

**COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM
BOAS SCHOOL BUILDING
909 GREEN STREET
HARRISBURG, PENNSYLVANIA 17102-2999
(717)787-6293**

**ANNUAL REPORT OF OPERATIONS
FOR THE YEAR ENDED
DECEMBER 31, 1990**

**WILLIAM J. MORAN
ACTING CHAIRMAN
STATE EMPLOYEES' RETIREMENT BOARD**

**JOHN R. BROSIUS
EXECUTIVE DIRECTOR**

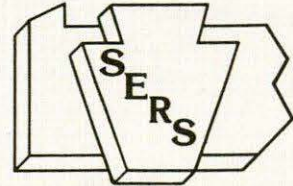
**REPORT PREPARED BY
THE STAFF OF
THE STATE EMPLOYEES' RETIREMENT SYSTEM**

Handwritten text, possibly a date or reference number, located in the bottom left corner.



COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

BOAS SCHOOL BUILDING
909 GREEN STREET
HARRISBURG, PENNSYLVANIA 17102-2999
TELEPHONE: 717-787-6293



Honorable Robert P. Casey,
Governor, Commonwealth of Pennsylvania

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



Dear Governor Casey, Legislators and Members:

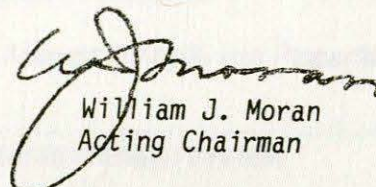
The Pennsylvania State Employees' Retirement Board is pleased to present its 1990 Annual Report of operations. This report contains investment highlights, actuarial data, and other financial information. Additionally, an independent audit of the Fund by Coopers & Lybrand for 1989 was completed and a separate report by the independent accountants is included. The consulting actuary, Hay/Huggins, has attested to the soundness of the Fund and that report is contained herein.

The total market value of the Fund as of December 31, 1990 was \$9.8 billion reflecting a total investment rate of return of 1.1% for the year. This downturn in performance relative to the past two years, is attributable in part to the overall slowdown of the national economy during the last quarter of 1990. This was reflected in the sharp decline of the stock market during that period and a corresponding impact on the real estate investments of the Fund. However, the stock market has accelerated considerably during the first quarter of 1991 with the Retirement Fund recognizing significant gains. The Fund has experienced a 9.9% average annual rate of return over the past five years which is consistent with the long term goals of the Fund. Please refer to the Investments Section of this report which highlights the activity of the Fund for the year, details the rate of return on investments by asset class for the past five years, and emphasizes other portfolio information including the Pennsylvania investments of the Fund.

The Retirement System is very pleased to have opened two Field Office Retirement Counseling Centers in the Pittsburgh and Philadelphia areas during 1990. This brings the total Field Offices in operation to five, with offices remaining to be opened in the State College and Harrisburg areas during the 1991 calendar year. A total of seven strategically located Retirement Counseling Centers will then be fully staffed and equipped to meet the needs of our active and retired membership.

The Retirement Board remains committed to the prudent investments of the Fund and the continuing improvement of services to the membership.

