC
Alternative Investments Consultant

General Service Providers

Hay Group, Inc.
Actuary

Mellon Bank
*Agent Bank and
Trust Accounting Services*

KPMG, LLP
Independent Auditor

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, 2001

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.



A handwritten signature in black ink, reading "William Patrick Rosta".

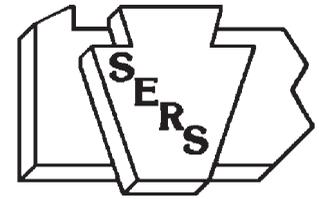
President

A handwritten signature in black ink, reading "Jeffrey R. Emer".

Executive Director



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STATE EMPLOYEES' RETIREMENT SYSTEM
30 NORTH THIRD STREET - P.O. BOX 1147
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The Board of Trustees
Pennsylvania State Employees' Retirement System
Harrisburg, PA 17108-1147

June 10, 2003

Dear Mr. Chairman and Members of the Board:

We are pleased to present to you the Comprehensive Annual Financial Report (CAFR) of the Pennsylvania State Employees' Retirement System (the System or SERS) for the calendar year ended December 31, 2002.

Financial Information

The System's management is responsible for the preparation, accuracy and objectivity of the financial 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 cause and effects of market conditions, legislation and changes in operations that affected the financial results 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 of Trustees 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 many of the emerging market funds.

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, 2001. 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.

Business Plan

In addition to the investment and financial aspects of the Fund, the System has several business goals, which support our vision of providing the best information, education, and counseling to help our members plan and prepare for retirement security. First, the System is developing a thorough demographic study of its membership to facilitate workforce planning, succession planning, and retirement forecasting. The study will determine possible effects on the retirement fund and annuity payroll, employer contribution rate, retirement rates, and the number of new and retired members.

Second, to support increased work levels, SERS is documenting its work processes to provide a centralized reference for staff. The processes will enable SERS to enhance services to members and to reduce the amount of time it takes for new employees to reach full competency.

Third, by using technology and customer service best practices, SERS will develop a variety of innovative member education techniques. The new Customer Relationship Management (CRM) system will enable SERS to track and maintain all membership contacts.

Fourth, SERS will provide business continuity through effective disaster recovery strategies. These strategies will be tested on an ongoing basis and changes will be incorporated as needed to improve responses to various scenarios.

Fifth, the Board plans to conduct an investment fiduciary review of its governance processes to determine fiduciary soundness and accountability and to demonstrate to the members and taxpayers that the Fund is prudently managed. Areas to be examined include the Fund's organizational structure, resources, and internal controls/risk management as well as the Board's current investment policy, consultants' responsibilities, and due diligence procedures.

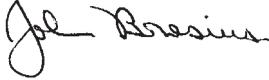
Finally, SERS will implement its 2003 annual five-year investment plan, which takes into account the current market conditions and challenges facing institutional investors. Current initiatives include maintaining the Plan's long-term asset allocation targets, and aggressively pursuing corporate governance initiatives to enhance levels of corporate accountability and restore investor confidence in the financial markets.

Acknowledgements

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

We will continue to work hard administering the System in a manner which will ensure the accurate timely payment of benefits, prompt and courteous service delivery that will keep pace with our membership's changing needs, and to minimize the cost of the Fund to the taxpayers of the Commonwealth through prudent and diligent management of the Fund's assets.

Respectfully submitted,



John R. Brosius
Executive Director



Francis J. Donlevy
Director, Office of Financial Management

FINANCIAL



Independent Auditors' Report

30 North Third Street
Suite 200
Harrisburg, PA 17108



The Board of Trustees 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, 2002 and 2001, 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 audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Commonwealth of Pennsylvania State Employees' Retirement System as of December 31, 2002 and 2001, 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 Governmental Accounting Standards Board. 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.

KPMG LLP

June 9, 2003

Management's Discussion and Analysis

This section presents Management's Discussion and Analysis of the Pennsylvania State Employees' Retirement System's (the "System") financial statements and the significant events and conditions which affected the operations and performance of the System during the years ended December 31, 2002 and 2001.

Overview of the Financial Statements and Accompanying Information

- 1) **Fund Financial Statements.** The System presents Statements of Plan Net Assets as of December 31, 2002 and 2001 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 and have additional detailed information to 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 and related notes concerning the funded status of the System and employer contributions 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 decreased approximately \$3.8 billion and \$3.2 billion during the years ending December 31, 2002 and 2001, respectively, as reflected in the table on page 6, primarily due to the continued decline in global equity markets.

Funded Ratio

The funded ratio of the plan measures the ratio of actuarially determined assets against actuarial liabilities and is a good indicator of the fiscal strength of a pension fund's ability to meet obligations to its members. The System is required to perform an annual actuarial valuation by statute. The date of the most recent available valuation showed the funded status of the System declining to 107.2% at December 31, 2002 from 116.3% at December 31, 2001. The amount by which actuarially determined assets exceeded actuarially determined liabilities was \$1.8 billion and \$3.8 billion for the years ended December 2002 and 2001, respectively. The decrease in the funded ratio was due to continued weak global equity markets. The funded ratio may continue to decrease if investment returns fail to meet actuarial assumptions.

Management's Discussion and Analysis

Contributions and Income

Additions to Plan Net Assets include employer and member contributions and net income from investment activities. Member contributions were approximately \$304 million, \$241 million, and \$232 million for the years ended December 31, 2002, 2001 and 2000, respectively, an increase of approximately \$63 million in 2002. The increase in 2002 was due primarily to an increase in the member rate provided by the enactment of Act 9. The member contribution rate is set by statute and increased for most members to 6.25% from 5.0% of the members' gross salary. Employer contributions decreased to approximately \$51 million in 2002 from approximately \$77 million in 2001 and \$168 million in 2000. The decrease was based on annual actuarial valuations that reduced the employer composite rate to almost 0% of reported payroll, effective July 1, 2001, from 1.39% and 5.0% for the previous two years. The decrease in the rate was due to actual investment returns exceeding actuarial estimates for much of the 1990s. Accordingly, because recent investment returns have been below the actuarially assumed rate of 8.5%, the employer rate is projected to increase significantly in future years. Ultimately, the employer rate will be determined based on the outcome of market returns and recovery, and potential changes in plan demographics. The employer rate for most Class A and AA members, as defined, which includes over 90% of all state employees, was set at 0%. However, the System does continue to receive employer contributions for certain classes of employers, specifically law enforcement, judiciary and the legislature. Receipts for contributions for those members, along with transfers of employee contributions from other state retirement systems, comprised the balance of the employer contributions recognized during 2002 and 2001.

Net investment losses totaled approximately \$2.7 billion during 2002, and \$2.2 billion in 2001 versus net investment income of \$586 million in 2000, resulting in returns of -10.9%, -7.9%, and 2.2%, respectively. For the 10-year period ended December 31, 2002, the System earned a compounded rate of return of 8.4%. The decrease in investment income in 2002 and 2001 was the result of the downturn in global equity markets.

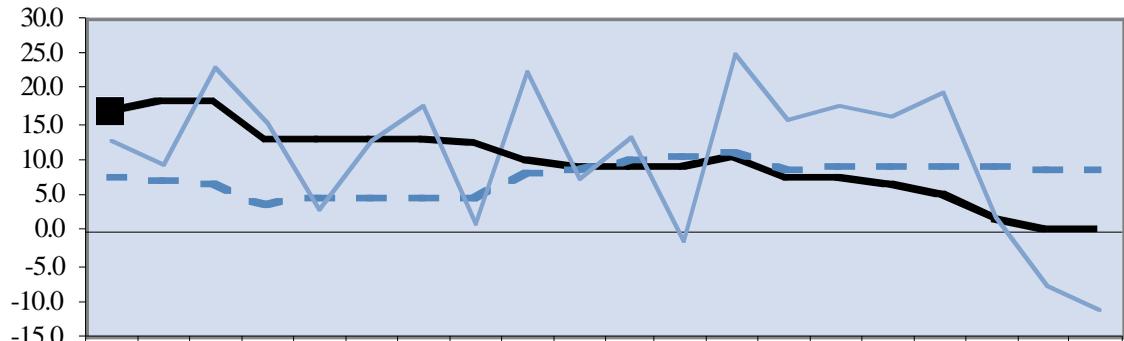
The most significant deduction from investment income is investment manager fees. The System's assets are managed 100% by external investment advisors hired by the Board of Trustees. Many of these managers are paid a fee based on the assets under management. Accordingly, those managers were generally compensated less than in prior years because of the effect of decreasing asset values. However, the industry practice for the general partners in limited partnership holdings is to pay fees based on commitments to the partnership. The \$4.4 million increase in investment expenses was due primarily to implementing the System's absolute return fund-of-fund strategies, offset by the termination of the tactical asset allocation program and decreased assets under management.

During 2001, the System's commitments to Alternative Investments increased by almost \$888 million from the prior year. Because of those increased commitments, investment expenses increased \$8 million from the year 2000.

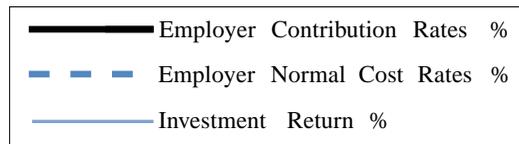
Prudent investment of the System's assets has enabled it to achieve and maintain fully funded status while decreasing the employer contribution rate. The composite employer rate, which had exceeded 12% as recently as 1990 and was as high as 18% in the early 1980's, has dropped to almost 0% in recent years. This has resulted in employer contributions decreasing from over \$418 million in 1990 to less than \$51 million in 2002. This is even more impressive when considering the active membership payroll has grown from \$3.2 billion in 1990 to over \$4.8 billion last year. The benefits of this performance pass directly back to the participating Commonwealth agencies and the taxpayers of Pennsylvania. See the chart on the following page which 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.

Management's Discussion and Analysis

History of SERS Employer Contribution Rates and Investment Return



	'83	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Employer Contribution Rates %	16.8	18.1	18.0	13.1	13.1	13.1	13.0	12.3	9.9	8.9	9.0	8.9	10.3	7.7	7.3	6.7	5.0	1.4	-	-
Employer Normal Cost Rates %	7.5	6.8	6.4	3.6	4.5	4.7	4.7	4.7	7.9	8.5	9.8	10.2	10.7	8.5	8.9	9.0	9.0	9.0	8.7	8.6
Investment Return %	13.0	9.4	23.1	15.2	3.3	12.8	17.8	1.0	22.6	7.4	13.2	(1.1)	25.2	15.9	18.0	16.3	19.9	2.2	(7.9)	(10.9)



Benefits, Refunds and Expenses

The most significant recurring deduction to Plan Net Assets is benefit payments. During 2002 and 2001, the System paid out approximately \$1.4 billion and \$1.2 billion, respectively, in benefits and refunds, an increase of approximately 15% in 2002. Those higher payments were due primarily to an increase in the number of retirees and the effect of Phase 1 of a two phase COLA which became effective July 1, 2002.

The COLA provided an average benefit increase of 13.86%. The table below shows the increase in retirees and monthly benefit payments since 2000. Benefits paid in 2001 increased from 2000 due to the increased number of retirees.

The administrative costs of the System represented less than 0.09% of average assets in both 2002 and 2001.

	Dec 2002	Dec 2001	Dec 2000
Monthly Benefit Payments	\$97 Million	\$86 Million	\$82 Million
Retirees	91,228	89,217	88,392

Plan Assets

During 2002, investments allocated to domestic and international equity portfolios decreased approximately \$1.3 billion and \$1 billion, respectively. The decrease is attributable to the decline in global equity markets. The tactical asset allocation class was terminated in 2002 and the assets were transferred into the S&P 500 account and to the cash reserves for payment of benefits. Decreases in plan assets during 2001 were due to payment of benefits to members and weak global equity markets. One year returns on asset classes are presented in the table on the following page:

Management's Discussion and Analysis

Asset Class	2002	2001	2000
Domestic Equities	-19.1 %	- 9.0 %	-6.5 %
International Equities	-16.0	-15.6	-6.8
Fixed Income Securities	6.8	5.2	7.6
Cash / STIF	2.4	3.4	6.3
Tactical Asset Allocation	N/A	- 8.0	-1.5
Real Estate	5.2	7.1	13.0
Private Equity	-6.9	-16.2	28.2
Venture Capital	-27.0	-36.2	92.7
Commodities	31.8	N/A	N/A
Total	-10.9 %	-7.9 %	2.2 %

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 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 estimates. 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 partnership 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 an annual independent audit. 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 2002, the System allocated approximately \$2.5 billion dollars to absolute return fund-of-fund strategies. The advisors for those 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. To reintroduce the market return, the System increased the use of derivatives by entering into approximately \$2.5 billion dollars of S&P 500 swaps in 2002. The combination of the S&P 500 swaps and the absolute return fund-of-funds, if successful, will earn S&P 500 returns plus an attractive excess return from the absolute return fund-of-funds.

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 provided by the borrowers 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 2002 and 2001 was approximately \$8.4 million and \$9.9 million, respectively. While volumes were down in 2002, the System was able to earn higher margins due to demand for its small cap equity, corporate bond and international equity securities.

Act 2002-38

On April 23, 2002, the governor of Pennsylvania signed Act 2002-38 (Act 38) into law. The significant provisions of the bill were to pass a two-phase cost of living allowance (COLA). Members in the first phase, those who retired prior to July 2, 1990 will receive COLA increases ranging from 8.0% to 25.0% depending on their date of retirement effective July 1, 2002. Members in the second phase, those who retired between July 2, 1990 and July 1, 2002 will receive COLA increases ranging from 2.27% to 9.0% depending on their date of retirement effective July 2, 2003. Members of Class AA, T-D and D-4 were excluded from the COLA. These and other provisions of Act 38 are discussed in footnote 10 of the accompanying financial statements.

Management's Discussion and Analysis

CONDENSED FINANCIAL INFORMATION

Net Assets (in Millions)

Assets	2002	Increase (Decrease)	2001	Increase (Decrease)	2000
Total Receivables	\$471	\$187	\$284	(\$37)	\$321
Total Investments	21,343	(3,815)	25,158	(3,226)	28,384
Security Lending Collateral Pool	<u>1,235</u>	<u>22</u>	<u>1,213</u>	<u>272</u>	<u>941</u>
Total Assets	<u>23,049</u>	<u>(3,606)</u>	<u>26,655</u>	<u>(2,991)</u>	<u>29,646</u>
Liabilities					
Accounts Payable	40	(4)	44	2	42
Investment Purchases Payable	894	202	692	(90)	782
Obligations Under Security Lending	1,235	22	1,213	272	941
Total Liabilities	<u>2,169</u>	<u>220</u>	<u>1,949</u>	<u>184</u>	<u>1,765</u>
Total Net Assets	<u>\$20,880</u>	<u>(\$3,826)</u>	<u>\$24,706</u>	<u>(\$3,175)</u>	<u>\$27,881</u>

Changes in Net Assets

Additions	2002	Increase (Decrease)	2001	Increase (Decrease)	2000
Member Contributions	\$304	\$63	\$241	\$9	\$232
Employer Contributions	51	(26)	77	(91)	168
Investment Income	<u>(2,731)</u>	<u>(505)</u>	<u>(2,226)</u>	<u>(2,812)</u>	<u>586</u>
Total Additions	<u>(2,376)</u>	<u>(468)</u>	<u>(1,908)</u>	<u>(2,894)</u>	<u>986</u>
Benefits and Refunds	1,430	185	1,245	68	1,177
Administrative Expenses	<u>20</u>	<u>(1)</u>	<u>21</u>	<u>—</u>	<u>21</u>
Total Deductions	<u>1,450</u>	<u>184</u>	<u>1,266</u>	<u>68</u>	<u>1,198</u>
Decrease in Net Assets	<u>(\$3,826)</u>	<u>(\$652)</u>	<u>(\$3,174)</u>	<u>(\$2,962)</u>	<u>(\$212)</u>

(Numbers may not add due to rounding)

Financial Statements

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(Amounts in thousands)

	2002	2001
Assets:		
Receivables:		
Plan members	\$ 1,691	1,387
Employers	810	1,727
Investment income	93,821	89,571
Investment proceeds	371,654	186,976
Miscellaneous	<u>2,916</u>	<u>4,512</u>
Total receivables	<u>470,892</u>	<u>284,173</u>
Investments:		
Short-term investment funds	738,513	810,937
United States government securities	2,466,865	2,004,768
Corporate and foreign bonds and notes	2,164,260	2,731,890
Common and preferred stocks	7,226,786	7,184,095
Collective trust funds	3,860,397	7,396,900
Real estate	2,422,563	2,532,751
Alternative investments	<u>2,463,623</u>	<u>2,496,474</u>
Total investments	21,343,007	25,157,815
Securities lending collateral pool	<u>1,235,378</u>	<u>1,212,508</u>
Total assets	<u>23,049,277</u>	<u>26,654,496</u>
Liabilities:		
Accounts payable and accrued expenses	39,974	43,606
Investment purchases	894,366	692,319
Obligations under securities lending	<u>1,235,378</u>	<u>1,212,508</u>
Total liabilities	<u>2,169,718</u>	<u>1,948,433</u>
Net assets held in trust for pension benefits	<u>\$20,879,559</u>	<u>24,706,063</u>

(A Schedule of Funding Progress is presented on page 22.)

See accompanying notes to financial statements.

