

# 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, 2001



Including the Independent Auditors' Report of Financial Statements  
for the years ended December 31, 2001 and 2000

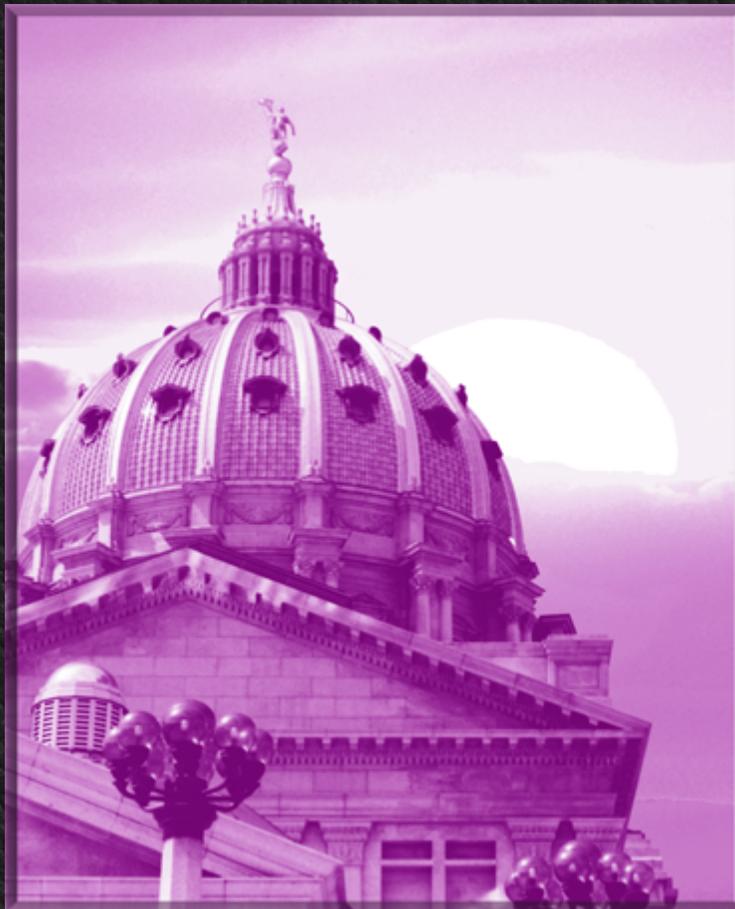
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Commonwealth of Pennsylvania

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for the year ended December 31, 2001



John R. Brosius  
*Executive Director*

Francis J. Donlevy  
*Director, Office of Financial Management*

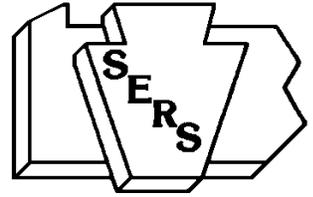
State Employees' Retirement System  
30 North Third Street • P.O. Box 1147  
Harrisburg, PA 17108-1147

Including the Independent Auditors' Report of Financial Statements  
for the years ended December 31, 2001 and 2000



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 2002

Honorable Mark Schweiker, Governor  
Commonwealth of Pennsylvania

Members, Pennsylvania General Assembly  
Members, Pennsylvania State Employees' Retirement System

Dear Governor Schweiker, Legislators and Members:

The Board of Trustees of the Pennsylvania State Employees' Retirement System (SERS) is pleased to present our *Comprehensive Annual Financial Report* on the SERS Fund for calendar year 2001.

The Fund had a total investment rate of return of -7.9% in 2001 and a total fair value of \$24.7 billion as of December 31, 2001, amid turbulent market conditions. By comparison, the Fund's annualized investment rate of return for the past five years was 9.2%, and the annualized investment rate of return for the past 10 years was 10.5%. These substantial returns have enabled SERS to maintain fully-funded status since 1992. They also validate the Board's adherence to two key principles:

- ◆ prudent management of Fund assets, and
- ◆ ensuring payment of benefits promised by the Commonwealth to SERS retirees and beneficiaries.

Also due in part to these substantial returns, the Commonwealth's total employer rate of contribution to the Fund, which was as high as 18.87% of payroll in 1981, was reduced to 0.0% of payroll for fiscal year 2001-2002. Rest assured that the SERS Board, staff and I will continue to pursue prudent 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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# *Board of Trustees*

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**Honorable Nicholas J. Maiale**

*Chairman*



**Honorable Gibson E. Armstrong**

*State Senator*



**Honorable Barbara Hafer**

*State Treasurer*



**Honorable Robert A. Bittenbender**

*State Secretary of the Budget*



**Honorable Raphael J. Musto**

*State Senator*



**David R. Fillman**

*Director, AFSCME Council 88*



**James E. Nevels**

*Financial Consultant*



**Honorable Thomas G. Paese**

*Former State Secretary of Administration*



**Honorable Jere L. Strittmatter**

*State Representative*



**Honorable M. Joseph Rocks**

*Retired Member and Former State Senator*



**Honorable Michael R. Veon**

*State Representative*



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## *Mission Statement*

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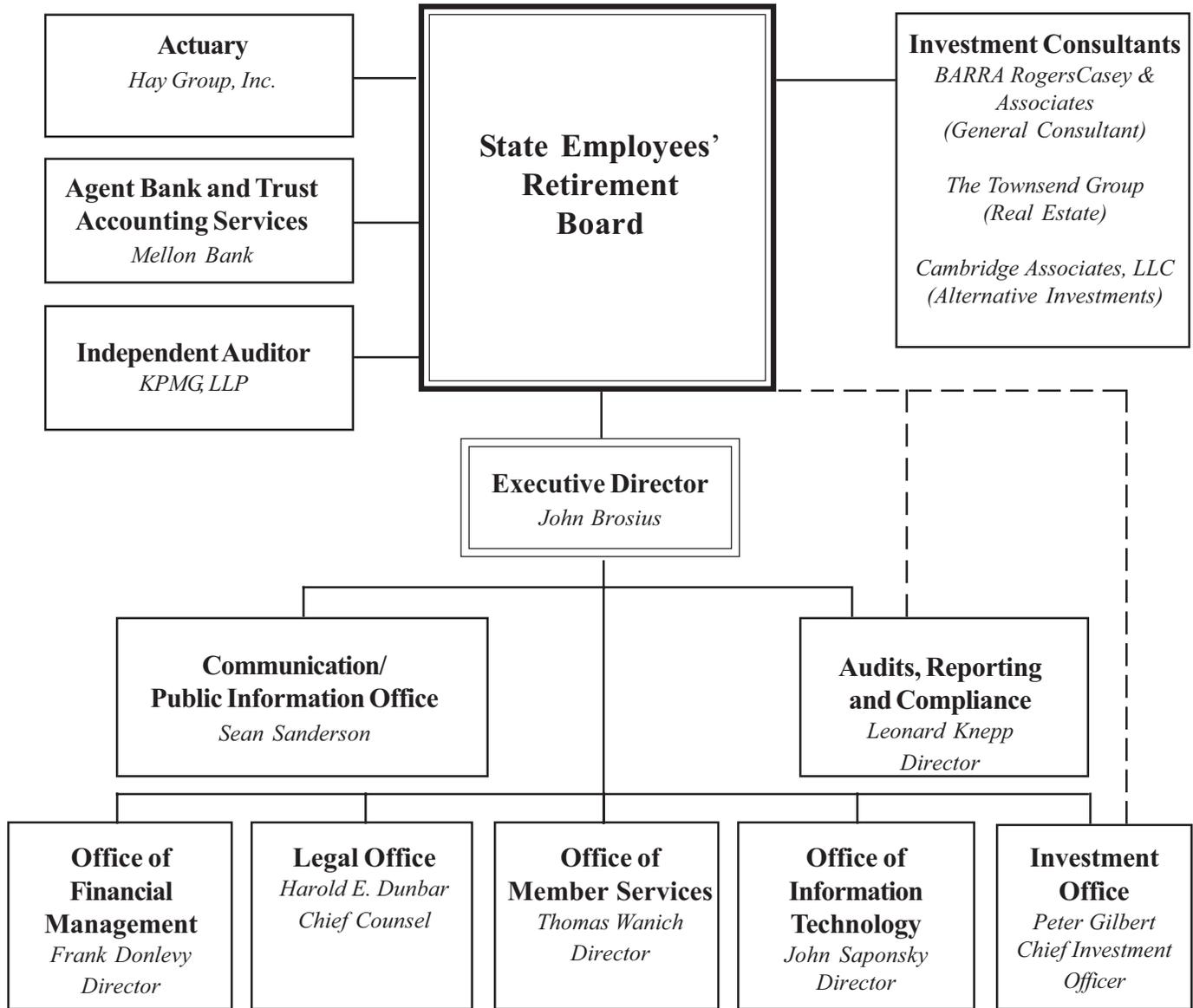
**Plan Administration:** To administer the retirement benefits plan for state employees and elected officials in accordance with Pennsylvania statutes;

**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*



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## *Administrative Support*

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**John Brosius**  
*Executive Director*

**Francis J. Donlevy**  
*Director, Office of Financial Management*

**Peter M. Gilbert**  
*Chief Investment Officer*

**Harold E. Dunbar**  
*Chief Counsel*

**Andrew Deitch**  
**Bruce Feldman**  
**David J. Kalman**

**Leonard M. Knepp**  
*Director, Audits, Reporting and Compliance*

**Mark McGrath**  
**Karen N. Nicely**  
**Adam Tosh**

**Sean Sanderson**  
*Director of Communications*

**John C. Winchester**  
*Investment Office Directors*

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## *Investment Consultants*

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**BARRA RogersCasey\***  
*General Consultant*

**The Townsend Group**  
*Real Estate Consultant*

**Cambridge Associates**  
*Alternative Investments Consultant*

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## *General Service Providers*

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**Hay Group, Inc.**  
*Actuary*

**Mellon Bank**  
*Agent Bank and  
Trust Accounting Services*

**KPMG, LLP**  
*Independent Auditor*

\*On March 27, 2002, BARRA RogersCasey ceased providing consulting services to SERS when it was purchased by Capital Resource Advisors, LLC. On May 31, 2002 and after examining its options, the Board of Trustees entered into an agreement for general consulting services with Rocaton Investment Advisors, LLC, a company formed by, among others, the two former employees of BARRA RogersCasey that had primary responsibility for providing consulting services to SERS.

# 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, 2000

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.

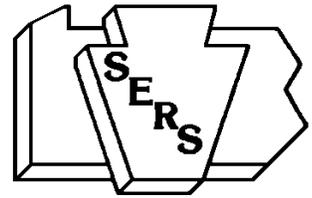


*Imelda Gruve*  
President

*Jeffrey L. Essler*  
Executive Director



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



May 30, 2002

The Board of Trustees  
Pennsylvania State Employees' Retirement System  
Harrisburg, PA 17108-1147

Dear Mr. Chairman and Members of the Board:

We are pleased to present you with the Comprehensive Annual Financial Report of the Pennsylvania State Employees' Retirement System (the "System") for the calendar year ended December 31, 2001.

During 2001, the System faced challenges from the investment market place, from sweeping legislation affecting the State Retirement Code, as well as from the day-to-day responsibilities of administering one of the largest public pension funds in the world. In spite of this difficult environment, the System maintained its fully funded status and the service its members have come to expect.

The recessionary economy, uncertainty in financial markets, and surfacing of accounting irregularities in certain companies all combined to drag the stock market down to its worst two year performance since the bear market of the 1973-74. Despite a well-diversified asset allocation program, the System's return on plan assets was -7.9%, the worst in over 25 years. Although that return was far below actuarial assumptions, SERS fared much better than the -11.9% broad market returns of the S&P 500. While we were disappointed with the returns on the portfolio, our 5 and 10 year returns, 9.2% and 10.5% respectively, have buoyed SERS into the top quartile for those periods among our peer funds.

While certain funds reported staggering losses due to concentrations of investments in individual companies, the SERS strategy has been to minimize the risk of those types of losses by:

- increasing asset classes for the allocation of funds
- broadly diversifying individual holdings through the use of passively managed index funds
- using risk management guidelines in the contracts of our actively managed portfolios to limit exposures and concentrations of individual holdings
- using multiple managers with varying mandates in our portfolio rather than placing heavy "bets" with individual managers.

While these policies can never guarantee the Fund will not suffer large losses, they provide reasonable assurance that these types of risk exposures are managed and minimized through diversification.

During 2001, we continued our efforts to implement new technology and best practices to enhance workplace productivity, improve management decision-making, and make customer service delivery more efficient. Those efforts included upgrading our Internet site by introducing a user-friendly financial calculator that allows members to prepare custom estimates on-line to assist with their retirement planning and allowing members to access their personal accounts on-line.

On May 17, 2001, Governor Ridge signed Act 2001-9 (Act 9) into law. Key changes brought about by Act 9:

- creation of a new class of membership, Class AA
- increased the Class AA member contribution rate to 6.25% effective in January 2002
- increased the multiplier to 1.25 from 1.0 for determination of retirement benefits, which translates into a revised benefit formula based on 2.5% of final average salary, an increase from 2.0%
- changed the vesting requirement for all members from 10 years to 5 years
- gave authority to permit the use of actuarial debts for all purchases of creditable non-state service, prior state service, and payment of joint coverage contributions

New members of the System are automatically enrolled as Class AA. However, election for current members at the time of enactment was voluntary. This required the System to poll the entire eligible membership and enter the results of each member's election form onto the members record in the State Employees' Retirement Information System. As a follow up service to our members, SERS sent confirmation notices to members returning their ballots to advise them we had received their election. Additionally, SERS conducted over 800 group presentations to over 33,700 members to explain the provisions of Act 9 in order for the members to make informed decisions. Over 98% of members returned their election forms. Additionally, the SERS followed up with all members declining Class AA status, and only .5% of eligible members declined membership in Class AA.

### **Report Content and Structure**

The 2001 CAFR consists of five sections:

- the Introductory Section contains this letter of transmittal and general information on the administrative organization of the System and its mission;
- the Financial Section contains the audited financial statements, management's discussion and analysis, required supplementary information and other supporting financial schedules;
- the Investment Section contains a summary of the System's investment management approach and reports on asset allocation and investment performance;
- the Actuarial Section contains the Actuary's Certification Letter and summarized results of the latest annual actuarial valuation; and
- the Statistical Section, which contains general statistical information and trend data regarding SERS participants and finances.

### **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 principals as promulgated by the Governmental Accounting Standards Board. For the year ended December 31, 2001 the SERS has elected to adopt the provisions of GASB Statement 34 *Basic Financial Statement – Management's Discussion and Analysis – for State and Local Governments*. 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 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 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.

## **Awards**

We are very pleased to again 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, 2000. 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.

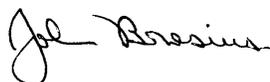
A Certificate of Achievement is valid for a period of one year only. We believe that the SERS Comprehensive Annual Financial Report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

## **Acknowledgements**

The 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.

Our pledge to the Board, members and taxpayers of Pennsylvania is to continue to administer the System in a manner which will ensure the accurate timely payment of benefits, prompt and courteous service delivery that will keep pace with membership's changing needs, and to minimize the cost of the fund to the taxpayers of the Commonwealth through prudent management of the Fund's assets.

Respectfully submitted,



John R. Brosius  
Executive Director



Francis J. Donlevy  
Director, Office of Financial Management

# FINANCIAL



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# *Independent Auditors' Report*

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225 Market Street  
Suite 300  
P.O. Box 1190  
Harrisburg, PA 17108-1190



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, 2001 and 2000, 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, 2001 and 2000, 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.

As discussed in Note 2 to the financial statements, the System adopted the disclosure requirements of Statement No. 34 of the Governmental Accounting Standards Board, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments* as of and for the year ending December 31, 2001.

**KPMG LLP**

May 10, 2002

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# *Management's Discussion and Analysis*

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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, 2001 and 2000.

## **Overview of the Financial Statements and Accompanying Information**

- 1) **Fund Financial Statements.** The State Employees' Retirement System presents Statements of Plan Net Assets as of December 31, 2001 and 2000 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 uses 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 provide additional detailed information and schedules to provide a better understanding of the financial statements. Information in the notes discloses, among other things, 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.
- 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 \$3.2 billion and \$213 million during the years ended December 31, 2001 and 2000, respectively, as reflected in the table on page 6, primarily due to a downturn in global equity markets.

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# *Management's Discussion and Analysis*

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## **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. An annual actuarial valuation is required by statute. The date of the most recent available valuation showed the funded status of the System on December 31, 2001 decreased to 116.3% from 132.4% at December 31, 2000. The amount by which actuarially determined assets exceeded actuarially determined liabilities was \$3.8 billion at December 31, 2001 compared to an excess of \$6.4 billion at December 31, 2000. The reasons for the decrease were weak global equity markets in 2000-2001 and an increase in actuarial liabilities due to the passage of Act 2001-9 (Act 9) by the state legislature. Some of the significant provisions from Act 9 were:

- A 25% increase in both the general membership contribution rate to 6.25%, effective January 2002, and the employer normal cost will increase the present value of future contributions by approximately \$1.4 billion
- A 25% increase in the multiplier to 1.25 from 1.0 for determination of retirement benefits for the general membership, which translates into a revised benefit formula based on 2.5% of final average salary, an increase from 2.0%. The change is expected to increase the present value of future benefits by approximately \$4.2 billion.

The net impact of the aforementioned items is estimated to increase the Actuarial Accrued Liability approximately \$2.7 billion. Other significant provisions of the Act included:

- A change to the vesting requirement for all members from 10 years to 5 years
- A reduction in the amortization of actuarial gains and losses to a 10-year level dollar amortization from a 20 year increasing 5% annual schedule

The increase in the funded ratio to 132.4% in 2000 from 123.7% in 1999, and the change in the excess of actuarially determined assets over actuarially determined liabilities to \$6.4 billion from \$4.5 billion was due to amortization of gains from the strong investment returns realized in the 1990s.

## **Contributions and Income**

Additions to Plan Net Assets include employer and member contributions and net income from investment activities. Member contributions were approximately \$241 million and \$232 million for the years ended December 31, 2001 and 2000, respectively. The member contribution rate is set by statute at 5.0% of the gross salary for most employees. Employer contributions decreased to approximately \$77 million in 2001 from approximately \$168 million in 2000 and \$271 million in 1999. The decrease was based on annual actuarial valuations that reduced the employer composite rate to approximately 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. The employer rate for most Class A and AA members, which includes over 90% of all state employees, is set at 0%. However, the System does continue to receive employer contributions for certain classes of employers, specifically law enforcement, judiciary and the

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# *Management's Discussion and Analysis*

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Legislature. Receipts for contributions for those members, along with transfers of employees from other state retirement systems, comprised the balance of the employer contributions recognized during 2001.

