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# *Board of Trustees*

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**Honorable Nicholas J. Maiale**  
*Chairman*



**Honorable Gibson E. Armstrong**  
*State Senator*



**Edward J. Keller**  
*Executive Director, AFSCME Council 13*



**Honorable Robert A. Bittenbender**  
*State Secretary of the Budget*



**Honorable Edward J. Lucyk**  
*State Representative*



**Honorable Barbara Hafer**  
*State Treasurer*



**Honorable Raphael J. Musto (1999)**  
*State Senator*



**James E. Nevels**  
*Financial Consultant*



**Honorable M. Joseph Rocks**  
*Retired Member and Former State Senator*



**Honorable Thomas G. Paese**  
*State Secretary of Administration*



**Honorable Jere L. Strittmatter**  
*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;

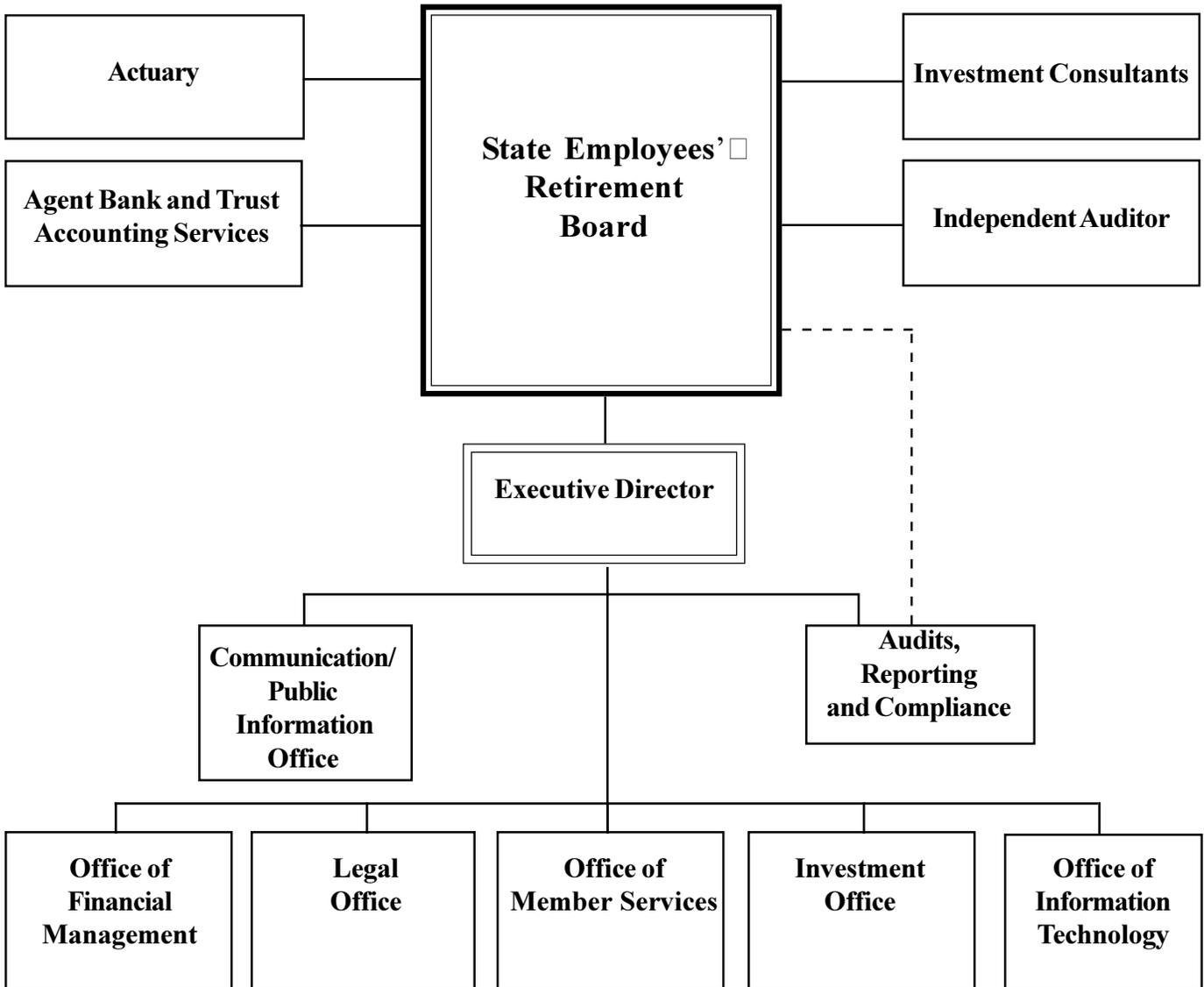
**Management of Retirement Fund Assets:** To accumulate, manage and disburse the retirement Fund assets in accordance with fiduciary standards and at a reasonable cost to Commonwealth taxpayers;

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

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# *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**  
**Stewart A. Dier**

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

**Bruce Feldman**  
**David J. Kalman**

**Tony Parisi**  
*Public Information Officer*

**Mark McGrath**  
**Karen N. Nicely**  
**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/Huggins Company, Inc.**  
*Actuary*

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

**KPMG**  
*Independent Auditor*



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



May 3, 2000

The Board of Trustees  
Pennsylvania State Employee's Retirement System  
Harrisburg, Pa. 17108-1147

Dear Mr. Chairman and Members of the Board:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Pennsylvania State Employee's Retirement System (the "System") for the calendar year ended December 31, 1999. With almost 200,000 members and assets valued at over \$28 billion, the System is among the largest and well-funded plans in the nation. Last year we reported that the System was working hard toward using technology to improve client service, financial reporting, and asset management. To that end, I am very pleased to report that during 1999 the System has continued those efforts and has completed or began development of several new key initiatives. First, members, annuitants and the general public now have access to information on the retirement system via our new internet homepage [www.SERS.state.pa.us](http://www.SERS.state.pa.us). The site currently provides information on SERS operations, member services, counseling centers, retirement information and much more. In the future, we plan to provide secure, on-line account access and transactions. Secondly, we also implemented "SERSnet," the System's *intranet*, to provide all staff with on-line access to a central repository of SERS's policies and procedures. The ultimate goal of our *intranet* will be to provide on-line investment allocation and performance data, contract data, member demographics, and other information to enhance management decision-making.

During 1999 we collaborated with our Master Trust Custodian, Mellon Bank, toward enhancing our investment portfolio monitoring and reporting processes. Those efforts included implementing an online investment compliance system that allows the System to independently monitor whether investment holdings and transactions executed are in compliance with contractual guidelines in investment policy.

During the year, the System implemented a comprehensive IT governance process. This new process brings together our top-level business managers to prioritize technology projects and align efforts and resources with the System's strategic initiatives. One of the key projects slated for 2000 is the acquisition and implementation of an investment data warehouse. This important system will reduce the System's reliance on third party vendors for historical data, ease any future custodian conversions and provide enhanced investment reporting.

### **Report Content and Structure**

This report is divided into five sections:

- The Introductory Section which contains general information regarding the operations of SERS;
- The Financial Section which contains the audited financial statements, required supplementary information and other supporting financial schedules;
- The Investment Section, which contains data regarding the management of the System's investments
- The Actuarial Section, which contains certifications and results of the actuarial valuations as of December 31, 1998, the latest available data; and
- The Statistical Section, which contains general statistical information 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. SERS has established and 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 with generally accepted accounting principles. The System's internal Audits, Reporting and Compliance department provides a continuing review of the adequacy and effectiveness of the System's internal control structure. Annually, our independent external auditors, KPMG, conduct an 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 note that The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Report to the Pennsylvania State Employee's Retirement System for the year ended December 31, 1998. The Certificate of Achievement is a national award, recognizing conformance with the highest standards for preparation of a State and local government financial report. This was the first year that SERS has achieved this prestigious award.

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

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

### **Income and Contributions**

Additions to plan net assets include net income from investment activities and employer and member contributions. During 1999, investment income totaled approximately \$4.7 billion versus \$3.3 billion in 1998, resulting in returns of 19.9% and 16.3% respectively. For the 10 year period ended December 31, 1999 the System earned a compounded rate of return of 13.5%. These strong rates of return placed the System in the top quartile of government sponsored pension plans for the one, five and ten year periods.

Member contributions amounted to approximately \$225 million and \$222 million for the years ended December 31, 1999 and 1998 respectively. The member rate is set by statute and was 5.0% of the gross salary for most employees. Employer contributions decreased to approximately \$271 million versus \$311 million in the prior year. The decrease was due primarily to the decrease in the employer composite rate from 6.7% to 5.0% as reported in the System's latest actuarial valuation.

### **Benefits and Expenses**

Deductions to Plan Net Assets are primarily benefit payments. During 1999, the System paid out over \$1.2 billion compared to \$1 billion in payments to plan members in 1998. Administrative expenses are presented in the annual budget to the state Legislature and are financed through investment earnings. The system incurred total administrative expenses of approximately \$19.1 million in 1999 representing less than .075% of average fund assets.

The best measure of a retirement system's ability to meet its current and future obligations to plan members is the funded ratio. When the funding ratio is adequate, the ratio of accumulated actuarial assets to total liabilities will be larger and the reliance on future contributions will be reduced. Actuarial assets are determined using a "smoothing technique" which levels the effect of market volatility against the assumed rate of return over a five-year period. Plan liabilities are determined using a variation of the entry age actuarial cost method. Because of an effective investment strategy, and prudent allocation of assets diversified across asset classes globally, the System's funded ratio increased to 112.6% at December 31, 1998 from 107.4% on December 31, 1997.

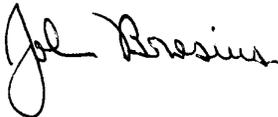
Funding through appropriate levels of member and employer contributions and investment returns will enable SERS to maintain its fully funded status. Appropriate employer contribution rates are determined through an annual actuarial valuation. While many significant assumptions go into this process, one of the most important is the return on plan assets. Most government and private sector plans use investment return assumptions ranging from 6.5% to 9.0%. The rate used in the SERS plan is 8.5%. Because investment returns have compared very favorably to this rate, employer contribution rates have decreased from as much as 18.8% in 1981 to 5.0% in last year's actuarial valuation. This has resulted in a lower cost to employers and member agencies in the System and to Pennsylvania taxpayers.

### 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 maximize the returns of the plan's assets in a prudent fashion.

The new millennium brings exciting challenges and potential to the workplace and personal lifestyles. With the Board's leadership we are proactively implementing cutting edge information technology, using the latest management techniques, and leveraging consultant resources to meet those challenges head on, enhance our commitment to customer service and to ensure the System's long-term success.

Respectfully submitted,



John R. Brosius  
Executive Director



Francis J. Donlevy  
Director, Office of Financial Management

# *Independent Auditors' Report*



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

## **Independent Auditors' Report**

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, 1999 and 1998, 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 generally accepted auditing standards. 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, 1999 and 1998, and the changes in plan net assets for the years then ended in conformity with generally accepted accounting principles.

The information included in Required Supplemental Schedules 1 and 2 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.

A handwritten signature of the KPMG firm, written in dark ink. The letters 'KPMG' are clearly visible and appear to be written in a cursive or semi-cursive style.

April 28, 2000

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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, 1999 and 1998  
(Amounts in thousands)

	<b>1999</b>	<b>1998</b>
Assets:		
Receivables:		
Plan members	\$ 3,201	2,226
Employers	10,908	13,590
Investment income	98,656	101,915
Investment proceeds	79,104	152,462
Miscellaneous	1,028	251
Total receivables	192,897	270,444
Investments:		
Short-term investment fund	672,158	729,864
United States government securities	2,329,584	2,304,420
Corporate and foreign bonds and notes	3,163,233	2,920,704
Common and preferred stocks	10,416,259	8,124,946
Collective trust funds	7,914,062	7,302,435
Real estate	2,335,028	1,990,929
Alternative investments	1,900,359	1,104,281
Total investments	28,730,683	24,477,579
Securities lending collateral pool	1,083,831	802,958
Total assets	30,007,411	25,550,981
Liabilities:		
Accounts payable and accrued expenses	40,289	21,028
Investment purchases payable	790,110	603,637
Obligations under securities lending	1,083,831	802,958
Total liabilities	1,914,230	1,427,623
Net assets held in trust for pension benefits	\$ 28,093,181	24,123,358

(A schedule of funding progress is presented on page 15)

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, 1999 and 1998  
(Amounts in thousands)

	<u>1999</u>	<u>1998</u>
Additions:		
Contributions:		
Plan members	\$ 224,928	221,618
Employers	270,718	310,501
	<u>495,646</u>	<u>532,119</u>
Investment income:		
Net appreciation in fair value of investments	2,676,745	1,212,355
Collective trust fund appreciation and income	1,453,724	1,568,761
Interest	371,062	357,708
Dividends	127,330	118,502
Real estate	164,893	153,611
Miscellaneous	35,981	25,954
	<u>4,829,735</u>	<u>3,436,891</u>
Investment expenses	<u>(115,538)</u>	<u>(82,369)</u>
	<u>4,714,197</u>	<u>3,354,522</u>
Net income from investing activities		
From securities lending activities:		
Securities lending income	54,530	71,736
Securities lending expenses	<u>(46,056)</u>	<u>(66,414)</u>
	<u>8,474</u>	<u>5,322</u>
Net income from securities lending activities		
	<u>4,722,671</u>	<u>3,359,844</u>
Total net investment income		
	<u>5,218,317</u>	<u>3,891,963</u>
Total additions		
Deductions:		
Benefits	1,218,133	1,050,870
Refunds of contributions	11,215	11,285
Administrative expenses	<u>19,146</u>	<u>18,221</u>
	<u>1,248,494</u>	<u>1,080,376</u>
Total deductions		
	3,969,823	2,811,587
Net increase		
Net assets held in trust for pension benefits:		
Balance, beginning of year	<u>24,123,358</u>	<u>21,311,771</u>
Balance, end of year	<u>\$ 28,093,181</u>	<u>24,123,358</u>

See accompanying notes to financial statements.

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

**(1) Organization and Description of the System**

**(a) Organization**

The Commonwealth of Pennsylvania State Employees' Retirement System (the System) was established as of June 27, 1923, under the provisions of Public Law 858, No. 331.

The System 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.

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, 1999 and 1998, System membership consisted of:

	<u>1999</u>	<u>1998</u>
Retirees and beneficiaries currently receiving benefits	88,043	85,834
Terminated employees entitled to benefits but not yet receiving them	3,664	3,785
Current employees	<u>108,035</u>	<u>108,893</u>
Total members	<u>199,742</u>	<u>198,512</u>
Number of participating agencies	<u>106</u>	<u>107</u>

**(b) Pension Benefits**

The System provides retirement, death, and disability benefits. Generally, retirement benefits vest after 10 years of credited service. Cost-of-living adjustments are provided at the discretion of the General Assembly. On June 19, 1998, Senate Bill 1269 was signed into law, which authorized a cost of living adjustment (COLA) for state retirees, 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 and was effective July 1, 1998. Article II of the Commonwealth of Pennsylvania's Constitution assigns the authority to establish and amend the benefit provisions 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.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

On April 2, 1998, Act 41 was signed into law, which permitted certain participants with at least 30 years of credited service to retire without a reduction in benefits from July 1, 1998, to June 30, 1999. This early retirement window did not require a minimum age in conjunction with length of service for a member to be eligible for full benefits.

The general annual benefit 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.

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

(c) **Contributions**

The System's funding policy, as set by the System's Board, provides for periodic active member contributions at statutory rates. The System's funding policy also provides for periodic employer contributions at actuarially determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. Employer contribution rates are determined using a variation of the entry age normal actuarial funding method. 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. 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>1999</u>		<u>1998</u>	
Employer normal cost	8.98	%	8.94	%
Amortization of unfunded actuarial asset	(5.52)		(3.91)	
Amortization of supplemental annuities	2.38		1.95	
Total employer cost	<u>5.84</u>	%	<u>6.98</u>	%

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

Generally, employees are required to contribute to the System at a rate of 5% of their gross pay. Judges and district justices have the option of electing special membership classes requiring a contribution of 10.0% and 7.5%, respectively. All employee contributions are recorded in an individually identified account that also 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.

**(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 generally accepted accounting principles. Actual results could differ from those estimates.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

**(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 investment in the short-term investment fund, which is a fund operated by the Treasurer of the Commonwealth of Pennsylvania, is 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. 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. Mortgage loans are valued by the asset manager using the present value of future cash flows. 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. The notional amounts of foreign exchange contracts are not reported in the statement of plan net assets; however, the contracts are marked-to-market daily with changes in fair value recognized as part of investments and investment income.

The Collective Trust Funds (CTF) consist primarily of domestic and international institutional 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, 1999 and 1998, respectively, the System had contractual commitments totaling approximately \$1,933 million and \$1,161 million to participate in future alternative investments and \$254 million and \$244 million to participate in future real estate investments.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

*(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 are 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, 1999 and 1998, \$1,769 and \$1,652, respectively, was accrued for unused vacation and sick leave for the System's employees.

*(f) Administrative Expenses*

Administrative expenses are financed through investment earnings.