Respectfully submitted,


William J. Moran
Acting Chairman

**Commonwealth of Pennsylvania
State Employees' Retirement System**

Contents

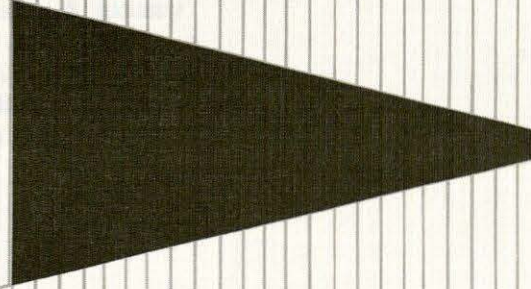
<u>ADMINISTRATIVE SECTION</u>	<u>PAGE</u>
SERS Board and Administrative Staff	3
Plan Provisions Overview	4
Administrative Budget Summary.	9
<u>FINANCIAL SECTION</u>	
Coopers & Lybrand Audit Report	13
<u>ACTUARIAL SECTION</u>	
Actuary's Opinion	29
Actuarial Balance Sheet	30
Membership Statistics	31
Membership Demographics	32
<u>INVESTMENTS SECTION</u>	
Investment Policy.	37
Investment Objectives.	38
Investment Highlights for 1990	39
Rate of Return by Investment Type	39
Investment Advisors.	40
Asset Allocation by Investment Manager	42
Five Year Investment Market Value by Type	43
Asset Allocation by Investment Type	43
Commissions Paid to Equity Managers	44
Summary of Pennsylvania Investments.	45
Real Estate Separate Account Pennsylvania Properties.	47