Net investment losses totaled approximately \$2.2 billion during 2001, versus net investment income of \$586 million in 2000, and \$4.7 billion in 1999, resulting in returns of -7.9%, 2.2% and 19.9%, respectively. For the 10-year period ended December 31, 2001, the System earned a compounded rate of return of 10.5%. The decrease in investment income in 2001 and 2000 was the result of the downturn in global equity markets.

A significant deduction from income is investment manager fees. The System's assets are managed 100% by external investment advisors hired by the Board of Trustees. Most 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. During 2001, the System's commitments to Alternative Investments increased by almost \$888 million from the prior year. With increased commitments to the Alternative Investment asset class, investment expenses increased \$8 million from the prior year to \$149 million. Investment expenses for the year 2000 increased approximately \$25 million from 1999, due to increased commitments in the Alternative Investment asset class, certain incentive fees earned by investment advisors and increased allocations to emerging markets, which generally cost more to manage.

Prudent investment of the System's assets has enabled it to achieve and maintain a fully funded status while decreasing the employer contribution rate. The employer rate had been almost 10% as recently as 1990 and has dropped to almost 0% this past year. This has resulted in employer contributions decreasing from over \$418 million in 1990 to less than \$77 million in 2001. This is even more impressive when considering the active membership payroll has grown from \$3.2 billion in 1990 to over \$4.8 billion this year. The benefits of this performance pass directly back to the participating Commonwealth agencies and the taxpayers of Pennsylvania.

## **Benefits, Refunds and Expenses**

Deductions from Plan Net Assets are primarily benefit payments. During 2001 and 2000, the System paid out approximately \$1.245 billion and \$1.177 billion, respectively, in benefits and refunds, an increase of approximately 6% in 2001. Those higher payments were due to an increase in the number of retirees. There was a slight decrease in benefits paid in 2000 compared to 1999 due to the increased volume of members retiring in 1999 and the withdrawal of their contributions at retirement. The administrative costs of the System represented less than 0.08% of average assets in both 2001 and 2000.

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# *Management's Discussion and Analysis*

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## **Plan Assets**

During 2001, investments allocated to domestic and international equity portfolios decreased approximately \$783 million and \$884 million, respectively. The decrease is attributable to the decline in global equity markets. Investments allocated to fixed income securities decreased approximately \$1 billion dollars, which was a result of using these assets for payment of benefits during periods of stress on the equity markets. Decreases of approximately \$458 million in the alternative investment asset class can also be attributed to the similar decreases in equity markets, particularly in the communications and software sectors, which affected valuations of companies funded in limited partnership investments. Decreases in investments during 2000 were due to payment of benefits to members offsetting the returns from weak global equity markets. One-year returns on asset classes are presented in the table below:

<b>Asset Class</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
Domestic Equities	(9.0) %	(6.5) %	20.3 %
International Equities	(15.6)	(6.8)	40.6
Fixed Income Securities	5.2	7.6	(0.4)
Cash / STIF	3.4	6.3	5.1
Tactical Asset Allocation	(8.0)	(1.5)	14.1
Real Estate	7.1	13.0	12.0
Private Equity	(16.2)	28.2	37.3
Venture Capital	(36.2)	92.7	63.0
Total	(7.9) %	2.2 %	19.9 %

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 2001 and 2000 was approximately \$9.9 million per year

## **House Bill 27**

On April 23, 2002, Governor Schweiker signed House Bill 27 (HB 27) 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 COLA. These and other provisions of HB 27 are discussed in footnote 10 of the accompanying financial statements.

# *Management's Discussion and Analysis*

## Net Assets (in Millions)

Assets	2001	Increase (Decrease)	2000	Increase (Decrease)	1999
Total receivables	\$ 284	(37)	321	128	193
Total investments	25,158	(3,226)	28,384	(347)	28,731
Security lending collateral pool	1,213	272	941	(143)	1,084
Total assets	<u>26,655</u>	<u>(2,991)</u>	<u>29,646</u>	<u>(362)</u>	<u>30,008</u>

## Liabilities

Accounts payable	44	1	42	2	40
Investment purchases payable	692	(90)	782	(8)	790
Obligations under security lending	1,213	272	941	(143)	1,084
Total liabilities	<u>1,949</u>	<u>183</u>	<u>1,765</u>	<u>(149)</u>	<u>1,914</u>
Total net assets	<u>\$ 24,706</u>	<u>(3,174)</u>	<u>27,881</u>	<u>(213)</u>	<u>28,094</u>

## Changes in Net Assets

	2001	Increase (Decrease)	2000	Increase (Decrease)	1999
Member contributions	\$ 241	9	232	7	225
Employer contributions	77	(91)	168	(103)	271
Net investment income	(2,226)	(2,811)	586	(4,137)	4,722
Total additions	<u>(1,908)</u>	<u>(2,893)</u>	<u>986</u>	<u>(4,233)</u>	<u>5,218</u>
Benefits and refunds	1,245	68	1,177	(53)	1,229
Administrative expenses	21	—	21	2	19
Total deductions	<u>1,266</u>	<u>68</u>	<u>1,198</u>	<u>(51)</u>	<u>1,248</u>
(Decrease) increase in net assets	<u>\$ (3,174)</u>	<u>(2,961)</u>	<u>(212)</u>	<u>(4,182)</u>	<u>3,970</u>

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# Financial Statements

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**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Statements of Plan Net Assets  
December 31, 2001 and 2000  
(Amounts in thousands)

	<u>2001</u>	<u>2000</u>
Assets:		
Receivables:		
Plan members	\$ 1,387	1,551
Employers	1,727	15,384
Investment income	89,571	132,435
Investment proceeds	186,976	170,341
Miscellaneous	4,512	1,208
Total receivables	<u>284,173</u>	<u>320,919</u>
Investments:		
Short-term investment funds	810,937	920,638
United States government securities	2,004,768	2,188,923
Corporate and foreign bonds and notes	2,731,890	3,312,265
Common and preferred stocks	7,184,095	6,918,774
Collective trust funds	7,396,900	9,460,886
Real estate	2,532,751	2,627,710
Alternative investments	2,496,474	2,954,833
Total investments	<u>25,157,815</u>	<u>28,384,029</u>
Securities lending collateral pool	<u>1,212,508</u>	<u>940,558</u>
Total assets	<u>26,654,496</u>	<u>29,645,506</u>
Liabilities:		
Accounts payable and accrued expenses	43,606	42,290
Investment purchases	692,319	782,190
Obligations under securities lending	1,212,508	940,558
Total liabilities	<u>1,948,433</u>	<u>1,765,038</u>
Net assets held in trust for pension benefits	\$ <u>24,706,063</u>	<u>27,880,468</u>
(A Schedule of Funding Progress is presented on page 22.)		

See accompanying notes to financial statements.

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Statements of Changes in Plan Net Assets  
Years ended December 31, 2001 and 2000  
(Amounts in thousands)

	<b>2001</b>	<b>2000</b>
Additions:		
Contributions:		
Plan members	\$ 240,528	231,667
Employers	76,710	168,002
Total contributions	317,238	399,669
Investment (loss) income:		
Net (depreciation) appreciation in fair value of investments	(1,790,575)	774,998
Collective trust fund depreciation and income	(1,014,578)	(825,600)
Interest	388,626	412,933
Dividends	106,253	113,293
Real estate	182,423	203,308
Miscellaneous	41,111	37,377
	(2,086,740)	716,309
Investment expenses	(148,778)	(140,526)
Net (loss) income from investing activities	(2,235,518)	575,783
From securities lending activities:		
Securities lending income	54,813	87,874
Securities lending expenses	(44,922)	(77,945)
Net income from securities lending activities	9,891	9,929
Total net investment (loss) income	(2,225,627)	585,712
Total additions	(1,908,389)	985,381
Deductions:		
Benefits	1,237,953	1,166,897
Refunds of contributions	7,176	9,888
Administrative expenses	20,887	21,309
Total deductions	1,266,016	1,198,094
Net decrease	(3,174,405)	(212,713)
Net assets held in trust for pension benefits:		
Balance, beginning of year	27,880,468	28,093,181
Balance, end of year	\$ 24,706,063	27,880,468

See accompanying notes to financial statements.

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**STATE EMPLOYEES' RETIREMENT SYSTEM**  
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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 or former Senators, two members or former members of the House of Representatives, and six members appointed by the Governor, one of whom is an annuitant of the System. At least five board members are active members of the System and at least two have ten or more years of credited service. The Treasurer of the Commonwealth of Pennsylvania is the custodian of the State Employees' Retirement System's fund.

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, 2001 and 2000, System membership consisted of:

	<u>2001</u>	<u>2000</u>
Retirees and beneficiaries currently receiving benefits	89,217	88,392
Terminated employees entitled to benefits but not yet receiving them	4,877	3,777
Current active employees	<u>109,716</u>	<u>109,470</u>
Total members	<u>203,810</u>	<u>201,639</u>
Number of participating agencies	<u>106</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:

	<u>2001</u>		<u>2000</u>	
Employer normal cost	8.87	%	8.99	%
Amortization of unfunded actuarial assets in excess of liabilities	(10.63)		(8.22)	
Amortization of supplemental annuities	2.46		2.42	
Total employer cost	<u>.70</u>	<u>%</u>	<u>3.19</u>	<u>%</u>

The general membership contribution rate for all Class A and Class AA members was at 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.

**(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. 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 venture capital, leveraged buyouts, international private equities, and other investments are valued based on amounts established by valuation committees, which are

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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, 2001. Foreign exchange and futures contracts are marked-to-market daily with changes in fair value recognized as part of investments and investment income.

The Collective Trust Funds (CTF) consists 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. The CTF are principally managed by Barclays Global Investors, N.A. for which the United States Office of the Comptroller of the Currency has regulatory oversight.

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, 2001 and 2000, the System had contractual commitments totaling approximately \$2.8 billion and \$2.5 billion, respectively, to fund future alternative investments and \$180 million and \$266 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, 2001 and 2000, \$2,032 and \$1,847, respectively, was accrued for unused vacation and sick leave for the System's employees.

**(f) *Federal Income Taxes***

Management believes the System meets the definition of a Governmental Plan; in the System's communications with the Internal Revenue Service (IRS), it has been treated as a qualified plan, and is therefore considered exempt from federal income taxes. Therefore, the System has not

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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 2000 balances have been reclassified to conform with the 2001 presentation.

**(i) New Accounting Pronouncement**

In June 1999, the GASB issued Statement No. 34 *Basic Financial Statements -- Management's Discussion and Analysis -- for State and Local Governments* (GASB 34). In June 2001 the GASB issued Statement No 37, *Basic Financial Statements -- and Management's Discussion and Analysis -- for State and Local Governments: Omnibus*, which amended certain provisions of GASB 34. Although not required to implement GASB 34 until fiscal year 2002, the System elected to adopt the new pronouncement, as amended, for the year ended December 31, 2001. The adoption of GASB 34 required the System to present Management's Discussion and Analysis as required supplementary information preceding the financial statements. The adoption of GASB 34 did not have an impact on the net assets of the System.

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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, 2001 and 2000 are as follows:

	<u>2001</u>	<u>2000</u>
Members Savings Account	\$ 3,344,107	3,182,776
State Accumulation Account	13,779,208	17,918,667
Supplemental Annuity Account	(1,143,658)	(1,161,627)
Annuity Reserve Accounts:		
Annuitants and Beneficiaries	7,575,058	6,774,913
State Police	1,124,075	1,142,535
Enforcement Officers	27,273	23,204
Total	<u>\$ 24,706,063</u>	<u>27,880,468</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, 2001 and 2000, 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, 2001 and 2000. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments 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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	<u>2001</u>	<u>2000</u>
Investments – Category 1:		
United States government securities	\$ 1,579,085	1,713,041
Corporate and foreign bonds and notes	2,199,177	2,942,618
Common and preferred stocks	6,828,549	6,662,393
Real estate investment trusts	349,223	345,650
	<u>10,956,034</u>	<u>11,663,702</u>
Total Category 1 investments		
Investments – not categorized:		
Investments held by broker/dealers under securities lending agreement:		
United States government securities	425,683	475,882
Corporate and foreign bonds and notes	434,837	273,128
Common and preferred stocks	355,546	256,381
Short-term investment funds	810,937	920,638
Collective trust funds	7,396,900	9,460,886
Mortgage loans	97,876	96,519
Real estate	2,183,528	2,282,060
Alternative investments	2,496,474	2,954,833
	<u>14,201,781</u>	<u>16,720,327</u>
Total not-categorized investments		
Total investments	<u>\$ 25,157,815</u>	<u>28,384,029</u>

The System is generally required to invest its excess cash, on a daily basis, in the Pennsylvania Department of Treasury's short-term investment fund, which is not subject to any regulatory oversight.

The System's real estate holdings that are located in the Commonwealth of Pennsylvania total approximately \$452 million and \$491 million or 17.8% and 18.7% of the real estate portfolio at December 31, 2001 and 2000, 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 \$774 million and \$1,049 million of high-yield bonds at December 31, 2001 and 2000, 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.

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

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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, 2001 and 2000, 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, 2001 and 2000 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, 2001 and 2000, was 26 days and 24 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, 2001 and 2000, respectively, the fair value of loaned securities was \$1,216,066 and \$1,005,391; the fair value of the associated collateral was \$1,251,086 and \$1,032,005 of which \$1,212,508 and \$940,558 was cash.

Securities lent at year end for cash collateral are presented as unclassified in the preceding schedule of custodial credit risk; securities lent for securities collateral are classified according to the securities collateral categorization. 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, swaps to hedge against the effects of inflation, and collateralized mortgage obligation (CMO) investments as part of its overall fixed income portfolio.

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

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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, 2001 and 2000, the System's contracts to purchase and sell foreign currencies were as follows:

	<b>2001</b>		<b>2000</b>	
	<b>Notional amount</b>	<b>Unrealized gain (loss)</b>	<b>Notional amount</b>	<b>Unrealized gain (loss)</b>
Purchase contracts	\$ 3,999,140	66,974	4,807,617	(13,747)
Sell contracts	3,113,334	(43,500)	3,332,837	(20,046)

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 December 2005. The notional value of these contracts at December 31, 2001 and 2000 is as follows:

	<b>2001</b>		<b>2000</b>	
	<b>Buy contracts</b>	<b>Sell contracts</b>	<b>Buy contracts</b>	<b>Sell contracts</b>
Eurodollar futures	\$ 9,246	155,711	—	8,474
Treasury futures	214,110	259,375	245,610	396,698
S&P futures	845,878	598	354,776	—

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, 2001 and 2000 represent restricted assets.

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The fair value of the System's CMOs at December 31, 2001 and 2000 was approximately \$319 million and \$213 million. The System's CMOs are principally planned amortization class securities that have defined cash flow characteristics in a volatile interest rate environment. Other CMOs (interest-only strips, principal only strips, and inverse floaters) behave less predictably but offer value in certain market conditions. CMOs pose no greater credit risk than any other investment grade holding, but credit risk exists to the extent that the underlying collateral does not perform according to the contracted terms. CMOs have well-defined rules on remitting reserved amounts on defaulted collateral.

Swap agreements provide for periodic payments between parties based on the net difference in the cash flows of underlying assets, indexes, or rates. During 2001, the System entered into swap arrangements to purchase commodity futures with a notional value of approximately \$250 million. 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 swaps are used as an inflation hedge and settle on a monthly basis. The System generally requires collateral on these swaps 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, 2001 and 2000, the System earned \$664 and \$928 of benefits resulting from a commission recapture program, respectively. The System used the program to pay approximately \$1,466 and \$1,130 of consulting, advisory, and other expenditures for the years ended December 31, 2001 and 2000, respectively. At December 31, 2001 and 2000, the System has accumulated \$2,266 and \$3,068, respectively, of benefits that are available for future expenditures.

**(8) Pension Plan for Employees of the System**

The System also makes employer contributions. The System's employees' contribution requirements and benefits are described in note 1 to these financial statements. The System's contributions for the years ended December 31, 2001, 2000 and 1999 were \$27, \$198 and \$395, respectively, which were equal to the required contributions each year.

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

*Notes to Financial Statements*  
December 31, 2001 and 2000  
(Dollar amounts in thousands)

**9) Litigation and Contingencies**

The System is involved in various individual lawsuits, generally related to benefit payments, which, if settled adversely, could increase estimated actuarial liabilities by up to one billion dollars. 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) Subsequent Event**

On April 23, 2002, the Governor of Pennsylvania signed House Bill 27 (HB 27) into law. HB 27 provided for, among other things, a two phase COLA for retired members. The bill excludes those members in Class AA, T-D and D-4. For annuitants retiring before July 2, 1990 the bill provides 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 are estimated at approximately \$257 million for Phase One and \$396 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 0.78% 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. HB 27 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 – see accompanying auditors' notes)  
(Dollar amounts in millions)

Actuarial valuation year	Actuarial value of assets	Actuarial accrued liabilities (AAL)	Unfunded actuarial accrued liabilities (UAAL)	Ratio of assets to AAL	Covered payroll	UAAL as a percentage of covered payroll
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)
1996	16,841	15,937	(904)	105.7	4,164	(21.7)

Required Supplemental Schedule 2 – Schedule of Employer Contributions  
(Dollar amounts in thousands)

Year ended December 31, 2001	Annual required contributions	Percentage contributed
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
1996	373,903	100.0

During the year 2001, actual contributions exceeded the annual required contributions (ARC). For the period July 1, 2001 through December 31, 2001 the ARC was set at zero. However, the System required payment from certain agencies with special class employees for the cost of additional benefits including past liabilities for retro-active 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*  
(Unaudited-see accompanying auditor's report)

Actuarial information as of the latest actuarial valuation:

Valuation date (a)	December 31, 2001
Actuarial cost method (b)	Variation of entry age actuarial cost method
Amortization method (a)	10 year schedule with level payments
Remaining amortization period (a)	10 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investments rates of return (c)	8.5%
Projected salary increases (c)	5.16% - 8.98%
Cost-of-living adjustments (d)	As described below

- (a) The December 31, 2001 valuation includes 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.
- (b) A variation of the entry age normal actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits including superannuation, withdrawal, death and disability benefits. The significant difference between the method used for the System and the typical entry age normal actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run.
- (c) Includes inflation at 3%.
- (d) Information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. The December 31, 1997 valuation includes the effect of a cost of living adjustment to annuitants with an effective date of retirement on or prior to June 30, 1997. The adjustment ranged from 1.86% to 25%, depending on the date of retirement, was effective July 1, 1998, and increased actuarial accrued liabilities by \$478 million.

The December 31, 2001 valuation does not include the effects of the COLA referred to in footnote 10 of the audited financial statements.

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
*Notes to Required Supplemental Schedules*  
(Unaudited-see accompanying auditor's report)

**Significant Changes in Prior Years**

In the valuation years ended December 31, 1999, 1998, 1997, and 1996, 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 2001 and 2000, actual investment earnings were less than expected rates and contributed to the decrease in the funding ratio in 2001.