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	2002	2001
Additions:		
Contributions		
Plan members	\$304,233	240,528
Employers	<u>50,831</u>	<u>76,710</u>
Total contributions	<u>355,064</u>	<u>317,238</u>
Investment loss:		
Net depreciation in fair value of investments	(1,915,634)	(1,790,575)
Collective trust fund depreciation and income	(1,310,044)	(1,014,578)
Interest	303,421	388,626
Dividends	112,015	106,253
Real estate	193,719	182,423
Miscellaneous	<u>30,035</u>	<u>41,111</u>
	(2,586,488)	(2,086,740)
Investment expenses	<u>(153,211)</u>	<u>(148,778)</u>
Net loss from investing activities	<u>(2,739,699)</u>	<u>(2,235,518)</u>
From securities lending activities:		
Securities lending income	26,696	54,813
Securities lending expenses	<u>(18,292)</u>	<u>(44,922)</u>
Net income from securities lending activities	<u>8,404</u>	<u>9,891</u>
Total net investment loss	<u>(2,731,295)</u>	<u>(2,225,627)</u>
Total additions	<u>(2,376,231)</u>	<u>(1,908,389)</u>
Deductions:		
Benefits	1,426,257	1,237,953
Refunds of contributions	4,160	7,176
Administrative expenses	<u>19,856</u>	<u>20,887</u>
Total deductions	<u>1,450,273</u>	<u>1,266,016</u>
Net decrease	(3,826,504)	(3,174,405)
Net assets held in trust for pension benefits:		
Balance, beginning of year	<u>24,706,063</u>	<u>27,880,468</u>
Balance, end of year	<u>\$20,879,559</u>	<u>24,706,063</u>

See accompanying notes to financial statements.

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(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, two 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 Treasurer of the Commonwealth of Pennsylvania is the custodian of the System's funds.

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 of Pennsylvania 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, 2002 and 2001, System membership consisted of:

	<u>2002</u>	<u>2001</u>
Retirees and beneficiaries currently receiving benefits	91,228	89,217
Terminated employees entitled to benefits but not yet receiving them	5,216	4,877
Current active employees	<u>111,059</u>	<u>109,716</u>
Total members	<u>207,503</u>	<u>203,810</u>
Number of participating agencies	<u>105</u>	<u>106</u>

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(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.

On May 17, 2001 Act 2001-9 (Act 9) was signed into law creating, among other things, a new class of service, Class AA. State employees hired after June 30, 2001 (except State Police officers and certain members of the judiciary and legislators), are Class AA members. Election into Class AA for members of Class A hired before that date was voluntary and substantially all members chose this option. The multiplier for Class AA is 1.25, which 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.

Effective with the enactment of Act 9 into law, vesting requirements generally were reduced from 10 years to 5 years of credited service for current members of the System. Act 9 also amends the various provisions of the Code to provide that the new benefits in the Act will be funded over a ten-year period, with level dollar funding, beginning July 1, 2002. Act 9 also provides that all the existing actuarial liabilities and assets will be rolled together and refinanced over a ten year funding period, with level dollar funding beginning July 1, 2002. Future actuarial gains and losses are to be amortized using the ten-year level dollar funding.

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

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(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:

	2002	2001
Employer normal cost	8.68%	8.87%
Amortization of unfunded actuarial assets in excess of liabilities	(11.70)	(10.63)
Amortization of supplemental annuities	<u>3.02</u>	<u>2.46</u>
Total employer cost	<u><u>0.0%</u></u>	<u><u>0.70%</u></u>

Effective July 1, 2004, the minimum employer contribution rate will be set at 1%.

The general membership contribution rate for all Class A and Class AA members was 5% of salary through December 31, 2001. Effective January 1, 2002, the Class AA membership rate increased to 6.25%. The contribution rate for eligible members electing Class D-4 status increased to 7.5% effective July 1, 2001. 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.

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(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.

The System follows GASB guidance as applicable to proprietary funds and applies only those applicable Financial Accounting Standards Board (FASB) Statements and Interpretations, Accounting Principles Board Opinions, and Accounting Research Bulletins issued on or before November 30, 1989, that do not conflict with or contradict GASB pronouncements.

(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.

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 result in a return

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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 net values 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 administrative expenses directly related to the System's investment operations.

(d) Commitments

As of December 31, 2002 and 2001, the System had contractual commitments totaling approximately \$2.7 billion and \$2.8 billion, respectively, to fund future alternative investments and \$195 million and \$180 million to fund future real estate investments.

(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, 2002 and 2001, \$2.5 million and \$2.2 million, respectively, were accrued for unused vacation and sick leave for the System's employees.

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(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. To cover such risks, the System carries directors and officers' liability insurance, and fiduciary liability insurance. It also requires asset managers to carry appropriate insurance coverages. As an administrative agency of the Commonwealth, the System is accorded sovereign immunity, and it participates in a state property insurance program. As Commonwealth employees, the System's employees receive health insurance benefits, disability retirement benefits, and workers' compensation benefits. During the past three fiscal years, insurance settlements did not exceed insurance coverage.

(h) Reclassification

Certain 2001 balances have been reclassified to conform with the 2002 presentation.

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(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.

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.

Fund balances at December 31, 2002 and 2001 are as follows:

	<u>2002</u>	<u>2001</u>
Members Savings Account	\$3,498,672	3,344,107
State Accumulation Account	8,793,732	13,779,208
Supplemental Annuity Account	(1,066,565)	(1,143,658)
Annuity Reserve Accounts:		
Annuitants and Beneficiaries	8,510,412	7,575,058
State Police	1,114,014	1,124,075
Enforcement Officers	<u>29,294</u>	<u>27,273</u>
Total	<u>\$20,879,559</u>	<u>24,706,063</u>

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(4) Investments

As provided by statute, the System's Board of Trustees (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, which requires the exercise of due care in establishing investment policy, and 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, including all investment types held in the portfolio at December 31, 2002 and 2001, and at all times during those years.

The System's investments are categorized below to give an indication of the level of custodial credit (counterparty) risk assumed by the System at December 31, 2002 and 2001. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments held by the custodian which are subject to categorization are held in book-entry form. Therefore, all such investments are in Category 1, which is defined as insured or registered investments for which the securities are held by the System or its agent in the System's name.

Investments also may be categorized as Category 2, which is defined as uninsured or unregistered investments for which the securities are held by the counterparty's trust department or agent in the System's name, and Category 3, which is defined as uninsured or unregistered investments for which the securities are held by the broker or dealer or by its agent, but not in the System's name. Additionally, the System has investments that are not in any of the three defined categories because securities are not used as evidence of the investment. Such investments are separately identified.

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	2002	2001
Investments – Category 1:		
United States government securities	\$ 1,792,059	1,579,085
Corporate and foreign bonds and notes	1,762,348	2,199,177
Common and preferred stocks	4,396,622	6,628,549
Real estate investment trusts	<u>347,315</u>	<u>349,223</u>
Total Category 1 investments	<u>8,298,344</u>	<u>10,756,034</u>
Investments – not categorized:		
Investments held by broker/dealers under securities lending agreement:		
United States government securities	\$ 674,806	425,683
Corporate and foreign bonds and notes	314,173	434,837
Common and preferred stocks	321,354	355,546
Short-term investment funds	738,513	810,937
Collective trust funds	3,860,397	7,396,900
Mortgage loans	87,739	97,876
Limited partnerships*	<u>7,047,681</u>	<u>4,880,002</u>
Total not-categorized investments	<u>13,044,663</u>	<u>14,401,781</u>
Total investments	<u>\$21,343,007</u>	<u>25,157,815</u>

*Not categorized investments in limited partnerships include real estate, alternative investments, and absolute return fund-of-funds.

The System's real estate holdings that are located in the Commonwealth of Pennsylvania total approximately \$471 million and \$452 million or 19.4% and 17.8% of the real estate portfolio at December 31, 2002 and 2001, respectively. Concentrations of investments in a particular geographic area have certain risks and uncertainties associated with the concentration. The System's remaining real estate investments are not concentrated in any one geographic area or industry.

The System's investments in corporate and foreign bonds and notes include approximately \$767 million and \$774 million of high-yield bonds at December 31, 2002 and 2001, respectively.

(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.

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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, 2002 and 2001, 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.

All securities loans at December 31, 2002 and 2001 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, 2002 and 2001 was 19 days and 26 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, 2002 and 2001, respectively, the fair value of loaned securities was \$1,310,333 and \$1,216,066; the fair value of the associated collateral was \$1,343,528 and \$1,251,086 of which \$1,235,378 and \$1,212,508 was cash.

Securities lent at year end are presented as unclassified in the preceding schedule of custodial credit risk. 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.

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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, 2002 and 2001, the System's contracts to purchase and sell foreign currencies were as follows:

	2002		2001	
	Notional amount	Unrealized gain (loss)	Notional amount	Unrealized gain (loss)
Purchase contracts	\$5,240,796	(180,702)	3,999,140	66,974
Sell contracts	5,189,305	129,211	3,113,334	(43,500)

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 2004. The notional value of these contracts at December 31, 2002 and 2001 is as follows:

	2002		2001	
	Buy contracts	Sell contracts	Buy contracts	Sell contracts
Eurodollar futures	\$ 27,378	47,960	9,246	155,711
Euro bond futures	49,443	41,345	—	—
Japan bond futures	51,475	—	—	—
Treasury futures	20,401	339,804	214,110	259,375
S&P futures	319,175	417	845,878	598

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. The securities the System pledged as collateral on futures purchases and short sales at December 31, 2002 and 2001 represent restricted assets.

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(Dollar amounts in thousands)

Swap agreements provide for periodic payments between parties based on the net difference in the cash flows of underlying assets, indexes, or rates. During 2002 and 2001, 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 from the swap counterparty in return for the 90-day Treasury Bill rate, which it pays to the counterparty. The commodity swaps are used as an inflation hedge and settle on a monthly basis. In addition, during 2002, the System

also entered into swap arrangements to gain equity exposure on its absolute return fund-of-fund 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 to diversify its credit risk. The contracts have varying maturity dates ranging from March 19, 2003 through December 19, 2003.

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

	<u>Notional value</u>		<u>Receivable/(payable)</u>	
	2002	2001	2002	2001
Goldman Sachs				
Commodity Index	\$ 324,503	250,000	25,000	—
Interest rate	32,600	—	(729)	—
S&P 500 Total				
Return Index	2,378,538	—	(191,169)	—

The System generally requires collateral on these swaps based on the counterparty's credit rating in order to reduce the risk of counterparty nonperformance.

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, 2002 and 2001, the System earned \$711 and \$664 of benefits resulting from a commission recapture program, respectively. The System used the program to pay approximately \$898 and \$1,466 of consulting, advisory, and other expenditures for the years ended December 31, 2002 and 2001, respectively. At December 31, 2002 and 2001, the System has accumulated \$2,079 and \$2,266, respectively, of benefits that are available for future expenditures.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
(a component unit of the Commonwealth of Pennsylvania)
Notes to Financial Statements
December 31, 2002 and 2001
(Dollar amounts in thousands)

(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, 2002, 2001 and 2000 were \$0, \$27, and \$198, respectively, which were equal to the required contributions each year.

(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 up to \$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:

Phase One, effective July 1, 2002:

<i>Date of retirement</i>	<i>Percent Increase</i>
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:

<i>Date of retirement</i>	<i>Percent Increase</i>
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 \$365 million for Phase Two. Funding for Phase One will commence on July 1, 2003 and funding for Phase Two will begin on July 1, 2004. The effect on the employer contribution rate is expected to be 0.77% and 1.16% for Phase One and Phase Two respectively. The cost of the COLA will be amortized under a 10-year level amortization schedule. Act 38 also enacted a minimum employer contribution floor rate of 1% beginning July 1, 2004.

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>
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)
1998	20,671	18,358	(2,313)	112.6	4,446	(52.0)
1997	18,565	17,288	(1,277)	107.4	4,219	(30.3)

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>
2002	\$ 22,906	221.9 %
2001	52,104	147.2
2000	168,002	100.0
1999	269,869	100.3
1998	310,501	100.0
1997	324,093	100.0

During the years 2002 and 2001, actual contributions exceeded the annual required contributions (ARC). For the period July 1, 2001 through December 31, 2002 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.

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, 2002 and 2001

Actuarial information as of the latest actuarial valuation:

Valuation date	December 31, 2002
Actuarial cost method (a)	Variation of entry age actuarial cost method
Amortization method (b)	10 year schedule with level payments
Remaining amortization period (b)	10 years, closed
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investments 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

- (a) 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.
- (b) The December 31, 2001 valuation included the effect of Act 9, which increased the actuarial accrued liabilities by approximately \$2.7 billion. In conjunction with the adoption of Act 9, the amortization method and remaining amortization period were changed as discussed in footnote 1(b) to the audited financial statements.
- (c) Includes inflation at 3%.

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, 2002 and 2001

- (d) Information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. The effects of cost of living adjustments 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	On or before July 1, 1990	8.0% - 25.0%	July 1, 2002	\$257 million
2002	July 2, 1990 - July 1, 2002	2.27% - 9.01%	July 2, 2003	\$365 million
1997	On or before June 30, 1997	1.86% - 25.0%	July 1, 1998	\$478 million

Significant Changes in Prior Years

In the valuation years ended December 31, 1999, 1998, and 1997, actual investment earnings exceeded the expected rates of return, thereby causing an increase in the valuation years' actuarial value of assets reported in the schedule of funding progress and reduction in the following years' annual required contribution reported in the schedule of employer contributions. For the years ended December 2002, 2001 and 2000, actual investment earnings were less than expected rates and contributed to the decrease in the funding ratio in 2002.

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, 2002
(Dollar amounts in thousands)

Personnel services:		
Salaries	\$ 9,057	
Benefits	2,854	
Temporary personnel wages, overtime, and outservice training	<u>316</u>	
Total personnel services		\$12,227
Professional services:		
Consultant fees	1,922	
EDP contractual services vendor provided	1,099	
Commonwealth Central services	525	
Treasury Department services	513	
Legal fees	<u>26</u>	
Total professional services		4,085
Rentals:		
Real estate rent	1,281	
Other equipment rental	<u>297</u>	
Total rentals		1,578
Communication:		
Postage	415	
Telephone	285	
Printing and advertising	<u>104</u>	
Total communication		804
Other expenses:		
Supplies	520	
EDP software	200	
Maintenance	194	
Travel and conferences	154	
EDP and office equipment	80	
Subscriptions and memberships	<u>14</u>	
Total other expenses		<u>1,162</u>
Total administrative expenses		<u><u>\$19,856</u></u>

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, 2002
(Dollar amounts in thousands)

Investment Expenses

		Fees	
Investment manager fees:			
Alternative investments	\$	76,388	
Stocks		44,680	
Real estate		19,219	
Fixed income		11,770	
Commodities		505	
		152,562	
Total investment manager fees			152,562
Investment Related Expenses:			
Alternative investments		243	
Custodial		216	
Fixed income		142	
Legal		48	
		649	
Total other fees			649
Total investment expenses	\$		153,211

Consulting Fees

Firm	Category		Fees
Cambridge Associates Inc.	Private Equity	\$	896
HayHuggins Company Inc.	Actuary		389
The Townsend Group	Advisory Real Estate		204
Rocaton Investments	General Investment		138
Institutional Shareholder Services	Proxy Services		125
BARRA Rogers' Casey, Inc.	General Investment		70
Other			100
			1,922
Total consulting fees		\$	1,922

INVESTMENT



Report on Investment Activity

*Peter M. Gilbert
Chief Investment Officer*

June 2003

Dear Members:

For the country, the financial markets and the Retirement System's investment program 2002 turned out to be an extension of the very difficult year 2001. The hangover from the collapse of the "internet bubble" and the broader financial markets, the weak economy, the war on terrorism and the series of accounting scandals made for a very troubled investment environment.

For the past few years we have been cautioning not to expect the double-digit returns of the 1990's to continue indefinitely. Unfortunately, the warning has been realized all too brutally. During the year the total fund produced a return of -10.9%. Although significant declines in the financial markets have taken a toll on Fund performance, SERS annualized return of 8.4% over the past ten years approximates the Fund's actuarial assumed rate of return of 8.5%. Thus, in spite of these declines over the most recent years, the Fund continues to enjoy a fully funded status and declining contributions to meet ever-increasing benefit obligations.

Most importantly, these returns have been earned in accordance with the investment policy and objectives set out by the Board of Trustees 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 of Trustees 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 reducing risk.

The SERS Investment Office, in conjunction with the Fund's three consultants, performs a review of the asset allocation annually, recommending any modifications to asset classes and future allocations. The results are reviewed and adopted by the Board of Trustees. The asset allocation decisions are among the most important decisions the Board of Trustees make 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 in which we are able to invest. Perusal 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. Commensurate with the diversification is the reduction of risk the Fund has been able to achieve. In more colloquial terms, we are not trying to hit a home run or take one large bet; rather, we attempt to hit a lot of singles and spread our bets over a broad range of opportunities so that the odds are in our favor of achieving the Fund's long-term investment objectives.

The solid investment performance results over the past decade have been driven most notably by the extended bull market in U.S. stocks and a record-breaking ten-year expansion of the U.S. economy. During this period of rising markets and economic expansion we experienced historically low economic and financial volatility. We were blessed with both low inflation and low unemployment at the same time that growth had persisted. Most of the surprises during this time had been positive and on the upside. Because things had been so good, there was a tendency to underestimate risk going forward, but markets tend to run in cycles. The wonderful bull market we experienced in the 1990's has been replaced by the third worst

bear market in history with the S&P 500 Index declining 49% from its peak to trough. Furthermore, as of December 31, 2002, this bear market has matched the duration of the worst bear market during the “Great Depression” at 33 months.