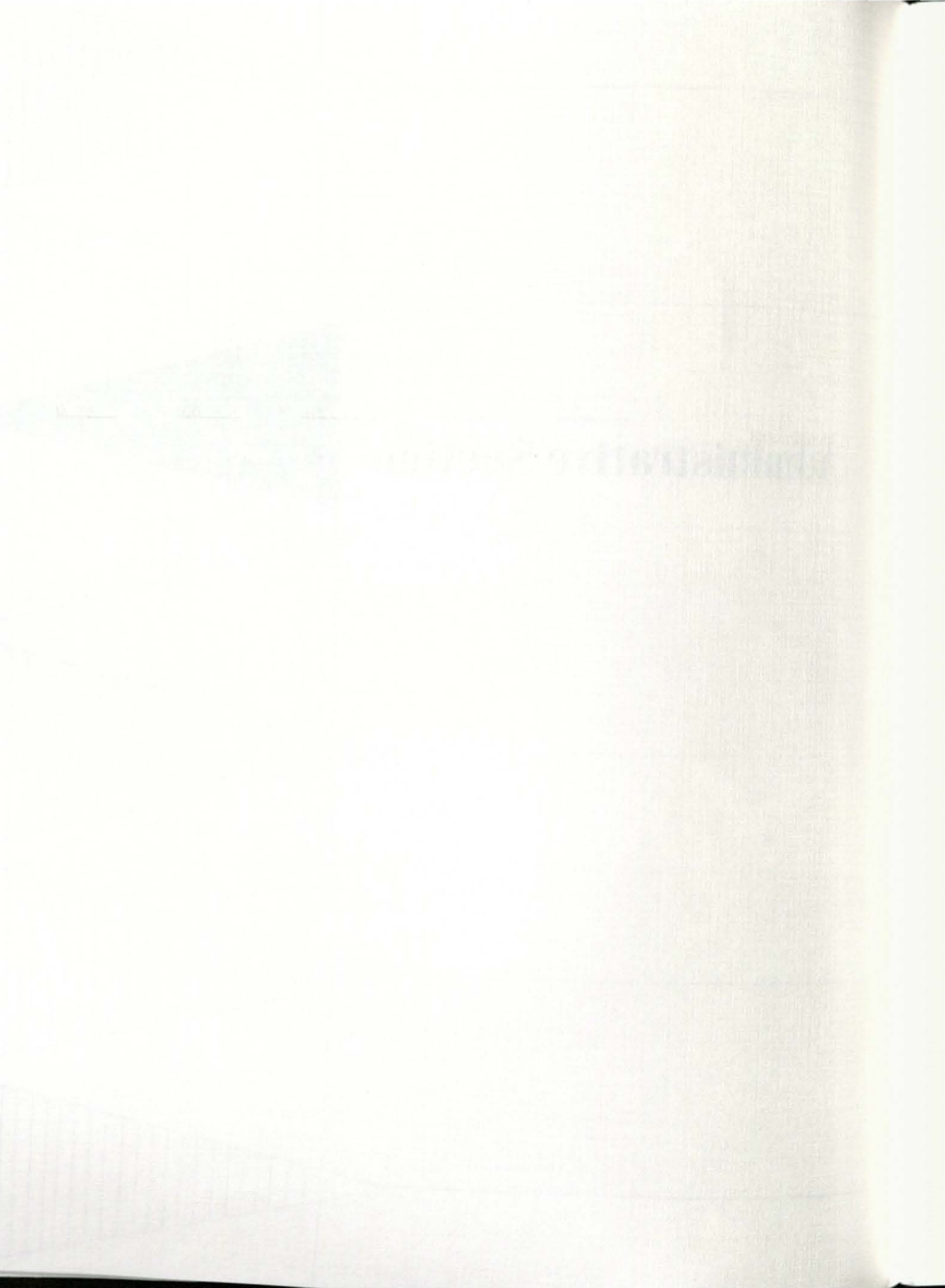
Section 1

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

Section 1
Section 2
Section 3
Section 4
Section 5
Section 6
Section 7
Section 8
Section 9
Section 10
Section 11
Section 12
Section 13
Section 14
Section 15
Section 16
Section 17
Section 18
Section 19
Section 20
Section 21
Section 22
Section 23
Section 24
Section 25
Section 26
Section 27
Section 28
Section 29
Section 30

Administrative Section





SERS Board Members*

Mr. William J. Moran Acting Chairman	
Hon. Anthony B. Andrezeski State Senator	Hon. Gibson E. Armstrong State Senator
Mr. Robert A. Bittenbender Executive Director Senate Appropriations Committee (R)	Hon. James J. Gallen State Representative
Hon. Catherine Baker Knoll State Treasurer	Mr. Charles J. Lieberth Retired Member and Former Secretary of Labor & Industry
Hon. Nicholas Maiale State Representative	Mr. K. Paul Muench Budget Analyst House Minority Appropriations Committee (R)

SERS Administrative Staff

John Brosius Executive Director	
Dale H. Everhart Assistant Executive Director	Francis J. Donlevy Director of Financial Management
Kenneth G. Mertz, II Chief Investment Officer	Abbott A. Leban, Esquire Chief Counsel

Fund Custodian

The State Treasurer

Agent Bank and Trust Accounting Services

CoreStates Bank, N.A.
Philadelphia, PA

Consultants

Wilshire Associates Incorporated Santa Monica, CA <i>(Investments)</i>	Ronald A. Karp Associates, Inc. Summit, NJ <i>(Real Estate)</i>
Pathway Capital Management Los Angeles, CA <i>(Venture Capital and Alternative Investments)</i>	Hay/Huggins Company, Inc. Philadelphia, PA <i>(Consulting Actuary)</i>

Independent Auditor

Coopers & Lybrand
Harrisburg, PA

*Two vacant seats as of December 31, 1990.

STATE EMPLOYEES' RETIREMENT SYSTEM PLAN PROVISIONS OVERVIEW

The Pennsylvania State Employees' Retirement System (SERS), established in 1923, is one of the nation's oldest and largest statewide retirement plans for public employes with over 188,100 members. SERS also ranks among the top public plans in pension assets with approximately \$9.8 billion invested in various portfolios. A brief overview of the major elements of the plan follows.

PURPOSE

The SERS provides regular and disability retirement benefits for state employes and elected state officials. The SERS is responsible for administering retirement law in accordance with the expressed intent of the General Assembly and bears a fiduciary obligation to the Commonwealth of Pennsylvania, the taxpayers and the state employes who are the plan beneficiaries.

ADMINISTRATION

The Retirement Code provides that the administration of the SERS and the fiduciary responsibility for management of the Fund be vested in an eleven member Board of Trustees. Six of the members are appointed by the Governor and confirmed by the Senate; two members are appointed by the President Pro Tempore of the Senate; and two members are appointed by the Speaker of the House of Representatives. The State Treasurer serves as a member of the Board, ex-officio.

The management of the SERS is the responsibility of the Executive Director. The Executive Director functions as the Chief Administrative Officer and Agent of the Board on all matters pertaining to the System and, with the approval of the Board, contracts for professional services and employs the staff needed to operate the System.