*(g) Federal Income Taxes*

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

*(h) Risk Management*

The System is exposed to various liabilities or 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 policies. 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.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

**(3) Description of Funds**

The Retirement Code requires the System to maintain the following funds representing the reserves 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 earnings of the fund. Funds are transferred to the Annuity Reserve Accounts as members retire and as 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 over a period of 20 years from the effective date of each supplement. 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 as of December 31, 1999 and 1998 are as follows (in millions):

	<u>1999</u>	<u>1998</u>
Members Savings Account	\$ 2,989	2,904
State Accumulation Account	18,350	15,060
Supplemental Annuity Account	(1,173)	(1,179)
Annuity Reserve Accounts:		
Annuitants and Beneficiaries	6,766	6,187
State Police	1,139	1,129
Enforcement Officers	22	22
Total	<u>\$ 28,093</u>	<u>24,123</u>

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

**(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, 1999 and 1998, 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, 1999 and 1998. 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 may also 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. However, the System does have 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.

	<u>1999</u>	<u>1998</u>
Investments – Category 1:		
United States government securities	\$ 1,827,273	1,881,477
Corporate and foreign bonds and notes	2,903,670	2,568,126
Common and preferred stocks	9,967,347	7,852,036
Total Category 1 investments	<u>14,698,290</u>	<u>12,301,639</u>
Investments – not categorized:		
Investments held by broker/dealers under securities lending agreement:		
United States government securities	502,311	422,943
Corporate and foreign bonds and notes	152,363	126,737
Common and preferred stocks	448,912	272,910
Short-term investment fund	672,158	729,864
Collective trust funds	7,914,062	7,302,435
Mortgage loans	107,200	225,841
Real estate	2,335,028	1,990,929
Alternative investments	1,900,359	1,104,281
Total not-categorized investments	<u>14,032,393</u>	<u>12,175,940</u>
Total investments	<u>\$ 28,730,683</u>	<u>24,477,579</u>

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

The System's real estate holdings that are located in the Commonwealth of Pennsylvania total approximately \$425 million and \$360 million or 18.2% and 18.1% of the real estate portfolio at December 31, 1999 and 1998, 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 \$920 million and \$826 million of high yield bonds at December 31, 1999 and 1998, respectively.

As of December 31, 1999, the System held investments totaling \$5,755,065 in Barclays Global Investors N.A. Equity Index Fund which represented more than 5% of the System's net assets available for benefits. As of December 31, 1998, the System held investments totaling \$5,149,244 and \$1,291,186 in Barclays Global Investor's N.A. Equity Index Fund and Enhanced U.S. Tactical Asset Allocation Fund, respectively, which represented more than 5% of System's net assets available for benefits.

The 70/30 Enhanced U.S. Tactical Asset Allocation Fund is diversified among three collective funds: equity, which is invested primarily in Standard & Poors 500 companies; long-term fixed income, which is invested in corporate notes and bonds; and the short-term cash fund, which is invested in money market instruments.

**(5) Securities Lending**

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

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

As of December 31, 1999 and 1998, the System's credit exposure to individual borrowers was limited because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The Treasurer's contract with the lending agent requires the agent to indemnify the System if the borrowers fail to return the underlying securities and the collateral is inadequate to replace the loaned securities or if the borrowers fail to pay income distributions on the loaned securities.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

All securities loans at December 31, 1999 and 1998 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, 1999 and 1998, was 27 days and 33 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, 1999 and 1998, respectively, the fair market value of loaned securities was \$1,103,586 and \$822,590; the fair value of the associated collateral was \$1,133,722 and \$842,907 of which \$1,083,831 and \$802,958 was cash. The securities lending collateral pool is not categorized because securities are not used as evidence of the investment.

**(6) Financial Instruments with Off-Balance Sheet Risk**

The System enters into foreign exchange contracts, such as forward and spot contracts, to hedge foreign currency exposure. The System is not a dealer but an end-user of these instruments. The contracts are used primarily to enhance performance and reduce the volatility of the portfolio. The System is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. As the System generally enters into transactions with institutions regarded as meeting high standards of credit worthiness, no losses associated with counterparty nonperformance on derivative financial instruments have been incurred. Legal risk is mitigated through careful selection of brokers and an extensive process of review of all documentation. The System is exposed to market risk—the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed within risk limits set by management by buying or selling instruments or entering into offsetting positions.

Foreign exchange contracts involve an agreement to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. At December 31, 1999, the System had contracts maturing through December 31, 2000, to purchase or sell foreign currency. The \$7,414,864 of total foreign currency contracts outstanding at December 31, 1999, consists of \$4,519,415 "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currency and \$2,895,449 "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currency.

At December 31, 1998, the System had contracts maturing through December 31, 1999, to purchase or sell foreign currency. The \$7,706,723 of total foreign currency contracts outstanding at December 31, 1998, consists of \$4,162,798 "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currency and \$3,543,925 "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currency.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

Net unrealized gains (losses) on foreign currency contracts were approximately \$38.1 million and \$(35.6) million at December 31, 1999 and 1998, respectively.

In addition, the System held investments in futures contracts totaling \$428 million as of December 31, 1999. Futures contracts are contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that a counterparty will not pay and generally requires margin payments to minimize such risk. Initial margin requirements on futures contracts are provided by investment securities pledged as collateral.

The System also invests in fixed income derivatives such as collateral mortgage obligations (CMOs) to increase the return to the portfolio. Some forms of the System's CMOs, namely planned amortization class securities, offer more defined cash flow characteristics, and are therefore preferred in volatile interest rate environments. Other types of the System's CMOs (interest-only strips, principal only strips, and inverse floaters) behave less predictably but can offer value in certain market conditions. CMOs pose no greater credit risk than any other investment grade holding; therefore, significant defaults are not anticipated. Investment managers control credit risk through credit evaluation and ongoing performance analysis. However, underlying risk exists to the extent that an underlying security of a pool does not meet or perform according to the terms of the CMO. Under the circumstances, the CMO has well defined rules on the remittance of the reserve pools for principal and interest for defaulted collateral. The fair value of CMOs at December 31, 1999 and 1998 was approximately \$198 million and \$127 million, respectively.

Through the collective trust funds, the System also indirectly holds certain derivative financial instruments. The collective trust funds participate in securities lending and invest cash collateral in an investment pool that invests in foreign exchange forwards, futures contracts, and asset, total return, and basis swap contracts. These instruments are held to hedge foreign exchange exposure, to synthetically create floating rate returns, and to manage interest rate risk by altering the average life of the portfolio.

(Continued)

**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
(a component unit of the Commonwealth of Pennsylvania)  
Notes to Financial Statements (continued)  
December 31, 1999 and 1998  
(Dollar amounts in Thousands)

**(7) Commission Recapture Program**

The System has commission recapture contracts with several brokers. These contracts stipulate that the brokers pay a percentage of commissions earned on investments directly to vendors for services provided to the System. During the years ended December 31, 1999 and 1998, the System earned \$1,571 and \$875 of benefits resulting from a commission recapture program, respectively. The System used the program to pay approximately \$788 and \$133 on consulting, advisory, and other expenditures for the years ended December 31, 1999 and 1998, respectively. At December 31, 1999 and 1998, the System has accumulated \$3,270 and \$2,487, 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, 1999, 1998 and 1997 were \$395, \$486 and \$467, respectively, which were equal to the required contributions each year.

**(9) Litigation and Contingencies**

The System is involved in various individual lawsuits, generally related to benefit payments, which, if settled adversely, could increase estimated actuarial liabilities by up to 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) Relationships With Other Commonwealth Agencies**

The System is established by state law 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.

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# *Required Supplementary Information*

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**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
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)
1995	15,510	15,067	(443)	102.9	4,022	(11.0)
1994	13,992	13,742	(250)	101.8	3,990	(6.3)
1993	13,061	12,214	(847)	106.9	3,732	(22.7)

Required Supplemental Schedule 2 – Schedule of Employer Contributions

(Dollar Amounts in Thousands)

Year ended December 31	Annual required contributions	Percentage contributed
1998	\$ 310,501	100.0 %
1997	324,093	100.0
1996	373,903	100.0
1995	376,692	102.1
1994	342,158	100.2
1993	310,089	98.1

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

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

(a component unit of the Commonwealth of Pennsylvania)

Notes to Schedules of Funding Progress and Employer Contributions

Unaudited – See Accompanying Auditors' Report

Actuarial information as of the latest actuarial valuation:

Valuation date	December 31, 1998
Actuarial cost method (a)	Variation of entry-age actuarial cost method
Amortization method	Increasing (5 percent annually)
Remaining amortization period	12 to 19 years, closed
Asset valuation method	5-year smooth market
Actuarial assumptions:	
Investments rates of return (b)	8.5%
Projected salary increases (b)	5.16% - 8.98%
Cost-of-living adjustments (c)	As described below

- (a) A variation of the entry-age actuarial cost method is used to determine the liabilities and costs related to all of the System's benefits including retirement, withdrawal, death and disability benefits. The significant difference between the method used for the System and the typical entry age actuarial cost method is that the normal cost is based on the benefits and contributions for new employees rather than for all current employees from their date of entry. This variation should produce approximately the same results as the typical method over the long run.
- (b) Includes inflation at 3%.
- (c) 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 allowance (COLA) 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.

(Continued)

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

(a component unit of the Commonwealth of Pennsylvania)

Notes to Schedules of Funding Progress and Employer Contributions (continued)

Unaudited – See Accompanying Auditors' Report

**Significant Changes in Prior Years**

Certain changes have been made in the plan or in actuarial assumptions that affect the trends in the amounts reported in the schedule of funding progress. Those changes also affected the trend in the annual required contributions reported in the schedule of employer contributions. Those changes were effective for the actuarial valuation report dated as of December 31, 1995.

For actuarial valuations through December 31, 1994, actuarial assumptions were as follows:

Actuarial assumptions:	
Investments rates of return	9.25%
Projected salary increases	6.70%

In addition, the demographic assumption was changed from the 1971 Group Annuity Mortality Table (GAM - 71) to the 1983 Group Annuity Mortality Table (GAM - 83) for current and future employees to reflect continuing mortality improvement. The GAM - 71 continues to apply for current retirees.

Also, in 1994, the actuarial assumption changed to reflect the adoption of a new pay scale that became effective January 1, 1994, and compressed the previous schedule of 35 steps to 20 steps. The new scale provides longevity increases for members who have at least one year of service. In addition, Act 1994-29 provided for a cost-of-living adjustment (COLA) to annuitants with an effective date of retirement on or prior to June 30, 1992.

In the valuation years ended December 31, 1998, 1997, 1996, 1995 and 1993, 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.

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# *Additional Financial Information*

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

Supplemental Schedule 1 - Administrative Expenses

Year Ended December 31, 1999

(Dollar amounts in Thousands)

**Personnel Services:**

Salaries	\$	8,383	
Benefits		2,850	
Temporary Personnel Wages, Overtime, & Outservice Training		<u>341</u>	
Total Personnel Service	\$		11,574

**Professional Services:**

Consultant Fees		3,068	
Treasury Department Services		687	
Commonwealth Central Services		307	
Legal Fees		61	
EDP Contractual Services Vendor Provided		<u>61</u>	
Total Professional Services			4,184

**Rentals:**

Rent of Real Estate		1,133	
Other Equipment Rental		91	
Motorized Equipment Rental		<u>60</u>	
Total Rentals			1,284

**Fixed Assets:**

Purchase of EDP Equip Comps & Periph		326	
Office Equipment		<u>6</u>	
Total Fixed Assets			332

**Communication:**

Postage		335	
Telephone		243	
Printing & Advertising		<u>123</u>	
Total Communication			701

**Other Expenses**

EDP Software		401	
Supplies		252	
Travel & Conferences		197	
Maintenance		151	
Subscriptions and Memberships		<u>70</u>	
Total Other			<u>1,071</u>

Total Administrative Expenses	\$		<u><u>19,146</u></u>
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**COMMONWEALTH OF PENNSYLVANIA**  
**STATE EMPLOYEES' RETIREMENT SYSTEM**  
Supplemental Schedule 2 - Investment Expenses and Consultant Fees  
Year Ended December 31, 1999  
(Dollar amounts in Thousands)

**Investment Expenses**

	<u>Fees</u>
Investment manager fees:	
Stocks	\$ 36,536
Fixed income	11,233
TAA	827
Real estate	26,065
Venture capital	16,151
Private equity	<u>22,793</u>
Total investment manager fees	113,605
Investment Related Expenses:	
Real estate	722
Private equity	558
Custodial	511
Legal	57
Other	<u>85</u>
Total other fees	<u>1,933</u>
Total investment expenses	<u>\$ 115,538</u>

**Consulting Fees**

<u>Firm</u>	<u>Category</u>	<u>Fees</u>
DoxSys. Inc.	EDP	\$ 761
Cambridge Associates Inc.	Private Equity	746
Deloitte Consulting	EDP	362
BARRA RogersCasey, Inc.	General Investment	295
Unisys Corporations	EDP	204
HayHuggins Company Inc.	Actuary	199
The Townsend Group	Real Estate	170
Imerge Consulting	EDP	127
L. R. Wechsler, Ltd.	Strategic Planning	56
Other		<u>148</u>
Total consulting fees		<u>\$ 3,068</u>

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# *Report on Investment Activity*

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*Peter M. Gilbert  
Chief Investment Officer*

June 2000

Dear Members:

As of year-end 1999, the assets of your pension fund exceeded \$28 billion. According to the January 24, 2000 Pension & Investments survey, this places the State Employees' Retirement System (SERS) as the 39<sup>th</sup> largest employee benefit fund in the United States and the 25<sup>th</sup> largest public fund. During the year, assets grew by almost \$4 billion with the total fund producing a return of 19.9% after fees and benefit payments. The longer-term results are equally impressive with annualized returns of 18.2% over the past three years, 19.0% over the trailing five years and 13.5% over the past ten years. As a result of this record, the Fund enjoys a fully funded status and declining contributions to meet ever-increasing benefit obligations. We have been very fortunate that the performance of financial markets over the past five years has been very good. This has enabled the Fund to achieve double-digit returns in each of the last five years. This 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 nine-year expansion of the U.S. economy. During this period of rising markets and economic expansion we have experienced historically low economic and financial volatility. Most of the surprises during this time have been positive and on the upside. We have been blessed with both low inflation and low unemployment at the same time that growth has persisted. Because things have been so good, there is a tendency to underestimate risk going forward.

In 1999 we saw a return to 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. The so-called "new economy" technology and telecommunications companies drove equities worldwide. Consequently, in

addition to the U.S. stock market, performance was also enhanced by strong returns in international stocks, particularly in the small capitalization area and alternative investments.

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. Consistent with this strategy, investments were expanded last year in the equity and alternative investment asset classes to further diversify investment styles and geographic exposures. 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,



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## *Investment Policies*

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**T**he 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 that have a positive impact on the economy of Pennsylvania.

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# *Investment Objectives*

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

- ✓ Achieve and maintain the State Employees' Retirement Fund in excess of Actuarial Accrued Benefit Liability;
- ✓ Over the long run, achieve a positive real total rate of return (with inflation measured by the GDP Implicit Price Deflator);
- ✓ Over the long run, achieve an absolute total rate of return not less than the actuarial investment return assumption;
- ✓ Achieve in Domestic Stocks a total return that exceeds the total return of the Russell 3000 Index;
- ✓ Achieve in International Stocks a total return that exceeds the total return of the SERS Custom International Stock Index;
- ✓ Achieve in the Fixed Income asset class a total return that exceeds the total return of the SERS Fixed Income Custom Index;
- ✓ Achieve in the Equity Real Estate asset class a total return that exceeds the total return of the NCREIF Index;
- ✓ Achieve in the Cash asset class a total return that exceeds the total return on U.S. Treasury Bills (90 days);
- ✓ Achieve in the Venture Capital asset class a total return that exceeds either the Venture Economics' relevant Vintage Year Median Returns or relevant returns furnished for benchmark purposes by SERS's Venture Capital/Alternative Investments consultant;
- ✓ Achieve in the Alternative Investments asset class a total return that exceeds either market returns for similar types of alternative investments or relevant returns furnished for benchmark purposes by SERS's Venture Capital/Alternative Investments consultant.

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

# Investment Results

## Schedule of Portfolio Returns\* After Fees for the period ending December 31, 1999

<u>Asset Class</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 year</u>
Domestic Equities	20.3%	23.6%	25.9%	17.1%
<i>Russell 3000 Index</i> <sup>1/</sup>	20.9%	25.1%	26.5%	17.3%
International Equities	40.6%	18.1%	14.9%	10.4%
<i>SERS Custom International Stock Benchmark</i> <sup>2/</sup>	28.5%	13.2%	11.3%	6.0%
Fixed Income	-0.4%	6.2%	9.1%	9.0%
<i>80% SERS Custom Bond / 20% Salomon World Government ex US (50% Hedged)</i> <sup>3/</sup>	-2.3%	5.8%	8.3%	8.2%
Cash	5.1%	5.5%	5.8%	6.7%
<i>90 day U.S. T-bills</i>	4.9%	5.2%	5.3%	5.2%
Tactical Asset Allocation	14.1%	21.8%	23.1%	16.8%
<i>70% S&amp;P 500 / 30% Long Bond</i>	11.0%	21.1%	22.8%	15.5%
Real Estate <sup>4/</sup>	12.1%	13.6%	11.5%	5.5%
<i>NCREIF</i> <sup>4/</sup>	12.0%	13.7%	11.6%	5.6%
Private Equity <sup>4/</sup>	37.3%	25.8%	24.8%	14.3%
Venture Capital <sup>4/</sup>	63.0%	32.4%	29.5%	18.3%
<b>Total Fund</b>	<b>19.9%</b>	<b>18.2%</b>	<b>19.0%</b>	<b>13.5%</b>

\* Returns for periods longer than one year are annualized

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

<sup>1/</sup> The Domestic Equities Benchmark is the Russell 3000 Index through 1/1/99; prior to that time the domestic equity benchmark was the Wilshire 5000 Index.