In the last few years the U.S. stock market witnessed higher levels of volatility. The sustained market correction, fueled by weak corporate earnings, corporate scandals and the uncertainty about the U.S. economy resulted in a continuation of this trend through 2002. This uncertainty was not confined to the U.S., but permeated global stock markets as corporate earnings remained weak and local economies faltered. Consequently, negative stock market performance offset positive gains in the fixed income and real estate asset classes. The financial markets and consumer confidence remained shattered. Consequently, in 2002 the S&P 500 declined 21.5%, while the NASDAQ dropped 31.5%. In aggregate, overseas stocks declined 15.7%. These stock market declines contributed substantially to the 10.9% decline for the total Fund during 2002. However, even with the disappointing equity market returns over the past three years, SERS has maintained a funding ratio over 100%, meaning that assets are sufficient to meet liabilities.

The Fund experienced a continuation of this negative trend during the first quarter of 2003. However, with the advent of the second quarter there has been a sharp reversal in stock returns, both domestic and international. As of the writing of this letter, domestic stocks have appreciated in excess of 14% and international stocks approximately 12%. These strong gains complement the 10% gains in the fixed income asset class. If these domestic stock returns persist through the balance of the quarter, they will represent the second largest quarterly gain in the past 15 years. Such levels of performance has occurred prior to the transitioning from periods of slow to faster growth and are typical of gains seen at the beginning of most economic recoveries.

It is for these reasons that the Investment Office continuously monitors economic and market events and works to position the Fund through broad diversification to be in a position to address a variety of different economic scenarios. In addition, we continue to rebalance the Fund on an ongoing basis toward our long-term asset allocation objectives in combination with both new investments and the need to provide capital to meet benefit obligations. Outside of this activity, you will notice that structurally relatively little has changed from the prior year. Under the supervision and guidance of the Board of Trustees, we believe the Fund structure is sound and has the ability to endure under a variety of market environments. We believe the Fund is well positioned to ensure the members receive the financial security that they have earned and that is due them.

Sincerely,



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 and maintain the State Employees' Retirement Fund in excess of Actuarial Accrued Benefit Liability;
- ✓ Over the long run, achieve a positive real total rate of return (with inflation measured by the GDP Implicit Price Deflator);
- ✓ Over the long run, achieve an absolute total rate of return not less than the actuarial investment return assumption;
- ✓ 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 NCREIF Index;
- ✓ 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.

Total return includes income and both realized and unrealized gains and losses and is computed on fair 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, 2002

<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 <i>Russell 3000 Index</i> ^{1/}	-19.1% -21.5%	-11.7% -13.7%	0.2% -0.8%	9.2% 8.8%
International Stocks <i>MSCI World ex US Index through 12/93; thereafter, SERS Custom International Stock Benchmark (26% Hedged)</i> ^{2/}	-16.0% -15.7%	-12.9% -15.0%	0.6% -2.3%	5.7% 3.8%
Fixed Income <i>SERS Custom Fixed Income Benchmark</i> ^{3/}	6.8% 9.2%	6.6% 7.1 %	5.7% 5.7%	7.5% 7.3%
Cash <i>90 day U.S. T-bills</i>	2.4% 1.8%	4.4% 4.1%	4.8% 4.5%	5.3% 4.6%
Real Estate ^{4/} <i>Townsend Stylized Benchmark</i>	5.2% 5.2%	8.4% 9.3%	9.9% 10.3%	8.7% 8.5%
Private Equity ^{4/} <i>Cambridge Private Equity Index</i>	-6.9% -8.8%	0.0% -2.5%	11.8% 7.0%	13.2% 14.6%
Venture Capital ^{4/} <i>Cambridge Venture Capital Index</i>	-27.0% -29.4%	-3.6% 1.0%	10.4% 22.4%	14.6% 27.9%
Total Fund	-10.9%	-5.7%	3.2%	8.4%
<i>Total Fund Benchmark</i>	-10.3%	-6.6%	2.5%	n/a

* Returns for periods longer than one year are annualized.

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.

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

^{2/} The SERS Custom International Index is constructed by combining developed and emerging markets outside of the United States.

^{3/} The SERS Custom Bond Index is constructed using the following indices: 20% Lehman Brothers Intermediate Government Bond Index; 30% Lehman Brothers Long Term Government Bond Index; 25% Lehman Brothers Corporate Bond Index; and 25% Lehman Brothers Mortgage Backed Securities Index.

^{4/} Results for the Real Estate, Private Equity, and Venture Capital and lagged one quarter.

Asset Allocation

**COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
Asset Allocation Report
December 31, 2002
(Unaudited)**

**Total Fund Summary
(millions)**

Asset Type	Fair Value	% of Total Fund	2002 Plan Policy Target
Domestic Stocks	\$ 7,395.5	35.4%	35.0 %
International Stocks	4,066.0	19.4%	19.0 %
Currency Overlay	(44.3)	-0.2%	0.0 %
Fixed Income	4,182.8	20.0%	22.0 %
Cash	112.4	0.5%	0.0 %
Real Estate	2,430.6	11.6%	10.0 %
Alternative Investments	2,440.3	11.7%	12.0 %
Commodities	325.0	1.6%	2.0 %
Total Fund	\$ 20,908.3	100.0 %	100.0 %

(Numbers in this report may not add due to rounding.)

**ASSET ALLOCATION
REPORT (continued)**

Dec 31, 2002

Unaudited

Domestic Stocks			
Name	Fair Value (millions)	% of Total Domestic Stocks	% of Total Fund
Passively Managed Portfolios			
Barclays Global Investors - S&P 500 Index Fund	\$ 2,911.8	39.4%	13.9%
Actively Managed Portfolios			
Artemis Investment Management	94.4	1.3%	0.5%
AXA Rosenberg Investment Management LLC	307.4	4.2%	1.5%
BAAM	788.4	10.7%	3.8%
BGI-Alpha Tilt	209.7	2.8%	1.0%
Clifton - Enhanced S&P 500	111.2	1.5%	0.5%
Emerald Advisers - PA Portfolio	96.1	1.3%	0.5%
First Quadrant - Market Neutral	49.3	0.7%	0.2%
Iridian Asset Management	294.7	4.0%	1.4%
J.P. Morgan Investment Management	131.0	1.8%	0.6%
Martingale - Market Neutral	56.0	0.8%	0.3%
Mellon Equity Associates - PA Portfolio	120.2	1.6%	0.6%
Mellon Equity Associates - Special Equity	209.4	2.8%	1.0%
Mesirow Absolute Return	586.0	7.9%	2.8%
Morgan Stanley Alternative Inv Partners	571.4	7.7%	2.7%
Morgan Stanley Alternative Inv Partners Equitization**	(191.2)	-2.6%	-0.9%
PAAMCO Absolute Return	570.2	7.7%	2.7%
Provident Investment Counsel	107.3	1.5%	0.5%
Provident Investment Counsel - Stellar Fund	124.8	1.7%	0.6%
Standish Mellon Asset Management - Market Neutral	50.5	0.7%	0.2%
Trinity Small Cap Value	118.1	1.6%	0.6%
Twin Market Neutral	53.7	0.7%	0.3%
Warburg Pincus Stock Distribution Acct	24.9	0.3%	0.1%
<i>Total Actively Managed Portfolios</i>	4,483.6	60.6%	21.4%
Total Domestic Stocks	\$ 7,395.5	100.0%	35.4%

**The \$(191.2) million balance reported in the Morgan Stanley Alternative Investment Program is the accrued gain/(liability) of the fund and represents the net asset value adjustment for the equitization of the absolute return fund-of-fund account as of the reporting date.

**ASSET ALLOCATION
REPORT (continued)**

Dec 31, 2002

Unaudited

International Stocks - Integrated Developed & Emerging Markets

Name	Fair Value (millions)	% of Total Integrated Developed & Emerging Markets	% of Total Fund
Passively Managed Portfolios			
State Street Global Advisors - Australia and New Zealand	\$ 28.4	0.8%	0.1%
State Street Global Advisors - Europe	355.8	10.3%	1.7%
<i>Total Passively Managed Portfolios</i>	384.2	11.1%	1.8%
Actively Managed Portfolios			
Credit Suisse Asset Management - global ex US	343.1	9.9%	1.6%
GAM Institutional Group Trust - Asia Pacific ex Japan	98.5	2.8%	0.5%
Henderson Global Investors (North America) - small cap	156.5	4.5%	0.7%
J.P. Morgan Investment Management - Japan	288.8	8.3%	1.4%
Marathon Asset Management - Europe	312.6	9.0%	1.5%
Merrill Lynch Investment Managers - small cap	309.3	8.9%	1.5%
Morgan Stanley - developed ex US	625.6	18.1%	3.0%
Morgan Stanley - Asia ex Japan	63.0	1.8%	0.3%
Pictet International Management - small cap	170.4	4.9%	0.8%
Scottish Widows Investment Partnership - Europe	234.2	6.8%	1.1%
Templeton Investment Counsel - global ex US	479.1	13.8%	2.3%
<i>Total Actively Managed Portfolios</i>	3,081.0	88.9%	14.7%
Total Integrated Developed & Emerging Markets	\$ 3,465.3	100.0%	16.6%

International Stocks - Dedicated Emerging Markets

Name	Fair Value (millions)	% of Total Dedicated Emerging Markets	% of Total Fund
Actively Managed Portfolios			
Capital International - Emerging Markets Growth Fund	\$ 130.4	21.7%	0.6%
Marvin & Palmer Emerging Markets Equity, L.P.	63.9	10.6%	0.3%
OCM Emerging Markets Fund II, L.P.	72.4	12.0%	0.3%
OCM Emerging Markets Fund, L.P.	55.8	9.3%	0.3%
Pictet International Management - Emerging Markets	103.9	17.3%	0.5%
Templeton Strategic Emerging Markets Fund, L.P.	82.1	13.7%	0.4%
Templeton TIFI - Emerging Markets Series	92.2	15.4%	0.4%
<hr/>			
<i>Total Actively Managed Portfolios</i>	600.7	100.0%	2.9%
<hr/>			
	\$ 600.7	100.0%	2.9%
<hr/>			
Total International Stocks	\$ 4,066.0	100.0%	19.4%

**ASSET ALLOCATION
REPORT (continued)**

Dec 31, 2002

Unaudited

Currency Overlay

Name	Fair Value (millions)	% of Total Currency Overlay	% of Total Fund
Pareto Partners	\$ (18.1)	40.9%	-0.1%
Record Treasury	(26.2)	59.1%	-0.1%
Total Currency Overlay	\$ (44.3)	100.0%	-0.2%

Fixed Income

Name	Fair Value (millions)	% of Total Fixed Income	% of Total Fund
Passively Managed Core Portfolios			
Mellon Bond Associates	\$ 481.4	11.5%	2.3%
Actively Managed Core Portfolios			
Fischer Francis Trees & Watts - International	361.9	8.7%	1.7%
J. P. Morgan Investment Management	526.8	12.6%	2.5%
John Hancock	200.6	4.8%	1.0%
Legg Mason Real Estate Advisors	57.1	1.4%	0.3%
MDL Capital Management	88.5	2.1%	0.4%
Miller, Anderson & Sherrerd - Domestic	831.8	19.9%	4.0%
Miller, Anderson & Sherrerd - Global	434.8	10.4%	2.1%
Taplin Canida	60.0	1.4%	0.3%
Total Actively Managed Core Portfolios	2,561.5	61.2%	12.3%
Actively Managed High Yield Portfolios			
Berwind - PA Capital Fund	12.3	0.3%	0.1%
Fidelity Management Trust Company - CMBS	197.1	4.7%	0.9%
OCM Mezzanine Fund	18.7	0.4%	0.1%
PNC Equity - PA Capital Fund	19.4	0.5%	0.1%
Salomon Brothers	498.2	11.9%	2.4%
Trust Company of the West - Funds III	0.0	0.0%	0.0%
W. R. Huff Asset Management	394.3	9.4%	1.9%
Total Actively Managed High Yield Portfolios	1,139.9	27.3%	5.5%
Total Fixed Income	\$ 4,182.8	100.0%	20.0%

**ASSET ALLOCATION
REPORT (continued)**

Dec 31, 2002

Unaudited

Cash			
Name	Fair Value (millions)	% of Total Cash	% of Total Fund
PA State Treasury - STIF *	\$ 112.4	100.0%	0.5%

* SERS investment advisors' cash balances are reflected within their own fair values but in fact are invested in the PA Treasury Short Term Investment Fund (STIF). The total STIF balance reported by the Master Trust Custodian was \$546.8 million at the end of the month.

**ASSET ALLOCATION
REPORT (continued)**

Dec 31, 2002

Unaudited

Real Estate			
Name	Fair Value (millions)	% of Total Real Estate	% of Total Fund
Separate Account Portfolios			
CRA Real Estate Securities	\$ 353.3	14.5%	1.7%
Forest Investment Associates (FIA)	141.3	5.8%	0.7%
Heitman Capital Management	211.4	8.7%	1.0%
LaSalle Investment Management	165.7	6.8%	0.8%
Legg Mason Real Estate Services	256.5	10.6%	1.2%
Lowes Enterprises	389.6	16.0%	1.9%
Urdang Investment Management	20.0	0.8%	0.1%
<i>Total Separate Account Portfolios</i>	1,537.6	63.3%	7.4%
Pooled Fund Portfolios			
AEW - CIIF II	2.2	0.1%	0.0%
Apollo - AREF III	53.1	2.2%	0.3%
Berwind - BPG IV	17.8	0.7%	0.1%
Berwind - BPG V	22.2	0.9%	0.1%
Berwind - BPG VI	1.2	0.0%	0.0%
Blackstone - BREP II	18.9	0.8%	0.1%
Blackstone - BREP III	34.5	1.4%	0.2%
Cliffwood Select Equity Fund	23.9	1.0%	0.1%
Eastern Retail Holdings	48.5	2.0%	0.2%
Goldman Sachs - Whitehall V & VI	31.8	1.3%	0.2%
Heitman - California Land Venture	0.0	0.0%	0.0%
JMB Group Trust III	0.2	0.0%	0.0%
Lubert-Adler Fund II	23.7	1.0%	0.1%
Lubert-Adler Fund III	17.6	0.7%	0.1%
Miller Global Fund III	19.7	0.8%	0.1%
Oxford Development Fund	50.9	2.1%	0.2%
Prudential Senior Housing Partners	26.6	1.1%	0.1%
Prudential Senior Housing Partners II	6.6	0.3%	0.0%
Sentinel	60.6	2.5%	0.3%
Starwood Capital - SOFI IV	31.7	1.3%	0.2%

Starwood Capital - SOFI V	52.9	2.2%	0.3%
Starwood Capital - SOFI VI	6.8	0.3%	0.0%
TCW Fund VI	90.9	3.7%	0.4%
UBS	164.2	6.8%	0.8%
Westbrook - WREF II	16.0	0.7%	0.1%
Westbrook - WREF III	53.4	2.2%	0.3%
Westbrook - WREF IV	17.0	0.7%	0.1%
<i>Total Pooled Fund Portfolios</i>	893.0	36.7%	4.3%
<i>Total Real Estate</i>	\$ 2,430.6	100.0%	11.6%

** Fair Values represent September 30, 2002 values as reported by the investment managers adjusted for allocations and distributions. Values for publicly traded REITs represent values reported as of December 31, 2002.