MEMBERSHIP ELIGIBILITY

Permanent full-time state employes and employes of certain independent agencies are required to join the SERS. Permanent, part-time employes who are paid a salary must also join the System. All part-time employes who are paid by the hour or day must join SERS if they work 750 hours or 100 days in a calendar year.

Members and employes of the Legislature, certain elected persons in the executive branch, department heads, and certain school employes are not required to join the SERS.

CONTRIBUTIONS

The SERS member contribution rates are applied to gross pay. The basic contribution rate is 5% of gross pay for those in continuous membership since July 21, 1983. For those employes becoming members of SERS on or after July 22, 1983 the contribution rate is 6.25% of gross pay. These contributions are deposited into an individually identified account and are credited with interest each quarter. A member's contributions and credited interest vest immediately and are returned upon termination of service if the member is not eligible for other benefits. The employer's contribution rate is set after each annual actuarial valuation of the liabilities and reserve requirements of the Fund. Employers contributed at a composite rate of 12.32% of employe payroll for 1990.

SERVICE

The amount of credited service a member has is one of the factors used to determine the eligibility for and amount of benefits. Credited service is defined as state service and creditable non-state service. Creditable non-state service is limited to: Intervening military service; Non-intervening military service; Out-of-state educational service; and Other governmental service.

CREDITABLE STATE SERVICE

Currently, state service is credited on the basis of the hours for which a member is paid. One thousand six hundred and fifty (1650) hours in a calendar year are credited as one year of service.

CREDITABLE NON-STATE SERVICE

INTERVENING MILITARY SERVICE is creditable for that military service rendered during a leave of absence from state employment.

NON-INTERVENING MILITARY SERVICE is limited to five years of credit, with certain prohibitions due to a member's use of this service toward another pension.

OUT-OF-STATE EDUCATIONAL SERVICE is limited to ten years of credit. Certain restrictions apply as to the type of service which is creditable. For example, only service as an administrator, teacher, or instructor may be considered.

OTHER GOVERNMENTAL SERVICE is creditable if former service with some other governmental agency was ended because of a transfer, by law, to the Commonwealth.

RETIREMENT BENEFITS

ELIGIBILITY FOR MONTHLY RETIREMENT BENEFITS

A member is eligible for monthly benefits if, upon leaving employment, the member has ten or more years of credited service at any age or the member has reached normal retirement age with at least three years of credited state service.

NORMAL RETIREMENT

Normal retirement age is age 60 or the age at which a member has 35 years of service, whichever occurs first. There are some exceptions to this: normal retirement is age 50 for members of the Legislature, corrections officers, liquor law enforcement officers, psychiatric security aides, officers of the state police, and certain nurses.

A member is eligible for unreduced retirement benefits upon reaching normal retirement age if the member has at least three years of credited service.

EARLY RETIREMENT

A member can retire prior to normal retirement age if the member has at least ten years of credited service. The early retirement benefit amount is reduced for the number of years the member is under normal retirement age.

RETIREMENT BENEFIT CALCULATION

The amount of normal unreduced retirement benefits depends on three things: years of service; final average salary; and the member's age. The formula for the annual full retirement allowance is $.02 \times \text{years of service} \times \text{final average salary}$. The final average salary, generally speaking, is the average of the three highest years of compensation. Members electing early retirement will receive a reduced pension.

RETIREMENT OPTIONS

The retiring member may select among several retirement payment options.

FULL RETIREMENT ALLOWANCE. This plan provides the maximum amount of pension per month to which the member is entitled. Monthly pension payments will be made for life. When the member dies, his/her beneficiary will receive the member's Accumulated Deductions less the amount of pension payments the member received.

OPTION 1. Under this plan the member will receive a smaller pension per month than under a Full Retirement Allowance. Monthly pension payments to the member are for life. This plan provides greater death benefit protection than Full Retirement. When the member dies, his/her beneficiary will receive the account's Present Value at retirement less the amount of pension payments the member received.