<sup>2/</sup> The SERS Custom International Index is constructed by combining the MSCI EAFE index and the MSCI Emerging Markets Free Index, then reducing Japan to half the market capitalization weight of the Pacific Basin and redistributing the remainder to other Pacific Basin Markets.

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

<sup>4/</sup> Results for Real Estate, Private Equity, and Venture Capital 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, 1999  
(Unaudited)**

**Total Fund Summary**

	<b>Fair Value</b>	<b>% of Total Fund</b>	<b>1999 Plan Policy Target</b>
Domestic Stocks	\$ 10,773.1	38.3%	35.1%
International Stocks	6,459.2	23.0%	20.0%
Currency Overlay	34.1	0.1%	0.0%
Fixed Income	5,103.4	18.2%	24.0%
Cash	166.4	0.6%	0.0%
Tactical Asset Allocation	1,333.6	4.7%	5.0%
Real Estate	2,344.2	8.3%	10.0%
Alternative Investments			
Venture Capital	699.0	2.5%	
Private Equity	1,152.4	4.1%	
Stock Distribution	51.3	0.2%	
Total Alternative Investments	1,902.7	6.8%	5.9%
Total Fund	\$ 28,116.7	100.0%	100.0%

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

**Asset Allocation Report (continued)**
**December 31, 1999**
**Unaudited**

Domestic Stocks	(\$ in millions)	% Domestic	% of Total	% of Total
Passively Managed Portfolios	Fair Value	Stocks	Stocks	Fund
Barclays - Equity Index Fund (S&P 500)	\$ 5,755.1	53.4%	33.4%	20.47%
<b>Actively Managed Portfolios</b>				
AXA Rosenberg Investment Mgmt - Mkt Neutral	106.1	1.0%	0.6%	0.38%
AXA Rosenberg Investment Management LLC	256.9	2.4%	1.5%	0.91%
Alliance Capital Management	499.4	4.6%	2.9%	1.78%
Dietche & Field Advisers	119.3	1.1%	0.7%	0.42%
Emerald Advisers - PA Portfolio	124.8	1.2%	0.7%	0.44%
Fidelity Management Trust Company	236.0	2.2%	1.4%	0.84%
First Quadrant - Mkt Neutral	112.2	1.0%	0.7%	0.40%
Iridian Asset Management	396.9	3.7%	2.3%	1.41%
J.P. Morgan Investment Management	264.9	2.5%	1.5%	0.94%
Martingale - Mkt Neutral	102.7	1.0%	0.6%	0.37%
Mellon Equity Associates - PA Portfolio	103.7	1.0%	0.6%	0.37%
Mellon Equity Associates - Special Equity	334.7	3.1%	1.9%	1.19%
Montag & Caldwell	408.3	3.8%	2.4%	1.45%
Provident Investment Counsel	843.8	7.8%	4.9%	3.00%
Provident Investment Counsel - Stellar Fund	244.8	2.3%	1.4%	0.87%
Standish, Ayer & Wood - Mkt Neutral	105.9	1.0%	0.6%	0.38%
Trinity Investment Management Corporation	613.3	5.7%	3.6%	2.18%
Trinity Small Cap Value	91.2	0.8%	0.5%	0.32%
Zevenbergen Capital	53.2	0.5%	0.3%	0.19%
<i>Domestic Active Stocks Total</i>	<b>5,018.0</b>	<b>46.6%</b>	<b>29.1%</b>	<b>17.85%</b>
<i>Domestic Stocks Total</i>	<b>\$ 10,773.1</b>	<b>100.0%</b>	<b>62.5%</b>	<b>38.32%</b>
<b>International Stocks</b>				
Passively Managed Portfolios	(\$ in millions)	% of Int'l	% of Total	% of Total
Barclays - Europe Funds	Market Value	Stocks	Stocks	Fund
Barclays - Australia/New Zealand Funds	\$ 777.8	12.0%	4.5%	2.77%
<i>International Passive Stocks Total</i>	<b>47.6</b>	<b>0.7%</b>	<b>0.3%</b>	<b>0.17%</b>
	<b>825.4</b>	<b>12.8%</b>	<b>4.8%</b>	<b>2.94%</b>
<b>Actively Managed Portfolios</b>				
Credit Suisse Asset Management - Core	825.7	12.8%	4.8%	2.94%
GAM Int'l Management - Pacific Basin ex Japan	214.7	3.3%	1.2%	0.76%
J.P. Morgan Investment Management - Japan	427.7	6.6%	2.5%	1.52%
Marathon Asset Management - Europe	396.0	6.1%	2.3%	1.41%
Mercury Asset Int'l Management - Small Cap	727.2	11.3%	4.2%	2.59%
Morgan Stanley Dean Witter - EAFE	738.2	11.4%	4.3%	2.63%
Morgan Stanley Dean Witter - Asia ex Japan	158.4	2.5%	0.9%	0.56%
Pictet Int'l Mgmt - Small Cap/Emerging Mkts	561.5	8.7%	3.3%	2.00%
Scottish Widows Investment Mgmt-Europe	410.7	6.4%	2.4%	1.46%
Seligman Henderson Co. - Small Cap	289.2	4.5%	1.7%	1.03%
Templeton Investment Counsel - Core	884.3	13.7%	5.1%	3.14%
Liquidation Account	0.1	0.0%	0.0%	0.00%
<i>International Active Stocks Total</i>	<b>\$ 5,633.8</b>	<b>87.2%</b>	<b>32.7%</b>	<b>20.04%</b>
<i>International Stocks Total</i>	<b>\$ 6,459.2</b>	<b>100.0%</b>	<b>37.5%</b>	<b>22.97%</b>
<i>Domestic and International Stocks Total</i>	<b>\$ 17,232.2</b>		<b>100.0%</b>	<b>61.29%</b>

**Asset Allocation Report (continued)**
**December 31, 1999**
**Unaudited**

	(\$ in millions) Fair Value	% of Total Currency Overlay	% of Total Fund
<b>Currency Overlay</b>			
Pareto Partners	\$ 26.2	76.9%	0.09%
Record Treasury	7.9	23.1%	0.03%
<i>Overlay Total</i>	<u>\$ 34.1</u>	<u>100.0%</u>	<u>0.12%</u>

	(\$ in millions) Fair Value	% of Total Fixed Income	% of Total Fund
<b>Fixed Income</b>			
<b>Passively Managed Core Portfolios</b>			
Mellon Bond Associates	\$ 673.3	13.2%	2.39%
<b>Actively Managed Core Portfolios</b>			
Fischer Francis Trees & Watts - International	570.4	11.2%	2.03%
J. P. Morgan Investment Management	729.4	14.3%	2.59%
John Hancock Private Placement	185.8	3.6%	0.66%
Legg Mason Real Estate Advisors	110.7	2.2%	0.39%
Miller, Anderson & Sherrerd - Domestic	944.0	18.5%	3.36%
Miller, Anderson & Sherrerd - Global	900.2	17.6%	3.20%
Smith Graham & Co.	29.3	0.6%	0.10%
<i>Active Core Fixed Income Port. Total</i>	<u>3,469.9</u>	<u>68.0%</u>	<u>12.34%</u>
<i>Core Fixed Income Portfolios Total</i>	<u>4,143.2</u>	<u>81.2%</u>	<u>14.74%</u>
<b>Actively Managed High Yield Portfolios</b>			
Berwind - PA Capital Fund	2.2	0.0%	0.01%
Fidelity Management Trust Company - CMBS	132.6	2.6%	0.47%
Trust Company of the West - Funds III	0.3	0.0%	0.00%
W. R. Huff Asset Management	825.1	16.2%	2.93%
<i>Active Specialty Fixed Income Port. Total</i>	<u>960.2</u>	<u>18.8%</u>	<u>3.41%</u>
<i>Fixed Income Total</i>	<u>\$ 5,103.4</u>	<u>100.0%</u>	<u>18.15%</u>

	(\$ in millions) Fair Value	% of Total Cash	% of Total Fund
<b>Cash</b>			
PA State Treasury - STIF *	\$ 166.4	100.0%	0.59%

\* SERS investment advisors' cash balances are reflected within their own market values but in fact are invested in the Pennsylvania Treasury Short Term Investment Fund (STIF). The total STIF balance reported by the Master Trust Custodian was \$672.2 million at the end of the month.

	(\$ in millions) Fair Value	Allocation ( Stocks / Bonds/ Cash)	% of Total Fund
<b>Tactical Asset Allocation</b>			
Barclays - Enhanced US 70/30 TAA Fund	\$ 1,333.6	70% / 30% / 0%	4.74%

**Asset Allocation Report (continued)**
**December 31, 1999**
**Unaudited**

Real Estate	(\$ in millions)	% of Total	% of Total
Separate Account Portfolios	Fair Value**	Real Estate	Fund
CRA Real Estate Securities	\$ 273.2	11.7%	0.97%
Forest Investment Associates	146.1	6.2%	0.52%
Heitman/JMB	343.4	14.7%	1.22%
LaSalle Partners	202.1	8.6%	0.72%
Low e Enterprises	355.8	15.2%	1.27%
Legg Mason / RAI Real Estate Advisors	178.5	7.6%	0.63%
<i>Separate Account Portfolios Total</i>	<b>1,499.2</b>	<b>64.0%</b>	<b>5.33%</b>
Pooled Fund Portfolios			
Allegis - 4 pooled funds	123.6	5.3%	0.44%
Apollo III	51.6	2.2%	0.18%
Berwind Property Group IV	19.5	0.8%	0.07%
Berwind Property Group V	4.8	0.2%	0.02%
Blackstone II	51.6	2.2%	0.18%
Blackstone III	7.5	0.3%	0.03%
AEW CIIF-II	8.8	0.4%	0.03%
Eastern Retail Holdings	43.2	1.8%	0.15%
Goldman Sachs - Whitehall	87.5	3.7%	0.31%
Heitman - California Land Venture	0.5	0.0%	0.00%
JMB Group Trust III	7.1	0.3%	0.03%
John Hancock	0.1	0.0%	0.00%
Lubert Adler Real Estate II	18.5	0.8%	0.07%
Miller Global III	7.1	0.3%	0.03%
SSR Realty (MIAF I & MIAF II)	20.9	0.9%	0.07%
Oxford Real Estate	52.6	2.2%	0.19%
Prudential	14.0	0.6%	0.05%
Sentinel Corporation	54.4	2.3%	0.19%
Starwood Capital IV	53.8	2.3%	0.19%
Starwood Capital V	18.8	0.8%	0.07%
Westbrook II	62.0	2.6%	0.22%
Westbrook III	35.7	1.5%	0.13%
TCW VI/OCM Opportunity Fund A & B	101.5	4.3%	0.36%
Pooled Fund Portfolios Total	<b>845.1</b>	<b>36.0%</b>	<b>3.01%</b>
Real Estate Total	<b>\$ 2,344.2</b>	<b>100.0%</b>	<b>8.34%</b>

\*\* Fair Values represent September 30, 1999 values as reported by the investment managers adjusted for allocations and distributions. Values for publicly traded REITs represent values reported as of December 31, 1999.

**Asset Allocation Report (continued)**
**December 31, 1999**
**Unaudited**

Alternative Investments - Venture Capital	(\$ in millions) Fair Value**	% of Total Venture Capital	% of Total Fund
Advent VII	\$ 2.0	0.3%	0.01%
Advent VIII	22.8	3.3%	0.08%
APA/Fostin - Fund I	7.6	1.1%	0.03%
Apex Fund IV	3.6	0.5%	0.01%
Atlas Ventures IV	10.4	1.5%	0.04%
Bachow III	34.4	4.9%	0.12%
CEO Venture Fund II	4.0	0.6%	0.01%
Draper Fisher VI	1.2	0.2%	0.00%
Draper Triangle	0.8	0.1%	0.00%
Edison III	5.2	0.7%	0.02%
Fairview Capital I	6.2	0.9%	0.02%
Fairview Capital II	2.2	0.3%	0.01%
Fostin Capital I	0.1	0.0%	0.00%
Fostin Capital II	4.3	0.6%	0.02%
Frazier Healthcare III	6.3	0.9%	0.02%
Grotech Partners III	1.1	0.2%	0.00%
Grotech Partners IV	25.5	3.6%	0.09%
Grotech Partners V	16.4	2.3%	0.06%
Halpern & Denny II	15.9	2.3%	0.06%
Harbourvest VI	17.3	2.5%	0.06%
Healthcare Ventures III	10.4	1.5%	0.04%
Healthcare Ventures V	18.3	2.6%	0.07%
JP Morgan	19.0	2.7%	0.07%
Keystone IV	14.7	2.1%	0.05%
Keystone V	22.8	3.3%	0.08%
NEA VI	39.4	5.6%	0.14%
NEA VII	60.8	8.7%	0.22%
NEA IX	1.0	0.1%	0.00%
NEPA Venture I	3.2	0.5%	0.01%
NEPA Venture II	8.2	1.2%	0.03%
NEPA - MidAtlantic Venture III	15.7	2.3%	0.06%
PA Fund I ( APA/Fostin II )	23.7	3.4%	0.08%
PA Fund III	95.4	13.7%	0.34%
Polaris Venture Capital	16.5	2.4%	0.06%
Polaris Venture Capital II	21.9	3.1%	0.08%
Sprout VII	22.3	3.2%	0.08%
Summit Venture IV	29.7	4.2%	0.11%
Summit Venture V	19.8	2.8%	0.07%
Summit Acclerator	0.8	0.1%	0.00%
Technology Leaders III	9.0	1.3%	0.03%
Technology Leaders IV	9.1	1.3%	0.03%
Weston Presidio II	18.5	2.6%	0.07%
Weston Presidio III	8.4	1.2%	0.03%
Whitney Equity Partners III	23.1	3.3%	0.08%
<i>Venture Capital Total</i>	<b>\$ 699.0</b>	<b>100.0%</b>	<b>2.49%</b>

\*\* Fair Values represent September 30, 1999 values as reported by the investment managers adjusted for allocations and distributions.

**Asset Allocation Report (continued)**
**December 31, 1999**
**Unaudited**

Alternative Investments - Stock Distribution Acct.	(\$ in millions) Fair Value**		% of Total Fund
Distribution Account	\$ 51.3		0.18%
Alternative Investments - Private Equity	(\$ in millions) Fair Value**	% of Total Private Equity	% of Total Fund
ABRY Broadcast Partners III	\$ 11.5	1.0%	0.04%
ABS Capital III	12.1	1.1%	0.04%
Adams Cap Mgt II	3.0	0.3%	0.01%
APAX Partners - France	4.3	0.4%	0.02%
APAX Partners - Germany	0.5	0.0%	0.00%
APAX Partners - Germany II	8.4	0.7%	0.03%
APAX Partners - Germany IV	7.9	0.7%	0.03%
APAX Partners - UK VI	5.3	0.5%	0.02%
Apollo Advisors	49.7	4.3%	0.18%
Asia Pacific III	4.7	0.4%	0.02%
B III Capital Partners	35.7	3.1%	0.13%
Blackstone II	38.7	3.4%	0.14%
Blackstone III	32.0	2.8%	0.11%
Cerberus	19.7	1.7%	0.07%
Charterhouse II	24.0	2.1%	0.09%
Charterhouse III	28.0	2.4%	0.10%
Clayton, Dubilier & Rice V	39.6	3.4%	0.14%
Clayton, Dubilier & Rice VI	0.7	0.1%	0.00%
Code, Hennesy & Simmons II	14.8	1.3%	0.05%
Code, Hennesy & Simmons III	30.5	2.6%	0.11%
Code, Hennesy & Simmons IV	8.3	0.7%	0.03%
DLJ Merchant Banking Fund II	55.0	4.8%	0.20%
Frontenac VII	31.8	2.8%	0.11%
Golder, Thoma, Cressey & Rauner V	12.8	1.1%	0.05%
Golder, Thoma, Cressey & Rauner VI	32.2	2.8%	0.11%
Great Hill	7.8	0.7%	0.03%
Gryphon Partners II	0.8	0.1%	0.00%
Harborvest II	15.5	1.3%	0.06%
Harborvest III	4.4	0.4%	0.02%
Hellman & Friedman II	0.2	0.0%	0.00%
Hellman & Friedman III	21.4	1.9%	0.08%
Invemed Fund	2.5	0.2%	0.01%
Kelso V	69.1	6.0%	0.25%
Kelso VI	20.9	1.8%	0.07%
Landmark IV	5.7	0.5%	0.02%
Landmark V	16.0	1.4%	0.06%
Lexington II	6.4	0.6%	0.02%
Lexington III	11.5	1.0%	0.04%
Madison Dearborn I	22.2	1.9%	0.08%
Madison Dearborn II	57.8	5.0%	0.21%
Madison Dearborn III	20.3	1.8%	0.07%
Media Communications Partners III	41.7	3.6%	0.15%
Media Communications Partners IV	5.9	0.5%	0.02%

Asset Allocation Report (continued)

December 31, 1999

Unaudited

Alternative Investments - Private Equity (continued)	(\$ in millions) Market Value**	% of Total Fund	
Newbridge Asia II	\$ 5.4	0.5%	0.02%
Oakhill	16.5	1.4%	0.06%
Oaktree Opportunities	22.5	2.0%	0.08%
Oaktree Opportunities II	40.3	3.5%	0.14%
Oaktree Principal Opportunities	22.9	2.0%	0.08%
Palamon Partners	0.6	0.1%	0.00%
RRZ Private Equity Fund	16.8	1.5%	0.06%
Schroder Ventures UK III	2.2	0.2%	0.01%
Schroder Ventures UK IV	8.9	0.8%	0.03%
Schroder European V	26.0	2.3%	0.09%
TCW - Fund V	10.5	0.9%	0.04%
Thomas Lee Equity Fund IV	56.3	4.9%	0.20%
TPG Partners II	62.5	5.4%	0.22%
Vestar Capital III	19.4	1.7%	0.07%
	\$		
<i>Private Equity Total</i>	<b>1,152.4</b>	<b>100.0%</b>	<b>4.10%</b>

\*\* Fair Values represent September 30, 1999, values as reported by the investment managers adjusted for allocations and distributions.