ASSET ALLOCATION REPORT (continued)	Dec 31, 2002		Unaudited
	Commodities		
Name	Fair Value (millions)	% of Total Commodities	% of Total Fund
Actively Managed Portfolios			
NISA Investment Advisors	\$ 325.0	100.0%	1.6%

Largest Assets Held

Domestic Equity		International Equity	
Holding	Fair Value	Holding	Fair Value
Microsoft	\$104,887,846	BP PLC	\$48,817,753
General Electric	89,950,325	Nestle SA CHF1	45,266,984
Exxon Mobil	86,699,335	Total Fina Elf Eur10	42,969,401
Wal Mart	82,243,050	Royal Dutch Petroleum	42,673,397
Pfizer	69,968,810	Vodafone Group	42,283,930
Citigroup	68,704,109	ENI Eur1	41,038,454
Johnson & Johnson	58,798,760	Novartis Ag CHF 0.50	37,028,555
American International Group	55,945,921	Aventis Eur 3.82	36,754,130
IBM	49,015,057	Glaxosmithkline Ord	34,997,124
Merck	46,626,867	UBS Ag CHF 0.80	34,993,815

U.S. Government

US Treasury Notes, 6.5%, February 15, 2010	\$60,661,983
US Treasury Bonds, 8.125%, August 15, 2019	45,851,305
US Treasury Bond Strip Prin Pmt, 8.75%, August 15, 2020	43,284,844
US Treasury Bonds, 8.75%, August 15, 2020	36,301,228
US Treasury Bonds, 8.5%, February 15, 2020	34,597,440
US Treasury Bonds, 8.125%, August 15, 2021	32,752,347
US Treasury Bonds, 6.125%, August 15, 2029	30,889,519
US Treasury Bonds, 5.25%, February 15, 2029	29,030,100
US Treasury Notes, 2.125%, August 31, 2004	26,282,388
US Treasury Bonds, 6.125%, November 15, 2027	25,279,199

Domestic Corporate Fixed Income

Comcast Corp Sr Sub Deb, 10.625%, July 15, 2012	\$15,415,510
Citibank Cr Card Tr 01-A8, 4.1%, December 7, 2006	13,505,418
Voicestream Wireless Corp Note, 10.375%, November 15, 2009	12,799,500
Medpartners Inc New Sr Note, 7.375%, October 1, 2006	12,714,300
Western Wireless Corp, 10.5%, February 1, 2007	12,164,100
AT&T Wireless Services Inc Sr Note, 8.75%, March 1, 2031	11,216,100
Nextel Communications Inc Sr, 9.5%, February 1, 2011	10,938,600
Citibank Cr Card ISS 2000-A3, 6.875%, November 16, 2009	10,684,729
First USA Cr Card 01-4 CL A, Floating Rate, January 12, 2009	10,020,100
Stone Container Corp Sr Note, 9.75%, February 1, 2011	9,362,500

International Fixed Income

France Govt, 6.5%, April 25, 2011	\$71,416,122
Spain Govt, 6.0%, January 31, 2008	44,633,627
Japan Govt, 1.7%, March 22, 2010	37,238,472
France Govt, 8.5%, October 25, 2019	34,812,016
Canada Govt, 5.5%, June 1, 2009	31,838,289
Japan Govt, 1.5%, December 20, 2011	30,085,523
Belgium, 8.0%, March 28, 2015	24,782,693
Sweden, 6.0%, February 9, 2005	24,060,418
Germany, 6.5%, July 4, 2027	15,197,873
Deutsche Telekom, Step, June 15, 203014,843,678	

Schedule of Broker Commissions

Year Ended December 31, 2002

<u>Broker</u>	<u>Commissions</u>	<u>Broker</u>	<u>Commissions</u>
Salomon Smith Barney	\$1,022,821	Credit Lyonnais	\$101,702
First Boston Corp	989,575	Prudential Securities	100,708
Merril Lynch	785,955	Paine Webber	89,266
Lehman Brothers	552,275	SG Cowen Securities	88,295
Morgan Stanley	531,437	Deutsche Securities	84,551
Goldman Sachs	483,822	Green Street Advisors	84,042
Instinet	472,630	Weeden & Company	82,036
Union Bank of Switzerland	458,047	Cheuvreux De Virieu	80,840
Deutsche Bank	384,258	Jones & Associates	77,717
J. P. Morgan	381,309	Ormes Capital Markets	77,364
Rochdale Securities	329,207	Nutmeg Securities	76,299
Investment Technology Group	316,257	Westminster Research Associates	70,806
B Trade Services	302,227	Daiwa Bank	66,100
James Capel	295,541	Oppenheimer	60,346
Cazenove	253,621	Wilshire Associates	60,154
Williams Capital Group	248,067	Societe Generale	59,392
Morgan Grenfell	244,171	ING Bank	59,280
Warburg Dillon Read	237,025	Liquidnet	53,987
Bear Stearns	208,507	HSBC Securities	52,117
Lynch Jones & Ryan	194,428	IBJ International	51,861
Jefferies & Company	185,192	Vickers Ballas	49,064
U.B.S. Securities	182,398	Dean Witter Reynolds	46,311
Kleinwort Benson	179,965	Capital Institutional Investors	44,799
Cantor Fitzgerald	172,807	Citation Group	44,786
Execution Services	167,225	Soundview Financial Group	44,382
Legg Mason	145,113	Intermonte Sec Cim	43,480
Montgomery Securities	144,947	PCS Securities	42,990
Heflin & Company	135,290	Enskilda Securities	42,054
First Union Capital Markets	134,773	Bank Of America	41,795
ABN AMRO	132,453	Nesbitt Burns	40,597
Nomura Bank International	130,215	Janus Fund	39,507
Spear Leeds & Kellogg	125,574	Knight Securities Broadcort	38,946
Carnegie	118,553	Collins Stewart	38,676
Hoare Govett	115,964	Bancboston Robertson Stephens	38,278
CI Nordic Securities	111,450	Magna Securities	35,090
SK International Securities	110,685	Janney Montgomery Scott	34,738
Dain Rauscher	109,637	Sal Oppenheim	31,766

Schedule of Broker Commissions
(Continued)

<u>Broker</u>	<u>Commissions</u>	<u>Broker</u>	<u>Commissions</u>
Commerzbank	31,606	Williams De Broe	16,731
Friedman Billings	31,465	Toronto Dominion Bk	16,464
ABG Securities	31,423	Adams Harkness & Hill Inc,	15,899
Wexford Clearing Services	31,272	First Albany	15,893
International Netherlanden	29,390	Henderson Crosthwaite & Co.	15,576
Thomas & Weisel	28,878	W. I. Carr	15,285
Fidelity Capital Markets	28,142	Macquarie Bank	14,818
Dunwoody Brokerage Services	27,994	Sandler O'Neil	14,551
Hong Kong & Shanghai Bank	27,846	Ernst & Company	14,450
Neuberger & Berman	27,020	Standard And Poors Securities	14,428
Sanford C Bernstein & Co.	26,981	Bridge Trading Company	14,154
Banco Santander	26,814	Brazilian Securities	14,051
Donaldson Lufkin & Jenrette	26,432	Second Street Securities	13,920
Davy Stockbrokers	26,094	BNP Capital Markets	13,423
Petercam	25,663	Henderson Brothers Inc.	13,416
J. B. Were & Son	25,581	Sutro And Company	13,223
Troster Singer	25,564	Fox-Pitt Kelton	13,129
Julius Baer Securities	25,166	Lombard Odier Et Cie	13,101
Exane	23,221	Piper Jaffray & Hopwood	12,887
Mcdonald & Company Securities	22,981	DBS Securities	12,767
Monness	22,548	Seslia Securities	12,604
Archipelago BCC Capital	21,831	ISI Group	12,437
Jardine Fleming Brokering	21,740	RBC Dominion Secs Corp	12,428
Chase Manhattan Bank	20,746	Pulse Trading	12,343
William Blair & Company	20,575	Brockhouse And Cooper	12,262
J. Vontobel	20,522	Keefe Bruyette & Woods	12,175
Neue Zurich Bank	20,388	Phoenix Capital Markets	11,942
A. G. Edwards & Sons	19,204	Banque Paribas	11,537
Tsubasu Securities	18,890	Rabo Securities	10,913
Mackenzie Financial Corp	18,217	Bank Of New York	10,855
Hoening & Company	18,045	Gerard Klauer Mattison	10,262
CIBC World Mkts Inc	17,818	Correspondent Services	10,113
Pershing	17,811	Algemeine Bank	10,027
Autranet	17,427	Other (189)	504,501
NCB Stockbroker	17,392		
Chemicals & Materials Ent	17,172		
Midland Bk London	16,998		
		Total Commissions	<u>\$15,086,961</u>

Investment Summary

The assets of the State Employees' Retirement System (SERS) are administered by the SERS Board of Trustees (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.

Fair Value as of December 31, 2002: SERS' assets had an unaudited fair value of approximately \$20,908.3 billion on December 31, 2002.

Asset Class	SERS Asset Allocation		2002 Target Allocation	Long-Term Target Allocation
	Fair Value			
	(millions)	%		
Domestic Stocks	\$7,395.5	35.4%	35.0%	33.0%
International Stocks	4,066.0	19.4%	19.0%	18.0%
Currency Overlay	(44.3)	(0.2)%	0.0%	0.0%
Fixed Income	4,182.8	20.0%	22.0%	25.0%
Cash	112.4	0.5%	0.0%	0.0%
Real Estate	2,430.6	11.6%	10.0%	8.0%
Alternative Investments	2,440.3	11.7%	12.0%	14.0%
Commodities	325.0	1.6%	2.0%	2.0%
Total	\$20,908.3	100.0%	100.0%	100.0%

Number of Investment Advisors: SERS had 151 external investment advisory firms managing portfolios. There are 51 advisors in the Public Markets domain and 116 covered private equity and real estate. Some of these advisors managed portfolios across asset classes.

- 18 U.S. Stock advisors
- 1 Commodity advisor
- 14 International Stock advisors
- 24 Real Estate advisors
- 2 Currency overlay advisors
- 41 Venture Capital general partners managing limited partnerships
- 15 Fixed Income advisors
- 53 Private Equity general partners managing limited partnerships
- 1 Cash advisor

In addition, the Board approved the hiring of two fixed income advisors, one international stock advisor, one private equity partnership and one venture capital partnership.

Number of Investment Portfolios: SERS had 290 investment portfolios/accounts. Sixty-three of these accounts are public market investments, while 227 covered private markets.

- 23 U.S. Stock portfolios
- 1 Commodity portfolio
- 20 International Stock portfolios
- 41 Real Estate portfolios
- 2 Currency overlay portfolios
- 84 Venture Capital limited partnership interests
- 16 Fixed Income portfolios
- 102 Private Equity limited partnership interests
- 1 Cash portfolio

In addition, Board appointments include two fixed income accounts, one international stock account, two private equity partnerships, and two venture capital partnerships.

Sixty-seven investment advisors manage multiple portfolios within and across asset classes for SERS.

Summary of U.S. Stock Investments

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 large 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, etc.).

SERS' 2003 Investment Plan targeted a long-term allocation of 33.0% 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. The 2003 plan targeted 67% of U.S. Stocks to be indexed. The 67% exposure includes funds that replicate the S&P 500 (37%) as well as the S&P 500 equitized absolute return fund of fund strategies (30%).

Fair Value as of December 31, 2002: U.S. Stocks had a \$7,395.5 million fair value, 35.4% of the total fund's \$20,908.3 million fair value on December 31, 2002.

Number of Investment Advisors: SERS had contracts with 18 external investment advisors to manage U.S. Stock portfolios.

Number of Investment Portfolios: SERS had 23 U.S. Stock portfolios managed by the 18 investment advisors.

Type of Investment Portfolios: As of December 31, 2002, 79.8% of SERS U.S. Stock allocation was in large/medium capitalization stock strategies, including the equitized fund of fund absolute return strategies, and 20.2% was in medium/small capitalization stock strategies. SERS had 20 actively managed portfolios (60.6% of U.S. Stocks) and one indexed portfolio (39.4% 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 also has one equitization manager for the absolute return strategies and utilizes one manager to manage the stock distributions that originate in the private equity portfolio.

<i>U.S. Stock</i>		*Fair Value as of 12/31/02 (millions)
Investment Advisor	Investment Style	
1. Barclays Global Investors	S&P 500 Index Stock-based enhanced indexing	\$2,911.8 209.7
2. AXA Rosenberg Investment Management	Russell 2500, risk controlled	307.4
3. Artemis	Small cap relative value stocks	94.4
4. Blackstone Alternative Asset Management (BAAM)	Absolute return fund of funds	788.4
5. Clifton Group	Derivative-based enhanced indexing	111.2
6. Emerald	PA stocks	96.1
7. First Quadrant	Equitized long/short U.S. market neutral	49.3
8. Iridian Asset Management	Mid cap private business value	294.7
9. J.P. Morgan Investment Management	S&P 500, risk controlled	131.0
10. Martingale Asset Management	Equitized long/short U.S. market neutral	56.0
11. Mellon Equity Associates	PA stocks	120.2
Standish, Mellon	Russell 2500, risk controlled (Special)	209.4
	Equitized long/short U.S. market neutral	50.5
12. Mesirow Financial	Absolute return fund of funds	586.0
13. Morgan Stanley Alternative Investment Partners	Absolute return strategy equitization	(191.2)
	Absolute return fund of funds	571.4
14. PAAMCO Absolute Return	Absolute return fund of funds	570.2
15. Provident Investment Counsel (PIC)	Mid cap aggressive growth stocks	107.3
PIC Stellar Fund	Small cap growth stocks	124.8
16. Trinity Investment Management	Small cap low p/e stocks	118.1
17. Twin Market Neutral	Equitized long/short U.S. market neutral	53.7
18. Warburg-Pincus	Stock distribution manager	<u>24.9</u>
Total		\$7,395.5

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

Summary of International Stock Investments

International stocks is 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 large return premiums versus inflation will 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 from: Salomon Smith Barney World Equity Broad Market Index–Europe and Pacific, a proxy for stocks in developed markets, and MSCI Emerging Markets Free Index, a proxy for stocks in emerging markets.

SERS' 2002 Investment Plan targeted a long–term allocation of 15% of assets to international stocks in developed markets and 3% to stocks in emerging markets.

Fair Value as of December 31, 2002: International Stocks had a \$4,066.0 million fair value, 19.4% of the total Fund's \$20,908.3 million fair value on December 31, 2002. In addition, the fair value of forward exchange contracts in the currency overlay program amounted to –\$44.3 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 a currency overlay program.

Number of Investment Portfolios: SERS had 20 stock portfolios managed by the 14 investment advisors and 2 accounts for the currency overlay program.

Type of Investment Portfolios: As of December 31, 2002, SERS had 18 actively managed international portfolios and two indexed portfolios. Sixteen percent of total Fund assets were allocated to stocks in developed markets and 3.5% were allocated to emerging markets.

<i>International Stock</i> Investment Advisor	Investment Style	*Fair Value as of 12/31/02 (millions)
1. State Street Global Advisors Europe Australia and New Zealand	Europe - index Australia and New Zealand - index	\$ 355.8 28.4
2. Capital International, Inc. Emerging Markets Growth Fund, Inc.	Emerging markets - value and growth	130.4
3. Credit Suisse Asset Management, LLC	Developed and emerging markets - GARP stocks	343.1
4. GAM International Management Ltd GAM Institutional Group Trust	Pacific Basin ex Japan	98.5
5. Henderson Global Investors (North America) Inc.	Small cap developed markets - value and growth	156.5
6. Marathon Asset Management Limited	Europe - relative value sectors	312.6
7. Marvin & Palmer Emerging Markets Equity, L.P.	Emerging markets – growth momentum	63.9
8. Merrill Lynch Investment Managers International Limited	Small cap developed markets - growth	309.3
9. J.P. Morgan Investment Management Inc.	Japan - benchmark risk control	288.8
10. Morgan Stanley Investment Management Inc. London team Singapore team	Developed markets - value Asia ex Japan - growth	625.6 63.0
11. Oaktree Capital Management, LLC OCM Emerging Markets Feeder Fund II, L.P. OCM Emerging Markets Feeder Fund, L.P.	Emerging markets - hedge fund Emerging markets - hedge fund	72.4 55.8
12. Pictet International Management Limited International small cap equity portfolio Emerging markets equity portfolio	Small cap developed markets Emerging markets	170.4 103.9
13. Scottish Widows Investment Partnership Ltd	Europe - growth and value	234.2
14. Templeton Investment Counsel, LLC Templeton Investment Counsel, Ltd. Global emerging markets team Templeton Strategic Emerging Markets Fund, L.P. TIFI Emerging Markets Series Total International Stocks	Developed and emerging markets - value Emerging markets Emerging markets - value	479.1 82.1 92.2 <u>\$4,066.0</u>
1. Pareto Partners	Currency overlay	\$ (18.1)
2. Record Treasury	Currency overlay	<u>(26.2)</u>
Total Currency Overlay		\$ (44.3)
Total International and Currency Overlay		\$4,021.7

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

Summary of 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.

SERS' 2002 Investment Plan targets a long-term allocation of 25.0% of assets of the total Fund to the Fixed Income asset class. Of this amount, 80% is targeted to the core strategies and 20% to specialty strategies.

As a result of the increased emphasis on the benefit payment reserve within fixed income, the purpose of the specialty strategies are playing a lesser role in the fixed income asset class. The specialty strategies consist of two corporate high yield portfolios, two subordinated debt portfolios, and one high yield commercial mortgage-backed securities portfolio. In addition, emerging market debt, a growing and important part of the global fixed income universe, is used opportunistically within the corporate high yield portfolios with an allocation of up to 20% in each of these portfolios.

Fair Value as of December 31, 2002: Fixed Income had a \$4,182.8 million fair value, 20.0% of the total Fund's \$20,908.3 million fair value, on December 31, 2002.

Number of Investment Advisors: SERS had contracts with 15 external investment advisors to manage portfolios within the Fixed Income asset class as of December 31, 2002.

Number of Investment Portfolios: SERS had a total of 16 portfolios within the Fixed Income asset class.

Type of Investment Portfolios: The Fixed Income asset class is divided into core and high yield 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. High yield portfolios focus on debt instruments offering higher return premiums and different risk characteristics than traditional fixed income securities.

Core: SERS had eight actively managed core bond portfolios with a fair value of \$2,561.5 million and one passively managed core bond portfolio with a fair value of \$481.4 million. The combination of core portfolios represented 72.7% of the asset class. The core portfolio segment of the asset class includes exposure to both international and global fixed income.

Specialty: SERS had two corporate high yield portfolios with a fair value of \$892.5 million, one high yield commercial mortgage-backed securities portfolio with a fair value of \$197.1 million, and two subordinated debt portfolios with a fair value of \$31.7 million that invest in profitable Pennsylvania companies and an interest in a mezzanine level pooled fund for \$18.7 million. In addition, there is a special credits portfolio with a value of \$0.1 million that is winding down. The combination of specialty portfolios represented 27.3% of the asset class.