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## *Additional Financial Information*

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**COMMONWEALTH OF PENNSYLVANIA  
STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Supplemental Schedule 1 - Administrative Expenses  
Year ended December 31, 2001  
(Dollar amounts in thousands)

Personnel services:			
Salaries	\$	8,722	
Benefits		2,751	
Temporary personnel wages, overtime, and outservice training		<u>503</u>	
Total personnel services			\$ 11,976
Professional services:			
Consultant fees		2,558	
EDP contractual services vendor provided		1,453	
Treasury Department services		546	
Commonwealth Central services		317	
Legal fees		<u>67</u>	
Total professional services			4,941
Rentals:			
Real estate rent		1,114	
Other equipment rental		<u>268</u>	
Total rentals			1,382
Communication:			
Postage		487	
Telephone		339	
Printing and advertising		<u>136</u>	
Total communication			962
Other expenses:			
EDP software		617	
Supplies		582	
Travel and conferences		171	
Maintenance		122	
EDP and office equipment		63	
Subscriptions and memberships		<u>71</u>	
Total other expenses			<u>1,626</u>
Total administrative expenses			\$ <u><u>20,887</u></u>

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Supplemental Schedule 2 - Investment Expenses and Consultant Fees  
Year ended December 31, 2001  
(Dollar amounts in thousands)

**Investment Expenses**

Investment manager fees:		
Private equity	\$	39,224
Stocks		37,474
Venture capital		36,628
Real estate		18,840
Fixed income		12,550
TAA		2,271
Commodities		65
		<hr/>
Total investment manager fees		147,052
Investment related expenses:		
Alternative investments	\$	1,250
Custodial		232
Legal		229
Fixed income		12
Real estate		3
		<hr/>
Total other fees		1,726
		<hr/>
Total investment expenses	\$	<u><u>148,778</u></u>

**Consulting Fees**

<b>Firm</b>	<b>Category</b>	<b>Fees</b>
Cambridge Associates Inc.	Private Equity	\$ 846
Hay Group, Inc.	Actuary	796
BARRA RogersCasey, Inc.	General Investment	295
The Townsend Group	Real Estate	199
DoxSys. Inc.	EDP	173
Institutional Shareholder Services	Proxy Services	91
Nova Computer Services	EDP	81
Other		77
		<hr/>
Total consulting fees		\$ <u><u>2,558</u></u>

# INVESTMENT



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# *Report on Investment Activity*

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*Peter M. Gilbert  
Chief Investment Officer*

June 2002

Dear Members:

The year 2001 was a very difficult year for the country, the financial markets and the Retirement System's investment program. The tragic events of September 11, the aftermath of the collapse of the "internet bubble" and the broader financial markets, the first recession in over a decade and the accounting scandals triggered by Enron 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. During the year, assets decreased by \$3,144 million with the total fund producing a return of -7.9% after fees and benefit payments. Nevertheless, the longer-term results remain impressive with annualized returns of 9.2% over the past five years, and 10.5% over the past ten years. As a result of this record, the Fund continues to enjoy a fully funded status and declining contributions to meet ever-increasing benefit obligations. This performance compares very favorably with the actuarial assumed rate of return of 8.5%.

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 strong 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 with exception to near-term events. Because things had been so good, there is a tendency to underestimate risk going forward.

In last year's report it was noted that in 1999 the U.S. stock market saw higher levels of volatility and concerns over potential increases in inflation prompting the Federal Reserve Board to raise interest rates a total of ¾% in three

tranches. During the first half of 2000 the Federal Reserve Board raised interest rates three more times for a total increase of 1% in response to continued inflationary concerns. Stock market volatility continued into 2000 with significantly sharper volatility arising from the 'technology bubble' that peaked in March. Corporate earnings began to decline and the economy faltered setting off a global stock market correction. The so-called "new economy" technology and telecommunications companies that drove equities worldwide in 1999 led the correction in 2000. Consequently, negative stock market performance offset positive gains in the fixed income, real estate and alternative asset classes. This trend continued into 2001, then suddenly came the terrorist attacks on September 11, and seemingly overnight, Enron went from the world's largest oil trader to the largest bankruptcy in American history. The financial markets and consumer confidence were jolted. Consequently, the S&P 500 declined 11.5%, while the NASDAQ dropped 20.8%. In aggregate, overseas stocks declined 21.2%. These stock market declines contributed substantially to the 7.9% decline for the total Fund during 2001. However, even with the poor equity performance over the past two years, SERS has maintained a funding ratio of 115%, meaning that assets still significantly exceed liabilities.

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,

A handwritten signature in black ink, appearing to read "Robert M. Goldman". The signature is fluid and cursive, written in a professional style.

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# *Investment Policies*

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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.

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# *Investment Objectives*

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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 Custom Fixed Income 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 market value. The Board seeks to meet these objectives within acceptable risk parameters through adherence to a policy of diversification of investments by type, industry, investment manager style and geographic location.

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# *Investment Results*

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**Schedule of Portfolio Returns\***  
**After Fees**  
**For the period ending December 31, 2001**

<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> <sup>1/</sup>	-9.0% -11.5%	0.8% -0.3%	9.9% 9.9%	12.5% 12.4%
International Stocks <i>MSCI World ex US Index through 12/93; thereafter, SERS Custom International Stock Benchmark (26% Hedged)</i> <sup>2/</sup>	-15.6% -16.4%	3.4% -2.2%	5.3% 1.1%	7.4% 4.2%
Fixed Income <i>SERS Custom Fixed Income Benchmark</i>	5.2% 6.4%	4.1% 4.9 %	6.3% 6.9%	7.6% 7.5%
Cash <i>90 day U.S. T-bills</i>	3.4% 4.5%	4.9% 5.2%	5.3% 5.2%	5.6% 4.8%
Tactical Asset Allocation <i>70% stocks/30% bonds</i>	-8.0% -6.9%	1.1% 0.9%	10.4% 10.5%	12.3% 12.0%
Real Estate <sup>3/</sup> <i>NCREIF</i>	7.1% 10.1%	10.7% 11.3%	12.1% 12.6%	7.9% 7.4%
Private Equity <sup>3/</sup>	-16.2%	13.8%	16.4%	14.5%
Venture Capital <sup>3/</sup>	-36.2%	26.1%	23.3%	19.5%
<b>Total Fund</b>	-7.9%	4.1%	9.2%	10.5%

\* Returns for periods longer than one year are annualized.

<sup>1/</sup> The Domestic Stocks Benchmark is the Wilshire 5000 Index through 12/31/98, and the Russell 3000 thereafter.

<sup>2/</sup> The International Stocks Composite and the Custom International Index were unhedged prior to 5/1/96.

<sup>3/</sup> Results for the Real Estate, Private Equity, Venture Capital and Indices are lagged one quarter.

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# *Asset Allocation*

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**COMMONWEALTH OF PENNSYLVANIA  
STATE EMPLOYEES' RETIREMENT SYSTEM**

**Asset Allocation Report  
December 31, 2001  
(Unaudited)**

**Total Fund Summary  
(in millions)**

	<b>Fair Value</b>	<b>% of Total Fund</b>	<b>2001 Plan Policy Target</b>
Domestic Stocks	\$ 8,740.0	35.3%	35.5 %
International Stocks	5,078.1	20.5%	21.0 %
Currency Overlay	22.8	0.1%	0.0 %
Fixed Income	4,329.3	17.5%	18.5 %
Cash	83.4	0.3%	0.0 %
Tactical Asset Allocation	1,216.2	4.9%	5.0 %
Real Estate	2,543.9	10.3%	8.0 %
Alternative Investments	2,475.4	10.0%	11.0 %
Commodities	246.8	1.0%	1.0 %
Total Fund	\$ 24,735.9	100.0 %	100.0 %

*Numbers in this report may not add due to rounding.*

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
<b>Domestic Stocks</b>	<b>(\$ in millions)</b>	<b>% Domestic</b>	<b>% of Total</b>
<b>Passively Managed Portfolios</b>	<b>Fair Value</b>	<b>Stocks</b>	<b>Fund</b>
Barclays Global Investors - Equity Index Fund (S&P 500)	\$ 5,346.7	61.2%	21.6%
<b>Actively Managed Portfolios</b>			
AIM Cash Equitization**	-30.7	-0.4%	-0.1%
AIM- Enhanced S&P 500	243.4	2.8%	1.0%
AIM/BAAM ALT ASSET	11.3	0.1%	0.0%
Artemis Investment Management	120.8	1.4%	0.5%
AXA Rosenberg Investment Management LLC	436.4	5.0%	1.8%
BAAM-STABLE ALPHA	200.0	2.3%	0.8%
BGI-Alpha Tilt	266.0	3.0%	1.1%
Clifton - Enhanced S&P 500	143.6	1.6%	0.6%
Emerald Advisers - PA Portfolio	114.6	1.3%	0.5%
First Quadrant - Mkt Neutral	83.0	1.0%	0.3%
Iridian Asset Management	445.1	5.1%	1.8%
J.P. Morgan Investment Management	212.0	2.4%	0.9%
Martingale - Mkt Neutral	87.1	1.0%	0.4%
Mellon Equity Associates - PA Portfolio	140.1	1.6%	0.6%
Mellon Equity Associates - Special Equity	354.4	4.1%	1.4%
Provident Investment Counsel	149.4	1.7%	0.6%
Provident Investment Counsel - Stellar Fund	178.6	2.0%	0.7%
Standish, Ayer & Wood - Mkt Neutral	89.7	1.0%	0.4%
Trinity Small Cap Value	126.7	1.4%	0.5%
Warburg Pincus Stock Distribution Acct	21.6	0.2%	0.1%
<i>Domestic Active Stocks Total</i>	<b>3,393.3</b>	<b>38.8%</b>	<b>13.7%</b>
<i>Domestic Stocks Total</i>	<b>\$ 8,740.0</b>	<b>100.0%</b>	<b>35.3%</b>

\*\*The \$(30.7) million negative balance reflected in the AIM account is not a liability of the fund. AIM margins are settled on a daily basis. This balance represents the valuation adjustment resulting from the effect of the equitization of cash in our active domestic stock manager accounts.

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
<b>International Stocks – Developed and Emerging Markets</b>	<b>(\$ in millions)</b>	<b>% of Int'l</b>	<b>% of Total</b>
<b>Passively Managed Portfolios</b>	<b>Fair Value</b>	<b>Stocks</b>	<b>Fund</b>
State Street Global Advisors - Australia and New Zealand	\$ 28.3	0.6%	0.1%
State Street Global Advisors - Europe	642.2	14.1%	2.6%
<i>International Passive Stocks Total</i>	<b>670.5</b>	14.7%	2.7%
<b>Actively Managed Portfolios</b>			
Credit Suisse Asset Management - EPAC + emerging	490.4	10.8%	2.0%
GAM Institutional Group Trust - Asia Pacific ex Japan	113.0	2.5%	0.5%
Henderson North American Partners - small cap	188.0	4.1%	0.8%
J.P. Morgan Fleming Asset Management - Japan	321.7	7.1%	1.3%
Marathon Asset Management - Europe	359.4	7.9%	1.5%
Merrill Lynch Investment Managers - small cap	413.1	9.1%	1.7%
Morgan Stanley - developed ex USA	743.4	16.3%	3.0%
Morgan Stanley - Asia ex Japan	71.0	1.6%	0.3%
Pictet International Management - small cap	196.2	4.3%	0.8%
Scottish Widows Investment Partnership - Europe	285.3	6.3%	1.2%
Templeton Investment Counsel - global ex USA	695.5	15.3%	2.8%
<i>International Active Stocks Total</i>	<b>3,877.0</b>	85.3%	15.7%
<i>International Stocks Total</i>	<b>\$ 4,547.5</b>	100.0%	18.4%
<b>International Stocks – Emerging Markets</b>			
<b>Actively Managed Portfolios</b>	<b>(\$ in millions)</b>	<b>% of Emerging</b>	<b>% of Total</b>
<b>Actively Managed Portfolios</b>	<b>Fair Value</b>	<b>Markets</b>	<b>Fund</b>
Capital International - Emerging Markets Growth Fund	\$ 144.8	27.3%	0.6%
Marvin & Palmer Emerging Markets Equity, L.P.	67.6	12.7%	0.3%
OCM Emerging Markets Fund II, L.P.	63.9	12.1%	0.3%
Pictet International Management - emerging markets	103.1	19.4%	0.4%
Templeton Strategic Emerging Markets Fund, L.P.	60.8	11.4%	0.2%
Templeton TIFI - Emerging Markets Series	90.5	17.0%	0.4%
<i>Actively Managed Emerging Market Portfolios Total</i>	<b>530.6</b>	100.0%	2.1%
<i>Total Developed and Emerging Markets</i>	<b>\$ 5,078.1</b>	100.0%	20.5%

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>		<b>Unaudited</b>
	(\$ in millions)	% of Int'l	% of Total
Currency Overlay	Fair Value	Stocks	Fund
Pareto Partners	\$ 12.9	56.7%	0.1%
Record Treasury	9.9	43.3%	0.0%
<i>Total Currency Overlay</i>	<b>\$ 22.8</b>	100.0%	0.1%
Fixed Income	(\$ in millions)	% of Total	% of Total
Passively Managed Core Portfolios	Fair Value	Fixed Income	Fund
Mellon Bond Associates	\$ 500.7	11.6%	2.0%
Actively Managed Core Portfolios			
Fischer Francis Trees & Watts - International	315.2	7.3%	1.3%
J. P. Morgan Investment Management	500.6	11.6%	2.0%
John Hancock	218.8	5.1%	0.9%
Legg Mason Real Estate Advisors	63.4	1.5%	0.3%
MDL Capital Mgmt	82.0	1.9%	0.3%
Miller, Anderson & Sherrerd - Domestic	835.8	19.3%	3.4%
Miller, Anderson & Sherrerd - Global	458.4	10.6%	1.9%
Taplin Canida	55.4	1.3%	0.2%
<i>Total Actively Managed Core Portfolios</i>	<b>2,529.6</b>	58.4%	10.2%
Actively Managed High Yield Portfolios			
Berwind - PA Capital Fund	12.5	0.3%	0.1%
Fidelity Management Trust Company - CMBS	172.8	4.0%	0.7%
PNC Equity - PA Capital Fund	23.4	0.5%	0.1%
Salomon Brothers	465.6	10.8%	1.9%
Trust Company of the West - Funds III	0.1	0.0%	0.0%
W. R. Huff Asset Management	624.6	14.4%	2.5%
<i>Total Actively Managed High Yield Portfolios</i>	<b>1,299.0</b>	30.0%	5.3%
<i>Total Fixed Income</i>	<b>\$ 4,329.3</b>	100.0%	17.5%

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
<b>Cash</b>	<b>Fair Value</b>	<b>Cash</b>	<b>Fund</b>

PA State Treasury - STIF *	<b>\$ 83.4</b>	100.0%	0.3%
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\* 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 \$572 million at the end of the month.

	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
<b>Tactical Asset Allocation</b>	<b>Fair Value</b>	<b>TAA</b>	<b>Fund</b>
Barclays - Enhanced US 70/30 TAA Fund	<b>\$ 1,216.2</b>	100.0%	4.9%

The allocation was 80% stocks / 20% Bonds / 0% Cash at December 31, 2001

<b>Real Estate</b>	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
<b>Separate Account Portfolios</b>	<b>Fair Value**</b>	<b>Real Estate</b>	<b>Fund</b>
CRA Real Estate Securities	<b>\$ 360.4</b>	14.2%	1.5%
Forest Investment Associates	<b>143.9</b>	5.7%	0.6%
Heitman/JMB	<b>267.3</b>	10.5%	1.1%
LaSalle Investment Management	<b>192.3</b>	7.6%	0.8%
Legg Mason / RAI Real Estate Advisors	<b>226.8</b>	8.9%	0.9%
Lowe Enterprises	<b>413.3</b>	16.2%	1.7%
<i>Total Separate Account Portfolios</i>	<b>1,603.9</b>	<b>63.0%</b>	<b>6.5%</b>

<b>Pooled Fund Portfolios</b>			
AEW CIIF-II	<b>2.3</b>	0.1%	0.0%
Allegis - 4 pooled funds	<b>158.9</b>	6.2%	0.6%
Apollo III	<b>56.7</b>	2.2%	0.2%
Berwind Property Group IV	<b>23.5</b>	0.9%	0.1%
Berwind Property Group V	<b>18.4</b>	0.7%	0.1%
Blackstone II	<b>19.3</b>	0.8%	0.1%
Blackstone III	<b>30.2</b>	1.2%	0.1%
Cliffwood Select	<b>26.5</b>	1.0%	0.1%
Eastern Retail Holdings	<b>50.6</b>	2.0%	0.2%
Goldman Sachs - Whitehall	<b>43.1</b>	1.7%	0.2%
Heitman - California Land Venture	<b>0.0</b>	0.0%	0.0%

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
	<b>Fair Value**</b>	<b>Real Estate</b>	<b>Fund</b>
JMB Group Trust III	\$ 4.7	0.2%	0.0%
Lubert Adler Real Estate II	24.3	1.0%	0.1%
Lubert Adler Real Estate III	5.0	0.2%	0.0%
Miller Global III	18.4	0.7%	0.1%
Oxford Real Estate	57.3	2.3%	0.2%
Prudential Sr. Housing I	25.1	1.0%	0.1%
Prudential Sr. Housing II	5.8	0.2%	0.0%
Sentinel Corporation	61.7	2.4%	0.2%
SSR Realty MIAF II	0.3	0.0%	0.0%
Starwood Capital IV	47.5	1.9%	0.2%
Starwood Capital V	50.1	2.0%	0.2%
TCW VI/OCM Opportunity Fund A & B	108.4	4.3%	0.4%
Westbrook II	24.5	1.0%	0.1%
Westbrook III	70.6	2.8%	0.3%
Westbrook IV	7.0	0.3%	0.0%
<i>Total Pooled Fund Portfolios</i>	<b>940.0</b>	<b>37.0%</b>	<b>3.8%</b>
<i>Total Real Estate</i>	<b>\$ 2,543.9</b>	<b>100.0%</b>	<b>10.3%</b>

\*\* Fair Values represent September 30, 2001 values as reported by the investment managers adjusted for allocations and distributions. Values for publicly traded REITs represent values reported as of December 31, 2001.