Numbers may not add due to rounding.

# *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, 1999. The tables do not include the shares of those companies that SERS may hold indirectly through its ownership of passively owned index funds since SERS does not own the stocks but shares of the underlying collective trust fund.

## As of December 31, 1999 SERS held units in the following index funds:

Holding	Fair Value
Barclays Global Investors Equity Index (S&P 500)	\$5,755,065,347
Barclays Global Investors Tactical Asset Allocation Fund (70% S&P 500 / 30% Lehman bond at December 31, 1999)	1,333,592,149
Barclays Global Investors Europe Index	777,798,816

## Top 10 Domestic and International Equity holdings in actively managed accounts at December 31, 1999

Domestic Equity		International Equity	
Holding	Fair Value	Holding	Fair Value
Microsoft	\$ 114,496,725	Total Fina	\$ 78,402,404
Cisco Systems	69,363,438	Nippon Tel & Tel	75,672,899
MCI Worldcom	67,885,111	Sony Corp	55,847,999
Home Depot	64,174,688	Telefonica SA	55,644,434
EMC Corp	59,289,975	Koninklijke Philips	54,880,603
Motorola	54,806,450	Mannesmann AG	43,206,179
Nokia	53,554,819	Telefonos De Mexico SA	42,457,500
AT&T Liberty Media A	51,037,169	Banque Nationale De Paris	41,346,832
AIG	43,036,886	Alcatel	39,504,002
Lucent Technologies	42,894,000	Deutsche Bank Ag Ord	37,721,427

## Top 10 Fixed Income holdings in actively managed accounts at December 31, 1999

Holding	Fair Value
Japan Government Bonds, 1.8%, June 20, 2008	\$ 126,952,287
Germany Federal Republic Treasury Bonds, 3.25%, February 17, 2004	100,521,427
US Treasury Bond, Stripped Principal Payment, 8.75%, August 15, 2020	79,483,578
Japan Government Bonds, 0.9%, December 22, 2008	63,721,109
FNMA Pool #0323702, 6.0%, May 1, 2029	63,543,218
US Treasury Notes, 7.5%, February 15, 2005	55,798,895
US Treasury Notes, 6.0%, August 15, 2004	49,917,403
Chancellor Media Corp., 9.0%, October 1, 2008	41,600,000
Germany Federal Republic Treasury Bonds, 6.875%, May 12, 2005	38,196,059
Germany Federal Republic Treasury Bonds, 6.5%, July 4, 2027	37,534,404

# *Schedule of Fees and Commissions*

## Schedule of Broker Commissions

Year Ended December 31, 1999

<u>BROKER</u>	<u>COMMISSIONS</u>	<u>BROKER</u>	<u>COMMISSIONS</u>
MERRILL LYNCH	\$ 2,085,189	WEEDEN & COMPANY	\$ 130,152
MORGAN STANLEY	1,685,102	EWING CAPITAL	127,108
BEAR STEARNS	1,565,321	SWISS BANK	124,033
D. E. SHAW SECURITIES	1,419,229	J. B. WERE & SON	119,667
DEUTSCHE BANK	1,198,473	HOARE GOVETT ASIA	113,186
GOLDMAN SACHS	1,159,953	WILSHIRE ASSOCIATES	109,285
CREDIT SUISSE FIRST BOSTON	1,028,612	JEFFERIES & COMPANY	105,429
WARBURG SECURITIES	941,340	ROBERTSON STEPHENS & COMPANY	102,987
INVESTMENT TECHNOLOGY GROUP	867,489	MONTGOMERY SECURITIES	95,374
SALOMON SMITH BARNEY	803,049	JONES & ASSOCIATES	94,838
INSTINET	627,814	SG COWEN	88,298
KLEINWORT BENSON	597,862	CHARLES SCHWAB	87,334
J.P. MORGAN	580,943	ALEX BROWN	87,242
LEHMAN BROS	569,631	CARNEGIE	87,066
JAMES CAPEL	510,196	FOX-PITT KELTON	85,609
HSBC SECURITIES	502,341	PCS SECURITIES	83,735
DONALDSON LUFKIN & JENERETTE	454,688	JANNEY MONTGOMERY SCOTT	83,070
PAINE WEBBER	444,572	A B ASESORES	78,586
CREDIT LYONNAIS	408,400	SPEAR LEEDS & KELLOGG	78,016
DEUTSHE MORGAN GRENFELL	398,791	BERNSTEIN SANFORD	76,948
SMITH BARNEY	387,661	SOCIETE GENERALE CUSTODY	74,050
BNY ESI	387,035	KIM ENG SECURITIES	70,507
ROBERT FLEMING	351,190	B-TRADE SERVICES	65,289
ROCHDALE SECURTIES	330,699	BARING SECURITIES	63,087
LYNCH JONES & RYAN	321,342	STANDARD AND POORS SECURITIES	60,717
ABN AMRO	310,060	QUAKER SECURITIES	59,389
DAIWA BANK	288,472	FURMAN SELZ	59,163
EXANE	267,569	SCHROEDER SECURITIES	53,512
W. I. CARR	253,607	THE EUROPE COMPANY	53,406
CAZENOVE	221,665	CI NORDIC SECURITIES	47,343
DB CLEARING SERVICES	198,894	EVEREN SECURITIES	42,953
OPPENHEIMER & COMPANY	187,328	JAVELIN SECURITIES	42,569
ING BANK	179,965	GREEN STREET ADVISORS	42,294
JARDINE FLEMING SECURITIES	179,176	AUTRANET	40,369
SCHRODER INVESTMENT MANAGEMENT	176,327	ENSKILDA SECURITIES	38,667
MORGAN GUARANTY TRUST	176,072	HAMBRECHT & QUIST	38,572
CANTOR FITZGERALD	160,842	U.B.S. SECURITIES	38,257
PRUDENTIAL BACHE SECURITIES	160,211	R.A.ROSENBLATT	37,585
CHEUVREUX DE VIRIEU	144,154	LEGG MASON	37,368
LEWCO SECURITIES	143,962	MORGAN KEEGAN	36,782
NOMURA SECURITIES	131,946	BRIDGE TRADING COMPANY	34,149

**Schedule of Broker Commissions**

(Continued)

<u>BROKER</u>	<u>COMMISSIONS</u>	<u>BROKER</u>	<u>COMMISSIONS</u>
EXECUTION SERVICES	\$ 33,748	HYUNDAI SECURITIES	\$ 17,518
CITATION GROUP	33,543	COMMERZBANK	17,331
MAY DAVIS GROUP	33,030	ALFRED BERG	17,059
PRYOR	31,566	BANK OF NEW YORK	16,620
VICKERS BALLAS	31,023	CAIB SECURITES	15,941
ROBINSON & HUMPHREY	30,141	SCOTIA MCLEOD (USA)	15,592
ORD MINNETT	29,743	CHINA EVERBRIGHT SECURITIES	14,977
L G SECURITIES	28,647	BROADCOURT CAPITAL	14,860
PRINCETON SECURITIES GROUP	28,598	CAPITAL INSTITUTIONAL INVESTORS	14,792
HALL INTERNATIONAL	28,109	WAKO INTL EUROPE	14,566
DEAN WITTER REYNOLDS	27,460	CONNING	14,029
CROSBY SECURITY	27,398	BNP CAPITAL MARKETS	13,998
FIRST UNION CAPITAL MARKETS	26,686	WEXFORD CLEARING SERVICES	13,605
HENDERSON BROTHERS	26,084	HWANG-DBS SECURITIES	13,549
PARIBAS ASIA EQUITY	26,019	WEISS PECK & GREER	13,398
RAYMOND JAMES & ASSOCIATES	24,865	IBJ INTERNATIONAL	13,118
WORLD SECURITIES	24,644	GK GOH SECURITIES	12,916
WESTMINSTER RESEARCH ASSOCIATES	24,013	INTERMOBILIARE	12,818
ELKINS MCSHERRY	23,229	NORDIC PARTNERS	12,736
CORRESPONDENT SERVICES	22,939	PRYCE SECURITIES	12,486
A. G. EDWARDS & SONS	22,892	STREICHER & COMPANY	12,445
PETERCAM	22,352	AUREL	12,114
DAVY STOCKBROKERS	22,062	M M WARBURG BRINCKMANN	11,949
WILLIAMS CAPITAL GROUP	21,886	RBC DOMINION SECURITIES	11,840
THOMAS & WEISEL	21,666	THOMSON INSTITUTIONAL SERVICES	11,766
FIDELITY CAPITAL MARKETS	21,427	ARNHOLD & S. BLEICHROEDER	11,481
BANCO SANTANDER	21,343	SOUNDVIEW FINANCIAL GROUP	11,472
SKANDINAVISKA ENSKILDA	21,283	ABG SECURITIES	11,448
BARNARD JACOBS MELLET	21,175	BANCA COMMERCIALE ITALIAN	11,438
ALLEN & COMPANY	21,124	ENGELMAN SECURITIES	11,176
LAZARD FRERES	19,978	FIRST ALBANY	10,897
TELESIS SECURITIES	19,390	DEN NORSKE BANK	10,790
TIR SECURITIES	18,924	LOEB PARTNERS	10,644
SIGMA SECURITIES	18,765	PERSHING	10,441
WILLIAM BLAIR & COMPANY	18,251	MEES PIERSON	10,348
ICHIYOSHI SECURITIES	18,160	VONTOBEL SECURITIES	10,210
OKASAN SECURITIES	17,942	Other Brokers (207)	<u>711,778</u>
		<b>Total Commissions</b>	<b><u>\$ 27,895,414</u></b>

# *Investment Summary*

The SERS Board of Trustees (Board) administers the assets of the State Employees' Retirement System (SERS). The Board has adopted an Investment Policy (Policy) that incorporates the provisions of the State Employees' Retirement Code, which governs the investment of SERS's 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. SERS's assets had an unaudited fair value of approximately \$28,116.7 million on December 31, 1999.<sup>1/</sup>

<b>SERS Asset Allocation (\$ in millions)</b>			
Asset Class	Fair Value		1999 Target Allocation
	\$	%	
U.S. Stocks	\$10,773.1	38.3%	35.1%
International Stocks	6,493.3	23.1%	20.0%
Fixed Income	5,103.4	18.2%	24.0%
Cash	166.4	0.6%	0.0%
Tactical Asset Allocation	1,333.6	4.7%	5.0%
Real Estate	2,344.2	8.3%	10.0%
Venture Capital	750.3	2.7%	2.0%
Private Equity	1,152.4	4.1%	3.9%
Total	\$28,116.7	100.0%	100.0%

**Number of Investment Advisors:** SERS had 116 external investment advisory firms managing portfolios. There are 42 advisors managing assets in the Public Markets domain and 90 in the private equity and real estate asset classes.

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• 16 U.S. Stock investment advisors</li> <li>• 11 International Stock investment advisors</li> <li>• 2 Currency overlay investment advisors</li> <li>• 11 Fixed Income investment advisors</li> <li>• 1 Cash investment advisor</li> <li>• 1 Tactical Asset Allocation investment advisor</li> </ul> | <ul style="list-style-type: none"> <li>• 22 Real Estate investment advisors</li> <li>• 31 Venture Capital general partners managing limited partnerships</li> <li>• 37 Private Equity general partners managing limited partnerships</li> </ul> |
|---|---|

In addition, the Board approved the hiring of one advisor in domestic stocks, one private equity partnership and four venture capital partnerships.

**Number of Investment Portfolios:** SERS had 203 investment portfolios/accounts. Forty-nine of these accounts are public market investments, while 154 covered private markets.

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• 20 U.S. Stock portfolios</li> <li>• 13 International Stock portfolios</li> <li>• 2 Currency overlay investment advisors</li> <li>• 12 Fixed Income portfolios</li> <li>• 1 Cash portfolio</li> <li>• 1 Tactical Asset Allocation portfolio</li> </ul> | <ul style="list-style-type: none"> <li>• 38 Real Estate portfolios</li> <li>• 52 Venture Capital limited partnership interests</li> <li>• 64 Private Equity limited partnership interests</li> </ul> |
|--|--|

In addition, Board appointments included one domestic stock portfolio, nine venture capital partnerships, and two private equity funds. Forty-five investment advisors manage multiple portfolios within and across asset classes for SERS.

<sup>1/</sup> Refer to the footnote at the end of the Investment Summary for a technical explanation of values.

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# *Summary of U.S. Stock Investments*

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**U**.S. and International Stocks comprise the Stock asset class. U.S. Stocks is one of eight major asset classes SERS uses to diversify the investments of the Fund. SERS's investment plan diversifies stock investments and balances stock management styles. 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's long-term investment objective in the U.S. 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 that provide SERS with an equity interest in private sector concerns (e.g., common stock, preferred stock, convertible preferred stock, convertible bonds, etc.).

SERS's 1999 Investment Plan targeted a long-term allocation of 31.0% of assets to U.S. Stocks. The 2000 Investment Plan increased this allocation by 4.5%, to 35.5% to U.S. Stocks. It targeted the investment of a market weight in large, medium, and small capitalization stocks, and also provided for a market weight in value and growth investment styles. The 1999 plan targeted 50% of U.S. Stocks to be indexed.

**Fair Value as of December 31, 1999:** U.S. Stocks had a \$10,773.1 million fair value, 38.3% of the total fund's \$28,116.7 million fair value on December 31, 1999.

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

**Number of Investment Portfolios:** SERS had 20 U.S. Stock portfolios managed by the 16 investment advisors.

**Type of Investment Portfolios:** As of December 31, 1999, 84.5% of the SERS U.S. Stock allocation was in large/medium capitalization stock strategies and 15.5% was in medium/small capitalization stock strategies. The portfolios within the U.S. Stock area can be classified by investment style: value at 6.5%; growth at 19.0%; and core at 74.5%. SERS had 19 actively managed portfolios (46.6% of U.S. Stocks) and one indexed portfolio (53.4% of U.S. Stocks). The active managers search out superior investment opportunities, while the indexed portfolio provides broad core diversification and is designed to provide market performance at a low cost.

<i>U.S. Stock</i> Investment Advisor	Investment Style	*Fair Value of Portfolio as of 12/31/99 (\$ in millions)
1. Barclays Global Investors	S&P 500 Index	\$5,755.1
2. AXA Rosenberg Investment Management	equitized long/short U.S. market neutral	106.1
AXA Rosenberg Investment Management	Russell 2500, industry and risk factors neutral	256.9
3. Alliance Capital Management	large cap growth stocks	499.4
4. Dietche & Field Advisers	small cap relative value stocks	119.3
5. Emerald Advisers	PA stocks	124.8
6. Fidelity Management Trust Company	S&P 500, risk controlled	236.0
7. First Quadrant	equitized long/short U.S. market neutral	112.2
8. Iridian Asset Management	mid cap private business value	396.9
9. J.P. Morgan Investment Management	S&P 500, risk controlled	264.9
10. Martingale Asset Management	equitized long/short U.S. market neutral	102.7
11. Mellon Equity Associates	PA stocks	103.7
Mellon Equity Associates - Special Equity	Russell 2500, industry and risk factors neutral	334.7
12. Montag & Caldwell	large cap growth stocks	408.3
13. Provident Investment Counsel (PIC)	large/med cap aggressive growth stocks	843.8
PIC Stellar Fund	small cap growth stocks	244.8
14. Standish, Ayer & Wood	equitized long/short U.S. market neutral	105.9
15. Trinity Investment Management	large/med cap low p/e stocks, 34 industry neutral	613.2
Trinity Investment Management	small cap low p/e stocks, 33 industry neutral	91.2
16. Zevenbergen Capital	large/med cap growth stocks	53.2
	<b>Total</b>	<b><u>\$10,773.1</u></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. International Stocks is one of eight major asset classes SERS uses to diversify the investments of the Fund. SERS's investment plan diversifies stock investments and balances stock management styles. 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's long term investment objective in the International Stock asset class is to achieve a total return, net of fees, that exceeds the total return of the SERS International Stock Custom Index.

SERS's 1999 Investment Plan targeted a long-term allocation of 20% of assets to International Stocks. The 2000 Investment Plan allocated an additional 1% allocation to International Stocks, or 21% of the Fund. It targeted 18% in developed markets allocating 80% to large capitalization stock strategies and 20% to medium/small capitalization stock strategies. The remaining 3% was allocated to emerging market stocks.