<i>Fixed Income</i> Investment Advisor	Investment Style	*Fair Value as of 12/31/02 (millions)
<u>Core</u>		
1. Fischer Francis Trees & Watts (Int'l)	Active international	\$ 361.9
2. John Hancock Mutual Life Insurance Company	Private placements	200.6
3. J.P. Morgan Investment Management	Active domestic fixed income	526.8
4. Legg Mason Real Estate Advisors	Whole-loan mortgages	57.1
5. MDL Capital Management	Active domestic fixed income	88.5
6. Mellon Bond Associates	Domestic – index	481.4
7. Miller, Anderson & Sherrerd	Active domestic fixed income	831.8
Miller, Anderson & Sherrerd	Active global fixed income	434.8
8. Taplin, Canida & Habacht	Active domestic fixed income	60.0
<u>Specialty</u>		
9. Berwind Financial Group	PA Capital Fund	12.3
10. Fidelity Management Trust Company	Commercial mortgage backed securities	197.1
11. Oaktree Capital Management	Mezzanine Fund	18.7
12. PNC Equity Management	PA Capital Fund	19.4
13. Salomon Brothers Asset Management	High yield bonds	498.2
14. Trust Company of the West Special Credits Fund III	Special credits	0.0
15. W. R. Huff Asset Management	High yield bonds	<u>394.3</u>
Total		\$4,182.8

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

Summary of SERS 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 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.

Fair Value as of December 31, 2002: Cash had a \$112.4 million fair value, 0.5% of the total Fund's \$20,908.3 million fair value on December 31, 2002.

Number of Investment Advisors: In accordance with SERS' 2002 Investment Plan, SERS utilizes the Pennsylvania State Treasury Department to manage its cash accounts.

Number of Investment Portfolios: SERS cash portfolio is managed by the Pennsylvania State Treasury Department.

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

In the aggregate, State Treasury managed \$546.8 million on behalf of SERS and SERS' external investment advisors as of December 31, 2002.

Summary of Commodities Investments

Commodities are one of eight major asset classes that SERS uses for investments of the Fund. The SERS' Investment Plan calls for maintaining a 2% allocation to the commodity markets by entering into a swap agreement that provides the return that would be achieved by passively holding the underlying commodity future contracts. The objective of this asset class 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.

Policy: Commodity 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, and lower risk, 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. They provide an inflation hedge because their prices are linked to global supply and demand conditions for the world's basic commodities. This is the underlying driver of inflation.

Fair Value as of December 31, 2002: The Commodity portfolio had a \$325.0 million fair value, 1.6% of the total Fund's \$20,908.3 million fair value on December 31, 2002.

Number of Investment Advisors: NISA Investment Advisors of St. Louis, MO is the sole investment advisor for this strategy.

Number of Investment Portfolios: This strategy currently utilizes one investment portfolio.

Type of Investment Portfolios: SERS achieves the commodity index return by employing a swap agreement whereby SERS "swaps" the return earned on a short-term cash portfolio for the return of the Goldman Sachs Commodity Index. The advisor manages both the underlying short-term cash portfolio and the swap agreement with a third-party.

The investment objective of the portfolio is to match the return of the Goldman Sachs Commodity Index.

Summary of Real Estate Investments

Equity Real Estate is one of eight major asset classes that SERS uses to diversify the investment 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 return that exceeds the total return of the NCREIF Index. SERS' 2002 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 owns the properties directly or with other co-investors. SERS' Equity Real Estate portfolio guidelines provide for diversification by:

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

Fair Value as of December 31, 2002: Real Estate had an estimated \$2,430.6 million fair value, approximately 11.6% of the total Fund's December 31, 2002 fair value. This fair value represents September 30, 2002 actual numbers adjusted for cash flows, which occurred in the fourth quarter 2002.

Number of Investment Advisors: SERS had contracts with 24 external investment advisors to manage real estate portfolios as of September 30, 2002.

Number of Investment Portfolios: SERS had investments in 41 real estate portfolios managed by the 24 investment advisors.

Type of Investment Portfolios: As of September 30, 2002, the composition of the real estate portfolio was:

- 36% pooled funds, 64% separate accounts;
- 33% office, 8% industrial, 17% retail, 14% residential, 14% hotel/motel, 6% timber, 9% other;
- 19% Pennsylvania, 24% East excluding PA, 25% West, 17% South, 11% Midwest, 2% International, 1% Unclassified;
- and
- 27.7% of the fair value of the separate accounts was invested in eighteen investments located in Pennsylvania.

<i>Real Estate</i> Investment Advisor	Initial Funding	Property Type	Transaction Structure	Fair Value as of 9/30/02 (millions)
1. AEW CIIF-II	08/08/88	Industrial, other	equity ownership	\$ 2.3
2. Apollo – AREF III	06/26/98	Opportunistic	equity and debt	53.7
3. Berwind – BPG Fund IV	04/20/98	Opportunistic	equity and debt	17.8
BPG Fund V	11/29/99	Opportunistic	equity and debt	21.7
BPG Fund VI	09/09/02	Opportunistic	equity and debt	0.4
4. Blackstone - BREP II	02/26/97	Opportunistic	equity and debt	19.9
BREP III	10/22/99	Opportunistic	equity and debt	34.6
5. Campbell Group		Timber	equity ownership	–
6. Cliffwood Select Equity Fund	08/04/00	Long/Short REITs	public securities	23.9
7. CRA Securities	01/31/96	REITs	public securities	357.2
8. Forest Investment Assoc.	10/30/92	Timber	equity ownership	141.3
9. Heitman Capital Mgmt:				
Separate account	12/28/87	Diversified	equity ownership	259.8
JMB Group Trust III	12/31/84	Office, retail	equity ownership	0.3
10. LaSalle Investment Mgmt.	10/01/93	Diversified	equity ownership	165.3
11. Legg Mason Real Estate Adv.	10/01/93	PA diversified	equity ownership	255.2
Eastern Retail Holdings	01/07/99	Retail	equity and debt	48.5
12. Lowe Enterprises	10/01/93	Diversified	equity ownership	389.6
13. Lubert-Adler Fund II	10/30/98	Opportunistic	equity and debt	3.7
Lubert-Adler Fund III	11/10/00	Opportunistic	equity and debt	13.1
14. Miller Global Fund III	01/19/99	Diversified	equity and debt	19.7
15. Oaktree Capital Management:				
TCW Fund VI	04/20/94	Opportunistic	equity and debt	15.5
OCM Opportunity Fund A	05/09/96	Opportunistic	equity and debt	44.1
OCM Opportunity Fund II	12/15/98	Opportunistic	equity and debt	42.1
16. Oxford Development	01/09/97	Industrial	equity ownership	50.9
17. Prudential Senior Housing I	12/22/98	Senior housing	equity and debt	26.6
Prudential Senior Housing II	06/12/01	Senior housing	equity and debt	6.3
18. SSR MIAF II	12/07/92	Residential	equity ownership	0.1
19. Sentinel Corp.	07/31/84	Diversified	equity ownership	60.6
20. Starwood :				
SOFI IV	03/24/97	Opportunistic	equity and debt	33.9
SOFI V	05/14/99	Opportunistic	equity and debt	52.9
SOFI VI		Opportunistic	equity and debt	–
21. UBS-Brinson:				
PMSA	09/30/83	Diversified	equity mortgages	55.0
RESA	06/3//84	Diversified	equity ownership	59.7
Multifamily Trust	08/02/99	Residential	equity ownership	51.1
22. Urdang Investment Mgmt.	05/15/02	REITs	public securities	14.4
23. Westbrook Partners:				
WREF II	06/16/97	Opportunistic	equity and debt	16.3
WREF III	9/01/98	Opportunistic	equity and debt	54.1
WREF IV		Opportunistic	equity and debt	13.0
24. Goldman Sachs:				
Whitehall V & VI	04/20/94	Opportunistic	equity and debt	11.1
Whitehall V-S & VI-S	12/11/95	Opportunistic	equity and debt	2.8
Whitehall VII & VIII	05/28/96	Opportunistic	equity and debt	<u>20.3</u>
September 30, 2002 Total				\$2,478.0
4th Quarter 2002 Net Cash Flow Adjustments				<u>(47.4)</u>
December 31, 2002 Total				\$2,430.6

(Numbers may not add due to rounding.)

Summary of Alternative Investments

Alternative Investments is comprised of Venture Capital and Private Equity investments, both of which take the form of limited partnerships.

Venture Capital is the financing of young, rapidly growing companies, typically at three stages of development. (1) Seed Stage is the form of venture capital that supports companies in their conceptual phase, i.e., a product and market are identified, and a corporate shell may have been formed. The seed investment finances development of the concept or business plan. (2) Early Stage supports companies pursuing a business plan but not yet generating revenues. The product has been developed and may have been shipped to a friendly user for testing. Management positions have been filled and an operating team is in place. (3) Late Stage companies have proven revenues, and are in the process of expanding. If late stage companies are substantially profitable, they are nearing a strategic sale to another company or an initial public offering. In other cases, a “bridge” financing may be used to supply needed capital for operations or expansion.

Private Equity primarily refers to investments in the equity and subordinated debt of established companies. Private equity approaches undertaken by SERS’s limited partnerships include: (1) Leveraged buyout (“LBO”) in 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 substantially 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 to permit repayment of debt 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 its investment portfolio, often for non-financial reasons. Such partnerships interests are often purchased at significant 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, at least 500 basis points in excess of the return generated by the S&P 500 Index. SERS’ 2002 Investment Plan anticipates a long-term allocation of 14% of the Fund to Alternative Investments.

Fair Value as of December 31, 2002: The asset class total fair value stood at \$2,440.3 million after adjusting the September valuation for subsequent cash flows. Alternative investments represent 11.7% of the Fund. Sub-asset class capital commitments and drawdowns, distributions, fair values and fund percentages were as follows:

	Total Capital Commitments	Capital Drawn	Distributions	NAV	Percent of Total Fund
<i>Venture Capital</i>					
Active	\$2,457.5	\$1,355.5	\$1,278.7	\$691.5	3.3%
Inactive	55.5	48.5	81.0	n/a	n/a
<i>Private Equity</i>					
Active	3,969.0	2,382.7	1,158.0	1,748.8	8.4%
Inactive	<u>22.5</u>	<u>22.5</u>	<u>41.6</u>	<u>n/a</u>	<u>n/a</u>
Alternative Investments	<u>\$6,504.5</u>	<u>\$3,809.2</u>	<u>\$2,559.3</u>	<u>\$2,440.3</u>	<u>11.7%</u>

Number of Limited Partnerships: As of December 31, 2002, SERS had made commitments to 186 active Alternative Investments limited partnerships; 84 commitments were made to Venture Capital partnerships and 102 to Private Equity partnerships. (This does not include eleven partnerships - nine Venture Capital and two Private Equity - that are now “inactive,” or in the liquidation phase and investments pending contract approval.)

Alternative Investment Program

SERS Venture Capital Focus

SERS Venture Capital program includes commitments to 84 venture capital limited partnerships of which eighteen have investments that are either located in Pennsylvania or employ Pennsylvania citizens. This continues a tradition of the Venture Capital Program which is to invest with venture capital groups that have historically invested in Pennsylvania headquartered companies and/or companies that employ a significant number of Pennsylvanians. In addition, emphasis is placed on investing with venture groups that maintain a presence in Pennsylvania. As of December 31, 2002, SERS maintained twenty-seven active venture capital investments with fifteen managers that had offices located in Pennsylvania. Of the total current venture portfolio, venture capital investments have been made in 43 companies either located in Pennsylvania or that employ in-state residents. According to the PricewaterhouseCoopers/Venture Economics/National Venture Capital Association MoneyTree Survey, for calendar year 2002, Pennsylvania ranked 11th in the nation in the number of portfolio company transactions financed by venture capital (82 deals), and 11th in terms of dollars applied to venture financing (\$419.7 million was invested).

Venture Capital Diversification

The Venture Capital program seeks to diversify company investments across industries. As of September 30, 2002, based on invested capital, SERS largest positions in the Venture Capital program were invested in the following industries:

17.8% Software	4.2% Telecom Services	2.6% Pharmaceuticals
9.1% Telecom Networks/Systems	4.2% Healthcare Services	2.6% Internet e-commerce
9.0% Consumer/Retail/Service	3.8% Healthcare Devices	2.3% Manufacturing
8.4% Internet e-business	3.3% Hardware	2.3% Healthcare Software/System
5.7% Biotech/Biopharma	3.2% Financial	1.8% Electronics
4.4% Telecom Products		

The above industry allocation does not include an 11.1% allocation to Fund-of-Funds, which themselves are diversified broadly across industries.

The Venture Capital partnerships also invest at different points in company life cycles reflecting varying financing stage exposures: seed/start-up stage, early stage and later/expansion stage financing. As of September 30, 2002, based on invested capital, the Venture program consisted of approximately 53.2% in seed/start-up and early stage investments and 21.0% in later/expansion stage investments.

Private Equity Diversification

The Private Equity program has commitments to 102 buyout-oriented partnerships, which are well-diversified by size of investment and geographic focus. Non-hostile acquisitions are pursued. Most transactions are privately negotiated rather than auctioned, and are usually completed with present management in place.

SERS' eighteen non-U.S. private equity investments are comprised of fifteen funds investing in companies based in the U.K. and Europe, and three funds investing in Asian companies. The U.K./Europe funds plan to take advantage of dynamic changes occurring within Europe, including the formation of the European Economic Union and currency harmonization. The Asian partnership investments, the first two having been made in 1999, focus on expanded opportunities in the region created by attractive valuations, favorable demographics, and changing attitudes on behalf of local business people regarding foreign investment.

SERS' commitment to an international fund-of-funds category is comprised of partnerships specializing in late stage venture and buy-out investing. The partnerships are located throughout the world, with a geographic emphasis on developed countries. SERS has interests in twelve partnerships specializing in distressed debt instruments, and in five partnerships that specialize in secondary purchases of interests in established buyout and venture capital partnerships.

SERS Venture Capital Committed, Drawn and Distributed

As of December 31, 2002

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 placed 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. Accel Europe	Early Stage	7/2/01	\$10,000,000	\$1,500,000	\$0
2. Adams Capital Management II	Early Stage	10/1/99	30,000,000	24,000,000	0
Adams Capital Management III	Early Stage	11/21/00	30,000,000	8,250,000	0
3. Advanced Technology Venture VI	Early Stage	3/9/00	10,000,000	7,000,000	0
Advanced Technology Venture VII	Diversified	7/11/01	30,000,000	2,250,000	0
4. Alloy Ventures 2000	Seed/Early	5/19/00	20,000,000	13,000,000	2,074,620
Alloy Ventures 2002	Seed/Early	7/22/02	25,000,000	1,500,000	0
5. APA/Fostin – Fund I	Diversified	9/30/87	20,000,000	20,000,000	76,820,112
APA/Excelsior VI	Diversified	7/3/00	35,000,000	12,526,784	0
PA Fund I (APA/Fostin II)	Diversified	6/2/93	30,000,000	29,999,999	57,512,509
PA Fund III	Diversified	4/1/97	100,000,000	99,366,750	123,281,098
Apex Ventures IV	Early/Later	9/17/99	25,000,000	25,000,000	257,565
Apex Ventures V	Early Stage	4/19/02	20,000,000	2,000,000	0
6. Atlas Ventures IV	Early/Later	3/23/99	26,000,000	18,661,500	2,396,832
Atlas Ventures V	Early/Later	2/7/00	40,000,000	24,530,827	678,172
Atlas Ventures VI	Seed/Early	8/1/01	24,800,000	3,266,821	0
7. Austin Ventures VIII	Early Stage	7/26/01	19,366,667	3,383,332	536,400
8. Bachow Investments III	Diversified	11/9/94	25,000,000	24,969,997	23,360,844
9. Charles River	Early Stage	2/15/01	11,032,259	3,540,000	0
10. Cross Atlantic Technology Fund	Early Stage	2/14/00	20,000,000	17,000,000	0
Cross Atlantic Techn. II	Early Stage	1/28/02	32,900,000	1,111,781	0
11. Draper Fisher Jurvetson VI	Early Stage	8/13/99	8,000,000	5,200,000	0
Draper Fisher Jurvetson VII	Seed/Early	9/22/00	20,000,000	5,371,716	0
12. Draper Triangle	Early Stage	12/20/99	20,000,000	11,469,849	0
13. Edison Ventures III	Diversified	3/1/94	25,000,000	25,000,000	44,430,279
14. Fairview Capital I	Minority	9/28/94	10,000,000	9,500,000	3,017,627
Fairview Capital II	Minority	3/1/98	10,000,000	7,000,000	365,954
15. Fostin Capital II	Diversified	10/5/89	8,000,000	7,500,000	11,415,869
16. Frazier Healthcare III	Later Stage	2/4/99	30,000,000	22,800,000	0
Frazier IV	Diversified	9/27/01	30,000,000	3,600,000	0
17. Grotech Partners III	Diversified	6/29/90	3,000,000	3,000,000	2,680,216
Grotech Partners IV	Diversified	11/1/93	25,000,000	24,999,999	38,643,076
Grotech Partners V	Diversified	9/18/98	25,000,000	22,338,216	15,217,736
18. Halpern & Denny II	Early Stage	4/28/98	27,500,000	24,874,991	284,820
Halpern & Denny III	Early Stage	4/26/00	25,000,000	14,250,000	0
19. HarbourVest Partnership Fund VI	Fund-of-funds	5/7/99	200,000,000	84,000,000	12,693,406
HarbourVest Partnership Fund VII	Fund-of-funds	*	75,000,000	0	0
20. Healthcare Ventures III	Diversified	7/9/92	15,000,000	15,000,000	20,488,010
Healthcare Ventures V	Diversified	10/17/97	25,000,000	24,312,500	32,312,265
Healthcare Ventures VI	Diversified	6/19/00	35,000,000	21,000,000	2,412,611
Healthcare Ventures VII	Early Stage	7/24/02	35,000,000	0	0