	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
<b>Alternative Investments – Venture Capital</b>	<b>Fair Value**</b>	<b>Venture Capital</b>	<b>Fund</b>
Accel Europe	\$ 0.4	0.1%	0.0%
Adams Capital Management II	22.3	2.8%	0.1%
Adams Capital Management III	4.4	0.5%	0.0%
Advanced Tech Ventures VI	5.3	0.7%	0.0%
Advanced Tech Ventures VII	1.3	0.2%	0.0%
Alloy Ventures 2000	9.1	1.1%	0.0%
APA Excelsior VI	8.3	1.0%	0.0%
Apex Fund IV	21.1	2.6%	0.1%
Atlas Ventures IV	17.1	2.1%	0.1%
Atlas Ventures V	13.8	1.7%	0.1%
Atlas Ventures VI	1.2	0.1%	0.0%
Austin Ventures VIII	2.3	0.3%	0.0%

Asset Allocation Report (continued)	Dec 31, 2001	Unaudited	
	(\$ in millions)	% of Total	% of Total
	Fair Value**	Venture Capital	Fund
Bachow III	\$ 23.7	2.9%	0.1%
CEO Venture Fund II	1.5	0.2%	0.0%
Charles River IX	1.7	0.2%	0.0%
Cross Atlantic Tech Fund	12.7	1.6%	0.1%
Draper Fisher VI	3.5	0.4%	0.0%
Draper Fisher VII	3.2	0.4%	0.0%
Draper Triangle	8.9	1.1%	0.0%
Edison III	4.8	0.6%	0.0%
Fairview Capital I	4.7	0.6%	0.0%
Fairview Capital II	4.9	0.6%	0.0%
Fostin Capital II	0.1	0.0%	0.0%
Frazier Healthcare III	19.3	2.4%	0.1%
Frazier Healthcare IV	1.2	0.1%	0.0%
Grotech Partners III	0.4	0.0%	0.0%
Grotech Partners IV	8.1	1.0%	0.0%
Grotech Partners V	15.4	1.9%	0.1%
Halpern & Denny II	17.5	2.2%	0.1%
Halpern Denny III	12.2	1.5%	0.0%
Harbourvest VI	54.4	6.7%	0.2%
Healthcare Ventures III	11.4	1.4%	0.0%
Healthcare Ventures V	19.8	2.5%	0.1%
Healthcare Ventures VI	13.4	1.7%	0.1%
Highland Cap Partners VI	0.4	0.1%	0.0%
Ignition Partners II	0.2	0.0%	0.0%
Interwest Partners VIII	5.2	0.6%	0.0%
JP Morgan	54.0	6.7%	0.2%
JP Morgan VC II	6.8	0.8%	0.0%
Keystone IV	6.8	0.8%	0.0%
Keystone V	14.2	1.8%	0.1%
Keystone Fund VI	7.3	0.9%	0.0%
Kline Hawkes Pacific	3.0	0.4%	0.0%
Meritech Cap Partners II	2.1	0.3%	0.0%
Morgenthaler Partners	1.7	0.2%	0.0%
NEA VI	8.8	1.1%	0.0%
NEA VII	18.5	2.3%	0.1%
NEA IX	20.2	2.5%	0.1%
NEA X	6.6	0.8%	0.0%

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
	<b>Fair Value**</b>	<b>Venture Capital</b>	<b>Fund</b>
NEPA - MidAtlantic III	\$ 14.1	1.7%	0.1%
NEPA - Midatlantic IV	8.9	1.1%	0.0%
NEPA Venture I	2.9	0.4%	0.0%
NEPA Venture II	3.6	0.4%	0.0%
PA Fund I ( APA/Fostin II )	6.0	0.7%	0.0%
PA Fund III	46.2	5.7%	0.2%
Polaris Venture Capital	11.0	1.4%	0.0%
Polaris Venture Capital II	15.3	1.9%	0.1%
Polaris Venture Capital III	18.2	2.3%	0.1%
Sprout VII	12.9	1.6%	0.1%
Summit Acclerator	2.3	0.3%	0.0%
Summit Venture IV	6.3	0.8%	0.0%
Summit Venture V	18.8	2.3%	0.1%
TA Assoc - Advent VII	6.0	0.7%	0.0%
TA Assoc - Advent VIII	20.7	2.6%	0.1%
TA Assoc - Advent IX	7.6	0.9%	0.0%
Technology Leaders III	5.8	0.7%	0.0%
Technology Leaders IV	12.9	1.6%	0.1%
Technology Leaders V	5.2	0.6%	0.0%
Three Arch Capital	3.3	0.4%	0.0%
U.S. Venture Fund VII	7.7	1.0%	0.0%
US Venture Fund VIII	3.6	0.4%	0.0%
Weston Presidio II	5.8	0.7%	0.0%
Weston Presidio III	18.1	2.2%	0.1%
Weston Presidio IV	5.3	0.7%	0.0%
Whitney Equity Partners III	15.6	1.9%	0.1%
Whitney Equity Partners IV	11.4	1.4%	0.0%
Whitney Equity Partners V	2.8	0.4%	0.0%
Worldview Technology	3.9	0.5%	0.0%
<i>Total Venture Capital</i>	<b>\$ 808.5</b>	<b>100.0%</b>	<b>3.3%</b>

\*\* Fair Values represent September 30, 2001 values as reported by the investment managers adjusted for allocations and distributions.

Asset Allocation Report (continued)	Dec 31, 2001	Unaudited	
	(\$ in millions)	% of Total	% of Total
Alternative Investments – Private Equity	Fair Value**	Private Equity	Fund
Abacus Fund	\$ 14.0	0.8%	0.1%
ABRY Broadcast Partners IV	8.0	0.5%	0.0%
ABRY Broadcast Partners III	19.7	1.2%	0.1%
ABS Capital III	16.5	1.0%	0.1%
ABS Capital IV	4.6	0.3%	0.0%
AG Capital Recovery II	11.0	0.7%	0.0%
APAX Europe V	8.7	0.5%	0.0%
APAX Partners - France	1.5	0.1%	0.0%
APAX Partners - Germany	0.3	0.0%	0.0%
APAX Partners - Germany II	5.5	0.3%	0.0%
APAX Partners - Germany IV	15.7	0.9%	0.1%
APAX Partners - UK VI	2.1	0.1%	0.0%
Apollo Advisors	77.4	4.6%	0.3%
Apollo V	4.9	0.3%	0.0%
Asia Pacific III	11.3	0.7%	0.0%
Audax	8.2	0.5%	0.0%
B C European Cap VII Top-Up	1.1	0.1%	0.0%
B C European Cap VII	9.6	0.6%	0.0%
B III Capital Partners (DDJ)	35.2	2.1%	0.1%
Bain Capital Fund	2.3	0.1%	0.0%
Blackstone Communications Ptnrs I	3.3	0.2%	0.0%
Blackstone II	20.1	1.2%	0.1%
Blackstone III	55.3	3.3%	0.2%
Cerberus	47.9	2.9%	0.2%
Cerberus II	2.1	0.1%	0.0%
Charterhouse II	21.1	1.3%	0.1%
Charterhouse III	28.4	1.7%	0.1%
Clayton, Dubilier & Rice V	40.9	2.5%	0.2%
Clayton, Dubilier & Rice VI	18.1	1.1%	0.1%
Code Hennessy & Simmons I	0.4	0.0%	0.0%
Code, Hennessy & Simmons II	12.7	0.8%	0.1%
Code, Hennessy & Simmons III	38.1	2.3%	0.2%
Code, Hennessy & Simmons IV	29.5	1.8%	0.1%

**Asset Allocation Report (continued)****Dec 31, 2001****Unaudited**

	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
	<b>Fair Value**</b>	<b>Private Equity</b>	<b>Fund</b>
CSFB Global Opportunity	\$ 12.2	0.7%	0.0%
DLJ Merchant Banking Fund II	48.6	2.9%	0.2%
DLJ Merchant Banking Partners III	21.8	1.3%	0.1%
Francisco Partners	9.9	0.6%	0.0%
Frontenac VII	18.9	1.1%	0.1%
Golder, Thoma, Cressey & Rauner V	11.4	0.7%	0.0%
Golder, Thoma, Cressey & Rauner VI	26.2	1.6%	0.1%
Golder, Thoma, Cressey & Rauner VII	19.1	1.1%	0.1%
Great Hill	23.5	1.4%	0.1%
Great Hill II	3.8	0.2%	0.0%
Gryphon Partners II	9.1	0.5%	0.0%
Harborvest II	16.2	1.0%	0.1%
Harborvest III	15.1	0.9%	0.1%
Harbourvest IV	3.4	0.2%	0.0%
Hellman & Friedman II	0.1	0.0%	0.0%
Hellman & Friedman III	8.6	0.5%	0.0%
Hellman & Friedman IV	21.9	1.3%	0.1%
Invemed Fund	6.8	0.4%	0.0%
Kelso V	47.1	2.8%	0.2%
Kelso VI	38.6	2.3%	0.2%
Landmark IV	3.5	0.2%	0.0%
Landmark V	10.6	0.6%	0.0%
Lexington II	21.0	1.3%	0.1%
Lexington III	20.1	1.2%	0.1%
LLR Equity Partners	8.6	0.5%	0.0%
Madison Dearborn I	9.3	0.6%	0.0%
Madison Dearborn II	34.6	2.1%	0.1%
Madison Dearborn III	62.7	3.8%	0.3%
Madison Dearborn IV	5.9	0.4%	0.0%
Media Communications Partners III	25.3	1.5%	0.1%
Media Communications Partners IV	14.7	0.9%	0.1%
Media Communications Partners V	7.1	0.4%	0.0%

<b>Asset Allocation Report (continued)</b>	<b>Dec 31, 2001</b>	<b>Unaudited</b>	
	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
	<b>Fair Value**</b>	<b>Private Equity</b>	<b>Fund</b>
Murphy & Partners	\$ 0.6	0.0%	0.0%
Newbridge Asia III	0.2	0.0%	0.0%
Newbridge Asia II	10.7	0.6%	0.0%
Oakhill	36.2	2.2%	0.1%
Oaktree Opportunities	12.5	0.7%	0.1%
Oaktree Opportunities II	34.0	2.0%	0.1%
Oaktree Principal Opportunities	26.3	1.6%	0.1%
OCM Opportunities III	63.8	3.8%	0.3%
OCM Opportunities IV	15.6	0.9%	0.1%
Palamon Partners	8.3	0.5%	0.0%
Parthenon Investments II	2.0	0.1%	0.0%
Permira Ventures UK III	1.1	0.1%	0.0%
Permira Ventures UK IV	8.2	0.5%	0.0%
Permira European II	17.8	1.1%	0.1%
Permira European V	14.3	0.9%	0.1%
Point Venture II	0.1	0.0%	0.0%
Principal Opportunities Fund II	8.8	0.5%	0.0%
Providence Equity Partners IV	2.3	0.1%	0.0%
RRZ Private Equity Fund	27.7	1.7%	0.1%
SCP Private Equity II	8.6	0.5%	0.0%
Summit Venture VI	2.8	0.2%	0.0%
TCW - Fund V	7.1	0.4%	0.0%
Thomas Lee Equity Fund IV	71.9	4.3%	0.3%
Thomas Lee Equity V	11.6	0.7%	0.0%
TPG Partners II	51.6	3.1%	0.2%
TPG Partners III	23.4	1.4%	0.1%
Vestar Capital III	15.7	0.9%	0.1%
Vestar Capital IV	22.4	1.3%	0.1%
<i>Total Private Equity</i>	<b>\$ 1,666.9</b>	100.0%	6.7%

\*\* Market Values represent September 30, 2001 values as reported by the investment managers adjusted for allocations and distributions.

<b>Commodities</b>	<b>(\$ in millions)</b>	<b>% of Total</b>	<b>% of Total</b>
	<b>Fair Value</b>	<b>Commodities</b>	<b>Fund</b>
NISA Investment Advisors	\$ 246.8	100.0%	1.0%

## *Largest Assets Held*

Presented in the tables below are the largest domestic and international equity holdings and largest fixed income holdings as of December 31, 2001.

**As of December 31, 2001 SERS had the following investments in equity index funds:**

Holding	Fair Value
Barclays Global Investors Equity Index (S&P 500)	\$ 5,346,679,258
Barclays Global Investors Tactical Asset Allocation Fund	1,216,184,775
State Street Global Advisors European Index	642,184,901

### Top 10 Domestic and International Equity Holdings at December 31, 2001

Domestic Equity		International Equity	
Holding	Fair Value	Holding	Fair Value
General Electric	\$ 246,349,498	Vodafone Group	\$ 68,389,961
Microsoft	221,859,147	BP PLC	58,304,151
Exxon Mobil	165,680,949	Glaxosmithkline Ord	53,717,038
Citigroup	164,178,449	Barclays Ord	45,632,585
Wal Mart	157,514,700	Aventis Eur 3.82	44,266,501
Pfizer	156,730,257	Total Fina Elf Eur10	44,027,885
Intel	131,551,517	Royal Dutch Petroleum	43,702,816
IBM	130,129,578	Nestle SA CHF1	40,405,850
American International Group	127,899,031	Novartis Ag CHF 0.50	36,283,142
Johnson & Johnson	111,235,997	ENI Eur1	35,993,709

### Top 10 Fixed Income Holdings at December 31, 2001

Holding	Fair Value
US Treasury Bonds, 5.375%, February 15, 2031	\$ 68,911,283
France Govt, 6.5%, April 25, 2011	48,647,004
US Treasury Bonds Stripped Principal Pmt, 8.75%, August 15, 2020	37,329,364
US Treasury Bonds, 6.125%, August 15, 2029	37,310,010
Canada Govt, 5.5%, June 1, 2009	35,697,046
US Treasury Bonds, 5.25%, February 15, 2029	33,967,150
US Treasury Bonds, 8.0%, November 15, 2021	29,755,920
FNMA GTD REMIC PO 317 I, 0.0%, August 1, 2031	28,610,816
France Govt, 8.5%, October 25, 2019	28,222,621
Comcast Corp Sr Sub Debentures, 10.625%, July 15, 2012	26,549,223

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## *Schedule of Broker Commissions*

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**Year Ended December 31, 2001**

<b><u>BROKER</u></b>	<b><u>COMMISSIONS</u></b>	<b><u>BROKER</u></b>	<b><u>COMMISSIONS</u></b>
Merril Lynch	\$ 1,138,348	Heflin & Company	\$ 106,056
Salomon Smith Barney	1,010,257	Oppenheimer	104,410
Credit Suisse First Boston	951,849	Spear Leeds & Kellogg	103,815
Deutsche Bank	872,248	Legg Mason	102,704
Goldman Sachs	766,213	Daiwa Bank	99,581
Warburg Dillon Read	744,916	Cantor Fitzgerald	99,302
Union Bank of Switzerland	535,962	SK International Securities	96,913
Lehman Brothers	531,356	Hoare Govett	96,110
Morgan Stanley	475,668	PCS Securities	96,000
ABN AMRO	391,480	Capital Institutional Investors	95,783
Rochdale Securities	339,597	Vickers Ballas	86,723
J. P. Morgan	296,233	Jones & Associates	82,691
Investment Technology Group	287,951	ING Barings	81,701
Instinet	284,285	Prudential Securities	80,346
Bear Stearns	281,418	Williams Capital Group	79,600
James Capel	275,250	Bancboston Robertson Stephens	79,566
Credit Lyonnais	269,113	Exane	79,510
Kleinwort Benson	259,066	Lynch Jones & Ryan	76,476
HSBC Securities	242,948	First Union Capital Markets	75,297
Jefferies & Company	209,042	Green Street Advisors	72,191
Cazenove	196,527	CommerzBank	65,083
Morgan Guaranty Trust	175,447	Wilshire Associates	64,504
Nomura Bank International	175,067	Brooks Securities	62,009
B Trade Services	158,284	Fox-Pitt Kelton	52,330
Societe Generale	155,326	Seslia Securities	52,193
SG Cowen Securities	141,385	Jardine Fleming Brokering	49,291
CI Nordic Securities	129,776	Tsubasu Securities	47,349
Montgomery Securities	129,626	Dean Witter Reynolds	47,324
BNP Capital Markets	125,521	Westminster Research Associates	46,670
Cheuvreux De Virieu	123,801	J. Vontobel	46,211
Weeden & Company	122,211	Troster Singer	45,756
State Street	121,754	Autranet	45,606
Carnegie	120,924	Utendahl Capital Partners	41,595
Execution Services	115,651	Fidelity Capital Markets	41,102

## Schedule of Broker Commissions

(Continued)

<u>BROKER</u>	<u>COMMISSIONS</u>	<u>BROKER</u>	<u>COMMISSIONS</u>
Wexford Clearing Services	39,825	Henderson Crosthwaite & Co.	17,052
Nutmeg Securities	39,091	Banque Nationale Paris	16,960
W. I. Carr	38,910	Rosenblatt	16,664
Citation Group	37,159	Raymond James & Associates	16,601
BHF Securities	35,344	Archipelago BCC Capital	15,905
Neuberger & Berman	34,747	Waterhouse Securities	15,375
J. B. Were & Son	31,187	Robinson & Humphrey	15,220
Friedman Billings	30,851	Quaker Securities	15,126
Monness	30,545	Charles Schwab	15,001
Standard and Poors Securities	30,544	Williams De Broe	14,898
Ernst & Company	30,483	Schroder Securities	14,183
Arcadia Investment	30,203	Hong Kong & Shanghai Bank	14,080
Collins Stewart	30,091	William Blair & Company	13,692
A. G. Edwards & Sons	29,681	Donaldson Lufkin & Jenrette	13,331
Enskilda Securities	29,216	Ormes Capital Markets	13,196
Dain Rauscher	27,257	PaineWebber	13,064
Piper Jaffray & Hopwood	27,165	Scandinavian Bank Group	13,002
Banque Paribas	27,064	Deutsche Securities	12,876
Thomas & Weisel	25,726	Sanford C Bernstein & Co.	12,190
Petercam	25,471	Soundview Financial Group	12,119
Julius Baer Securities	25,130	Barnard Jacobs Mellet	11,915
Gerard Klauer Mattison	22,305	Davy Stockbrokers	11,880
BCI	21,459	Nesbitt Burns	11,552
Bank of New York	21,425	Ord Minnett	11,545
First Albany	21,229	Rabo Securities	11,341
Sal Oppenheim Jr & CIE	21,112	Janney Montgomery Scott	11,274
ABG Securities	20,468	Bridge Trading Company	11,271
US Trust Company	19,971	Ichiyoshi Securities	11,075
First Tennessee Bank NA	19,440	Tucker Anthony & R. L. Day	10,824
Buckingham Research Group	19,145	Knight Securities Broadcort	10,809
Robert Fleming	19,143	Old Mutual Securities	10,261
Magna Securities	18,843	Hoenig & Company	10,260
Nikko Securities Company	18,391	Westlb Securities	10,235
Keefe Bruyette & Woods	18,271	Den Danske Bank	10,004
Kempen	18,233	Other Brokers (160)	477,898
Liquidnet	17,494		
ISI Group	17,169		
		<b>Total Commissions</b>	<b><u>\$ 16,548,765</u></b>

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# *Investment Summary*

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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, 2001:** SERS' assets had a fair value of approximately \$24,735.9 million on December 31, 2001.