**Fair Value as of December 31, 1999:** International Stocks had a \$6,459.2 million fair value, 23% of the total fund's \$28,116.7 million fair value on December 31, 1999. The fair value of forward exchange contracts in the currency overlay program amounted to \$34.1 million.

**Number of Investment Advisors:** SERS had contracts with 11 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 13 stock portfolios managed by the 11 investment advisors in the International Stock area and 2 portfolios for the currency overlay program.

**Type of Investment Portfolios:** As of December 31, 1999, 78.1% of SERS International Stock allocation was in large capitalization stock strategies and 21.9% was in medium/small capitalization stock strategies. SERS had 11 actively managed international portfolios and two indexed portfolios.

<i>International Stock Investment Advisor</i>	<b>Investment Style</b>	<b>*Fair Value of Portfolio as of 12/31/99 (\$ in millions)</b>
1. Barclays Global Investors Europe funds	Europe - index	\$777.8
Australia and New Zealand funds	Australia and New Zealand - index	47.6
2. Credit Suisse Asset Management	EAFE & emerging markets - growth	825.7
3. GAM International Management	Pacific Basin ex Japan	214.7
4. Marathon Asset Management	Europe - value sectors	396.0
5. Mercury Asset Management International	medium/small cap - growth	727.2
6. J.P. Morgan Investment Management	Japan - benchmark risk control	427.7
7. Morgan Stanley Dean Witter Investment Mgt	Asia ex Japan	158.4
Morgan Stanley Dean Witter Investment Mgt	EAFE - value	738.2
8. Pictet International Management	75% small cap / 25% emerging markets	561.5
9. Scottish Widows Investment Management	Europe - growth and value	410.7
10. Seligman Henderson Co.	medium/small cap - UK growth, other countries value	289.2
11. Templeton Investment Counsel	EAFE & emerging markets - value	884.3
	Total International Stocks	\$6,459.2
1. Pareto Partners	currency overlay	\$ 26.2
2. Record Treasury	currency overlay	7.9
	Total Currency Overlay	\$ 34.1
	<b>Total International and Currency Overlay</b>	<b><u>\$6,493.3</u></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 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 help diversify the overall Fund. The Fixed Income asset class is managed on a total return basis.

In the Fixed Income asset class, SERS's 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's 1999 Investment Plan targeted an eventual allocation of 24% of assets to the Fixed Income asset class. Of this amount, 75% was targeted to the core strategies and 25% to specialty strategies. The specialty strategies include subordinated debt, high yield/special credits and commercial mortgage backed securities.

SERS's 2000 Investment Plan targets an eventual allocation of 18.5% of assets to the Fixed Income asset class. The five and one-half (5½%) targeted reduction from the 1999 Plan in fixed income is being reallocated to equities, which provides the Fund with higher long-term expected returns than fixed income. As a result of the evolving nature of the fixed income market, the whole-loan mortgage and private placement portfolios were moved from the specialty category to the core category because the characteristics of those portfolios can be considered more core-like. Within fixed income the allocation between core strategies and specialty strategies, now known as high yield strategies, is 80% and 20% respectively.

**Fair Value as of December 31, 1999:** Fixed Income had a \$5,103.4 million fair value, 18.2% of the total Fund's \$28,116.7 million fair value, on December 31, 1999.

**Number of Investment Advisors:** SERS had contracts with 11 external investment advisors to manage portfolios within the Fixed Income asset class as of December 31, 1999.

**Number of Investment Portfolios:** SERS had a total of 12 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, higher quality; fixed income securities that meet return, disinflation/deflation, benefit payment reserve 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 seven actively managed core bond portfolios with a market value of \$3,469.8 million and one passively managed core bond portfolio with a fair value of \$673.3 million. The combination of core portfolios represented 81.2% of the asset class. The core portfolio segment of the asset class includes exposure to both international and global fixed income.

**High Yield:** SERS had one corporate high yield portfolio with a fair value of \$825.1 million, one high yield commercial mortgage-backed securities portfolio with a fair value of \$132.6 million, and one subordinated debt portfolio with a fair value of \$2.2 million that invests in profitable Pennsylvania companies. In addition, there is a special credits portfolio with a value of \$0.3 million that is winding down.

<i>Fixed Income</i> Investment Advisor	Investment Style	*Fair Value of Portfolio as of 12/31/99 (\$ millions)
<b><u>Core</u></b>		
1. Fischer Francis Trees & Watts, Int'l	active international	\$570.4
2. John Hancock Mutual Life Insurance Company	private placements	185.8
3. Legg Mason Real Estate Advisors	whole-loan mortgages	110.7
4. Mellon Bond Associates	domestic – index	673.3
5. Miller, Anderson & Sherrerd	active domestic fixed income	944.0
Miller, Anderson & Sherrerd	active global fixed income	900.2
6. J.P. Morgan Investment Management	active domestic fixed income	729.4
7. Smith Graham & Co.	active domestic fixed income	29.3
<b><u>Specialty</u></b>		
8. Berwind Financial Group	PA Capital Fund	2.2
9. Fidelity Management Trust Company	commercial mortgage backed securities	132.6
10. W. R. Huff Asset Management	high yield bonds	825.1
11. Trust Company of the West Special Credits Fund III	special credits	<u>0.3</u>
<b>Total</b>		<b>\$5,103.4</b>

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

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# *Summary of Cash Investments*

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**C**ash is one of eight major asset classes 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's 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's 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's 1999 Investment Plan targeted an eventual allocation of 0% of assets to the Cash asset class.

**Fair Value as of December 31, 1999:** Cash not allocated to managers for investment had a \$166.4 million fair value, 0.6% of the total Fund's \$28,116.7 million fair value on December 31, 1999.

**Number of Investment Advisors:** In accordance with SERS's 1999 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 \$672.2 million on behalf of SERS and SERS's external investment advisors as of December 31, 1999.

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# *Summary of Tactical Asset Allocation Investments*

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**T**actical Asset Allocation (“TAA”) is one of eight major asset classes 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’s 2000 Investment Plan targets an allocation of 5.0% of assets to the TAA asset class. This objective is unchanged from the 1999 Plan.

**Fair Value as of December 31, 1999:** SERS investment in the Barclays Enhanced 70/30 TAA Fund had a \$1,333.6 million fair value, 4.7% of SERS total fund’s \$28,116.7 million fair value on December 31, 1999.

**Number of Investment Advisors:** SERS had a contract with one external investment advisor to manage a TAA portfolio as of December 31, 1999.

**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 providing downside protection of assets through the active allocation between stocks, bonds and cash, while at the same time seeking above–market returns relative to a fixed benchmark comprised of 70% stocks and 30% bonds.

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, 1999, the actual asset mix of the Fund was 70% stock, 30% 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 SERS uses to diversify the investment of the Fund. SERS's 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 those 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's long-term investment objective is to achieve a total return that exceeds the total return of the NCREIF Index. SERS's 2000 Investment Plan targeted a long-term allocation of 8% of assets to the Equity Real Estate asset class. This represents a 2% reduction from the 1999 Plan.

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's Equity Real Estate portfolio guidelines provide for diversification by:

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

**Fair Value as of September 30, 1999:** Real Estate had an estimated \$2,344.2 million fair value, approximately 8.3% of the total fund's December 31, 1999 fair value. This fair value represents September 30, 1999 actual numbers adjusted for cash flows that occurred in the fourth quarter 1999.

**Number of Investment Advisors:** SERS had contracts with 22 external investment advisors to manage real estate portfolios as of December 31, 1999.

**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, 1999, the composition of the real estate portfolio was: 36% pooled funds, 64% separate accounts; 31% office, 7% industrial, 14% retail, 12% residential, 14% hotel/motel, 7% timber, 15% other; 18.2% Pennsylvania, 25.8% East excl. PA, 20% West, 22% South, 11% Midwest, 3% International; and 25% of the fair value of the separate accounts was invested in nineteen investments located in Pennsylvania.

<i>Real Estate</i> Investment Advisor	SERS Initial Funding	Property Type	Transaction Structure	Fair Value of Portfolio as of 9/30/99 (\$ in millions)
1. Allegis (now UBS-Brinson):				
CERESA I	06/30/83	Office, industrial	equity ownership	\$ 0.2
PMSA	09/30/83	Diversified	equity mortgages	52.5
RESA	06/3//84	Diversified	equity ownership	51.9
Multifamily Trust	08/02/99	Residential	equity ownership	12.2
2. Apollo – AREF III	06/26/98	Opportunistic	equity and debt	51.6
3. AEW CIIF-II	08/08/88	Industrial, other	equity ownership	9.0
4. Berwind – BPG Fund IV	04/20/98	Opportunistic	equity and debt	20.6
BPG Fund V	11/29/99	Opportunistic	equity and debt	0.0
5. Blackstone - BREP II	02/26/97	Opportunistic	equity and debt	51.6
BREP III	10/22/99	Opportunistic	equity and debt	0.0
6. CRA Securities	01/31/96	REITs	public securities	274.4
7. Forest Investment Assoc.	10/30/92	Timber	equity ownership	146.1
8. Hancock Apartment Fund	09/30/86	Residential	equity ownership	0.1
9. Heitman Capital Mgmt:				
Separate account	12/28/87	Diversified	equity ownership	402.6
California Land Venture	12/07/89	Land	equity ownership	1.5
JMB Group Trust III	12/31/84	Office, retail	equity ownership	11.9
10. LaSalle Partners:	10/01/93	Diversified	equity ownership	156.9
11. Legg Mason Real Estate Adv.	10/01/93	PA diversified	equity ownership	176.9
Eastern Retail Holdings	01/07/99	Retail	equity and debt	32.6
12. Lowe Enterprises	10/01/93	Diversified	equity ownership	317.4
13. Lubert-Adler Fund II	10/30/98	Diversified	equity and debt	13.5
14. Miller Global Fund III	01/19/99	Diversified	equity and debt	1.8
15. Oxford Development	01/09/97	Industrial	equity ownership	44.6
16. Prudential Senior Housing	12/22/98	Senior housing	equity and debt	7.1
17. SSR Realty Advisors:				
MIAF	09/05/89	Residential	equity ownership	16.8
MIAF II	12/07/92	Residential	equity ownership	14.4
18. Sentinel Corp.	07/31/84	Diversified	equity ownership	54.4
19. Starwood :				
SOFI IV	03/24/97	Opportunistic	equity and debt	53.8
SOFI V	05/14/99	Opportunistic	equity and debt	18.8
20. Oaktree Capital Management:				
TCW Fund VI	04/20/94	Opportunistic	equity and debt	39.5
OCM Opportunity Fund	05/09/96	Opportunistic	equity and debt	51.7
OCM Opportunity Fund II	12/15/98	Opportunistic	equity and debt	17.4
21. Westbrook Partners:				
WREF II	06/16/97	Opportunistic	equity and debt	66.0
WREF III	9/01/98	Opportunistic	equity and debt	25.5
22. Goldman Sachs:				
Whitehall V & VI	04/20/94	Opportunistic	equity and debt	47.4
Whitehall V-S & VI-S	12/11/95	Opportunistic	equity and debt	9.7
Whitehall VII & VIII	05/28/96	Opportunistic	equity and debt	30.5
September 30, 1999 Total				2,282.9
4th Quarter 1999 Net Cash Flow Adjustments				61.3
<b>December 31, 1999 Total</b>				<b>\$2,344.2</b>

\* Numbers may not add due to rounding.

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# *Summary of Alternative Investments*

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**A**lternative Investments comprises two of the eight major asset classes SERS uses to diversify the investments of the Fund: Venture Capital and Private Equity. In these areas, SERS primarily invests in limited partnerships. The partnerships are established by individual management groups that have been selected by SERS for the purpose of investing in and managing private equity and non-marketable subordinated debt positions on behalf of SERS and other limited partners. Sub-asset class definitions are as follows:

**Venture Capital** is the financing of young, rapidly growing companies that lack access to public equity or debt-oriented institutional funding. Venture Capital strategies are typically classified as follows:

**Seed Stage**– This form of venture capital funds companies that are still in the conceptual phase, i.e., a product and market are identified; however, the company itself has yet to be formed. The seed investment is used to finance development of the concept or business plan.

**Early Stage**– This investment phase emphasizes companies that have been formed; however, revenues have not yet been realized. The product has been developed and may have been shipped to a friendly user for testing. Management positions have been filled and the team is in place.

**Late Stage**– At this stage, venture capitalists fund companies with proven revenues that are in the process of expanding. Typically, these companies, if substantially profitable, 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** consists of alternative forms of private investment differentiated from conventional venture capital investing as previously described. Primarily, these partnerships invest in the equity and subordinated debt of established companies. Private Equity, however, can also include other forms of non-traditional investing such as investments in oil and gas interests and in hedge funds. Distinct strategies currently used by SERS are as follows:

**Leveraged buyout (“LBO”)** financing enables companies to be acquired through the use of borrowed funds, or a combination of debt and equity capital. Typically, the assets of target companies serve as collateral for loans originated in the transaction. The loans are subsequently repaid from the acquired company’s cash flows. SERS invests as an equity partner in LBO partnerships. As such, SERS participates in potential profits resulting when LBO exits occur, typically reaping higher rewards than company debt holders.

**Distressed debt** investing involves the identification of opportunities in the de-leveraging of debt-laden companies. Investments are usually made in successful companies, which, over time, have accumulated heavy debt loads. Distressed debt investors assist companies in reducing debt and even avoiding bankruptcy by providing patient capital. The new capital carries terms which usually include an equity stake in the restructured firm.

**Secondary partnerships** acquire interests in established private equity funds. Secondary investing can often times be lucrative in two ways: 1) the partnerships are purchased at significant discounts to net asset value and 2) the purchase frequently occurs as the acquired partnerships begin to realize profits, thereby reducing risk in the asset class.

**Policy:** SERS's long term investment objective for Alternative Investments is to achieve a total return, net of fees, that exceeds market returns for similar types of alternative investments, or benchmark return data furnished by SERS'S Alternative Investments Consultant. SERS'S 2000 Investment Plan projects an annualized total return of 14%. In addition, the Plan targets an eventual allocation of 11.0% to Alternative Investments which is comprised of an allocation of 2.0% to Venture Capital and 9.0% to Private Equity.

**Fair Value as of September 30, 1999:** The asset class total fair value stood at \$1.8 billion, representing approximately 6.6% of the Fund. Sub-asset class market values and fund percentages were as follows:

	<b>Total Commitments (millions)</b>	<b>Fair Value (millions)</b>	<b>Percent Allocation to Total Fund</b>
Venture Capital	\$1,160	\$760 <sup>2/</sup>	2.7%
<u>Private Equity</u>	<u>2,203</u>	<u>1,102</u>	<u>3.9%</u>
Total Alternative Investments	<u>\$3,363</u>	<u>\$1,862</u>	6.6%

**Number of Limited Partnerships:** As of September 30, 1999, SERS had made commitments (and had begun funding) 106 Alternative Investments limited partnerships; 48 commitments were made to Venture Capital partnerships and 58 to Private Equity partnerships. (This includes seven partnerships - six Venture Capital and one Private Equity - that are now "inactive," i.e., in the liquidation phase.) In addition, Board appointments during the fourth quarter of 1999 included six Venture Capital partnership and three Private Equity partnerships.

<sup>2/</sup>The Venture Capital fair value includes the stock distribution account, which was valued at \$14.5 million

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# *Alternative Investment Program*

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## **Venture Capital**

The SERS Venture Capital program includes commitments to 48 venture capital limited partnerships. Nineteen of these partnerships are committed to invest in Pennsylvania-based companies as a part of their venture investment focus. These partnerships use their best efforts to make venture capital investments in companies either headquartered in Pennsylvania or in companies that provide employment for Pennsylvania citizens.

From the total venture portfolio, venture capital investments are made in 55 companies located in Pennsylvania and 23 non-Pennsylvania companies that employ Pennsylvania residents. According to a study conducted by Coopers & Lybrand L.L.P. for calendar year 1999, Pennsylvania ranked sixth in the nation in the number of venture transactions financed and fourteenth in terms of dollars applied to venture financing (i.e., \$565.7 million was invested).

Another major portfolio objective of the Venture Capital program is to diversify company investments across industries. Though many venture capital partnerships are formed to invest in high technology companies, venture partnerships offer varying industry focus exposure. As of September 30, 1999, SERS Venture Capital program was invested across industry categories as follows:

27.8% Communications	3.3% Hardware	1.0% Environmental
24.2% Healthcare/Biotech	3.0% Manufacturing	0.5% Chemical/Materials
17.5% Software	2.4% Industrial	0.4% Construction/Related Services
13.1% Consumer/Retail/Services	1.4% Other	0.4% Transportation
3.6% Financial Services	1.4% Electronics	0.0% Fund of Funds

The Venture Capital partnerships also focus on specific phases in company life cycles. SERS's investments are thereby grouped to reflect this varying financing stage exposure and are labeled as follows: seed stage, early stage and later stage financing.

Finally, fund of funds investments represent investments with managers who, in turn, invest in selected venture funds of diversified industry and stage focus. Venture Capital funds of funds investments offer SERS diversified exposure to Venture Capital limited partnerships of varied industry foci and stages. They also provide SERS with valuable entrée into many top-performing Venture Capital partnerships to which access would otherwise be difficult. As of September 30, 1999, there were two Venture Capital fund of funds investments approved by the Board.