21. Highland Capital VI	Early Stage	10/25/01	\$25,000,000	\$1,937,500	\$0
22. Ignition Venture Partners II	Seed/Early	12/17/01	8,000,000	626,965	70
23. InterWest Partners VIII	Early/Later	8/25/00	25,000,000	8,750,000	956
24. JH Whitney Equity Partners III	Early Stage	3/12/98	20,000,000	19,639,297	23,882,606
JH Whitney Equity Partners IV	Early Stage	2/1/00	20,000,000	16,412,208	673,784
JH Whitney Equity Partners V	Early/Later	3/29/01	20,000,000	6,839,438	5,578
25. JP Morgan VC Instl' Investors I	Fund-of-funds	7/8/99	100,000,000	67,705,095	4,617,619
JP Morgan VC Instl' Investors II	Fund-of-funds	10/10/00	100,000,000	11,963,621	141,460
26. Keystone Ventures IV	Middle/Later	7/21/93	15,000,000	14,980,880	9,687,679
Keystone Ventures V	Middle/Later	12/29/97	25,000,000	25,000,000	0
Keystone Ventures VI	Middle/Later	12/26/00	25,000,000	8,808,429	0
27. Kline Hawkes Pacific II	Diversified	8/30/00	15,000,000	5,550,000	0
28. Meritech Capital II	Later Stage	1/2/01	18,750,000	4,000,000	0
29. Morganthaler	Early/ Later	7/26/01	35,000,000	7,000,000	0
30. NEA VI	Early/Later	3/2/94	25,000,000	25,000,000	192,713,931
NEA VII	Early/Later	4/1/97	35,000,000	13,125,000	727,646
NEA IX	Seed/Early	11/15/99	20,000,000	19,000,000	523,810
NEA X	Seed/Early	12/11/00	30,000,000	30,000,000	86,041,016
31. NEPA Venture II	Seed/Early	7/24/92	8,000,000	7,500,000	30,784,501
NEPA – MidAtlantic Ventures III	Seed/Early	4/1/97	20,000,000	20,000,000	961,929
NEPA - Mid-Atlantic Ventures IV	Early Stage	5/4/00	30,000,000	15,900,000	217,297
32. Point Ventures II	Diversified	10/2/90	1,000,000	1,000,000	1,313,407
33. Polaris Venture Partners	Early Stage	6/4/96	15,000,000	14,595,000	44,401,254
Polaris Venture Partners II	Early Stage	9/8/98	25,000,000	23,250,000	24,859,455
Polaris Venture Partners III	Early Stage	1/21/00	50,000,000	31,500,000	1,006,955
Polaris Venture Partners IV	Early Stage	9/30/02	50,000,000	1,500,000	0
34. Sprout VII	Diversified	2/24/95	18,000,000	18,000,000	29,269,750
35. Summit Ventures IV	Later Stage	6/27/95	25,000,000	23,750,000	175,363,529
Summit Ventures V	Later Stage	3/9/98	37,500,000	29,062,500	11,851,315
Summit Accelerator	Early Stage	11/15/99	8,000,000	4,720,000	1,090,444
36. TA Associates - Advent VII	Diversified	7/30/93	25,000,000	25,000,000	86,483,328
TA Associates - Advent VIII	Diversified	2/1/97	30,000,000	28,650,000	28,430,398
TA Associates - Advent IX	Diversified	9/20/00	45,000,000	10,575,000	0
37. Technology Leaders III	Diversified	1/3/97	15,000,000	14,250,000	17,942,741
Technology Leaders IV	Diversified	5/13/99	35,000,000	28,000,000	7,620,935
Technology Leaders V	Diversified	10/18/00	40,000,000	12,400,000	166,156
38. Three Arch Capital	Later Stage	12/20/00	20,000,000	6,400,000	0
39. U.S. Venture Partners VII	Early/Later	2/18/00	15,000,000	10,425,000	0
U.S. Venture Partners VIII	Early Stage	6/1/01	35,000,000	8,225,000	0
40. Weston Presidio II	Diversified	11/27/95	20,000,000	17,000,000	27,002,007
Weston Presidio III	Diversified	3/31/99	35,000,000	28,000,000	0
Weston Presidio IV	Diversified	6/21/00	35,000,000	8,750,000	0
41. Worldview IV	Early/Later	1/31/01	22,662,529	6,621,594	0
Total			<u>\$2,457,511,455</u>	<u>\$1,355,487,589</u>	<u>\$1,278,661,579</u>

* Not funded as of December 31, 2002.

Quaker Bioventures and PA Early Stage III were approved by SERS' Board prior to 12/31/2002. However, the contracts were completed subsequent to the date.

Inactive Funds

Limited Partnership	Financing Stage Focus	SERS Initial Funding	Capital Committed	Capital Drawn	Distributions
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. TDH II	Diversified	11/25/85	9,000,000	9,000,000	15,990,106
9. Zero Stage II	Seed	4/30/87	<u>2,000,000</u>	<u>2,000,000</u>	<u>628,401</u>
Total			<u>\$55,500,000</u>	<u>\$48,465,906</u>	<u>\$80,998,392</u>

SERS Private Equity Investments Committed, Drawn and Distributed *As of December 31, 2002*

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 placed with underlying portfolio companies. The Distributions column shows the value of original capital and profits returned to SERS.

Limited Partnership	Financing Stage Geographic Focus	Funding	Capital Committed	Capital Drawn	Distributions
1. ABACUS Fund	Hedge	4/24/00	\$15,000,000	\$15,000,000	\$0
2. ABRY Broadcast Partners III	Natl' B/O	4/1/97	25,000,000	26,163,525	16,348,547
ABRY Broadcast Partners IV	Natl' B/O	3/30/01	35,000,000	12,484,958	0
ABRY Mezzanine Partners	Mezzanine	3/15/02	30,000,000	3,462,623	126
3. ABS Capital III	Natl' B/O	1/26/99	35,000,000	26,374,773	817,568
ABS Capital IV	Natl' B/O	10/13/00	35,000,000	10,320,997	2,679,250
4. AG Capital Recovery II	Distressed	10/1/01	17,600,000	17,600,000	0
AG Capital Recovery III	Distressed	4/1/02	20,000,000	12,000,000	0
5. APAX France III	France	11/29/90	5,000,000	5,103,877	8,485,904
APAX Germany	Germany	1/30/91	5,200,000	5,246,602	11,955,534
APAX Germany II	Germany	7/15/97	6,000,000	8,455,477	14,255,238
APAX UK VI	U.K.	12/9/97	9,000,000	6,569,925	10,010,403
APAX Europe IV	Pan-Europe	3/31/99	35,000,000	23,664,364	6,363,617
APAX Europe V	Pan-Europe	4/27/01	60,000,000	9,615,638	0
6. Alpha Private Equity Fund IV	France/Germ	5/15/02	26,580,000	2,811,079	0
7. Apollo IV	Natl' B/O	8/3/98	75,000,000	68,137,066	8,845,414
Apollo V	Natl' B/O	8/23/01	50,000,000	11,043,752	0
8. Asia Pacific III	Asia	9/28/99	15,000,000	14,494,345	801,604
9. Audax Private Equity Fund	Mid-Mkt B/O	5/25/00	35,000,000	11,503,462	0
10. B III Capital Partners (DDJ)	Distressed	8/1/97	35,000,000	34,423,917	18,227,212
11. BC European Capital VII	Pan-Europe	7/28/00	35,000,000	12,553,839	2,600,312
BC VII Top Up	Pan-Europe	7/2/01	10,000,000	1,399,273	0
12. Bain Capital Fund VII	Natl' B/O	7/6/00	25,000,000	3,625,000	544,896
13. Berkshire Fund VI	Mid-Mkt B/O	7/11/02	20,000,000	1,138,875	0
14. Blackstone II	Global B/O	8/26/94	40,000,000	42,438,924	69,877,959
Blackstone III	Global B/O	11/3/97	75,000,000	57,938,903	20,868,445
Blackstone IV	Global B/O	*	75,000,000	0	0
Blackstone Commun. Ptnrs I	Global B/O	8/29/00	25,000,000	4,145,305	1,006,460
15. Cerberus Institutional Partners	Distressed	3/5/99	35,000,000	35,000,000	0
Cerberus Instl' Series Two	Distressed	10/9/01	35,000,000	22,575,000	0
16. Charterhouse II	Natl' B/O	3/30/94	40,000,000	42,757,326	92,876,090
Charterhouse III	Natl' B/O	11/19/97	50,000,000	42,720,032	7,731,895
17. Charterhouse Development Capital VII (European)	UK	*	50,000,000	0	0
18. Clayton, Dubilier & Rice V	US/Europe	5/3/95	50,000,000	49,236,502	0
Clayton, Dubilier & Rice VI	US/Europe	1/4/99	50,000,000	27,905,447	0
19. Code, H. & Simmons I	Midwest B/O	9/28/89	10,000,000	9,650,000	29,205,914
Code, H. & Simmons II	Midwest B/O	7/12/94	20,000,000	20,000,000	33,054,447
Code, H. & Simmons III	Midwest B/O	8/1/97	40,000,000	38,056,000	12,323,192
Code, H. & Simmons IV	Midwest B/O	9/16/99	100,000,000	43,380,000	128,618
20. DLJ Merch. II	Global B/O	5/22/97	75,000,000	74,969,233	34,289,960
DLJ III	Global B/O	8/14/01	85,000,000	27,786,145	1,663,894
21. Francisco Partners	Natl' B/O	7/27/00	50,000,000	23,750,000	0

Limited Partnership	Financing Stage Geographic Focus	Funding	Capital Committed	Capital Drawn	Distributions
22. Frontenac VII	Midwest B/O	8/1/97	\$40,000,000	\$40,000,000	\$29,539,057
23. Great Hill	Natl' B/O	4/12/99	30,000,000	24,763,847	0
Great Hill II	Natl' B/O	3/28/01	35,000,000	6,417,716	0
24. Gryphon Partners II	Natl' B/O	11/3/99	35,000,000	11,854,617	0
25. GTCR V	Natl' B/O	4/25/97	11,400,000	11,400,000	7,394,483
GTCR VI	Natl' B/O	6/25/98	50,000,000	50,375,000	28,222,371
GTCR VII	Natl' B/O	3/15/00	55,000,000	33,309,375	10,779,732
26. HarborVest International II	Intl' F of F	4/1/97	25,000,000	23,607,775	15,652,671
HarborVest International III	Intl' F of F	6/22/98	40,000,000	22,000,000	2,940,683
HarborVest International IV	Intl' F of F	4/9/01	40,000,000	3,600,000	0
27. Hellman & Friedman II	Global	1/7/92	21,130,323	23,218,222	39,736,146
Hellman & Friedman III	Global	6/14/95	50,000,000	40,308,123	69,316,780
Hellman & Friedman IV	Global	2/14/00	75,000,000	34,450,675	17,886,824
28. Invemed Fund	Mid-Mkt B/O	10/19/99	25,000,000	9,535,114	1,169,298
29. JW Childs III	Natl' B/O	8/20/02	40,000,000	3,253,538	0
30. JP Morgan Corp. Finance Instl.	Fund of Funds	*	50,000,000	0	0
31. Kelso V	Natl' B/O	1/26/94	40,000,000	53,753,871	68,279,464
Kelso VI	Natl' B/O	7/7/98	75,000,000	40,082,237	11,276,571
32. LLR Equity Partners	Mid-Mkt B/O	2/4/00	25,000,000	12,483,915	5,394,239
33. Landmark IV	Secondaries	2/28/95	14,900,000	12,495,850	13,568,331
Landmark V	Secondaries	1/27/96	20,000,000	19,391,580	18,459,053
34. Lexington II	Secondaries	4/1/98	40,000,000	34,678,000	14,328,000
Lexington III	Secondaries	1/26/99	35,000,000	30,545,037	18,897,581
Lexington V	Secondaries	1/17/02	75,000,000	8,890,305	2,303,161
35. M/C Partners III	Natl' B/O	6/2/97	25,000,000	22,500,000	16,307,655
M/C Partners IV	Natl' B/O	3/31/99	25,000,000	21,875,000	0
M/C Partners V	Natl' B/O	9/29/00	35,000,000	13,125,000	0
36. Madison Dearborn I	US/Europe	2/23/93	15,000,000	14,503,896	31,999,822
Madison Dearborn II	US/Europe	1/3/97	40,000,000	39,476,313	41,464,716
Madison Dearborn III	US/Europe	4/6/99	75,000,000	70,451,018	6,104,311
Madison Dearborn IV	US/Europe	4/2/01	90,000,000	21,488,323	9,950,318
37. MatlinPatterson Global Opportunities Partner	Distressed	5/4/01	35,000,000	26,250,000	11,294
38. Murphy & Partners	Natl' B/O	10/11/88	5,200,000	5,194,735	7,862,758
39. Newbridge Asia II	Asia	9/3/99	15,000,000	14,408,459	2,355,143
Newbridge Asia III	Asia	2/15/01	15,000,000	484,051	0
40. Oakhill	Natl' B/O	5/17/99	50,000,000	42,127,828	4,705,522
41. OCM Opportunities	Distressed	1/12/96	24,000,000	24,000,000	26,398,029
OCM Opportunities II	Distressed	2/5/98	40,000,000	40,000,000	23,065,867
OCM Opportunities III	Distressed	1/20/00	60,000,000	60,000,000	12,000,000
OCM Opportunities IV	Distressed	9/26/01	70,000,000	75,250,000	5,441,781
OCM Principal I Opportunities Fund	Distressed	11/12/96	25,000,000	25,000,000	3,450,528
OCM Principal II	Distressed	4/24/01	25,000,000	12,500,000	1,884,375
42. Palamon Equity Partners	Pan-European	7/23/99	30,000,000	12,681,655	0
43. Parthenon Investors II	Mid-Mkt B/O	8/9/01	20,000,000	2,114,458	395
44. Permira Ventures UK III	UK	8/29/89	10,000,000	8,946,988	24,954,188
Permira Ventures UK IV	UK	4/2/96	15,000,000	15,794,739	11,743,742
Permira European I	Pan-European	7/1/97	36,000,000	30,948,403	51,995,968
Permira European II	Pan-European	6/7/00	50,000,000	18,696,978	1,414,281
45. Providence Equity IV	US/Europe	11/27/00	25,000,000	3,461,018	51,467
46. RRZ Private Equity Fund	PA Buyouts	11/7/96	20,000,000	18,922,630	0
47. SCP Private Equity II	Natl' B/O	6/15/00	25,000,000	12,460,869	421,528
48. Sterling Capiral Partners	Mid-Mkt B/O	10/31/02	15,000,000	150,000	0
49. Summit Ventures VI	Natl' B/O	3/23/01	62,000,000	6,510,000	0
50. TCW V	Natl' B/O	8/25/94	35,000,000	35,000,000	51,149,425
51. TPG Partners II	US/Europe	5/2/97	75,000,000	75,566,799	27,266,925

Limited Partnership	Financing Stage Geographic Focus	Funding	Capital Committed	Capital Drawn	Distributions
TPG Partners III	US/Europe	1/13/00	\$75,000,000	\$30,271,805	\$3,273,783
52. Thomas Lee Equity Fund V	Natl' B/O	7/3/01	100,000,000	11,661,608	0
Thomas Lee Equity Fund IV	Natl' B/O	4/24/98	70,000,000	60,623,767	3,735,558
53. Vestar Capital III	US/Europe	5/7/97	25,000,000	20,410,303	8,831,406
Vestar Capital IV	US/Europe	1/25/00	<u>100,000,000</u>	<u>33,912,275</u>	<u>11,891</u>
Total			<u>\$3,969,010,323</u>	<u>\$2,382,685,900</u>	<u>\$1,157,959,621</u>

* Not funded as of December 31, 2002.

Nordic and Angelo Gordon Capital Recovery IV were approved by SERS Board 12/31/2002. The contracts were not approved as of 12/31/2002.

Inactive Funds

Limited Partnership	Financing Stage Focus	Funding	Capital Committed	Capital Drawn	Distributions
1. Brentwood Buyout Fund	Natl' B/O	Dec-88	\$12,500,000	\$12,548,440	\$21,955,297
2. RRZ PA Fund #1	PA B/O	Mar-88	<u>10,000,000</u>	<u>10,000,000</u>	<u>19,606,155</u>
Total			<u>\$22,500,000</u>	<u>\$22,548,440</u>	<u>\$41,561,452</u>

ACTUARIAL



Actuary's Certification

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April 23, 2003

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

Dear Mr. Brosius:

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, 2002 actuarial valuation. The December 31, 2002 actuarial valuation recognizes the first phase of the retiree cost-of-living adjustment that was effective July 2002.

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:

- (1) The employer share of the normal cost.
- (2) The amortization of the 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 changes in liability after 2001 over ten-year periods beginning with the July first following the effective date of the change. Changes include actuarial gains and losses and plan amendments.

The amortization payments are level amounts over each ten-year 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. The employer cost is the total of (1) the employer normal cost percent and (2) the amortization payment on the outstanding liabilities. The employer contribution rate is based on the results of the actuarial valuation that is performed annually. The most recent valuation was performed as of December 31, 2002.

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.

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, 2002 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.

Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans* establishes the range of funding methods for the Unfunded Actuarial Accrued Liability. The SERS payments are within the range established under GASB #25.

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, 2002 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, 2002 actuarial valuation.