Asset Class	Fair Value		2001	Long-Term
	\$ (mil)	%	Target Allocation	Target Allocation
Domestic Stocks	\$8,740.0	35.3%	35.5%	33.0%
International Stocks	5,078.1	20.5%	21.0%	18.0%
Currency Overlay	22.8	0.1%	0.0%	0.0%
Fixed Income	4,329.3	17.5%	18.5%	25.0%
Cash	83.4	0.3%	0.0%	0.0%
Tactical Asset Allocation	1,216.2	4.9%	5.0%	0.0%
Real Estate	2,543.9	10.3%	8.0%	8.0%
Alternative Investments	2,475.4	10.0%	11.0%	14.0%
Commodities	246.8	1.0%	1.0%	2.0%
Total	\$24,735.9	100.0%	100.0%	100.0%

**Number of Investment Advisors:** SERS had 143 external investment advisory firms managing portfolios. There are 49 advisors in the Public Markets domain and 113 covered private equity and real estate. Some of these advisors managed portfolios across asset classes.

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|--|--|
| <ul style="list-style-type: none"> <li>• 16 U.S. Stock advisors</li> <li>• 14 International Stock advisors</li> <li>• 2 Currency overlay advisors</li> <li>• 14 Fixed Income advisors</li> <li>• 1 Cash advisor</li> <li>• 1 Tactical Asset Allocation advisor</li> <li>• 1 Commodity advisor</li> </ul> | <ul style="list-style-type: none"> <li>• 22 Real Estate advisors</li> <li>• 43 Venture Capital general partners managing limited partnerships</li> <li>• 48 Private Equity general partners managing limited partnerships</li> </ul> |
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In addition, the Board approved the hiring of one U.S. stock advisor and one real estate partnership.

**Number of Investment Portfolios:** SERS had 277 investment portfolios/accounts. Sixty of these accounts are public market investments, while 217 covered private markets.

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|--|--|
| <ul style="list-style-type: none"> <li>• 21 U.S. Stock portfolios</li> <li>• 19 International Stock portfolios</li> <li>• 2 Currency overlay portfolios</li> <li>• 15 Fixed Income portfolios</li> <li>• 1 Cash portfolio</li> </ul> | <ul style="list-style-type: none"> <li>• 1 Tactical Asset Allocation portfolio</li> <li>• 1 Commodity portfolio</li> <li>• 38 Real Estate portfolios</li> <li>• 84 Venture Capital limited partnership interests</li> <li>• 95 Private Equity limited partnership interests</li> </ul> |
|--|--|

In addition, Board appointments include one U.S. stock account, one international stock account, one fixed income account, one real estate account, one venture capital partnership, and one private equity fund. Sixty-seven investment advisors manage multiple portfolios within and across asset classes for SERS.

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## *Summary of U.S. Stock Investments*

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**U**S. and International Stocks comprise the Stock asset class. 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 to be 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' 2002 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.

**Fair Value as of December 31, 2001:** U.S. Stocks had a \$8,740.0 million fair value, 35.3% of the total fund's \$24,735.9 million fair value on December 31, 2001.

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

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

**Type of Investment Portfolios:** As of December 31, 2001, 76.1% of SERS U.S. Stock allocation was in large/medium capitalization stock strategies, including the equitized fund of fund absolute return strategies, and 23.9% was in medium/small capitalization stock strategies. SERS had 17 actively managed portfolios (38.8% of U.S. Stocks) and one indexed portfolio (61.2% 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. Additionally, SERS employs one cash equitization manager, which uses the active manager's excess cash to maintain exposure to the S&P 500. SERS also has one equitization manager for the absolute return strategy. SERS also utilizes one manager to manage the stock distributions that originate in the private equity portfolio.

<b>U.S. Stock Investment Advisor</b>	<b>Investment Style</b>	<b>*Fair Value Of Portfolio As of 12/31/01 (\$ In millions)</b>
1. Barclays Global Investors	S&P 500 Index Stock-based enhanced indexing	\$5,346.7 266.0
2. AXA Rosenberg Investment Management	Russell 2500, risk controlled	436.4
3. Advanced Investment Management	Cash equitization manager Derivative-based enhanced indexing BAAM equitization	(30.7) 243.4 11.3
4. Artemis	Small cap relative value stocks	120.8
5. Blackstone Alternative Asset Management (BAAM)	Equitized fund of funds absolute return strategy	200.0
6. Clifton Group	Derivative-based enhanced indexing	143.6
7. Emerald	PA stocks	114.6
8. First Quadrant	Equitized long/short U.S. market neutral	83.0
9. Iridian Asset Management	Mid cap private business value	445.1
10. J.P. Morgan Investment Management	S&P 500, risk controlled	212.0
11. Martingale Asset Management	Equitized long/short U.S. market neutral	87.1
12. Mellon Equity Associates	PA stocks	140.1
Mellon Equity Associates - Special Equity	Russell 2500, risk controlled	354.4
13. Provident Investment Counsel (PIC)	Mid cap aggressive growth stocks	149.4
PIC Stellar Fund	Small cap growth stocks	178.6
14. Standish, Ayer & Wood	Equitized long/short U.S. market neutral	89.7
15. Trinity Investment Management	Small cap low p/e stocks	126.7
16. Warburg-Pincus	Stock distribution manager	21.6
<b>Total</b>		<b>\$8,740.0</b>

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

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# *Summary of International Stock Investments*

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**I**nternational and U.S. Stocks comprise the Stock asset class. 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 to be 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: 86% Salomon Smith Barney World Equity Broad Market Index–Europe/Pacific, a proxy for stocks in developed markets, and 14% MSCI Emerging Markets Free Index, a proxy for stocks in emerging markets.

SERS' 2002 Investment Plan targeted a long–term allocation of 18% of assets to International Stocks. The objective is to allocate 69% of International Stocks to large cap stocks in developed markets; 17% to small cap stocks in developed markets; and 14% to all size stocks in emerging markets.

**Fair Value as of December 31, 2001:** International Stocks had a \$5,078.1 million fair value, 20.5% of the total Fund's \$24,735.9 million fair value on December 31, 2001. In addition, the fair value of forward exchange contracts in the currency overlay program amounted to \$22.8 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 19 stock portfolios managed by the 14 investment advisors and 2 accounts for the currency overlay program.

**Type of Investment Portfolios:** As of December 31, 2001, SERS had 17 actively managed international portfolios and two indexed portfolios. Seventy–one percent of assets were allocated to large cap stocks in developed markets; 16% was allocated to small cap stocks in developed markets; and 14% was allocated to emerging markets.

<b>International Stock Investment Advisor</b>	<b>Investment Style</b>	<b>*Fair Value of Portfolio as of 12/31/01 (\$ in millions)</b>
1. State Street Global Advisors		
Europe	Europe - index	\$642.2
Australia and New Zealand	Australia and New Zealand - index	28.3
2. Capital International, Inc.		
Emerging Markets Growth Fund, Inc.	Emerging markets – value and growth	144.8
3. Credit Suisse Asset Management, LLC	Developed & emerging markets	490.4
4. GAM International Management Ltd	Pacific Basin ex Japan	113.0
5. Henderson North American Partners	Small cap developed markets - UK & Pac ex Japan growth, other countries value	188.0
6. Marathon Asset Management Limited	Europe - contrarian sector	359.4
7. Marvin & Palmer Emerging Markets Equity, L.P.	Emerging markets - growth	67.6
8. Merrill Lynch Investment Managers	Small cap developed markets - growth	413.1
9. J.P. Morgan Fleming Asset Management	Japan - benchmark risk control	321.7
10. Morgan Stanley Investment Management Inc.		
London team	Developed markets - value	743.4
Singapore team	Asia ex Japan - growth	71.0
11. Oaktree Capital Management, LLC		
OCM Emerging Markets Feeder Fund II	Emerging markets - hedge fund	63.9
12. Pictet International Management Limited		
International small cap equity portfolio	Small cap developed markets	196.2
Emerging markets equity portfolio	Emerging markets	103.1
13. Scottish Widows Investment Partnership Ltd	Europe - growth and value	285.3
14. Templeton Investment Counsel, LLC	Developed & emerging markets - value	695.5
Templeton Investment Counsel, Ltd.		
Global emerging markets team		
Templeton Strategic Emerging Markets Fund, L.P.	Emerging markets	60.8
TIFI Emerging Markets Series	Emerging markets - value	90.5
Total International Stocks		5,078.1
1. Pareto Partners	Currency overlay	12.9
2. Record Treasury	Currency overlay	9.9
Total Currency Overlay		22.8
Total International Stocks and Currency Overlay		\$5,100.9

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

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## *Summary of Fixed Income Investments*

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**F**ixed 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, 2001:** Fixed Income had a \$4,329.3 million fair value, 17.5% of the total Fund's \$24,735.9 million fair value, on December 31, 2001.

**Number of Investment Advisors:** SERS had contracts with 14 external investment advisors to manage portfolios within the Fixed Income asset class as of December 31, 2001.

**Number of Investment Portfolios:** SERS had a total of 15 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 \$2,529.6 million and one passively managed core bond portfolio with a fair value of \$500.7 million. The combination of core portfolios represented 70.0% 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 \$1,090.2 million, one high yield commercial mortgage-backed securities portfolio with a fair value of \$172.8 million, and two subordinated debt portfolios with a fair value of \$35.9 million that invests in profitable Pennsylvania companies. 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 30.0% of the asset class.

<b>Fixed Income Investment Advisor</b>	<b>Investment Style</b>	<b>*Fair Value of Portfolio as of 12/31/01 (\$ millions)</b>
<u>Core</u>		
1. Fischer Francis Trees & Watts (Int'l)	Active international	\$315.2
2. John Hancock Mutual Life Insurance Company	Private placements	218.8
3. J.P. Morgan Investment Management	Active domestic fixed income	500.6
4. Legg Mason Real Estate Advisors	Whole-loan mortgages	63.4
5. MDL Capital Management	Active domestic fixed income	82.0
6. Mellon Bond Associates	Domestic – index	500.7
7. Miller, Anderson & Sherrerd	Active domestic fixed income	835.8
Miller, Anderson & Sherrerd	Active global fixed income	458.4
8. Taplin, Canida & Habacht	Active domestic fixed income	55.4
<u>Specialty</u>		
9. Berwind Financial Group	PA Capital Fund	12.5
10. Fidelity Management Trust Company	Commercial mortgage backed securities	172.8
11. PNC Equity Management	PA Capital Fund	23.4
12. Salomon Brothers Asset Management	High yield bonds	465.6
13. Trust Company of the West Special Credits Fund III	Special credits	0.1
14. W. R. Huff Asset Management	High yield bonds	<u>624.6</u>
Total		\$4,329.3

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

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## *Summary of SERS Cash Investments*

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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, 2001:** Cash had a \$83.4 million fair value, 0.3% of the total Fund's \$24,735.9 million fair value on December 31, 2001.

**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 \$572 million on behalf of SERS and SERS' external investment advisors as of December 31, 2001.

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# *Summary of Tactical Asset Allocation Investment*

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**T**actical Asset Allocation (“TAA”) is one of eight major asset classes that SERS uses to diversify the investments of the Fund. It is SERS practice to contract with external investment advisors to manage portfolios.

Currently, the TAA asset class contains one investment strategy -- the Enhanced US 70/30 Tactical Asset Allocation Fund (“Enhanced 70/30 TAA”). The Enhanced 70/30 TAA strategy shifts assets among stocks, bonds and cash. SERS contracts with an external investment advisor, Barclays Global Investors (“Barclays”), to manage the portfolio.

**Policy:** SERS 2002 Investment Plan targets an allocation of 0.0% of assets to the TAA asset class.

**Fair Value as of December 31, 2001:** SERS investment in the Barclays Enhanced 70/30 TAA Fund had a \$1,216.2 million fair value, 4.9% of SERS total fund’s \$24,735.9 million fair value on December 31, 2001.

**Number of Investment Advisors:** SERS had a contract with one external investment advisor to manage a TAA portfolio as of December 31, 2001.

**Number of Investment Portfolios:** SERS had one TAA portfolio managed by the one investment advisor.

**Type of Investment Portfolio:** The Barclay’s Enhanced 70/30 TAA Fund is designed to offer an efficient, low cost means of seeking above-market returns from a portfolio diversified among the U.S. stock, fixed income and cash markets.

The Barclays TAA Fund utilizes three of Barclay’s collective funds (Equity Index Fund, Long-Term Fixed Income Fund, and the Short-Term Asset Allocation Cash Fund). Proprietary technology is used to establish the optimal asset mix among these funds, and adjust the mix of these funds. The mix will vary as economic and capital market conditions change. Under equilibrium conditions, the Enhanced 70/30 TAA Fund will have 70% of assets invested in the Equity Index Fund, 30% of assets invested in the Long-Term Fixed Income Fund, and 0% in the Cash Fund. As of December 31, 2001, the actual asset mix of the Fund was 80% stock, 20% bonds and 0% cash.

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# *Summary of Real Estate Investments*

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**E**quity 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 to be 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, 2001:** Real Estate had an estimated \$2,543.9 million fair value, approximately 10.3% of the total Fund's December 31, 2001 fair value. This fair value represents September 30, 2001 actual numbers adjusted for cash flows, which occurred in the fourth quarter 2001.

**Number of Investment Advisors:** SERS had contracts with 22 external investment advisors to manage real estate portfolios as of December 31, 2001.

**Number of Investment Portfolios:** SERS had investments in 38 real estate portfolios managed by the 22 investment advisors.

**Type of Investment Portfolios:** As of September 30, 2001, the composition of the real estate portfolio was:

37% pooled funds, 63% separate accounts;  
36% office, 8% industrial, 14% retail, 13% residential, 15% hotel/motel, 6% timber, 8% other;  
18% Pennsylvania, 24% East excl. PA, 28% West, 15% South, 12% Midwest, 2% International, 1% Unclassified; and  
35.8% of the fair value of the separate accounts was invested in eighteen investments located in Pennsylvania.

<b>Real Estate Investment Advisor</b>	<b>SERS Initial Funding</b>	<b>Property Type</b>	<b>Transaction Structure</b>	<b>Fair Value of Portfolio as of 9/30/01 (\$ in millions)</b>
1. AEW CIIF-II	08/08/88	Industrial, other	equity ownership	\$ 5.8
2. Apollo – AREF III	06/26/98	Opportunistic	equity and debt	56.3
3. Berwind – BPG Fund IV	04/20/98	Opportunistic	equity and debt	24.1
BPG Fund V	11/29/99	Opportunistic	equity and debt	14.7
4. Blackstone - BREP II	02/26/97	Opportunistic	equity and debt	23.7
BREP III	10/22/99	Opportunistic	equity and debt	27.1
5. Cliffwood Select Equity Fund	08/04/00	Long/Short REITs	public securities	26.5
6. CRA Securities	01/31/96	REITs	public securities	350.1
7. Forest Investment Assoc.	10/30/92	Timber	equity ownership	144.8
8. Heitman Capital Mgmt:				
Separate account	12/28/87	Diversified	equity ownership	267.3
JMB Group Trust III	12/31/84	Office, retail	equity ownership	4.7
9. LaSalle Partners	10/01/93	Diversified	equity ownership	192.1
10. Legg Mason Real Estate Adv.	10/01/93	PA diversified	equity ownership	226.8
Eastern Retail Holdings	01/07/99	Retail	equity and debt	49.0
11. Lowe Enterprises	10/01/93	Diversified	equity ownership	433.8
12. Lubert-Adler Fund II	10/30/98	Opportunistic	equity and debt	24.3
Lubert-Adler Fund III		Opportunistic	equity and debt	5.0
13. Miller Global Fund III	01/19/99	Diversified	equity and debt	18.8
14. Oaktree Capital Mgt.				
TCW Fund VI	04/20/94	Opportunistic	equity and debt	13.2
OCM Opportunity Fund A	05/09/96	Opportunistic	equity and debt	45.6
OCM Opportunity Fund II	12/15/98	Opportunistic	equity and debt	44.6
15. Oxford Development	01/09/97	Industrial	equity ownership	57.3
16. Prudential Senior Housing I	12/22/98	Senior housing	equity and debt	25.0
Prudential Senior Housing II		Senior housing	equity and debt	2.3
17. SSR MIAF II	12/07/92	Residential	equity ownership	4.1
18. Sentinel Corp.	07/31/84	Diversified	equity ownership	61.7
19. Starwood :				
SOFI IV	03/24/97	Opportunistic	equity and debt	55.5
SOFI V	05/14/99	Opportunistic	equity and debt	51.3
SOFI VI		Opportunistic	equity and debt	-
20. UBS-Brinson:				
PMSA	09/30/83	Diversified	equity mortgages	54.9
RESA	06/3//84	Diversified	equity ownership	60.0
Multifamily Trust	08/02/99	Residential	equity ownership	39.2
21. Westbrook Partners:				
WREF II	06/16/97	Opportunistic	equity and debt	26.6
WREF III	9/01/98	Opportunistic	equity and debt	73.0
WREF IV		Opportunistic	equity and debt	7.0
22. Goldman Sachs:				
Whitehall V & VI	04/20/94	Opportunistic	equity and debt	15.5
Whitehall V-S & VI-S	12/11/95	Opportunistic	equity and debt	5.1
Whitehall VII & VIII	05/28/96	Opportunistic	equity and debt	23.9
September 30, 2001 Total				<u>\$2,560.4</u>
4 <sup>th</sup> Quarter 2001 Net Cash Flow Adjustments				<u>-16.5</u>
December 31, 2001 Total				<u>\$2,543.9</u>

*Numbers may not add due to rounding.*

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# Summary of Alternative Investments

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**A**lternative 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.

Seed Stage - This form of venture capital 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.

Early Stage - This investment phase 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.

Late Stage - At this stage, venture capitalists fund 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:

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.

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.

Secondary partnerships acquire 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.

**Policy:** 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, 2001:** The asset class total fair value stood at \$2,475.4 million after adjusting the September valuation for subsequent cash flows. Alternative investments represent 10.0% of the Fund. Sub-asset class fair values and fund percentages were as follows:

	Total Commitments (\$ mil)	Fair Value (\$ mil)	Percent Allocation to Total Fund
Venture Capital	\$2,468.0	\$808.5	3.3%
Private Equity	<u>\$3,789.9</u>	<u>\$1,666.9</u>	<u>6.7%</u>
Total Alternative Investments	\$6,257.9	\$2,475.4	10.0%

**Number of Limited Partnerships:** As of December 31, 2001, SERS had made commitments to 179 Alternative Investments limited partnerships; 84 commitments were made to Venture Capital partnerships and 95 to Private Equity partnerships. (This does not include nine partnerships - seven Venture Capital and two Private Equity - that are now "inactive," or in the liquidation phase and two investments (Emerald and Abry) pending contract approval.)

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# *Alternative Investment Program*

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## **Venture Capital**

SERS Venture Capital program includes commitments to 84 venture capital limited partnerships of which twenty-seven 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, 2001, SERS maintained twenty-six active venture capital investments with fourteen managers that had offices located in Pennsylvania.