## Private Equity

The Private Equity program has commitments to 61 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 completed with present management in place.

SERS's eleven non-U.S. private equity investments are composed of nine funds investing in companies based in the U.K. and Europe, and two 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, both of which were approved in 1999, focus on expanded opportunities in the region created by attractive valuations, favorable demographics, and changing attitudes regarding investors acquiring significant ownership interests.

The international fund-of-funds category is composed 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. These funds offer SERS immediate and diversified exposure to limited partnerships internationally and provide guidance for SERS in forming its own core investment portfolio of non-U.S. private equity partnerships.

SERS has ownership interest in five partnerships specializing in distressed debt instruments. Many of these partnerships, national in geographic coverage, deal in debt obligations of financially troubled companies; the distressed debt is ultimately converted into equity in order to produce an equity-like return. Alternatively, some distressed debt investments anticipate gains from the appreciation of the debt instrument itself and do not rely on converting the debt into an equity position.

SERS also has an interest in four partnerships that invest in secondary purchases. These partnerships have a national focus and specialize in secondary purchases of interests in established buyout and venture capital partnerships. The benefits of secondary purchases are two-fold: 1) the partnerships are normally acquired from motivated sellers at substantial discounts to net asset value; and 2) secondaries often provide early distribution of profits compared to initial investments made in new funds.

## SERS Venture Capital Committed, Drawn and Distributed As of September 30, 1999

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

<u>Limited Partnership</u>	<u>Financing Stage Focus</u>	<u>SERS Initial Funding</u>	<u>Capital Committed (\$millions)</u>	<u>Capital Drawn (\$millions)</u>	<u>Distribution (\$millions)</u>
1. Adams Capital Management II	Early Stage	*	\$25.0	\$0.0	\$0.0
2. Advent VII	Diversified	7/30/93	25.0	25.0	67.0
3. Advent VIII	Diversified	2/1/97	30.0	19.8	1.5
4. APA/Fostin	Diversified	9/30/87	20.0	20.0	59.3
5. P/A Fund I (APA/Fostin II)	Diversified	6/2/93	30.0	30.0	15.0
6. P/A Fund III	Diversified	4/1/97	100.0	69.5	2.5
7. APEX Investment Fund IV	Early/Later	9/17/99	25.0	2.5	0.0
8. Atlas Fund IV	Early/Later	3/23/99	26.0	5.3	0.0
9. Bachow III	Diversified	11/9/94	25.0	25.0	2.1
10. CEO Ventures II	Diversified	7/14/89	7.5	7.5	2.3
11. Draper Fischer Jurvetson VI	Early Stage	8/13/99	8.0	0.2	0.0
12. Draper Triangle Capital Corp.	Early Stage	*	20.0	0.0	0.0
13. Edison Ventures III	Diversified	3/1/94	25.0	25.0	25.9
14. Fairview Capital	Minority	9/28/94	10.0	7.5	2.9
15. Fairview Capital II	Minority	3/1/98	10.0	2.0	0.0
16. Fostin Capital	Diversified	11/25/85	10.0	10.0	10.5
17. Fostin Capital II	Diversified	10/5/89	8.0	7.5	2.6
18. Frazier Healthcare III	Later Stage	2/4/99	30.0	3.9	0.0
19. Grotech PA III	Diversified	6/29/90	3.0	3.0	1.5
20. Grotech IV	Diversified	11/1/93	25.0	25.0	18.4
21. Grotech V	Diversified	9/18/98	25.0	7.6	0.0
22. Halpern Denny II	Early Stage	4/28/98	25.0	14.6	0.0
23. HarbourVest Partners VI	Fund-of-funds	5/7/99	100.0	11.0	0.0
24. Healthcare Ventures III	Diversified	7/9/92	15.0	15.0	16.2
25. Healthcare Ventures V	Diversified	10/17/97	25.0	18.8	0.0
26. JP Morgan Pooled Venture Capital	Fund-of-funds	7/8/99	100.0	17.0	0.0
27. Keystone IV	Middle/Later	7/21/93	15.0	14.8	9.7
28. Keystone V	Middle/Later	12/29/97	25.0	20.3	0.0
29. New Enterprise Assoc. VI	Early/Later	3/2/94	25.0	25.0	20.4
30. New Enterprise Assoc. VII	Early/Later	4/1/97	30.0	30.0	13.4
31. NEPA Ventures	Seed/Early	8/29/85	2.0	2.0	6.1
32. NEPA Ventures II	Seed/Early	7/24/92	8.0	7.5	23.0
33. NEPA Ventures III (MidAtlantic)	Seed/Early	4/1/97	20.0	12.0	0.0
34. Point Ventures II	Diversified	10/2/90	1.0	1.0	0.7
35. Polaris Ventures	Early Stage	6/4/96	15.0	13.4	7.4
36. Polaris Ventures II	Early Stage	9/8/98	25.0	12.8	3.7
37. Sprout Capital VII	Diversified	2/24/95	18.0	18.0	0.1
38. Summit Ventures IV	Later Stage	6/27/95	25.0	22.5	33.1
39. Summit Ventures V	Later Stage	3/9/98	37.5	16.9	0.9

	<b>Financing Stage Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital Drawn (\$millions)</b>	<b>Distribution (\$millions)</b>
<b><u>Limited Partnership</u></b>					
40. Technology Leaders III	Diversified	1/3/97	15.0	10.5	6.5
41. Technology Leaders IV	Diversified	5/13/99	35.0	3.5	0.0
42. Whitney Equity Partners III	Early Stage	3/12/98	20.0	17.1	0.0
43. Weston Presidio II	Diversified	11/27/95	20.0	13.5	1.4
44. Weston Presidio III	Diversified	3/31/99	<u>35.0</u>	<u>3.5</u>	<u>0.0</u>
<b>Total**</b>			<b><u>\$1,124.0</u></b>	<b><u>\$617.0</u></b>	<b><u>\$354.1</u></b>

	<b>Financing Stage Focus</b>	<b>SERS Initial Funding</b>	<b>Capital Committed (\$millions)</b>	<b>Capital Drawn (\$millions)</b>	<b>Distribution (\$millions)</b>
<b><u>Inactive Funds</u></b>					
<b><u>Limited Partnership</u></b>					
1. CEO Ventures S	Diversified	7/1/87	8.0	1.0	1.2
2. Keystone II	Middle/Later	11/1/85	10.0	10.0	22.4
3. PNC Ventures	Diversified	11/25/85	5.0	5.0	11.9
4. Pittsburgh Seed	Seed	1/13/87	2.0	2.0	1.0
5. TDH II	Diversified	11/25/85	9.0	9.0	16.0
6. Zero Stage II	Seed	4/30/87	<u>2.0</u>	<u>2.0</u>	<u>0.3</u>
<b>Total**</b>			<b><u>\$36.0</u></b>	<b><u>\$29.0</u></b>	<b><u>\$52.8</u></b>

\* Not funded as of September 30, 1999.

\*\* Numbers may not add due to rounding. Figures do not include stock distribution account.

# SERS Private Equity Investments Committed, Drawn and Distributed

## At September 30, 1999

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

<u>Limited Partnership</u>	<u>Focus</u>	<u>SERS Initial Funding</u>	<u>Capital Committed (\$millions)</u>	<u>Capital Drawn (\$millions)</u>	<u>Distribution (\$millions)</u>
1. APAX Capital Risque III	France	11/29/90	\$5.0	\$5.1	\$4.6
2. APAX German Ventures	Germany	1/30/91	5.2	5.2	9.5
3. APAX German Ventures II	Germany	7/15/97	6.0	7.7	3.9
4. APAX U.K. Ventures VI	U.K.	12/9/97	9.0	5.1	1.7
5. APAX Europe IV	Pan-Europe	3/31/99	35.0	5.4	0.0
6. ABRY Broadcast Partners III	Telecom Buyouts	4/1/97	25.0	16.0	2.3
7. ABS Capital Partners III	National Buyouts	1/26/99	35.0	7.2	0.0
8. Apollo IV	National Buyouts	8/3/98	75.0	40.7	0.0
9. Asia Pacific Growth Fund III	Global Situations	9/28/99	15.0	4.5	0.0
10. BIII (DDJ Capital Mgt.)	Distressed Debt	8/1/97	35.0	34.4	0.1
11. Blackstone Capital II	Global Buyouts	8/26/94	40.0	41.3	30.3
12. Blackstone Capital III	Global Buyouts	11/3/97	75.0	23.7	0.0
13. Brentwood Buyout Fund	National Buyouts	11/21/88	12.5	12.5	22.0
14. Cerberus Inst'l Partners	Distressed Debt	3/5/99	35.0	14.0	0.0
15. Charterhouse Equity II	National Buyouts	3/30/94	40.0	41.7	73.0
16. Charterhouse Equity III	National Buyouts	11/19/97	50.0	21.2	0.0
17. Clayton, Dubilier & Rice V	Global Buyout	5/3/95	50.0	43.5	0.0
18. Clayton, Dubilier & Rice VI	Global Buyouts	1/4/99	50.0	0.9	0.0
19. Code, Hennessy & Simmons	Midwest Buyouts	9/28/89	10.0	9.7	29.2
20. Code, Hennessy & Simmons	Midwest Buyouts	7/12/94	20.0	19.7	25.3
21. Code, Hennessy & Simmons	Midwest Buyouts	8/1/97	40.0	28.7	0.1
22. Code, Henn & Simmons IV	Midwest Buyouts	9/16/99	100.0	5.9	0.0
23. DLJ Merchant Banking Fund	Global Buyouts	5/22/97	75.0	52.3	5.3
24. Frontenac VII	Midwest	8/1/97	40.0	26.0	8.3
25. Great Hill Equity Partners	National Buyouts	4/12/99	30.0	4.8	0.0
26. Gryphon Partners II	National Buyouts	*	35.0	0.0	0.0
27. GTCR V	National Buyouts	4/25/97	11.4	10.7	1.9
28. GTCR VI	National Buyouts	6/25/98	50.0	27.6	0.0
29. Hancock Int'l Equity	Intl Fund ofFunds	4/1/97	25.0	15.9	4.5
30. HarbourVest Int'l III	Intl Fund ofFunds	6/22/98	40.0	4.0	0.0
31. Hellman & Friedman II	Global Situations	1/7/92	25.0	23.2	38.9
32. Hellman & Friedman III	Global Situations	6/14/95	50.0	34.8	41.8
33. Hellman & Friedman IV	Global Situations	*	75.0	0.0	0.0
34. Invemed Catalyst Fund	Mid-Mkt Buyouts	*	25.0	0.0	0.0
35. Kelso V	National Buyouts	1/26/94	44.5	49.0	61.4
36. Kelso VI	National Buyouts	7/7/98	75.0	10.0	2.4
37. Landmark Equity Partners IV	Secondaries	2/28/95	14.9	12.4	11.6
38. Landmark Equity Partners V	Secondaries	1/27/96	24.0	19.3	10.5
39. Lexington Capital Partners II	Secondaries	4/1/98	40.0	8.9	2.7
40. Lexington Cap'l Partners III	Secondaries	1/26/99	35.0	6.2	1.3

(Continued)

## SERS Private Equity Investments Committed, Drawn and Distributed (Continued)

<u>Limited Partnership</u>	<u>Focus</u>	<u>SERS Initial Funding</u>	<u>Capital Committed (\$millions)</u>	<u>Capital Drawn (\$millions)</u>	<u>Distribution (\$millions)</u>
41. Media Communications III	Telecom. Buyouts	6/2/97	25.0	20.0	6.6
42. Media Communications IV	Telecom Buyouts	2/5/99	25.0	1.9	0.0
43. Madison Dearborn I	National Buyouts	2/23/93	15.0	14.5	13.6
44. Madison Dearborn II	National Buyouts	1/3/97	40.0	35.4	5.7
45. Madison Dearborn III	National Buyouts	4/6/99	75.0	10.6	0.0
46. Murphy & Fauver	National Buyouts	10/11/88	5.2	5.2	5.5
47. Newbridge Asia II	Global Situations	9/3/99	15.0	3.4	0.0
48. Oak Hill Capital Partners	National Buyouts	5/17/99	50.0	11.0	0.0
49. OCM Opportunities Fund	Distressed Debt	1/12/96	24.0	24.0	7.2
50. OCM Opportunities Fund II	Distressed Debt	2/5/98	40.0	40.0	0.0
51. OCM Principal	Distressed Debt	11/12/96	25.0	25.0	0.0
52. Palamon European Equity	Pan-European	7/23/99	30.0	0.6	0.0
53. RRZ Private Equity Fund	PA Buyouts	11/7/96	20.0	16.3	0.0
54. Schroder Ventures UK III	UK	8/29/89	10.0	8.9	19.6
55. Schroder Ventures UK IV	UK	4/2/96	28.8	10.6	1.9
56. Schroder European Ventures	Pan-European	7/1/97	77.2	15.4	13.0
57. Thomas H. Lee Equity Fund	National Buyouts	4/24/98	70.0	28.2	1.6
58. TPG Partners II	National	5/2/97	75.0	55.8	0.0
59. TCW Special Credits V	National	8/25/94	35.0	35.0	47.0
60. Vestar Capital Partners	National	5/7/97	25.0	18.3	4.9
<b>Total**</b>			<b>\$2,192.7</b>	<b>\$1,079.3</b>	<b>\$519.2</b>

\* Not funded as of September 30, 1999.

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

### Inactive Funds

<u>Limited Partnership</u>	<u>Financing Stage Focus</u>	<u>SERS Initial Funding</u>	<u>Capital Committed (\$millions)</u>	<u>Capital Drawn (\$millions)</u>	<u>Distribution (\$millions)</u>
1. RRZ PA Fund #1	PA Buyouts	3/88	\$10.1	\$10.0	\$19.6
<b>Total</b>			<b>\$10.1</b>	<b>\$10.0</b>	<b>\$19.6</b>

1/ Public Fund fair values are as of December 31, 1999. Fair values for Real Estate and Alternative Investment (Venture Capital and Private Equity) are based on September 30, 1999 valuations adjusted for any cash flows during the fourth quarter of 1999. PA investments for public market investments are valued as of December 31, 1999. PA investments in Real Estate are valued as of September 30, 1999. Private Equity investments for PA companies are valued semi-annually and reported as of September 30, 1999.

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# *Actuary's Certification*

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HayGroup, Inc.  
Actuarial and Benefits Consultants  
4301 North Fairfax Drive  
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Arlington, VA 22203  
(703) 841-3100  
Fax: (703) 908-3005

May 3, 2000

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

Dear Mr. Brosius:

The purpose of this letter is to certify the actuarial adequacy of the contributions being made by the State of Pennsylvania and other participating agencies to the Pennsylvania State Employees' Retirement System (SERS), and to discuss the approach currently being taken toward meeting the financing objectives of the plan.

The 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, 1990 over a twenty-year period ending on June 30, 2011.
- (2) The amortization of changes in liability after 1990 over twenty-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 increase five percent a year. 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 which is performed annually. The most recent valuation was performed as of December 31, 1998.

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 which are internally consistent and reasonable (taking into account past experience under the SERS and reasonable expectations) and which in combination represent the best estimate of anticipated experience under the plan.

The actuarial valuation is based on financial and participant data which is prepared by SERS staff. The data are reviewed for internal and year-to-year consistency as well as general reasonableness prior to 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, 1998 actuarial valuation were adopted by the Board and were based on actual experience of SERS during the years 1991 through 1995. 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 SERS contributions increase at 5 percent which is greater than the 3.3 percent salary growth assumption. However, the use of a 20 year amortization period results in payments that are greater than the minimum required under GASB #25.

The Schedule of Funding Progress and Schedule of Employer Contributions included in the Financial Section are provided as part of the accounting disclosure statements in accordance with GASB #25.