Based upon the valuation results, it is our opinion that the Pennsylvania State Employees' Retirement System continues in sound condition in accordance with generally accepted actuarial principles and procedures.

Respectfully submitted,
Hay Group



By
Edwin C. Hustead, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 99-1499



Brent M. Mowery, F.S.A.
Member American Academy of Actuaries
Enrolled Actuary No. 99-3885

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.
- ◆ 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 an amortization period of 10 years for both unfunded liabilities and subsequent changes in the liability, including those arising from plan amendments and actuarial gains and losses.
- ◆ 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, 2002. 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, 2002
Table A***

Sample Age	MALE					FEMALE						
	Withdrawal				Death	Disability	Withdrawal				Death	Disability
	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	Full Benefits	
	Male	Female
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**

Age	Increase
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	5-14 Years of Service		>14 Years of Service	
	Male	Female	Male	Female
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.

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	24	-	-	-	-	-	-	24	\$ 20,772
20 - 24	826	5	-	-	-	-	-	831	25,861
25 - 29	2,462	429	5	-	-	-	-	2,896	32,339
30 - 34	2,760	2,670	920	19	-	-	-	6,369	40,610
35 - 39	2,159	2,211	2,646	830	30	-	-	7,876	44,214
40 - 44	1,903	1,562	2,033	2,212	1,178	43	-	8,931	45,091
45 - 49	1,782	1,485	1,720	1,935	2,146	1,242	107	10,417	46,971
50 - 54	1,553	1,378	1,564	1,565	1,823	2,376	1,856	12,115	50,098
55 - 59	1,069	1,015	1,191	1,164	1,033	1,408	2,745	9,625	52,827
60 - 64	468	517	614	499	362	340	958	3,758	53,979
65+	216	221	281	175	124	99	320	1,436	55,093
Total	15,222	11,493	10,974	8,399	6,696	5,508	5,986	64,278	\$ 46,857
Average Age:	46.16								
Average Service:	13.55								

Age Group	Years of Service							Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus		
Female									
< 20	33	-	-	-	-	-	-	33	\$ 21,279
20 - 24	1,028	31	-	-	-	-	-	1,059	25,003
25 - 29	1,878	440	39	-	-	-	-	2,357	29,655
30 - 34	1,880	1,154	690	68	-	-	-	3,792	33,107
35 - 39	1,618	1,019	1,222	765	75	-	-	4,699	35,273
40 - 44	1,781	1,120	1,265	1,226	1,250	115	-	6,757	38,185
45 - 49	1,665	1,181	1,473	1,245	1,576	1,635	330	9,105	41,111
50 - 54	1,240	932	1,323	1,193	1,283	1,580	1,831	9,382	43,133
55 - 59	682	642	941	978	961	898	1,155	6,257	43,005
60 - 64	283	325	495	396	354	314	313	2,480	42,234
65+	95	108	212	142	107	66	130	860	40,153
Total	12,183	6,952	7,660	6,013	5,606	4,608	3,759	46,781	\$ 39,198
Average Age:	45.98								
Average Service:	13.48								

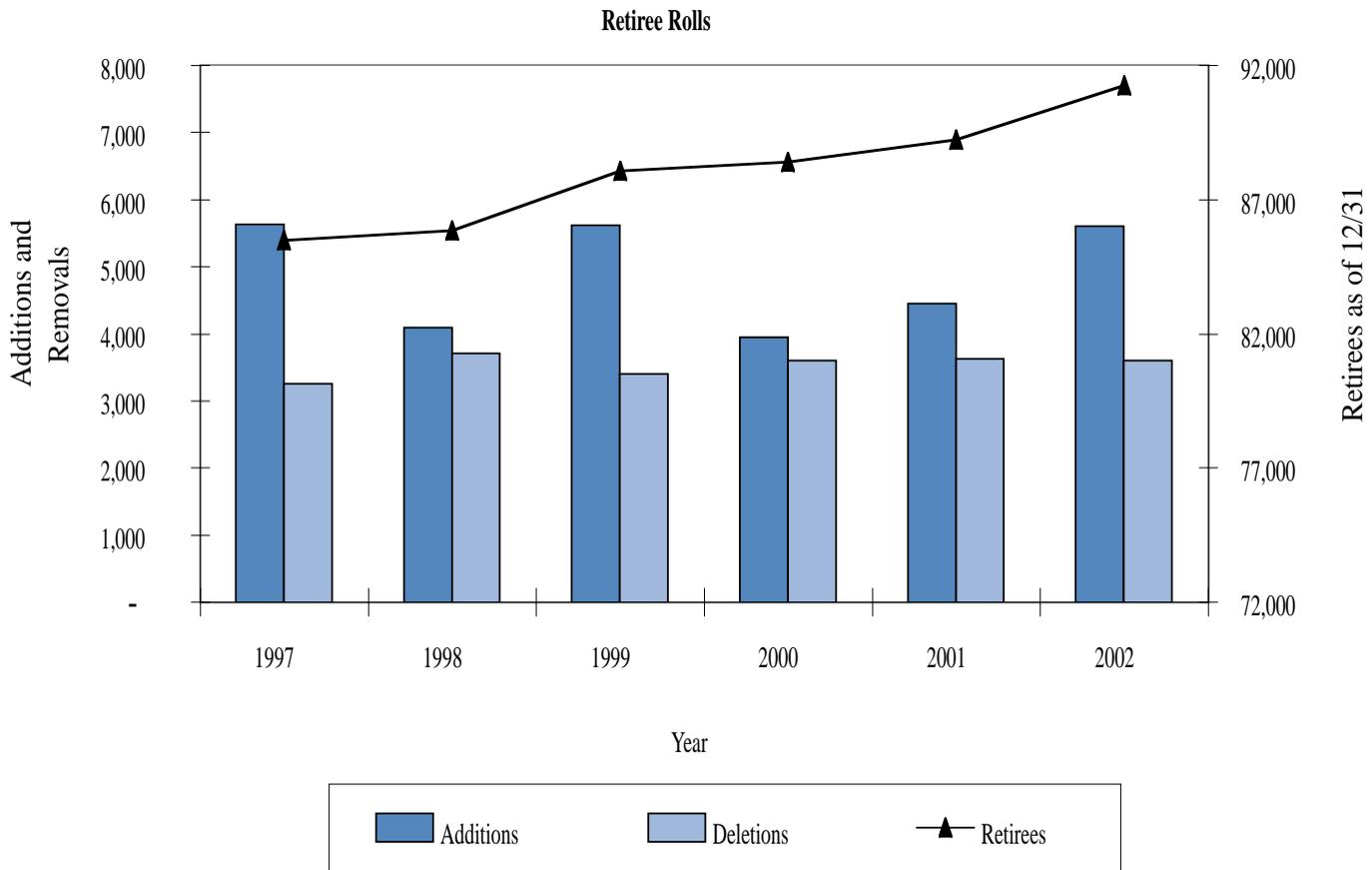
Active Member Valuation Data

Valuation Date	Number Employers	Number Active Members	Annual Payroll	Annual Average Pay	% Increase in Average Pay
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
31-Dec-98	107	108,893	4,236,000,000	38,898	5.3
31-Dec-97	107	108,684	4,013,000,000	36,926	3.0

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Years Ended December 31, 2002 through 1997

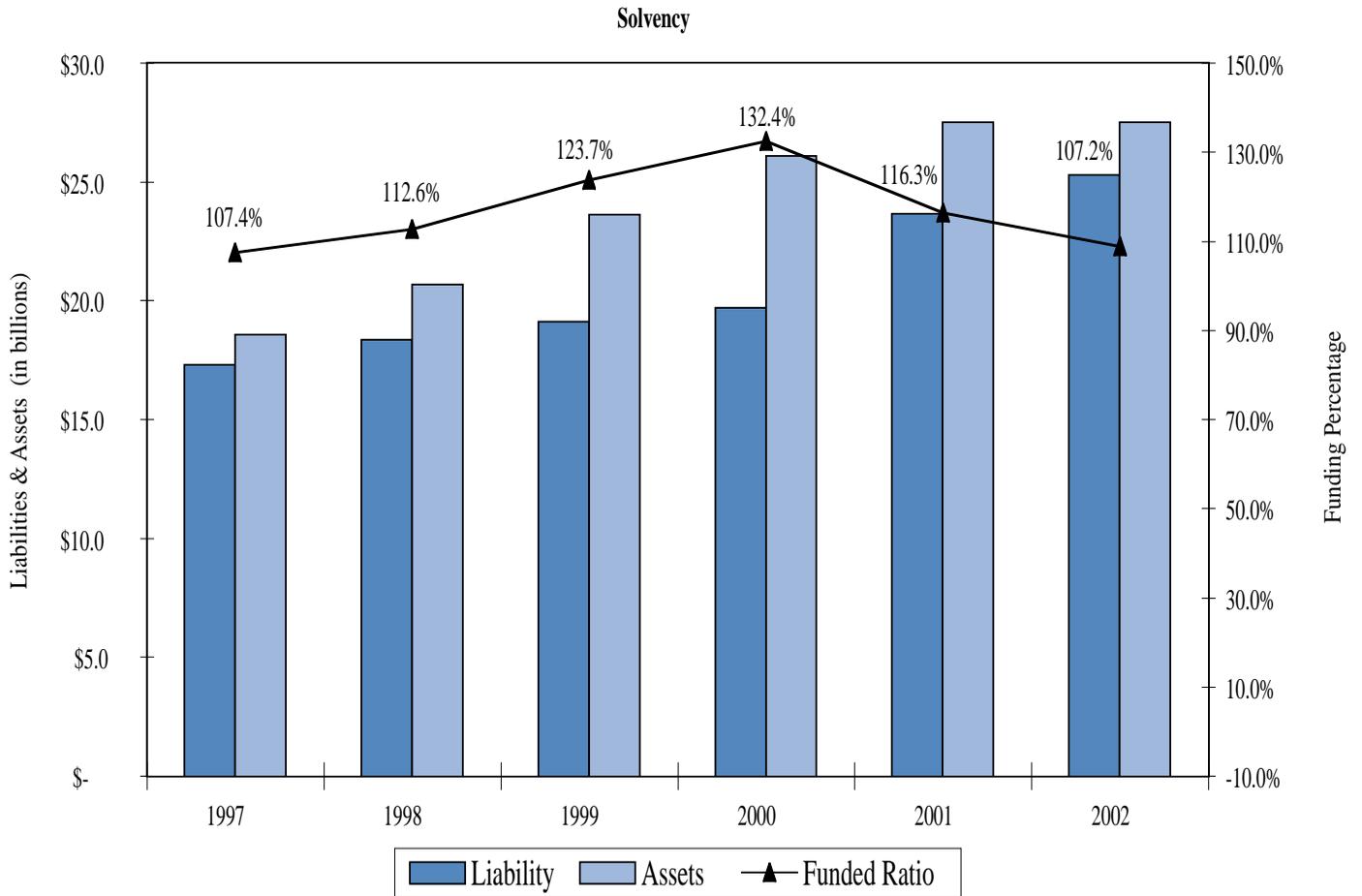
Year	Added to Rolls		Removed from Rolls		Rolls-End of Year		Percentage Change	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowance
2002	5,605	\$ 126,087,119	3,594	\$ 31,408,470	91,228	\$ 1,165,985,640	2.25%	12.92%
2001	4,444	81,715,244	3,619	30,654,172	89,217	1,032,589,104	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%
1998	4,084	63,468,014	3,707	21,400,971	85,834	892,981,308	0.44%	11.38%
1997	5,622	76,375,192	3,251	23,370,406	85,457	801,778,597	2.85%	7.01%



Solvency Test

Aggregate Accrued Liabilities For

Valuation Date	(1)	(2)	(3)	Total Actuarial Accrued Liability (AAL)	Actuarial Valuation of Assets	Portion of Accrued Liabilities Covered by Reported Assets			Funded Ratio
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Financed Portion)			(1)	(2)	(3)	
(Amounts in thousands)									
31-Dec-02	\$ 3,498,672	\$ 10,129,669	\$ 12,022,048	\$ 25,650,389	\$ 27,497,464	100%	100%	100%	107.2%
31-Dec-01	3,344,107	8,684,734	11,629,916	23,658,757	27,505,494	100	100	100	116.3
31-Dec-00	3,182,776	8,148,876	8,370,626	19,702,278	26,094,306	100	100	100	132.4
31-Dec-99	2,989,489	7,779,993	8,322,358	19,091,840	23,624,467	100	100	100	123.7
31-Dec-98	2,904,232	7,200,000	8,253,667	18,357,899	20,670,711	100	100	100	112.6
31-Dec-97	2,748,177	6,951,411	7,588,825	17,288,413	18,565,136	100	100	100	107.4



Analysis of Financial Experience

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

<u>Type of Activity</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>
Gain(Loss) from Investment Earnings	\$ (1,204,242)	\$ 182,272	\$ 1,294,335	\$ 1,971,870
Demographic Assumptions	15,798	(333,766)	61,092	29,667
Pay Increases different than assumptions	(23,957)	108,201	(28,655)	165,852
Other	(27,614)	481,469	151,443	31,499
Gain(Loss) During Year From Financial Experience	<u>(1,240,015)</u>	<u>438,176</u>	<u>1,478,215</u>	<u>2,198,888</u>
Non-Recurring Items:				
Contributions in excess of Requirements	148,463	52,060	-	-
Changes in Actuarial Methods and assumptions	(27,506)	(348,789)	-	-
Removal of 30 and Out Funding	-	-	340,798	-
Act 2001 - 9 Benefits	-	(2,735,791)	-	-
Retiree COLA	(621,300)	-	-	-
Composite Gain(Loss)	<u><u>\$ (1,740,358)</u></u>	<u><u>\$ (2,594,344)</u></u>	<u><u>\$ 1,819,013</u></u>	<u><u>\$ 2,198,888</u></u>

Summary of Plan Provisions

Benefit and Contribution Provisions as of December 31, 2002

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.

- 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 highest 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



*Trend Data**

	2002	2001	2000	1999	1998	1997
Contribution Rates						
Employer**	0.00%	0.00%	1.39%	5.00%	6.70%	7.28%
Member	6.25%	5.00%	5.00%	5.00%	5.00%	5.00%
Contributions:						
Employer	\$ 50,831	76,710	168,002	270,718	310,501	324,093
Member	\$ 304,233	240,528	231,666	224,928	221,618	212,556
Average Annual Compensation	\$ 43,631	42,172	41,110	39,698	38,898	36,926
Market Value of Assets	\$ 20,879,559	24,706,063	27,880,467	28,093,181	24,123,358	21,311,771
Actuarial Value of Assets	\$ 27,497,464	27,505,494	26,094,306	23,624,267	20,670,711	18,565,136
Accrued Actuarial Liability	\$ 25,650,389	23,658,757	19,702,278	19,091,840	18,357,899	17,288,413
Funded Ratio	107.2%	116.3%	132.4%	123.7%	112.6%	107.4%
Total Benefits and Refunds	\$ 1,430,417	1,245,129	1,176,785	1,229,348	1,062,155	1,021,721
Average Pension	\$ 15,445	13,656	12,935	12,520	12,027	10,555
Annuitants and Beneficiaries	91,228	89,217	88,392	88,043	85,834	85,457
Active Participants	111,059	109,716	109,470	108,035	108,893	108,684

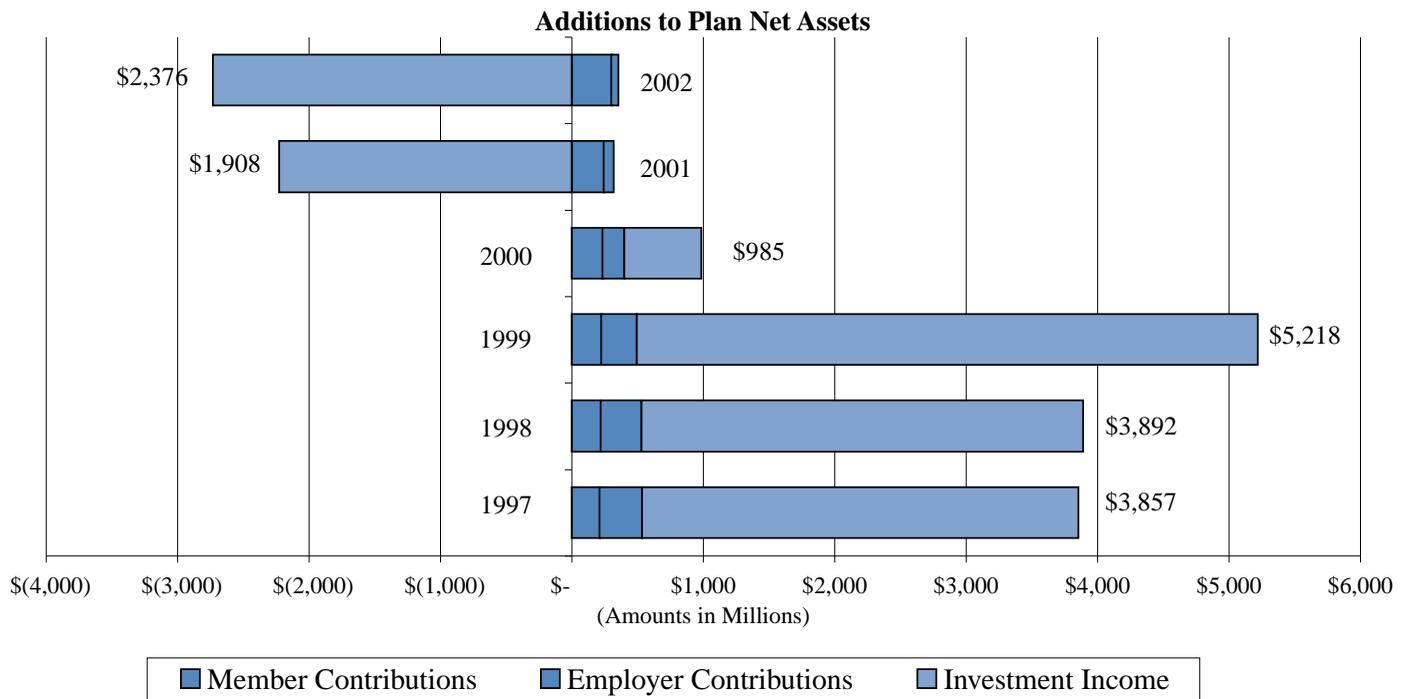
** All Dollar amounts are in thousands, except Average Pension and Average Annual Compensation*