Of the total current venture portfolio, venture capital investments have been made in 64 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 2001, Pennsylvania ranked 9th in the nation in the number of portfolio company transactions financed by venture capital (115 deals), and 9th in terms of dollars applied to venture financing (\$695.2 million was invested).

## **Venture Capital Diversification**

The Venture Capital program seeks to diversify company investments across industries. As of September 30, 2001, based on invested capital, SERS Venture Capital program was invested in the following industries:

28.5% Communications	3.3% Financial Services	0.5% Transportation
19.6% Healthcare/Biotech	2.1% Manufacturing	0.4% Construction/Related
17.3% Software	1.9% Electronics	0.4% Chemical/Materials
11.4% Fund of Funds	1.1% Industrial	0.2% Energy
8.6% Consumer/Retail/Services	0.6% Environmental	0.1% Other
4.1% Hardware		

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, 2001, based on invested capital, the Venture program consisted of approximately 55.3% in seed/start-up and early stage investments and 21.2% in later/expansion stage investments.

## **Private Equity Diversification**

The Private Equity program has commitments to 95 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' sixteen non-U.S. private equity investments are comprised of thirteen 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 investments were made in 1999, focus on expanded opportunities in the region created by attractive valuations, favorable demographics, and changing attitudes on behalf of local businesspeople 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 eleven 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, 2001

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 (\$millions)	Capital <sup>1/2</sup> Drawn (\$millions)	Distribution (\$millions)
1. Accel Eurone	Early Stage	7/2/01	\$ 10.0	\$ 0.5	\$0.0
2. Adams Capital Management II	Early Stage	10/1/99	30.0	21.0	0.0
Adams Capital Management III	Early Stage	11/21/00	30.0	5.0	0.0
3. Advanced Technology Venture	Early Stage	3/9/00	10.0	5.8	0.0
Advanced Technology Venture	Diversified	7/11/01	30.0	0.8	0.0
4. Alloy Ventures 2000	Seed/Early	5/19/00	20.0	8.0	0.0
5. APA/Fostin – Fund I	Diversified	9/30/87	20.0	20.0	76.1
APA/Excelsior VI	Diversified	7/3/00	35.0	10.0	0.0
PA Fund I (APA/Fostin II)	Diversified	6/2/93	30.0	30.0	54.4
PA Fund III	Diversified	4/1/97	100.0	99.4	123.3
Apex Ventures IV	Early/Later	9/17/99	25.0	22.5	0.3
Apex Ventures V	Early Stage	*	20.0	0.0	0.0
6. Atlas Ventures IV	Early/Later	3/23/99	26.0	18.7	2.4
Atlas Ventures V	Early/Later	2/7/00	40.0	21.9	0.0
Atlas Ventures VI	Seed/Early	8/1/01	40.0	0.7	0.0
7. Austin Ventures VIII	Early Stage	7/26/01	35.0	2.0	0.0
8. Bachow Investments III	Diversified	11/9/94	25.0	25.0	23.4
9. CEO Venture Fund II	Diversified	7/14/89	7.5	7.5	3.8
10. Charles River	Early Stage	2/15/01	30.0	2.3	0.0
11. Cross Atlantic Technology	Early Stage	2/14/00	20.0	14.5	0.0
Cross Atlantic Techn. II	Early Stage	*	20.0	0.0	0.0
12. Draper Fisher Jurvetson VI	Early Stage	8/13/99	8.0	4.7	0.0
Draper Fisher Jurvetson VII	Seed/Early	9/22/00	20.0	3.0	0.0
13. Draper Triangle	Early Stage	12/20/99	20.0	9.5	0.0
14. Edison Ventures III	Diversified	3/1/94	25.0	25.0	40.8
15. Emerald Venture Capital I	Early Stage	*	20.0	*	*
16. Fairview Capital I	Minority	9/28/94	10.0	9.5	3.0
Fairview Capital II	Minority	3/1/98	10.0	6.0	0.1
17. Fostin Capital II	Diversified	10/5/89	8.0	7.5	11.4
18. Frazier Healthcare III	Later Stage	2/4/99	30.0	19.7	0.0
Frazier IV	Diversified	*	30.0	1.5	0.0
19. Grotech Partners III	Diversified	6/29/90	3.0	3.0	2.7
Grotech Partners IV	Diversified	11/1/93	25.0	25.0	33.6
Grotech Partners V	Diversified	9/18/98	25.0	21.1	10.6
20. Halpern & Denny II	Early Stage	4/28/98	25.0	23.6	0.3
Halpern & Denny III	Early Stage	4/26/00	25.0	12.6	0.0
21. HarbourVest Partnership Fund	Fund-of-	5/7/99	200.0	68.0	11.0
22. Healthcare Ventures III	Diversified	7/9/92	15.0	15.0	20.5
Healthcare Ventures V	Diversified	10/17/97	25.0	21.3	29.3
Healthcare Ventures VI	Diversified	6/19/00	35.0	13.7	0.0
23. Highland Capital VI	Early Stage	*	25.0	0.0	0.0
24. Ignition Venture Partners II	Seed/Early	12/17/01	10.0	0.2	0.0

	<b>Financing Stage Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital<sup>1/2/</sup> Drawn (\$millions)</b>	<b>Distribution (\$millions)</b>	
<b>Limited Partnership</b>						
25.	InterWest Partners VIII	Early/Later	8/25/00	25.0	5.0	0.0
26.	JP Morgan Pooled Venture	Fund-of-	7/8/99	100.0	61.4	4.3
	JP Morgan Pooled Venture	Fund-of-	10/10/00	100.0	7.3	0.1
27.	Keystone Ventures IV	Middle/Later	7/21/93	15.0	15.0	9.7
	Keystone Ventures V	Middle/Later	12/29/97	25.0	25.0	0.0
	Keystone Ventures VI	Middle/Later	12/26/00	25.0	1.5	0.0
28.	Kline Hawkes Pacific II	Diversified	8/30/00	15.0	4.4	0.0
29.	Meritech Capital II	Later Stage	1/2/01	25.0	2.5	0.0
30.	Morganthaler	Early/ Later	7/26/01	35.0	1.8	0.0
31.	NEA IX	Seed/Early	11/15/99	20.0	18.0	0.4
	NEA VI	Early/Later	3/2/94	25.0	25.0	189.5
	NEA VII	Early/Later	4/1/97	30.0	30.0	85.3
	NEA X	Seed/Early	12/11/00	35.0	6.1	0.0
32.	NEPA – MidAtlantic Ventures	Seed/Early	4/1/97	20.0	20.0	1.0
	NEPA - Mid-Atlantic Ventures	Early Stage	5/4/00	30.0	9.9	0.2
	NEPA Venture I	Seed/Early	8/29/85	2.0	2.0	9.4
	NEPA Venture II	Seed/Early	7/24/92	8.0	7.5	30.4
33.	PA Early Stage	Early Stage	*	20.0	0.0	0.0
34.	Point Ventures II	Diversified	10/2/90	1.0	1.0	1.3
35.	Polaris Venture Partners	Early Stage	6/4/96	15.0	14.6	43.5
	Polaris Venture Partners II	Early Stage	9/8/98	25.0	23.3	24.9
	Polaris Venture Partners III	Early Stage	1/21/00	50.0	24.0	1.0
	Polaris Venture Partners IV	Early Stage	*	50.0	0.0	0.0
36.	Sprout VII	Diversified	2/24/95	18.0	18.0	28.2
37.	Summit Accelerator	Early Stage	11/15/99	8.0	4.1	0.2
	Summit Ventures IV	Later Stage	6/27/95	25.0	23.8	174.7
	Summit Ventures V	Later Stage	3/9/98	37.5	29.1	8.8
38.	TA Associates - Advent VII	Diversified	7/30/93	25.0	25.0	84.7
	TA Associates - Advent VIII	Diversified	2/1/97	30.0	27.6	23.7
	TA Associates - Advent IX	Diversified	9/20/00	45.0	6.5	0.0
39.	Technology Leaders III	Diversified	1/3/97	15.0	13.5	16.5
	Technology Leaders IV	Diversified	5/13/99	35.0	24.5	6.8
	Technology Leaders V	Diversified	10/18/00	40.0	7.2	0.0
40.	Three Arch Capital	Later Stage	12/20/00	20.0	3.0	0.0
41.	U.S. Venture Partners VII	Early/Later	2/18/00	15.0	8.0	0.0
	U.S. Venture Partners VIII	Early Stage	6/1/01	35.0	3.9	0.0
42.	Weston Presidio II	Diversified	11/27/95	20.0	17.0	26.1
	Weston Presidio III	Diversified	3/31/99	35.0	22.8	0.0
	Weston Presidio IV	Diversified	6/21/00	35.0	4.4	0.0
43.	Whitney Equity Partners III	Early Stage	3/12/98	20.0	19.6	22.8
	Whitney Equity Partners IV	Early Stage	2/1/00	20.0	16.3	0.1
	Whitney Equity Partners V	Early/Later	3/29/01	20.0	1.7	0.0
44.	Worldwide	Early/Later	1/31/01	<u>30.0</u>	<u>4.5</u>	<u>0.0</u>
	<b>Total**</b>			<b>\$2,422.0</b>	<b>\$1,191.3</b>	<b>\$1,240.6</b>

Numbers include pending contracts as of December 31, 2001.

<b>Inactive Funds</b>	<b>Financing Stage Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$mil)</b>	<b>Capital Drawn (\$mil)</b>	<b>Distributions (\$mil)</b>
<b>Limited Partnership</b>					
1. CEO Ventures S	Diversified	7/1/87	\$ 8.0	\$ 1.0	\$ 1.2
2. Fostin Capital	Diversified	11/25/85	10.0	10.0	10.5
3. Keystone II	Middle/Later	11/1/85	10.0	10.0	22.4
4. PNC Ventures	Diversified	11/25/85	5.0	5.0	12.0
5. Pittsburgh Seed	Seed	1/13/87	2.0	2.0	1.0
6. TDH II	Diversified	11/25/85	9.0	9.0	16.0
7. Zero Stage II	Seed	4/30/87	2.0	2.0	0.6
<b>Total**</b>			<b>\$46.0</b>	<b>\$39.0</b>	<b>\$63.7</b>

*1/ Actual amount drawn and distributed as of December 31, 2001.*

*2/ Capital Drawn does not include total management fees.*

*\* Not funded as of December 31, 2001.*

*\*\* Numbers may not add due to rounding.*

# SERS Private Equity Investments Committed, Drawn and Distributed

As of December 31, 2001

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	Focus	SERS Initial Funding	Capital Committed (\$millions)	Capital <sup>1/2/</sup> Drawn (\$millions)	Distributions <sup>1/</sup> (\$millions)
1. APAX France III	France	11/29/90	\$5.0	\$5.1	\$7.4
APAX Germany	Germany	1/30/91	5.2	5.2	11.9
APAX Germany II	Germany	7/15/97	6.0	8.5	14.3
APAX UK VI	U.K.	12/9/97	9.0	6.6	9.3
APAX Europe IV	Pan-Europe	3/31/99	35.0	22.2	5.7
APAX Europe V	Pan-Europe	4/27/01	60.0	6.0	0.0
2. ABACUS Fund	National Hedge	4/24/00	15.0	15.0	0.0
3. ABRY Broadcast Partners	Telecom	4/1/97	25.0	25.0	15.3
ABRY Broadcast Partners	Telecom	3/30/01	35.0	4.0	0.0
ABRY Mezzanine Partners	Mezzanine	*	30.0	*	*
4. ABS Capital III	National	1/26/99	35.0	25.6	0.8
ABS Capital IV	National	10/13/00	35.0	4.3	0.0
5. AG Capital Recovery II	Distressed	10/1/01	17.6	0.0	0.0
6. Apollo IV	National	8/3/98	75.0	68.1	0.6
Apollo V	National	8/23/01	50.0	2.5	0.0
7. Asia Pacific III	Global	9/28/99	15.0	13.6	0.7
8. Audax Private Equity Fund	Mid-Mkt	5/25/00	35.0	7.2	0.0
9. B III Capital Partners (DDJ)	Distressed	8/1/97	35.0	34.4	4.1
10. BC European Capital VII	Pan-Europe	7/28/00	35.0	9.8	0.0
BC VII Top Up	Pan-Europe	*	10.0	0.0	0.0
11. Bain Capital Fund VII	National	7/6/00	25.0	2.9	0.0
12. Berkshire Fund VI	Mid-Mkt	*	20.0	0.0	0.0
13. Blackstone II	Global	8/26/94	40.0	42.4	63.0
Blackstone III	Global	11/3/97	75.0	44.3	12.6
Blackstone IV	Global	*	75.0	0.0	0.0
Blackstone Commun.	Global	8/29/00	25.0	2.1	0.0
14. Cerberus Institutional	Distressed	3/5/99	35.0	35.0	0.0
Cerberus Instl' Series Two	Distressed	*	35.0	0.0	0.0
15. Charterhouse II	National	3/30/94	40.0	42.8	81.2
Charterhouse III	National	11/19/97	50.0	35.7	1.2
16. Clayton, Dubilier & Rice V	Global Buyout	5/3/95	50.0	48.9	0.0
Clayton, Dubilier & Rice VI	Global	1/4/99	50.0	18.2	0.0
17. Code, H. & Simmons I	Midwest	9/28/89	10.0	9.7	29.2
Code, H. & Simmons II	Midwest	7/12/94	20.0	20.0	29.4
Code, H. & Simmons III	Midwest	8/1/97	40.0	36.3	0.9
Code, H. & Simmons IV	Midwest	9/16/99	100.0	28.5	0.1
18. CSFB Global	Distressed	*	35.0	0.0	0.0
19. DLJ Merch. II II	Global	5/22/97	75.0	70.9	22.2
DLJ III	Global	*	85.0	0.0	0.0
20. Francisco Partners	National	7/27/00	50.0	12.5	0.0
21. Frontenac VII	Midwest	8/1/97	40.0	40.0	26.8
22. Great Hill	National	4/12/99	30.0	20.0	0.0
Great Hill II	National	*	35.0	3.2	0.0

	<b>Limited Partnership</b>	<b>Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital<sup>1/2/</sup> Drawn (\$millions)</b>	<b>Distributions<sup>1/</sup> (\$millions)</b>
23.	Grvnphon Partners II	National	11/3/99	35.0	5.3	0.0
24.	GTCR V	National	4/25/97	11.4	11.4	3.4
	GTCR VI	National	6/25/98	50.0	50.4	28.2
	GTCR VII	National	3/15/00	55.0	23.2	10.8
25.	HarborVest International II	Intl Fund	4/1/97	25.0	23.6	14.0
	HarborVest International III	Intl Fund	6/22/98	40.0	18.4	1.7
	HarborVest International IV	Intl Fund	*	40.0	3.6	0.0
26.	Hellman & Friedman II	Global	1/7/92	21.1	23.2	39.8
	Hellman & Friedman III	Global	6/14/95	50.0	40.3	67.8
	Hellman & Friedman IV	Global	2/14/00	75.0	24.8	17.1
27.	Invemed Fund	Mid-Mkt	10/19/99	25.0	7.8	0.0
28.	Kelso V	National	1/26/94	40.0	53.8	68.2
	Kelso VI	National	7/7/98	75.0	39.1	4.8
29.	LLR Equity Partners	Mid-Mkt	2/4/00	25.0	9.9	3.9
30.	Landmark IV	Secondaries	2/28/95	14.9	12.5	12.9
	Landmark V	Secondaries	1/27/96	20.0	19.4	17.2
31.	Lexington II	Secondaries	4/1/98	40.0	28.4	8.9
	Lexington III	Secondaries	1/26/99	35.0	21.9	16.2
	Lexington V	Secondaries	*	75.0	0.0	0.0
32.	M/C Partners III	Telecom.	6/2/97	25.0	22.5	12.8
	M/C Partners IV	Telecom	3/31/99	25.0	20.0	0.0
	M/C Partners V	Telecom	9/29/00	35.0	5.3	0.0
33.	Madison Dearborn I	National	2/23/93	15.0	14.5	30.7
	Madison Dearborn II	National	1/3/97	40.0	39.5	22.9
	Madison Dearborn III	National	4/6/99	75.0	59.5	1.2
	Madison Dearborn IV	National	4/2/01	90.0	4.1	0.0
34.	Murphy & Partners	National	10/11/88	5.2	5.2	7.9
35.	Newbridge Asia II	Global	9/3/99	15.0	14.4	2.4
	Newbridge Asia III	Global	2/15/01	15.0	2.1	1.6
36.	Oakhill	National	5/17/99	50.0	34.3	2.8
37.	OCM Opportunities	Distressed	1/12/96	24.0	24.0	24.0
	OCM Opportunities II	Distressed	2/5/98	40.0	40.0	13.3
	OCM Opportunities III	Distressed	1/20/00	60.0	60.0	0.0
	OCM Opportunities IV	Distressed	9/26/01	70.0	7.0	0.0
	OCM Principal I	Distressed	11/12/96	25.0	25.0	2.2
	OCM Principal II	Distressed	4/24/01	25.0	8.8	0.1
38.	Palamon Equity Partners	Pan-European	7/23/99	30.0	9.5	0.0
39.	Parthenon Investors II	Mid-Mkt	8/9/01	20.0	0.9	0.0
40.	Permira Ventures UK III	UK	8/29/89	10.0	8.9	24.7
	Permira Ventures UK IV	UK	4/2/96	15.0	14.9	10.6
	Permira European I	Pan-European	7/1/97	36.0	28.2	50.0
	Permira European II	Pan-European	6/7/00	50.0	15.3	0.0
41.	Providence Equity IV	National	11/27/00	25.0	0.1	0.0
42.	RRZ Private Equity Fund	PA Buyouts	11/7/96	20.0	18.9	0.0
43.	SCP Private Equity II	National	6/15/00	25.0	9.2	0.4
44.	Summit Ventures VI	National	3/23/01	62.0	3.1	0.0
45.	Thomas Lee Equity Fund V	National	*	100.0	0.0	0.0
	Thomas Lee Equity Fund IV	National	4/24/98	70.0	59.0	2.3
46.	TPG Partners II	National	5/2/97	75.0	72.7	22.8
	TPG Partners III	National	1/13/00	75.0	21.7	0.0
47.	TCW V	National	8/25/94	35.0	35.0	51.1
48.	Vestar Capital III	National	5/7/97	25.0	20.3	8.1

<b>Limited Partnership</b>	<b>Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital<sup>1/2/</sup> Drawn (\$millions)</b>	<b>Distributions<sup>1/</sup> (\$millions)</b>
Vestar Capital IV	Mid-Mkt	1/25/00	100.0	20.2	0.0
<b>Total**</b>			<b>\$3,767.4</b>	<b>\$1917.6</b>	<b>\$943.5</b>

Numbers include pending contracts as of December 31, 2001.