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. Husted, F.S.A.  
Member American Academy of Actuaries  
Enrolled Actuary No. 99-1499

**HayGroup**

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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 the plan uses the 1971 Group Annuity Mortality Table set back no years for males and six years for females. For current 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 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 20 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 20, 1996, for the period January 1, 1991, through December 31, 1995.
- ◆ Effective for the actuarial valuation for the year ended December 31, 1995, the Board approved changing the investment rate of return from 9.25% to 8.5% and changing the projected salary increases from 6.7% to a range of 5.16% to 8.98%. In addition, the Board approved the change from the 1971 Group Annuity Mortality Table (GAM 71) to the 1983 Group Annuity Mortality Table for current and future Employees. GAM 71 continues to apply to current retirees. In 1998, the Legislature enacted a cost of living adjustment. This adjustment had the effect of increasing the actuarial accrued liabilities by approximately \$478 million.
- ◆ The valuation was based on members of the Plan as of December 31, 1998. 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 and Service Retirement Annual Rate of Active Members Separating Within the Next Year As of December 31, 1998

Table A\*

Sample Age	Male						Female					
	Withdrawal				Death	Disability	Withdrawal				Death	Disability
	Years of Service						Years of Service					
0	1	5	> 9			0	1	5	> 9			
20	12.04%	8.40%	3.50%	0.48%	-	-	9.51%	5.07%	5.88%	0.98%	-	-
25	12.04	8.40	3.78	0.48	0.05%	0.03%	10.57	9.10	5.88	0.98	0.04%	0.05%
30	9.05	7.48	3.75	0.48	0.06	0.07	10.57	10.12	5.75	0.98	0.04	0.13
35	8.70	5.23	3.15	0.48	0.07	0.14	8.90	7.31	4.49	0.78	0.05	0.20
40	7.67	4.49	2.63	0.37	0.10	0.21	7.52	4.90	3.41	0.61	0.08	0.29
45	7.25	5.57	2.05	0.34	0.17	0.38	6.40	4.41	3.06	0.51	0.09	0.46
50	7.07	3.58	1.52	0.32	0.26	0.53	7.75	4.35	2.73	0.60	0.17	0.69
55	5.99	3.01	1.33	0.30	0.44	0.70	6.45	5.65	2.56	0.56	0.28	0.87
60	-	-	-	-	0.68	0.80	-	-	-	-	0.32	1.02

Annual Rate of Retirement  
Table B\*

Sample Age	Full Benefits	
	Male	Female
50-58	13.0%	3.0%
59	13.0	13.0
60	17.0	26.0
61	19.0	21.0
62	51.0	43.0
63	26.0	28.0
64	26.0	28.0
65	51.0	50.0
66	34.0	35.0
67	26.0	33.0
68-79	24.0	24.0
80	100.0	100.0

Annual Rate of Salary Increase  
Table C

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

Reduced Benefits

	Reduced Benefits	
	Male	Female
30	1.0%	1.0%
35	1.0	1.0
40	1.0	1.0
45	1.0	1.0
50	1.1	1.0
55	1.6	1.0

\* The assumptions presented in Table A and Table B on this page were based on a review of SERS's experience from 1991 through 1995. The rates are the probabilities that an event will occur in the year after the valuation. For instance, the male retirement rate of 17.0% at age 60 means that 170 of every 1,000 male Employees age 60 and eligible for full benefits are expected to retire before they reach age 61.

## 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	11	-	-	-	-	-	-	11	\$ 20,078
20 - 24	596	4	-	-	-	-	-	600	22,872
25 - 29	2,860	989	10	-	-	-	-	3,859	30,652
30 - 34	2,521	3,253	712	18	-	-	-	6,504	36,332
35 - 39	1,839	2,419	2,389	974	49	-	-	7,670	37,947
40 - 44	1,707	1,910	2,169	2,165	1,161	88	-	9,200	39,666
45 - 49	1,539	1,844	1,881	1,875	2,553	1,972	60	11,724	42,605
50 - 54	1,321	1,513	1,488	1,255	1,871	3,379	1,100	11,927	46,103
55 - 59	770	902	918	738	800	1,534	1,571	7,233	47,790
60 - 64	369	537	528	424	353	476	751	3,438	48,854
> 65	189	259	195	141	152	147	296	1,379	52,222
	13,722	13,630	10,290	7,590	6,939	7,596	3,778	63,545	\$ 41,853

**Average Age: 45.42**

**Average Service: 13.42**

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	38	-	-	-	-	-	-	38	\$ 20,268
20 - 24	670	43	-	-	-	-	-	713	21,893
25 - 29	1,585	800	60	-	-	-	-	2,445	26,170
30 - 34	1,331	1,437	824	62	-	-	-	3,654	29,221
35 - 39	1,377	1,470	1,354	1,179	118	-	-	5,498	32,183
40 - 44	1,338	1,627	1,385	1,588	1,549	275	-	7,762	34,764
45 - 49	1,135	1,459	1,416	1,358	1,737	2,270	155	9,530	37,022
50 - 54	802	1,162	1,201	1,075	1,173	1,509	763	7,685	37,562
55 - 59	429	671	795	841	870	807	528	4,941	37,528
60 - 64	160	337	422	404	390	323	271	2,307	37,810
> 65	76	124	147	125	90	94	119	775	36,292
	8,941	9,130	7,604	6,632	5,927	5,278	1,836	45,348	\$ 34,757

**Average Age: 45.28**

**Average Service: 13.56**

**Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number Employers</b>	<b>Number Active Members</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
31-Dec-98	107	108,893	\$4,446,000,000	\$ 38,898	5.3%
31-Dec-97	107	108,684	4,219,000,000	36,926	3.0
31-Dec-96	108	110,922	4,164,000,000	35,839	4.6
31-Dec-95	109	112,637	4,022,000,000	34,268	4.0
31-Dec-94	110	114,120	3,990,000,000	32,960	4.1
31-Dec-93	115	111,962	3,732,000,000	31,674	3.4

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

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**Years Ended December 31, 1999 through 1995**

<b>Year</b>	<b>Number on Rolls</b>		<b>End of Year</b>	<b>Percentage Change in Annuitants</b>	<b>Annual Annuities</b>	<b>Percentage Change in Annuities</b>
	<b>Additions</b>	<b>Deletions</b>				
1999	5,610	3,401	88,043	2.57%	\$ 959,067,216	7.40%
1998	4,084	3,707	85,834	0.44	898,593,605	11.38
1997	5,622	3,251	85,457	2.85	801,778,597	7.01
1996	4,893	3,011	83,086	2.32	749,274,115	6.50
1995	3,783	3,482	81,204	0.37	703,568,068	5.03

# *Solvency Test*

Valua- tion 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 Contri- butions	Retirants & Bene- ficiaries	Active Members (Employer Financed Portion)						
(Amounts in Thousands)									
31-Dec-98	\$ 2,904,232	\$ 7,200,000	\$ 8,253,667	\$18,357,899	\$20,670,711	100.0%	100.0%	100.0%	112.6%
31-Dec-97	2,748,177	6,951,411	7,588,825	17,288,413	18,565,136	100.0	100.0	100.0	107.4%
31-Dec-96	2,646,630	6,027,333	7,262,653	15,936,616	16,841,069	100.0	100.0	100.0	105.7
31-Dec-95	2,499,485	5,649,454	6,918,266	15,067,205	15,510,309	100.0	100.0	100.0	102.9
31-Dec-94	2,352,731	5,039,221	6,350,104	13,742,056	13,991,485	100.0	100.0	100.0	101.8
31-Dec-93	2,170,593	4,806,907	5,236,236	12,213,736	13,060,613	100.0	100.0	100.0	106.9
31-Dec-92	1,994,567	4,621,318	4,872,529	11,488,414	11,769,388	100.0	100.0	100.0	102.4

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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**

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<u>Type of Activity</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>
Gain(Loss) from Investment Earnings	\$ 1,099,095	\$ 814,468	\$ 396,986
Demographic Assumptions	(14,752)	23,754	190,630
Pay Increases	(193,945)	83,253	(196,568)
Contribution Income	-	-	23,676
Other	133,685	(22,670)	41,010
Gain(Loss) During Year From Financial Experience	1,024,083	898,805	455,734
Non Recurring Items:			
Inclusion of Step Rate Bonuses in Retirement Pay	-	(58,597)	-
Supplemental Annuities	-	(478,000)	-
Composite Gain(Loss)	<u>\$ 1,024,083</u>	<u>\$ 362,208</u>	<u>\$ 455,734</u>

## *Trend Data\**

	<b>1999</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>	<b>1995</b>	<b>1994</b>	<b>1993</b>
<b>Employer Contribution Rate</b>	N/A	5.00%	6.70%	7.28%	7.69%	10.27%	8.92%
<b>Member Contribution Rate</b>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<b>Employer Contributions</b>	\$ 270,718	310,501	324,093	373,902	384,506	342,927	304,122
<b>Member Contributions</b>	\$ 224,928	221,618	212,556	209,581	201,719	193,204	190,360
<b>Average Annual Compensation</b>	N/A	\$ 38,898	36,926	35,839	34,268	32,960	31,674
<b>Fair Value of Assets</b>	\$28,093,181	24,123,358	21,311,771	18,492,216	16,342,809	13,330,276	13,700,887
<b>Actuarial Value of Assets</b>	N/A	20,670,711	18,565,136	16,841,069	15,510,309	13,991,485	13,060,613
<b>Accrued Actuarial Liability</b>	N/A	18,357,899	17,288,413	15,936,617	15,067,205	13,742,056	12,213,736
<b>Funded Ratio</b>	N/A	112.6%	107.4%	105.7%	102.9%	101.8%	106.9%
<b>Total Benefits and Refunds</b>	\$1,229,348	1,062,155	1,021,721	928,344	879,712	796,371	768,797
<b>Average Pension</b>	\$12,520	12,027	10,555	10,150	9,801	9,456	8,731
<b>Annuitants and Beneficiaries</b>	88,043	85,834	85,457	83,086	81,204	80,835	80,690
<b>Active Employees</b>	108,035	108,893	108,684	110,922	112,637	114,120	111,962

\* All dollar amounts are in thousands, except Average Pension and Average Annual Compensation.  
 N/A – Value not available pending release of the 1999 Actuarial Valuation Report.

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# *Summary of Plan Provisions*

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## **Benefit and Contribution Provisions as of December 31, 1999**

**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**

<u>Class A</u>	All regular State Employees as well as Employees of certain Commissions and Authorities and all Employees of state-owned educational institutions and the State University (unless such Employees have joined the Public School Employees' Retirement System or TIAA-CREF). All Employees who become members (or who rejoin the Retirement System) on and after March 1, 1974, except Judges and District Justices.
<u>Class C</u>	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.
<u>Class D-3</u>	Members of the General Assembly who have been members and Employees continuously since prior to March 1, 1974.
<u>Class E-1</u>	Judges.
<u>Class E-2</u>	District Justices.

### **Age and Service Requirements for Superannuation (full formula benefits)**

<u>Class A</u>	Age 60, with three years of service, except for members of the General Assembly, enforcement officers, correction officers, psychiatric security aides, and officers of the Delaware River Port Authority; for whom the requirement is age 50 with three years of service. Members of Class A with 35 or more 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.
<u>Classes C</u>	Age 50, with three years of service.
<u>Class D-3</u>	Age 50, with three years of service.
<u>Class E-1</u>	Age 60, with three years of service; or 35 or more years of credited service, regardless of age.
<u>Class E-2</u>	Age 60, with three years of service; or 35 or more years of credited service, regardless of age.

(Continued)

## Formula for Superannuation Annuity

The standard single-life annuity applicable to members of Class A and Class C is equal to 2% of the high three-year average salary of the member multiplied by the years and fractions of credited service.

The applicable single-life annuity for Class C State Police and Class A State Police is a minimum of 50% of highest annual salary if the member has over 20 but less than 25 years of service. With more than 25 years of service the benefit is a minimum of 75% of highest annual salary.

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 annuity for other classes of members is obtained by multiplying the standard single-life annuity by a class multiplier as follows:

<u>Class</u>	<u>Multiplier</u>	
D-3	3.75	
E-1	2.0	for each of the first 10 years of judicial service dropping to 1.5 for each subsequent year of judicial service.
E-2	1.5	for each year of judicial service.

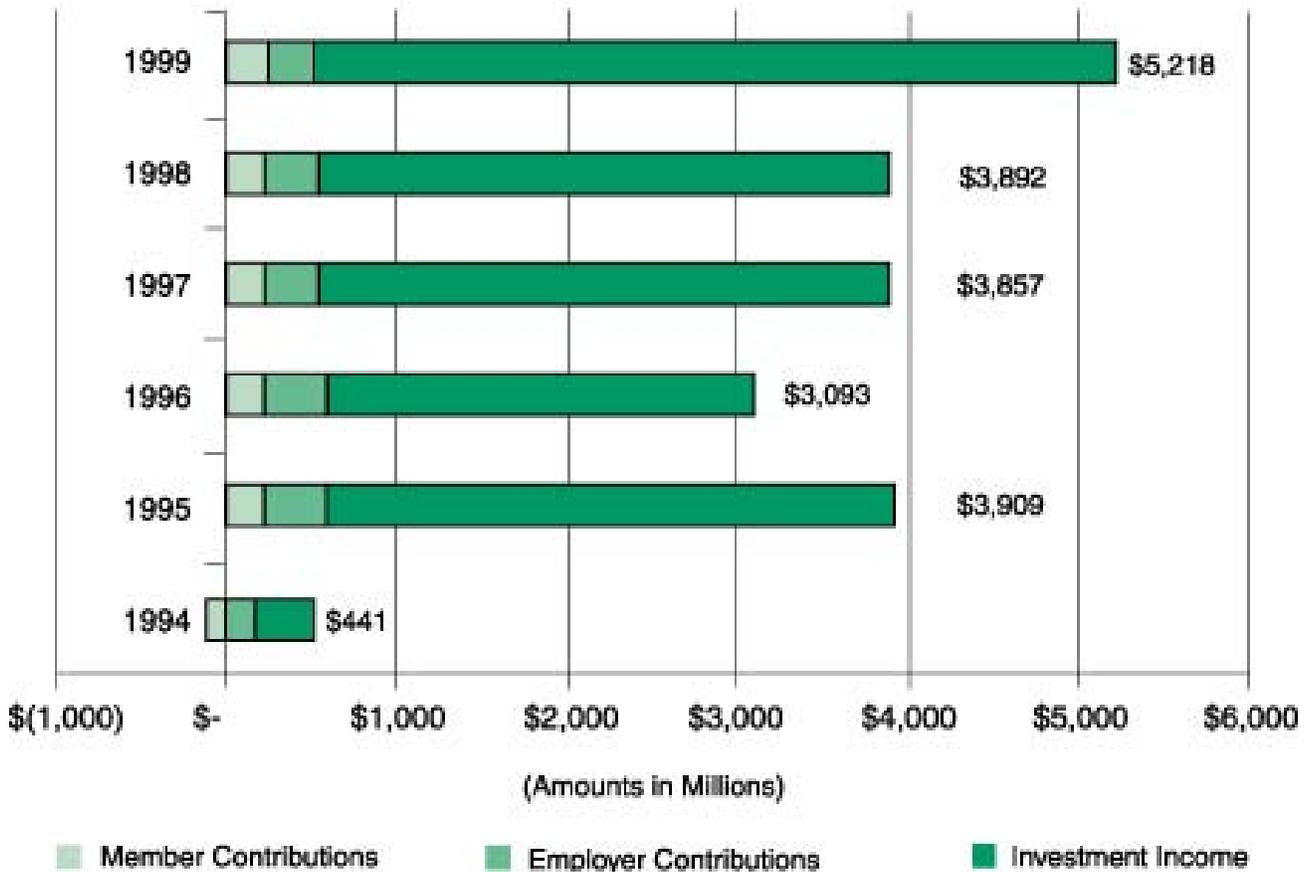
**NOTE:** There are conditions under which long-service members or members retiring at advanced ages may receive somewhat larger benefits than those described above. Further, benefit limitations exist for most members of Class D-3.

# *Schedule of Additions to Plan Net Assets*

**Years Ended December 31, 1999 through 1994  
(Dollar Amounts in Thousands)**

Year Ending	Member Contributions	Employer Contributions		Net Investment Income	Total
		Dollars	% of Annual Covered Payroll		
1999	\$ 224,928	\$ 270,718	6.0%	\$ 4,722,671	\$ 5,218,317
1998	221,618	310,501	7.0%	3,359,844	3,891,963
1997	212,556	324,093	7.7%	3,320,169	3,856,818
1996	209,581	373,902	9.4%	2,509,330	3,092,813
1995	201,719	384,506	10.0%	3,322,362	3,908,587
1994	193,204	342,927	9.2%	(94,805)	441,326

## **Additions to Plan Net Assets**

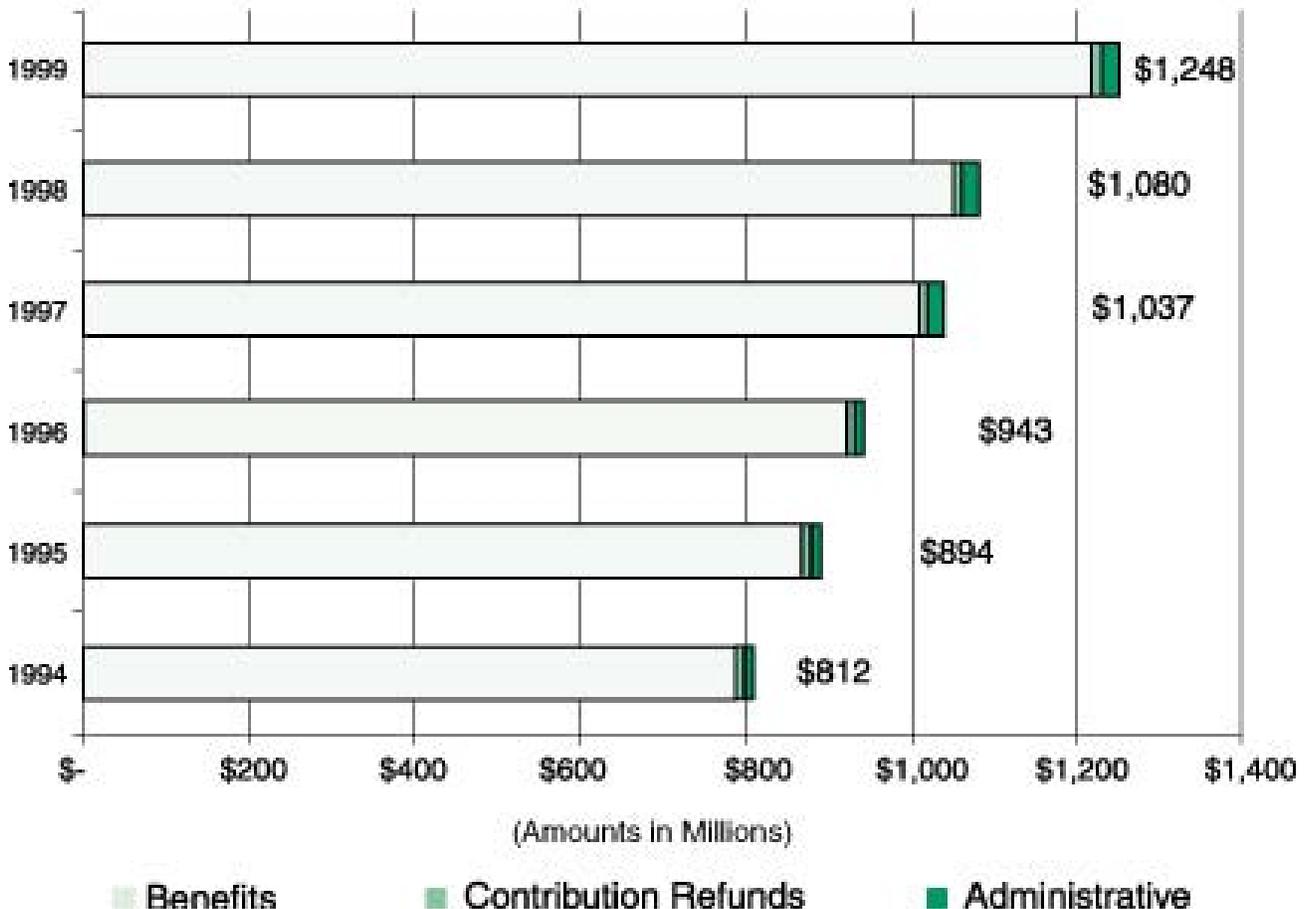


# *Schedule of Deductions from Plan Net Assets*

Years Ended December 31, 1999 through 1994  
(Amounts in Thousands)