*** Employer rate represents the rate in effect at December 31.*

Schedule of Additions to Plan Net Assets

Years Ended December 31, 2002 through 1997
(Dollar Amounts in thousands)

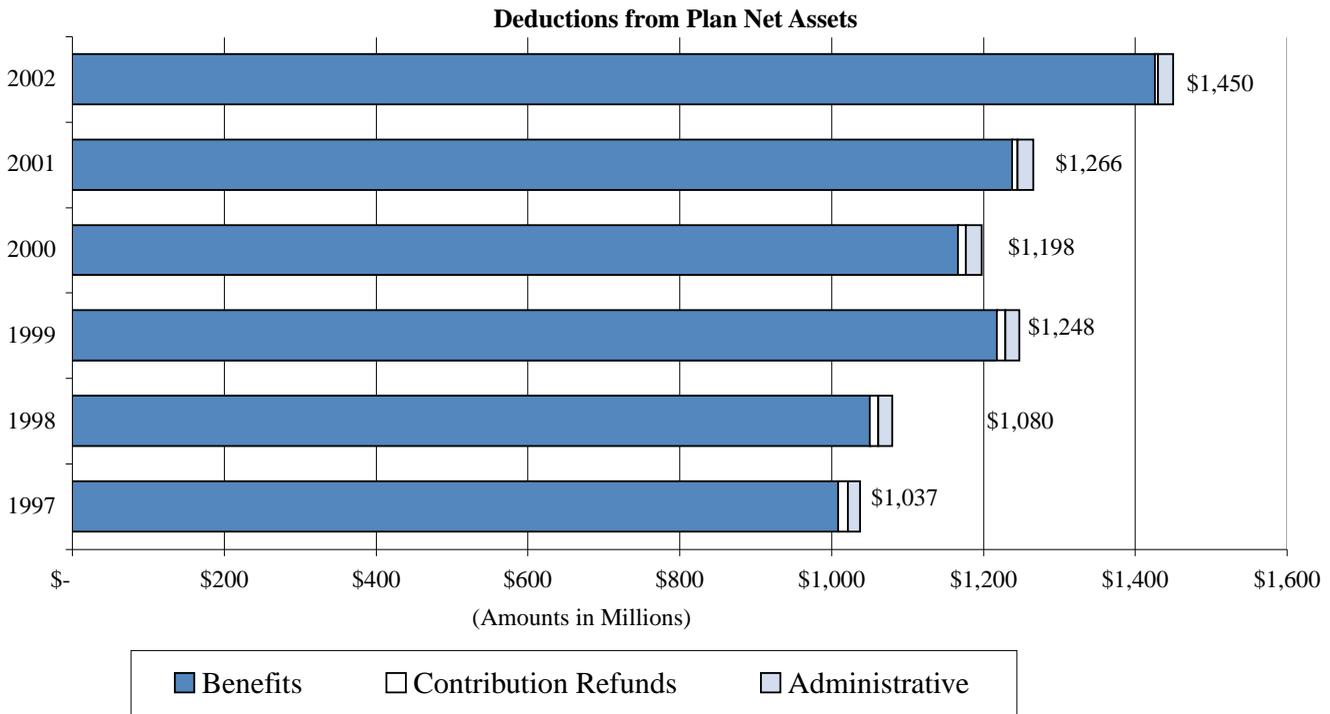
Year Ending	Member Contributions	Employer Contributions		Net Investment Income	Total
		Dollars	% of Annual Covered Payroll		
2002	\$ 304,233	\$ 50,831	1.0%	\$ (2,731,295)	\$ (2,376,231)
2001	240,528	76,710	1.7%	(2,225,627)	(1,908,390)
2000	231,667	168,002	3.7%	585,712	985,381
1999	224,928	270,718	6.3%	4,722,671	5,218,317
1998	221,618	310,501	7.3%	3,359,844	3,891,963
1997	212,556	324,093	8.1%	3,320,169	3,856,818



Schedule of Deductions from Plan Net Assets

Years Ended December 31, 2002 through 1997
(Amounts in thousands)

Year	Benefits	Refund of Contributions	Administrative	Total
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
1998	1,050,870	11,285	18,221	1,080,376
1997	1,008,648	13,073	15,542	1,037,263

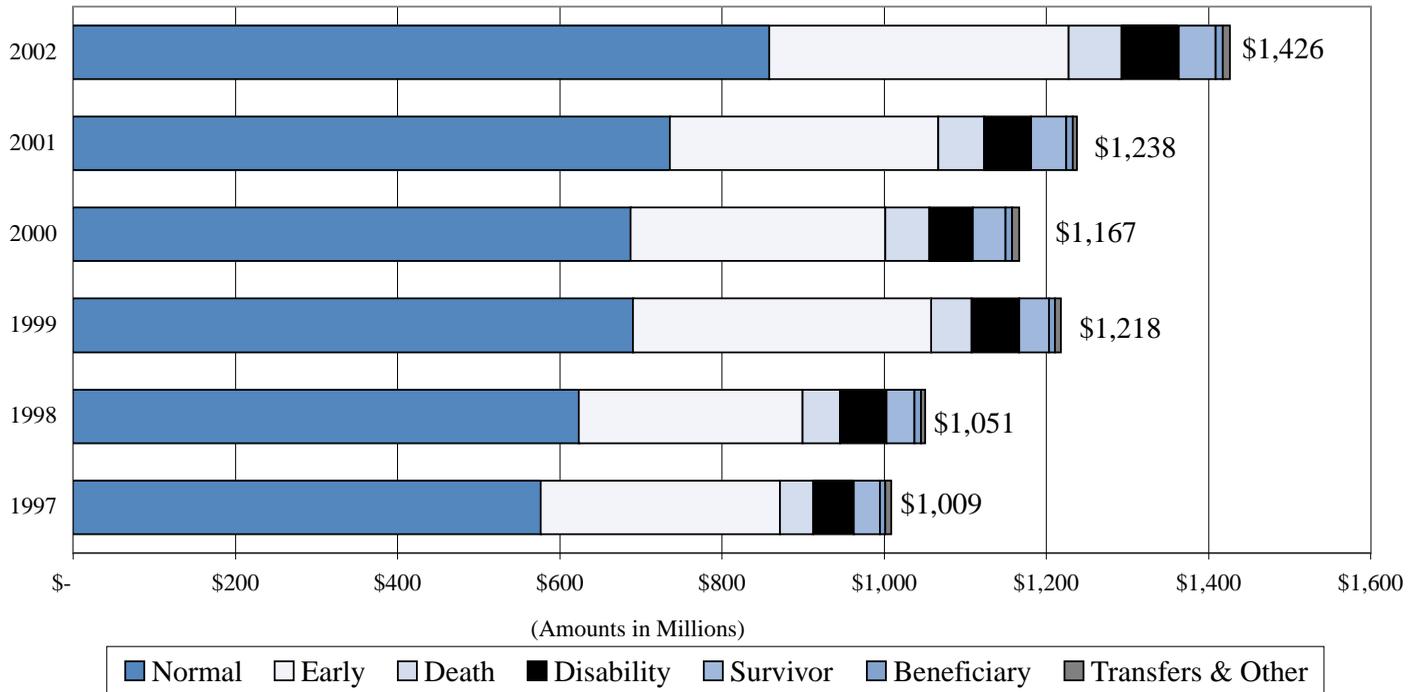


Schedule of Benefit Expenses by Type

Years Ended December 31, 2002 through 1997
(Amounts in thousands)

Year	Retirement		Death	Disability	Survivor	Beneficiary	Transfers & Other	Total
	Normal	Early						
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
1998	623,980	276,428	57,465	45,691	34,681	7,527	5,098	1,050,870
1997	576,576	294,824	50,287	40,898	32,063	6,871	7,129	1,008,648

Benefits by Type



Schedule of Retired Members by Type of Benefit

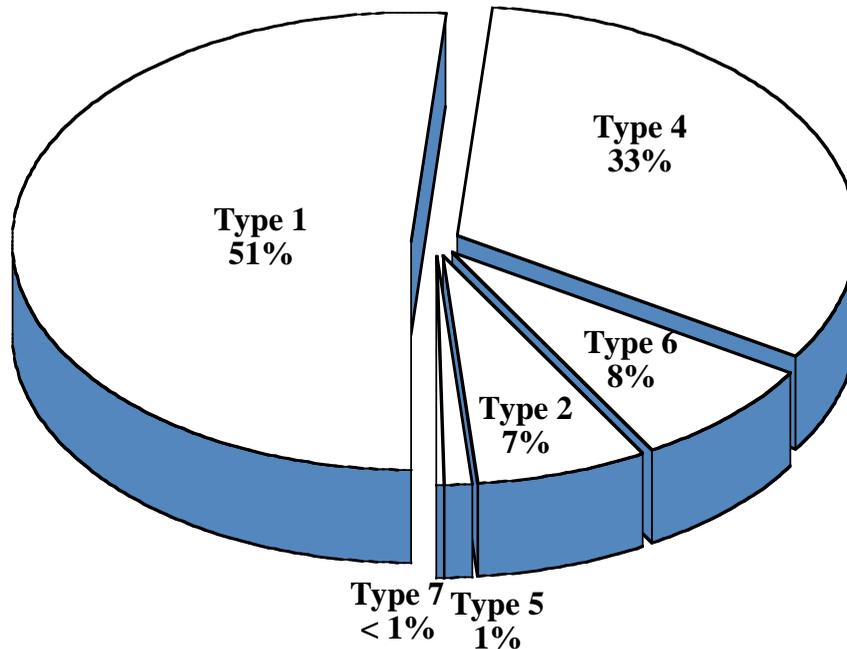
As of December 31, 2002

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Type of Retirement					
			1	2	4	5	6	7
\$ 1 to 500	\$ 8,035,518	31,380	10,667	973	14,500	623	4,480	137
501 to 1,000	18,202,531	25,079	14,652	3,532	4,885	259	1,660	91
1,000 to 1,500	16,819,561	13,726	8,040	1,138	3,879	100	521	48
1,500 to 2,000	13,491,738	7,803	4,523	386	2,666	31	185	12
2,000 to 2,500	10,429,252	4,688	2,967	115	1,479	22	101	4
2,500 to 3,000	8,229,019	3,001	1,908	49	986	13	45	-
Over 3,000	21,957,851	5,551	4,087	38	1,335	27	62	2
Totals	\$ 97,165,470	91,228	46,844	6,231	29,730	1,075	7,054	294

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, 2002

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Option Selected					
			FRA	1	2	3	4	Other
\$ 1 to 500	\$ 8,035,518	31,380	8,287	11,892	7,132	2,830	591	648
501 to 1,000	18,202,531	25,079	8,526	8,296	4,358	2,518	1,076	305
1,000 to 1,500	16,819,561	13,726	4,107	4,473	2,476	1,682	862	126
1,500 to 2,000	13,491,738	7,803	2,223	2,369	1,261	1,152	748	50
2,000 to 2,500	10,429,252	4,688	1,300	1,308	755	757	538	30
2,500 to 3,000	8,229,019	3,001	862	840	500	492	283	24
Over 3,000	21,957,851	5,551	2,030	1,283	664	903	634	37
Totals	\$ 97,165,470	91,228	27,335	30,461	17,146	10,334	4,732	1,220

Options

FRA - Full Retirement Allowance

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

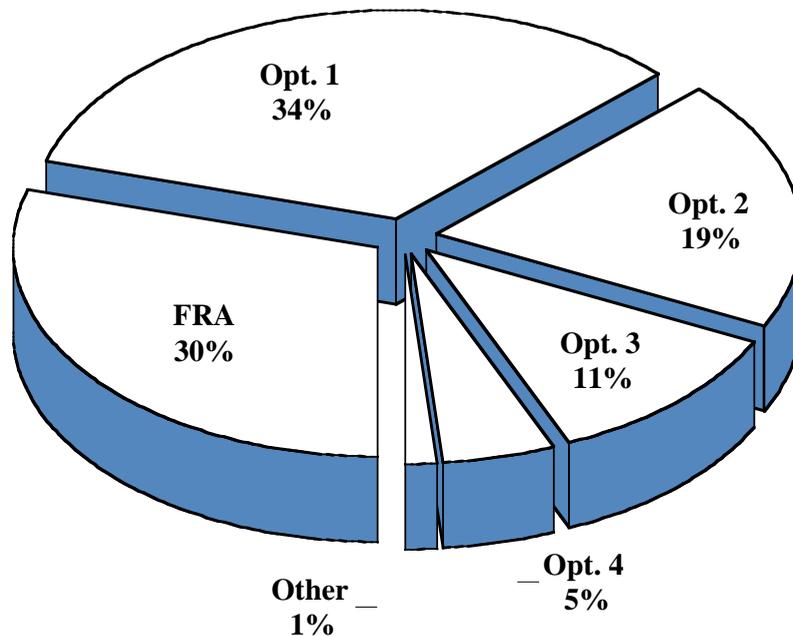
Opt. 2 - Annuity for Life with beneficiary receiving same annuity when member dies.

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, 2002

<u>Age</u>	<u>Superannuation</u>		<u>Early Retirement</u>		<u>Disability</u>		<u>Beneficiary and Survivor</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Under 25	-	-	-	-	-	-	\$ 3,455	\$ 8,436
25-29	-	-	\$ 623	\$ 643	\$ 10,034	\$ 10,769	13,329	7,516
30-34	-	-	1,382	954	8,690	8,273	10,210	14,083
35-39	-	-	2,003	1,348	10,087	8,408	4,247	12,397
40-44	-	-	2,990	2,108	10,702	10,370	6,234	7,910
45-49	-	-	4,988	3,033	11,592	11,225	6,879	7,189
50-54	\$ 28,481	\$ 24,744	10,046	6,044	12,766	12,158	3,930	8,740
55-59	33,827	26,795	17,491	9,922	12,612	11,894	6,611	9,390
60-64	28,614	19,406	17,025	11,600	10,919	9,640	5,391	10,371
65-69	20,802	14,114	13,312	8,879	9,197	8,346	6,675	8,884
70-74	17,509	10,963	13,748	8,936	9,496	7,713	7,908	8,237
75-79	15,474	9,775	12,161	7,696	9,284	6,989	5,773	6,626
80-84	12,745	8,325	11,802	7,978	8,606	6,506	6,912	5,474
85-89	11,382	7,915	11,069	9,004	7,787	6,858	3,984	4,735
90 over	11,461	8,517	8,936	9,113	5,637	4,863	4,128	4,556
Total	18,648	11,345	13,759	7,745	11,057	10,012	6,192	6,746

	<u>Superannuation</u>	<u>Early Retirement</u>	<u>Disability</u>	<u>Beneficiary and Survivor</u>
Total Average Pension	\$15,445	\$10,895	\$10,511	\$6,697
Total Average Age: Male & Female	74.2	60.1	59.8	75.4

Schedule of Participating Employers

As of December 31, 2002

Administrative Office-PA Courts	Department of the Auditor General
Bloomsburg University Community Activities	Department of Transportation
Board of Probation and Parole	Department of Military and Veterans Affairs
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	Joint Legislative Conservation Committee
Delaware Valley Regional Planning Commission	Joint State Government Commission
Department of Aging	Kutztown University Student Services
Department of Agriculture	Lancaster-Lebanon Intermediate Unit
Department of Banking	Legislative Budget & Finance Committee
Department of Community & Economic Development	Legislative Data Processing Center
Department of Conservation & Natural Resources	Legislative Reference Bureau
Department of Corrections	Lehigh Carbon Community College
Department of Education	Lieutenant Governor's Office
Department of Environmental Protection	Liquor Control Board
Department of General Services	Local Government Commission
Department of Health	Lock Haven University Student Co-op
Department of Labor and Industry	Luzerne County Community College
Department of Public Welfare	Luzerne Intermediate Unit
Department of Revenue	Mansfield University Community Services
Department of State	Milk Marketing Board

Schedule of Participating Employers

As of December 31, 2002
Continued

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 Health Care Cost Containment Council	State Employees' Retirement System
Pennsylvania Housing Finance Agency	State Ethics Commission
Pennsylvania Emergency Management Agency	State Public School Building Authority
Pennsylvania Higher Education Assistant Agency	State System of Higher Education
Pennsylvania Infrastructure Investment Authority	State Tax Equalization Board
Pennsylvania Municipal Retirement System	Susquehanna River Basin Commission
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
Public School Employees' Retirement System	

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State Employees' Retirement System
P.O. Box 1147
Harrisburg, PA 17108-1147