#### Inactive Funds

	<b>Limited Partnership</b>	<b>Financing Stage Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital Drawn (\$millions)</b>	<b>Distributions (\$millions)</b>
1.	Brentwood Buyout Fund	National	12/88	\$12.5	\$12.5	\$22.0
2.	RRZ PA Fund #1	PA Buyouts	3/88	10.0	10.0	19.6
	<b>Total</b>			<b>\$22.5</b>	<b>\$22.5</b>	<b>\$41.6</b>

<sup>1/</sup> Actual amount drawn and distributed as of December 31, 2001.

<sup>2/</sup> Capital Drawn does not include total management fees.

\* Not funded as of December 31, 2001.

\*\*Numbers may not add due to rounding.

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## *Summary of Commodities Investments*

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Commodities are one of eight major asset classes that SERS uses for investments of the Fund. The SERS' Investment Plan calls for maintaining a 1% 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, 2001:** The Commodity portfolio had a \$246.8 million fair value, 1% of the total Fund's \$24,735.9 million fair value on December 31, 2001.

**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 only 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.

# ACTUARIAL



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# *Actuary's Certification*

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HayGroup, Inc.  
Actuarial and Benefits Consultants  
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April 24, 2002

Board of Trustees  
State Employees' Retirement System  
30 North Third Street  
Harrisburg, PA 17108-1147

Dear Members of the Board:

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, 2001 annual actuarial valuation. The December 31, 2001 actuarial valuation is the first actuarial valuation that recognizes the substantial changes in benefits, contributions and funding of the retirement system provided for by Act 2001-9 (Act 9), which was enacted in May 2001.

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 ending on June 30, 2012.
- (3) The amortization of changes in liability after 2001 over ten-year periods typically 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, 2001.

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 Actuarial Standards Board. The calculations were performed on the basis of actuarial assumptions and methods that 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 that is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuation. The data are also summarized and tabulated for the purpose of analyzing trends.

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, 2001 actuarial valuation were adopted by the Board and were based on actual experience of SERS during the years 1996 through 2000. The rate of inflation is not a direct assumption because the SERS plan does not include automatic cost-of-living adjustments. The implicit inflation assumption is 3.0 percent a year.

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. The expected actuarial value is last year's actuarial value brought forward to reflect actual contributions, benefit payments and expenses, and assumed investment income. Each year 20 percent of the difference between this expected value and the market value is recognized in determining the current actuarial value of assets with the remaining 80 percent to be recognized over the next four years.

Government Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contributions Plans* establishes the range of funding methods for the Unfunded Actuarial Accrued Liability. The minimum funding can be over a 40-year period with payments increasing by the assumed increase in payroll. The use of a 10-year amortization period with level payments exceeds the minimum funding provisions of 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, 2001 actuarial valuation.

With the exception of the "Schedule of Retirants 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, 2001 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

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## *Summary of Actuarial Assumptions and Methods*

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- ◆ 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, 2001. 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 Data

## Withdrawal From Active Employment Before Age & Service Retirement Annual Rate of Active Members Separating Within the Next Year As of December 31, 2001

Table A\*

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

Annual Rate of Retirement  
Table B\*

Annual Rate of Salary Increase  
Table C

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

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

### Reduced Benefits

Sample Age	<u>5-14 Years of Service</u>		<u>15 or More Years of Service</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
20	4.0%	4.0%	NA	NA
25	4.0	4.0	NA	NA
30	3.0	4.0	3.0%	4.0%
35	2.0	3.0	2.0	2.0
40	2.0	1.0	2.0	2.0
45	1.0	1.0	2.0	2.0
50	1.0	1.0	2.0	2.0
55	3.0	3.0	3.0	3.0

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

### 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		
<b>Male</b>									
< 20	17	-	-	-	-	-	-	17	\$ 20,780
20 - 24	718	5	-	-	-	-	-	723	24,712
25 - 29	2,403	469	7	-	-	-	-	2,879	31,694
30 - 34	2,573	3,052	873	19	-	-	-	6,517	39,468
35 - 39	1,959	2,285	2,591	792	45	-	-	7,672	42,369
40 - 44	1,714	1,669	2,044	2,084	1,240	57	-	8,808	43,480
45 - 49	1,656	1,642	1,842	1,786	2,295	1,358	148	10,727	45,380
50 - 54	1,434	1,487	1,585	1,515	1,831	2,889	1,722	12,463	48,891
55 - 59	916	998	1,104	1,050	940	1,370	2,420	8,798	51,359
60 - 64	380	532	559	440	352	359	926	3,548	52,571
65+	213	240	260	156	130	116	346	1,461	53,356
<b>Total</b>	<b>13,983</b>	<b>12,379</b>	<b>10,865</b>	<b>7,842</b>	<b>6,833</b>	<b>6,149</b>	<b>5,562</b>	<b>63,613</b>	<b>\$ 45,386</b>

**Average Age: 46.08**  
**Average Service: 13.68**

Age Group	Years of Service							Total	Average Salary
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 Plus		
<b>Female</b>									
< 20	53	-	-	-	-	-	-	53	\$ 20,855
20 - 24	954	28	-	-	-	-	-	982	23,925
25 - 29	1,714	468	36	-	-	-	-	2,218	28,320
30 - 34	1,714	1,261	729	65	-	-	-	3,769	31,842
35 - 39	1,509	1,105	1,220	794	139	-	-	4,767	34,388
40 - 44	1,632	1,241	1,299	1,212	1,379	129	-	6,892	36,952
45 - 49	1,486	1,244	1,488	1,185	1,644	1,962	300	9,309	39,844
50 - 54	1,059	1,034	1,330	1,109	1,279	1,737	1,466	9,014	41,264
55 - 59	578	673	922	901	956	921	927	5,878	41,106
60 - 64	225	338	452	350	358	313	312	2,348	40,857
65+	102	109	213	133	107	75	134	873	38,206
<b>Total</b>	<b>11,026</b>	<b>7,501</b>	<b>7,689</b>	<b>5,749</b>	<b>5,862</b>	<b>5,137</b>	<b>3,139</b>	<b>46,103</b>	<b>\$ 37,737</b>

**Average Age: 45.88**  
**Average Service: 13.65**

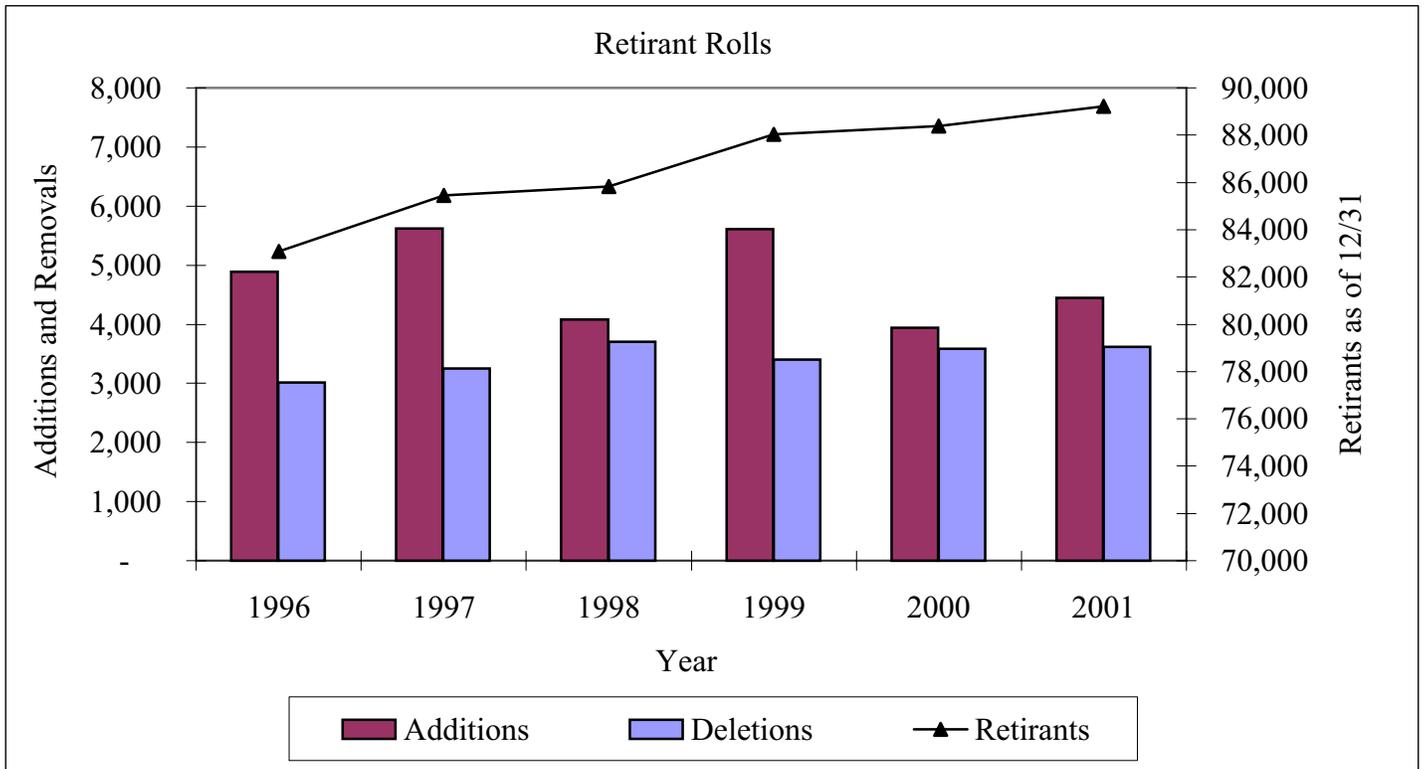
### Active Member Valuation Data

Valuation Date	Number Employers	Number Active Members	Annual Payroll	Annual Average Pay	% Increase in Average Pay
31-Dec-01	106	109,716	\$ 4,627,000,000	\$ 42,172	2.6%
31-Dec-00	106	109,470	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
31-Dec-96	108	110,922	3,975,000,000	35,839	4.6

# *Schedule of Retirants and Beneficiaries Added to and Removed From Rolls*

Years Ended December 31, 2001 through 1996

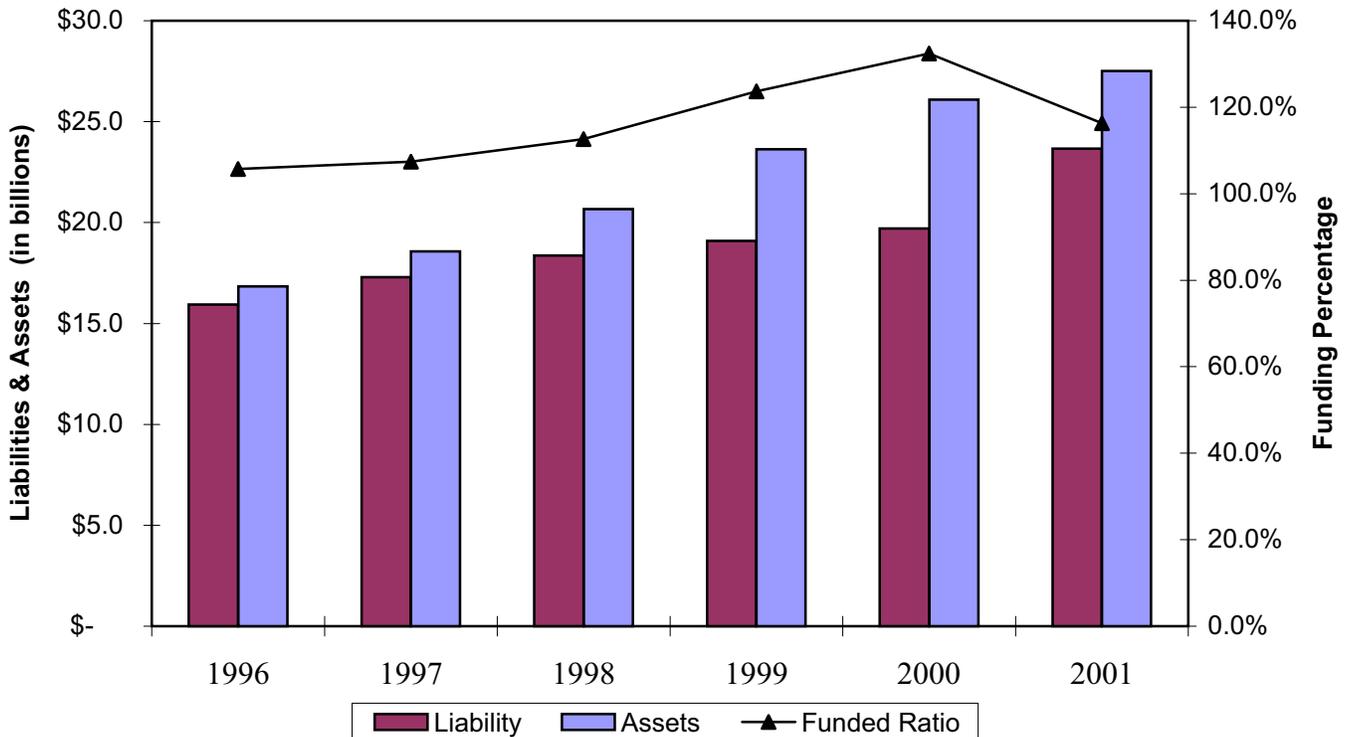
Year	Added to Rolls		Removed from Rolls		Rolls-End of Year		Percentage Change	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowance
2001	4,444	\$ 81,715,244	3,619	\$ 30,654,172	89,217	\$1,032,589,104	0.93%	5.00%
2000	3,939	56,321,173	3,590	29,591,472	88,392	983,432,700	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	7.01%	7.01%
1996	4,893	63,285,100	3,011	21,400,971	83,086	749,274,115	2.70%	6.50%



# Solvency Test

Valuation Date	Aggregate Accrued Liabilities For			Total Actuarial Accrued Liability (AAL)	Actuarial Valuation of Assets	Portion of Accrued Liabilities Covered by Reported Assets			Funded Ratio
	(1)	(2)	(3)			(1)	(2)	(3)	
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Financed Portion)						
(Amounts in thousands)									
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
31-Dec-96	2,646,630	6,027,333	7,262,653	15,936,616	16,841,069	100	100	100	105.7

## Solvency



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# *Analysis of Financial Experience*

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

<u>Type of Activity</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>
Gain(Loss) from Investment Earnings	\$ 182,272	\$ 1,294,335	\$ 1,971,870	\$ 1,099,095
Demographic Assumptions	(333,766)	61,092	29,667	(14,752)
Pay Increases Different than Assumptions	108,201	(28,655)	165,852	(193,945)
Other	481,469	151,443	31,499	133,685
Gain(Loss) During Year from Financial Experience	438,176	1,478,215	2,198,888	1,024,083
Non-Recurring Items:				
Contributions in Excess of Requirements	52,060	-	-	-
Changes in Actuarial Methods and Assumptions	(348,789)	-	-	-
Removal of 30 and Out Funding	-	340,798	-	-
Act 2001 - 9 Benefits	(2,735,791)			
Composite Gain(Loss)	<u>\$ (2,594,344)</u>	<u>\$ 1,819,013</u>	<u>\$ 2,198,888</u>	<u>\$ 1,024,083</u>

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# *Summary of Plan Provisions*

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## **Benefit and Contribution Provisions as of December 31, 2001**

**T**he 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 high three-year average salary of the member multiplied by years and fractions of credited service multiplied by the Multiplier of the Class of membership. The annuity paid to a member shall not exceed the member's highest salary during any period of 12 consecutive months of creditable service.

The multiplier for each of the major classes are as follows

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

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

# STATISTICAL



## *Schedule of Trend Data\**

	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>
<b>Contribution Rate:</b>						
<b>Employer</b>	0.00%	0.00%	1.39%	5.00%	6.70%	7.28%
<b>Member</b>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<b>Contributions:</b>						
<b>Employer</b>	\$ 76,710	168,002	270,718	310,501	324,093	373,902
<b>Member</b>	\$ 240,528	231,667	224,928	221,618	212,556	209,581
<b>Average Annual Compensation</b>	42,172	41,110	39,698	38,898	36,926	35,839
<b>Fair Value of Assets</b>	\$ 24,706,063	27,880,467	28,093,181	24,123,358	21,311,771	18,492,216
<b>Actuarial Value of Assets</b>	\$ 27,505,494	26,094,306	23,624,267	20,670,711	18,565,136	16,841,069
<b>Accrued Actuarial Liability</b>	\$ 23,658,757	19,702,278	19,091,840	18,357,899	17,288,413	15,936,617
<b>Funded Ratio</b>	116.3%	132.4%	123.7%	112.6%	107.4%	105.7%
<b>Total Benefits and Refunds</b>	\$ 1,245,129	1,176,785	1,229,348	1,062,155	1,021,721	928,344
<b>Average Pension</b>	\$ 13,656	12,935	12,520	12,027	10,555	10,150
<b>Annuitants and Beneficiaries</b>	89,217	88,392	88,043	85,834	85,457	83,086
<b>Active Employees</b>	109,716	109,470	108,035	108,893	108,684	110,922

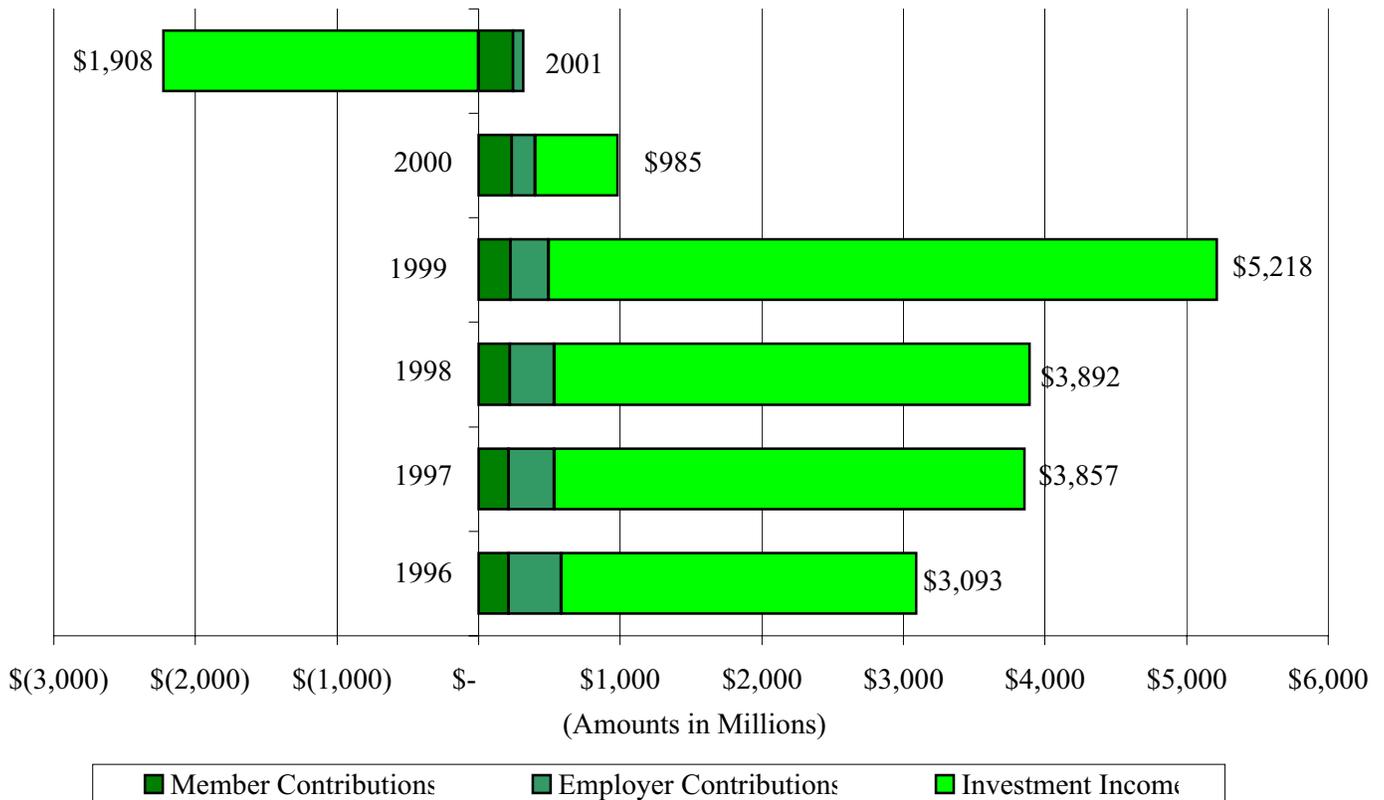
*\*All Dollar amounts are in thousands, except Average Pension and Average Annual Compensation*