Year	Benefits	Refund of Contributions	Administrative	Total
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
1995	869,905	9,807	14,431	894,143
1994	788,330	8,041	15,566	811,937

## Deductions from Plan Net Assets

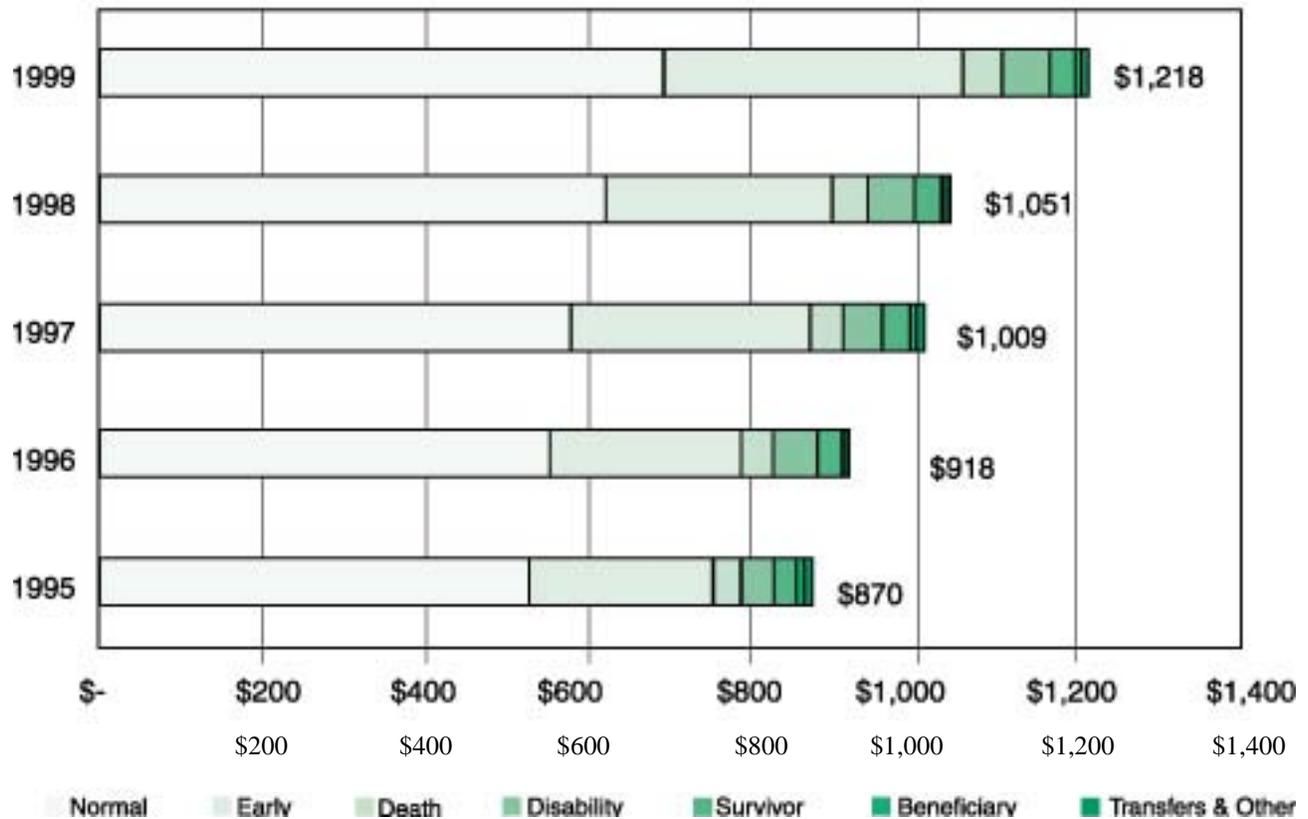


# *Schedule of Benefit Expenses by Type*

**Years Ended December 31, 1999 through 1995**  
(Amounts in Thousands)

Year	Retirement		Death	Disability	Survivor	Beneficiary	Transfers & Other	Total
	Normal	Early						
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	550,547	236,038	53,705	37,735	30,415	6,892	2,886	918,218
1995	525,653	222,755	43,364	35,555	27,820	6,239	8,519	869,905

**Benefits by Type**



# *Schedule of Retired Members by Type of Benefit*

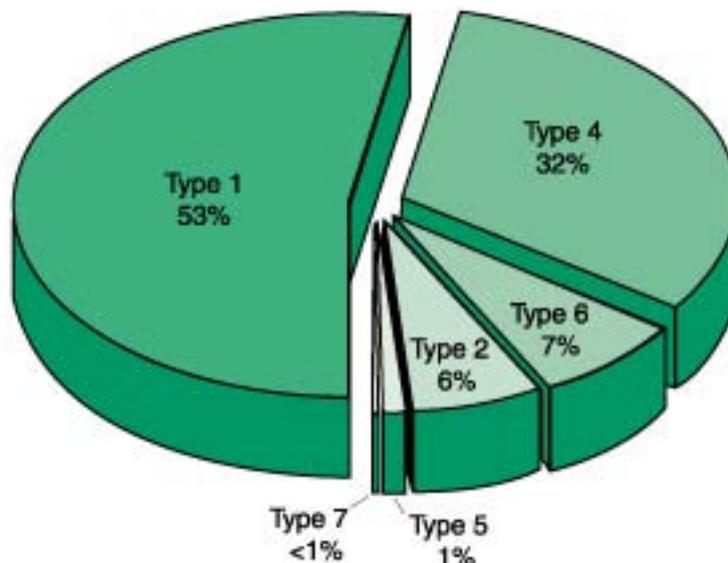
As of December 31, 1999

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Type of Retirement					
			1	2	4	5	6	7
\$ 1 to 500	\$ 9,194,481	35,899	14,558	1,376	14,539	620	4,715	91
501 to 1,000	17,643,655	24,533	15,235	3,084	4,512	262	1,391	49
1,000 to 1,500	14,685,070	12,015	7,174	840	3,494	84	396	27
1,500 to 2,000	11,030,791	6,397	3,796	192	2,258	18	122	11
2,000 to 2,500	7,356,612	3,313	2,014	36	1,179	13	68	3
2,500 to 3,000	5,949,916	2,167	1,293	10	834	6	24	-
Over 3,000	14,061,743	3,719	2,506	7	1,158	16	31	1
<b>Totals</b>	<b>\$79,922,268</b>	<b>88,043</b>	<b>46,576</b>	<b>5,545</b>	<b>27,974</b>	<b>1,019</b>	<b>6,747</b>	<b>182</b>

**Type of Retirement**

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

**Retired Members by Type**



# *Schedule of Retired Members by Option*

As of December 31, 1999

Amount of Monthly Benefit	Total Monthly Benefits	Total Number of Retirees	Option Selected					
			FRA	1	2	3	4	Other
\$ 1 to 500	\$ 9,194,481	35,899	10,383	13,521	7,729	3,237	373	656
501 to 1,000	17,643,655	24,533	8,038	8,685	4,044	2,598	875	293
1,000 to 1,500	14,685,070	12,015	3,379	4,128	2,053	1,630	713	112
1,500 to 2,000	11,030,791	6,397	1,733	1,990	951	1,050	643	30
2,000 to 2,500	7,356,612	3,313	866	892	511	551	476	17
2,500 to 3,000	5,949,916	2,167	600	620	350	339	247	11
Over 3,000	14,061,743	3,719	1,406	940	379	563	411	20
<b>Totals</b>	<b>\$79,922,268</b>	<b>88,043</b>	<b>26,405</b>	<b>30,776</b>	<b>16,017</b>	<b>9,968</b>	<b>3,738</b>	<b>1,139</b>

**Options**

**FRA - Full Retirement Allowance**

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

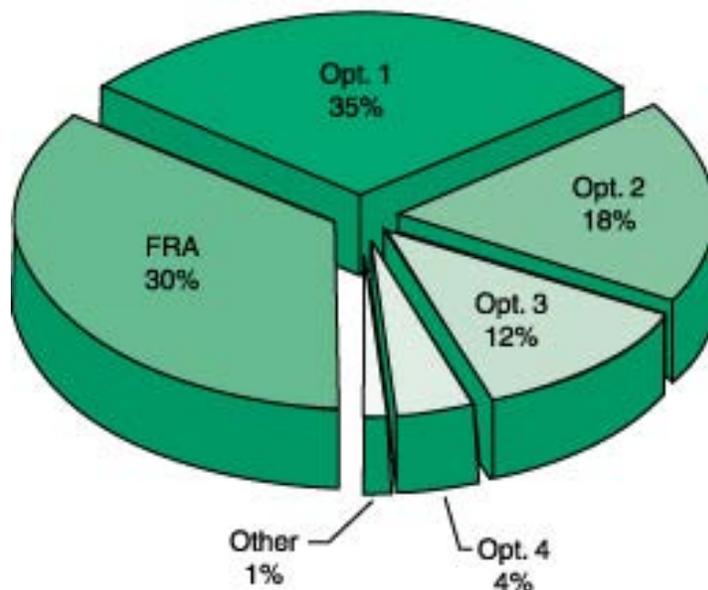
**Opt. 2 - Annuity for Life with beneficiary receiving same annuity when member dies.**

**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, 1999

Age	Superannuation		Early Retirement		Disability		Beneficiary and Survivor	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 25	-	-	-	-	-	-	\$ 1,474	\$19,116
25-29	-	-	-	-	-	-	10,840	26,532
30-34	-	-	\$ 1,096	\$ 963	\$ 7,103	\$ 7,625	8,058	6,434
35-39	-	-	1,630	1,535	9,710	8,946	3,730	6,176
40-44	-	-	2,136	2,024	9,353	9,130	2,731	9,036
45-49	-	-	4,192	2,954	10,268	9,768	3,141	6,068
50-54	\$ 30,368	\$ 18,073	14,432	7,014	11,235	10,652	6,126	7,303
55-59	31,236	19,492	16,953	10,032	10,681	9,392	4,538	8,721
60-64	23,002	14,530	15,530	10,269	9,527	8,806	5,383	8,060
65-69	17,741	11,432	12,689	8,514	8,661	7,173	5,452	7,850
70-74	14,951	9,774	11,544	7,286	8,118	6,347	6,934	6,516
75-79	12,464	7,908	9,836	6,205	6,663	5,463	5,690	5,349
80-84	9,285	6,651	8,665	7,015	6,455	5,182	6,249	4,496
85-89	9,109	6,767	8,498	7,875	5,450	4,765	3,830	4,368
90 over	8,158	6,863	5,710	6,449	4,157	3,506	3,882	4,362
Average	\$ 15,215	\$ 9,137	\$ 13,122	\$ 6,944	\$ 9,584	\$ 8,465	\$ 5,546	\$ 5,720
Total Average Pension	\$12,520		\$10,199		\$9,013		\$5,706	
Total Average Age	74.3		58.7		59.4		75.5	

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# *Schedule of Participating Employers*

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As of December 31, 1999

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

(Continued)

**Schedule of Participating Employers (continued)**  
**As of December 31, 1999**

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

# Deferred Compensation Program

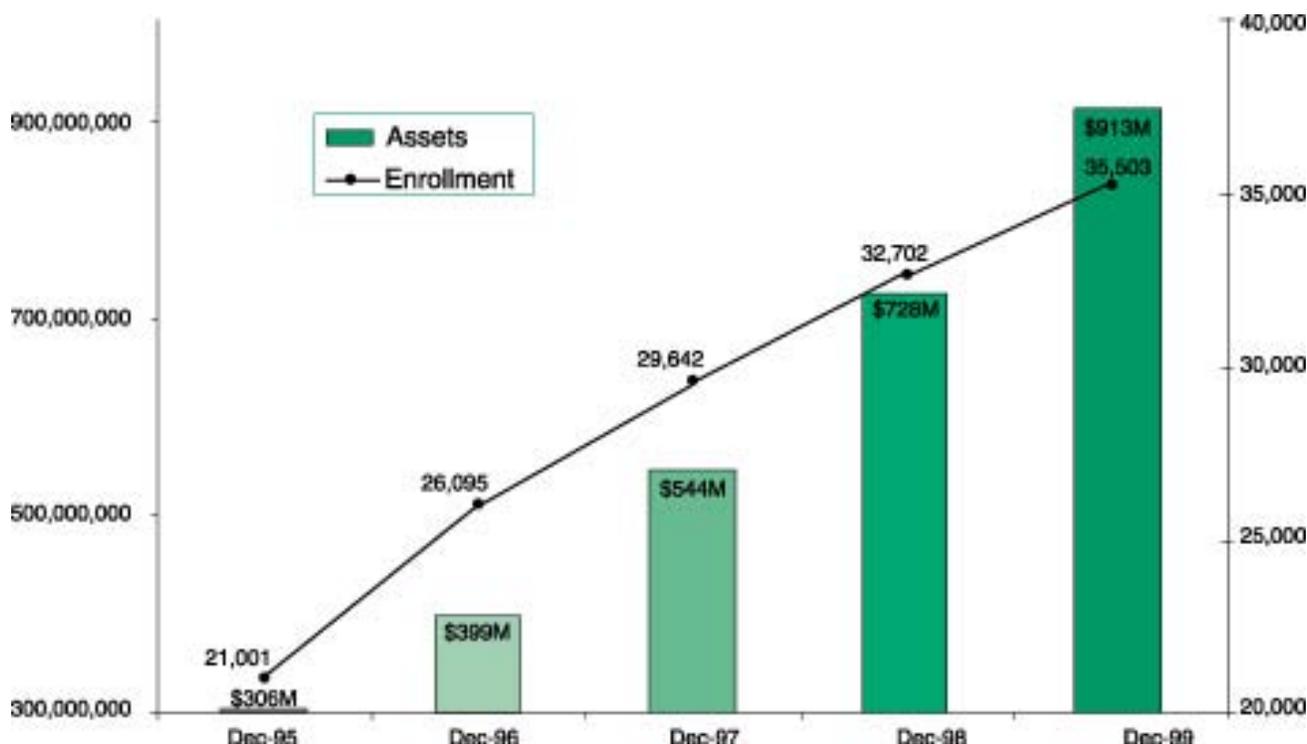
## Implementation

Act 1987-81 assigned to the SERS Board of Trustees the responsibility to establish and monitor an Internal Revenue Code Section 457 Deferred Compensation Program for Commonwealth officers and employees through which members may voluntarily build retirement savings by deferring a portion of salary to selected investment options. Through the Request for Proposal process, SERS selected The Copeland Companies as Third Party Administrator of the Deferred Compensation Program.

## Growth of the Program

Over the past four years, the Program's assets have almost tripled in value from approximately \$306 million to over \$913 million. As of December 31, 1999, there were over 37,500 active and inactive participants in the Program. Almost 35% of all Commonwealth employees participate in the Program. The amount of annual participant deferrals nearly doubled from \$53 million in 1995, to \$97 million in 1999.

**Deferred Compensation Program Asset Growth 1995-1999**  
(*\$ in millions*)



## 1999 Highlights

Several legislative and administrative changes were made to the Commonwealth of Pennsylvania Deferred Compensation Program in the year 1999. Of note are the following:

- As required by federal law, 457(b) plan assets are held in trust for the exclusive benefit of plan participants and beneficiaries, effective January 1, 1999.
- The Program allows for an in-service distribution, not to exceed \$5,000 for inactive accounts.
- Investment transfer restrictions were no longer limited to one transaction per quarter. Transfers may be made daily between funds.
- Program web site enhancements allow for transfer transactions to be completed online.