OPTION 2 . This plan will also provide the member with less benefit per month than a Full Retirement Allowance. This plan provides a lifetime monthly pension to the member and, upon the member's death, to his/her Designated Survivor Annuitant for that person's lifetime. Upon the member's death his/her Designated Survivor Annuitant will begin to receive the same monthly pension the member received.

OPTION 3 . This plan also provides the member with a monthly pension less than a Full Retirement Allowance. This plan provides a lifetime monthly pension to the member and, upon the member's death, to his/her Designated Survivor Annuitant for that person's lifetime. Upon the member's death, his/her Designated Survivor Annuitant will begin to receive one-half of the monthly pension the member had received.

OPTION 4 . This plan allows the member to withdraw all or part of his/her contributions plus interest. The member may elect to receive this withdrawal in up to four installment payments. Once the election is made, it may not be changed for any reason. The installment payments will earn interest at the rate of 4% per year until the time they are paid to the member. This will make the member's lifelong monthly pension smaller since his/her pension is then computed on the remainder of the account's Present Value. If the member elects this option, the member must also elect one of the monthly payment plans listed above. Option 4 is a one-time option and must be selected at the time the member applies for his/her retirement benefit.

SPECIAL OPTION PLAN. If none of these plans suit the member's personal needs, the member may request a Special Option which he/she must design, subject to Retirement Law restrictions. Approval by the Retirement Board is required in advance of the member's actual retirement.

DISABILITY RETIREMENT ELIGIBILITY

A member must have at least five years of credited service to be eligible to apply for a disability pension. State police and liquor law enforcement officers have no minimum service requirement. The member must be physically or mentally incapable of performing the duties of the member's present job. A member will not qualify for disability benefits unless the medical evidence, which documents the disability, is approved by the Board's physician(s).

DEATH BENEFITS

If a member dies in state service before normal retirement age, and with less than ten years of credited service, the member's contributions plus interest will be paid to the member's beneficiary.

If a member dies while still in state service and after becoming eligible for a monthly retirement benefit, it will be assumed that the member retired under Option 1 the day before the member's death. In that event, the present value of the member's annuity will be payable to the member's beneficiary. If the present value is \$5,000 or more, the beneficiary may choose to receive the death benefit in either monthly payments or a lump sum payment.

VESTING

If a member leaves state employment prior to normal retirement age with ten or more years of credited service and does not want an immediate benefit, the member may elect to vest. When vesting, the member's contributions plus interest remain in the Fund allowing the member to defer receiving a benefit until a later time. By vesting, the member's monthly benefit will increase as the member approaches normal retirement age. Interest is credited on the member's contributions during the vesting period.

TAXATION OF BENEFITS

Pennsylvania law provides that no Pennsylvania state or local taxes are payable on any payments received from SERS. Generally, all payments are subject to federal taxation. Since the Tax Reform Act of 1986, certain payments made prior to age 59 1/2 may also be subject to an additional tax. Members are advised to obtain reliable tax advice prior to selection of a retirement option.

COST OF LIVING ADJUSTMENTS

Cost of living adjustments are granted by the Legislature periodically on an ad hoc basis. Cost of living adjustments were granted by the Legislature in 1968, 1974, 1979, and 1984. The most recent cost of living increase to eligible members was January 1, 1989.

SPECIAL EARLY RETIREMENT PROVISION

A special early retirement provision has been in effect since July 1, 1985. The closing date of this provision is September 30, 1991.