# *Schedule of Additions to Plan Net Assets*

Years Ended December 31, 2001 through 1996  
(Dollar amounts in thousands)

Year Ending	Member Contributions	Employer		Net Investment Income	Total
		Dollars	% of Annual Covered Payroll		
2001	\$ 240,528	\$ 76,710	1.7%	\$ (2,225,627)	\$ (1,908,389)
2000	231,667	168,002	3.7%	585,712	985,381
1999	224,928	270,718	6.3%	4,722,671	5,218,317
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
1996	209,581	373,902	9.4%	2,509,330	3,092,813

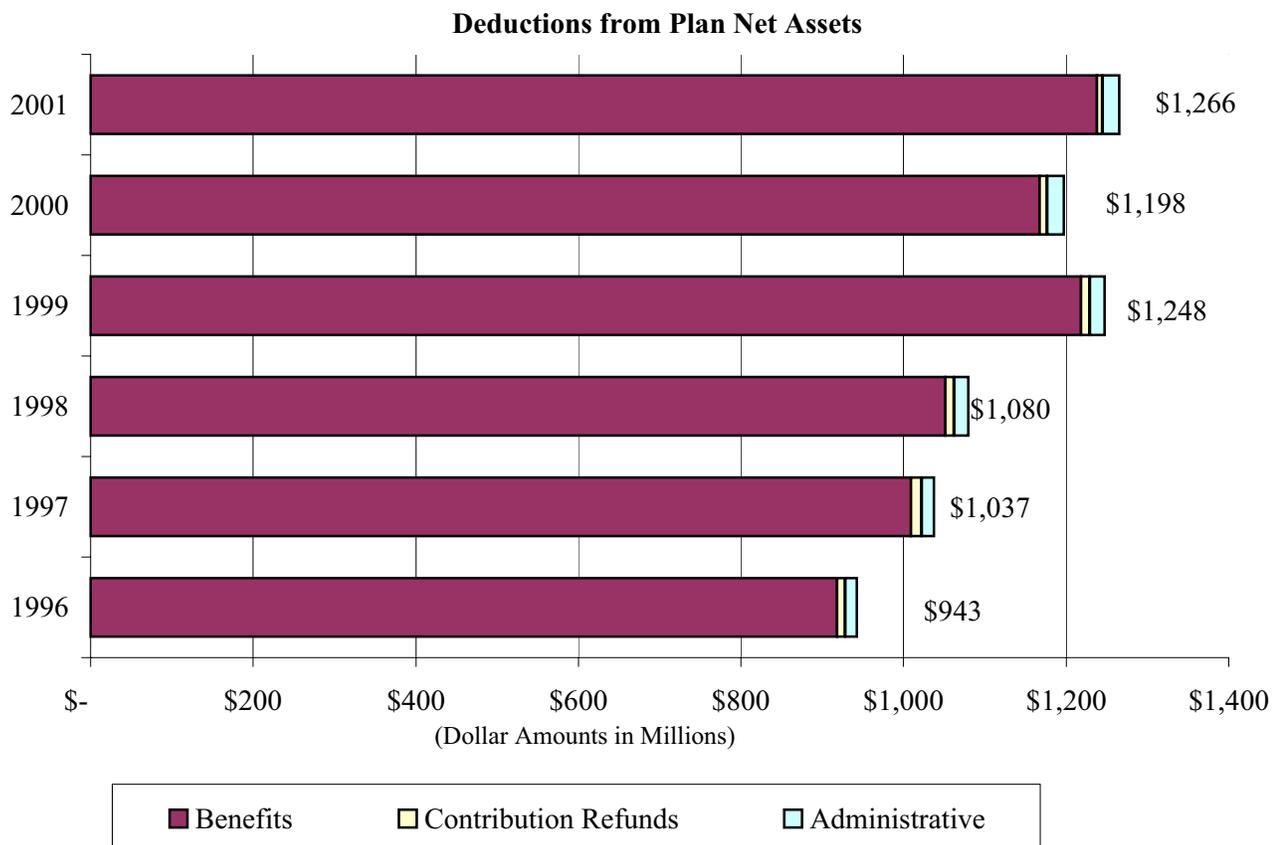
**Additions to Plan Net Assets**



# *Schedule of Deductions from Plan Net Assets*

Years Ended December 31, 2001 through 1996  
(Amounts in thousands)

Year	Benefits	Refund of Contributions	Administrative	Total
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
1996	918,218	10,126	15,062	943,406

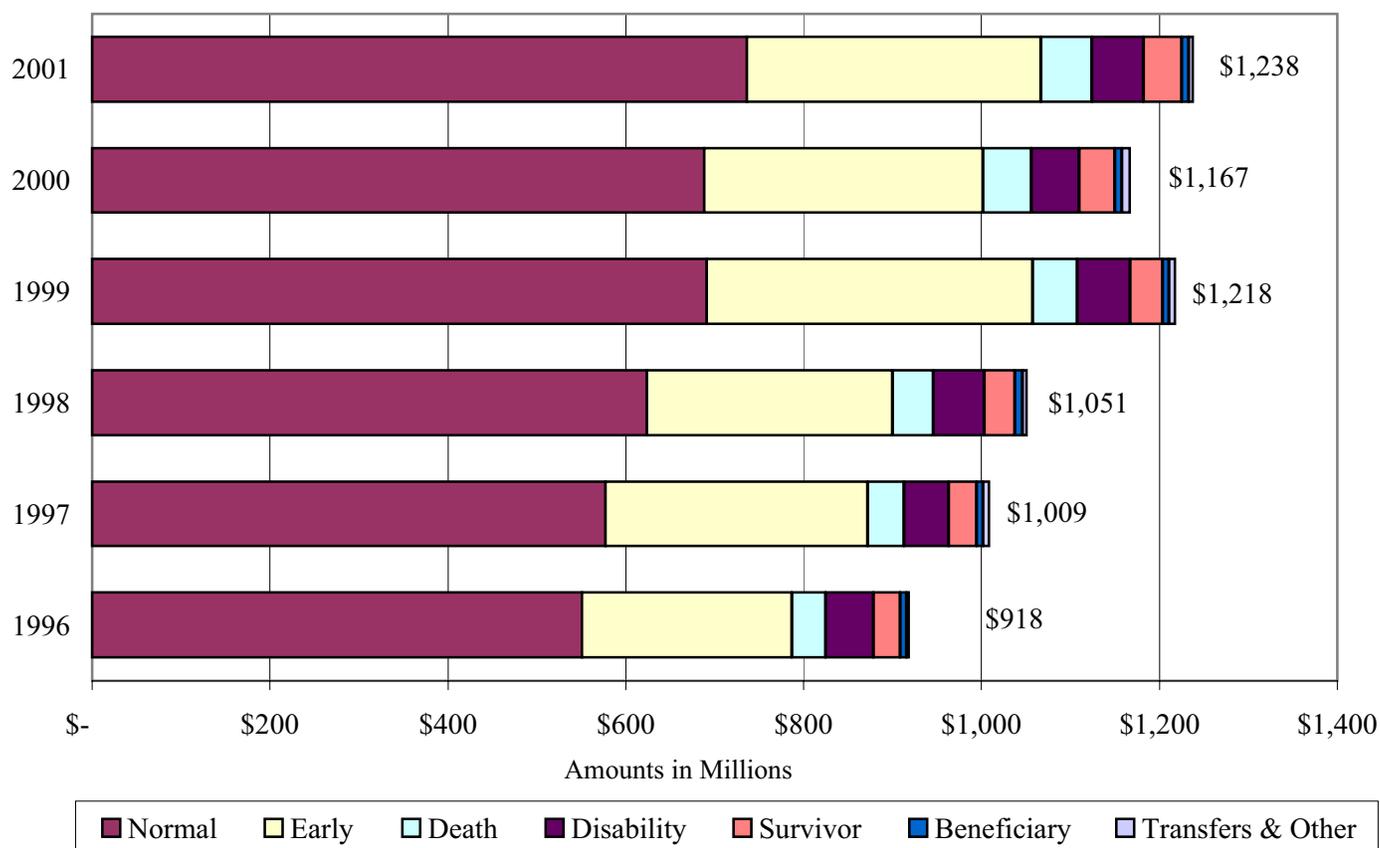


# *Schedule of Benefit Expenses by Type*

Years Ended December 31, 2001 through 1996  
(Amounts in thousands)

Year	Retirement		Death	Disability	Survivor	Beneficiary	Transfers & Other	Total
	Normal	Early						
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	576,573	294,827	50,287	40,898	32,063	6,871	7,129	1,008,648
1996	550,550	236,035	53,705	37,735	30,415	6,892	2,886	918,218

**Benefits by Type**



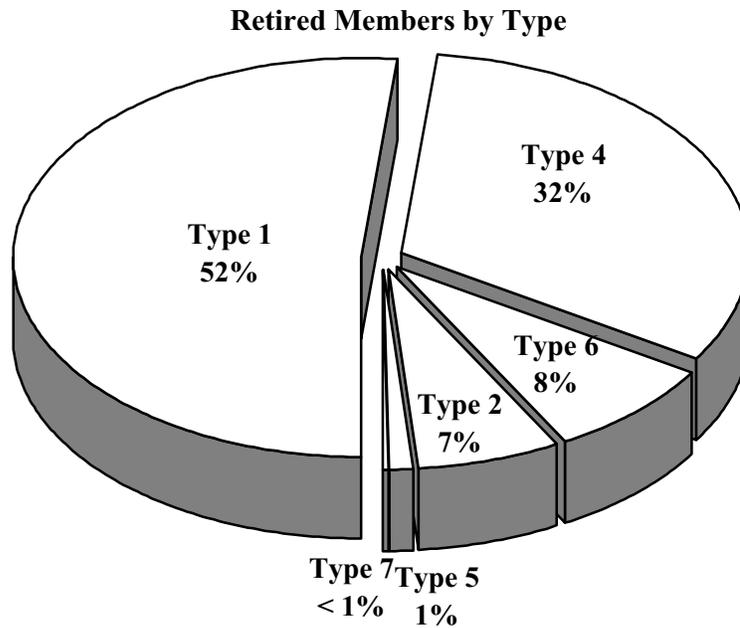
# *Schedule of Retired Members by Type of Benefit*

As of December 31, 2001

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Type of Retirement						
			1	2	4	5	6	7	
\$ 1 to 500	\$ 8,772,120	34,362	12,912	1,324	14,784	628	4,599	115	
501 to 1,000	17,725,018	24,544	14,645	3,267	4,712	268	1,585	67	
1,000 to 1,500	15,675,834	12,818	7,548	1,012	3,652	91	476	39	
1,500 to 2,000	12,004,631	6,955	4,137	267	2,352	24	163	12	
2,000 to 2,500	8,276,790	3,725	2,296	59	1,260	17	90	3	
2,500 to 3,000	6,693,878	2,439	1,512	18	861	10	38	-	
Over 3,000	16,900,822	4,374	3,058	17	1,218	25	54	2	
<b>Totals</b>	<b>\$ 86,049,093</b>	<b>89,217</b>	<b>46,108</b>	<b>5,964</b>	<b>28,839</b>	<b>1,063</b>	<b>7,005</b>	<b>238</b>	

Type of Retirement

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



# *Schedule of Retired Members by Option*

As of December 31, 2001

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Option Selected					
			FRA	1	2	3	4	Other
\$ 1 to 500	\$ 8,772,120	34,362	9,694	12,944	7,520	3,076	484	644
501 to 1,000	17,725,018	24,544	8,091	8,354	4,220	2,585	991	303
1,000 to 1,500	15,675,834	12,818	3,725	4,195	2,365	1,653	765	115
1,500 to 2,000	12,004,631	6,955	1,972	2,091	1,100	1,095	657	40
2,000 to 2,500	8,276,790	3,725	1,017	972	624	607	480	25
2,500 to 3,000	6,693,878	2,439	715	676	411	389	227	21
Over 3,000	16,900,822	4,374	1,647	1,055	506	674	460	32
<b>Totals</b>	<b>\$ 86,049,093</b>	<b>89,217</b>	<b>26,861</b>	<b>30,287</b>	<b>16,746</b>	<b>10,079</b>	<b>4,064</b>	<b>1,180</b>

## Options

FRA - Full Retirement Allowance

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

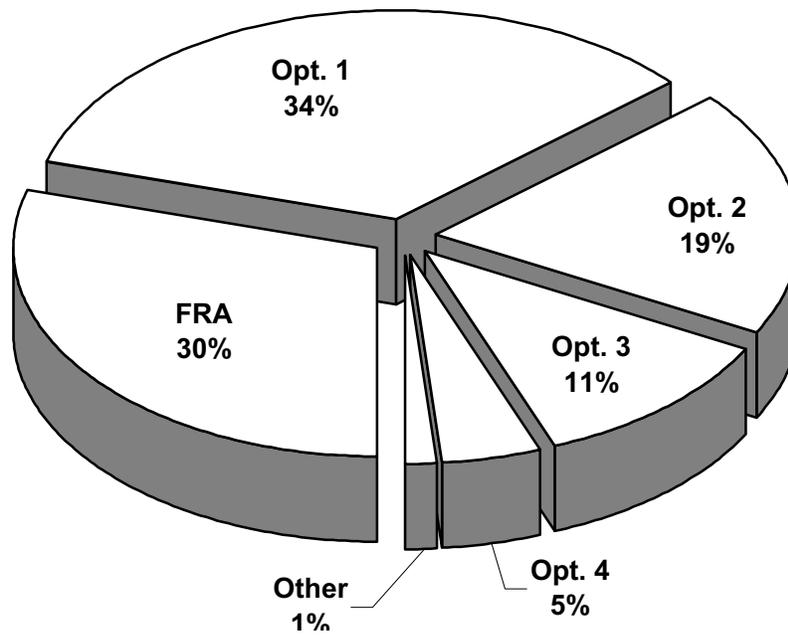
Opt. 2 - Annuity for Life with beneficiary receiving same annuity when member dies.

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, 2001

Age	Superannuation		Early Retirement		Disability		Beneficiary and Survivor	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 25	-	-	-	-	-	-	\$ 3,555	\$ 12,279
25-29	-	-	-	-	-	-	13,205	17,648
30-34	-	-	\$ 1,038	\$ 1,038	\$ 10,725	\$ 7,405	9,371	12,877
35-39	-	-	1,640	1,361	9,541	8,283	6,116	9,835
40-44	-	-	2,781	2,004	9,895	9,443	3,382	8,365
45-49	-	-	4,304	2,907	10,646	10,395	5,106	6,281
50-54	\$ 28,621	\$ 17,815	10,992	5,984	11,713	11,068	5,638	8,116
55-59	31,678	23,683	17,324	9,717	11,483	10,609	6,539	9,945
60-64	25,651	16,664	16,201	10,876	10,027	9,037	5,037	9,301
65-69	19,063	12,713	12,870	8,503	8,589	7,706	6,194	8,832
70-74	16,438	10,503	12,416	7,884	8,385	6,701	7,463	7,607
75-79	13,736	8,822	10,052	6,600	7,478	5,886	5,641	6,084
80-84	10,572	7,071	9,435	6,428	6,613	5,129	6,576	5,320
85-89	9,355	6,690	8,879	7,742	5,961	5,239	4,120	4,473
90 over	8,942	6,744	7,023	7,475	4,847	3,493	7,897	4,519
Total	16,587	9,953	13,146	7,136	10,027	9,029	6,038	6,398

	Superannuation	Early Retirement	Disability	Beneficiary and Survivor
Total Average Pension	\$13,656	\$10,288	\$9,508	\$6,369
Total Average Age: Male & Female	74.4	59.7	59.6	75.7

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# *Schedule of Participating Employers*

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**As of December 31, 2001**

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 Appropriations Committee(R)
Community College of Philadelphia	House of Representatives
Delaware County Community College	Independent Regulatory Review Commission
Delaware River Joint Toll Bridge	Indiana University Student Co-op
Delaware River Port Authority	Insurance Department
Delaware Valley Regional Planning Commission	Joint Legislative Conservation Committee
Department of Aging	Joint State Government Commission
Department of Agriculture	Kutztown University Student Services
Department of Banking	Lancaster-Lebanon Intermediate Unit
Department of Community & Economic Development	Legislative Budget & Finance Committee
Department of Conservation & Natural Resources	Legislative Data Processing Center
Department of Corrections	Legislative Reference Bureau
Department of Education	Lehigh Carbon Community College
Department of Environmental Protection	Lieutenant Governor's Office
Department of General Services	Liquor Control Board
Department of Health	Local Government Commission
Department of Labor and Industry	Lock Haven University Student Co-op
Department of Public Welfare	Luzerne County Community College
Department of Revenue	Luzerne Intermediate Unit
Department of State	Mansfield University Community Services

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# *Schedule of Participating Employers*

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As of December 31, 2001

Continued

Milk Marketing Board	Public School Employees' Retirement System
Millersville Student Services	Public Utility Commission
Montgomery County Community College	Reading Area Community College
Northampton Community College	Riverview Intermediate Unit
Office of Attorney General	Securities Commission
Office of Liquidations	Senate of Pennsylvania
Pennsylvania College of Technology	Shippensburg Student Association
Pennsylvania Convention Center Authority	Slippery Rock Student Government
Pennsylvania 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



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