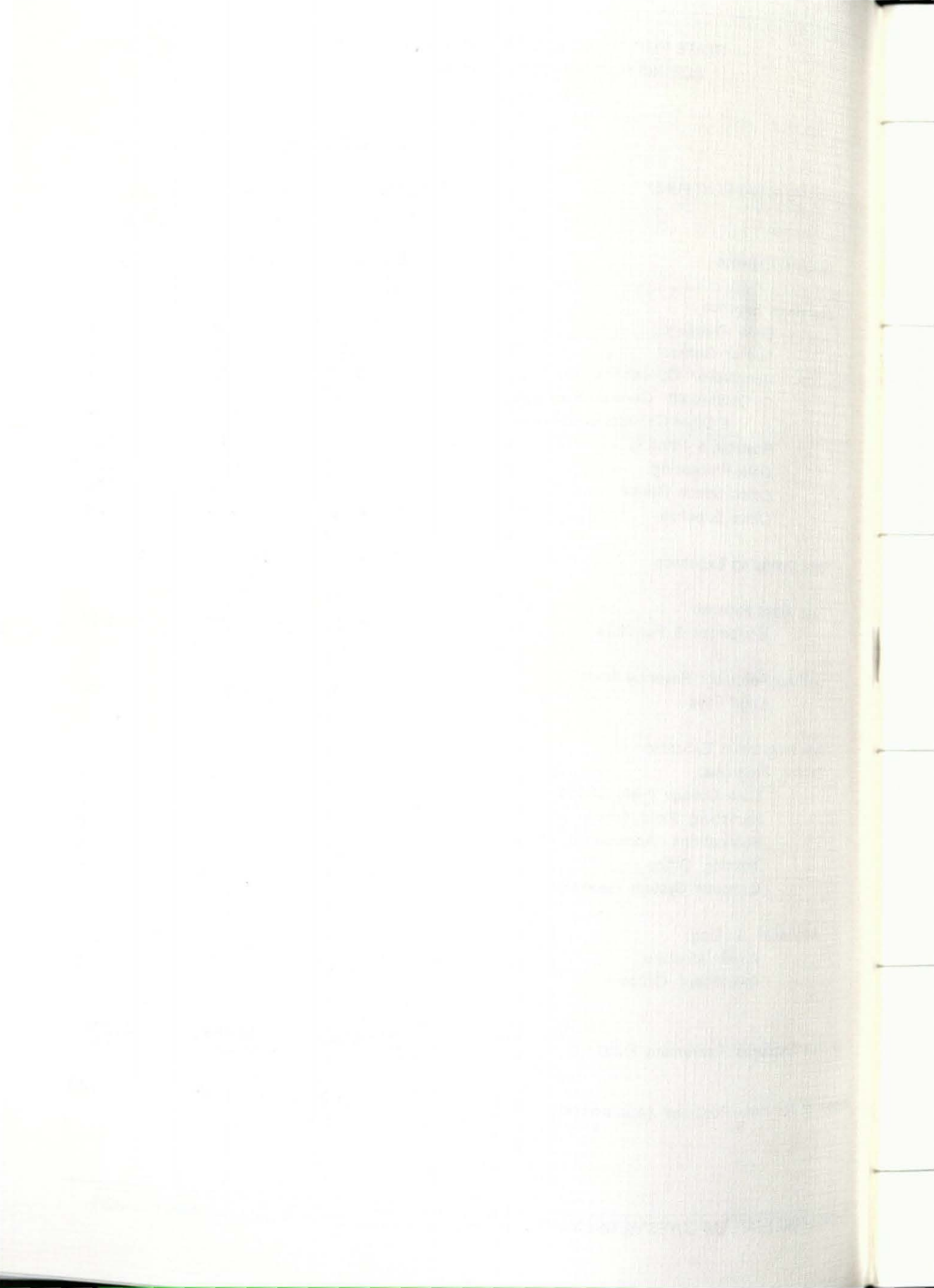
A member must meet all of the following conditions to qualify for the special early retirement provision, which reduces and in some cases eliminates the early retirement reduction factor:

1. Must terminate employment between July 1, 1985 and September 30, 1991.
2. Must be at least age 50, but not have reached age 60, at time of termination.
3. Must have at least 30 years, but no more than 34.9999 years, of credited service in the Retirement System at termination.
4. Must file a retirement application for benefits before September 30, 1991 and before termination of employment.

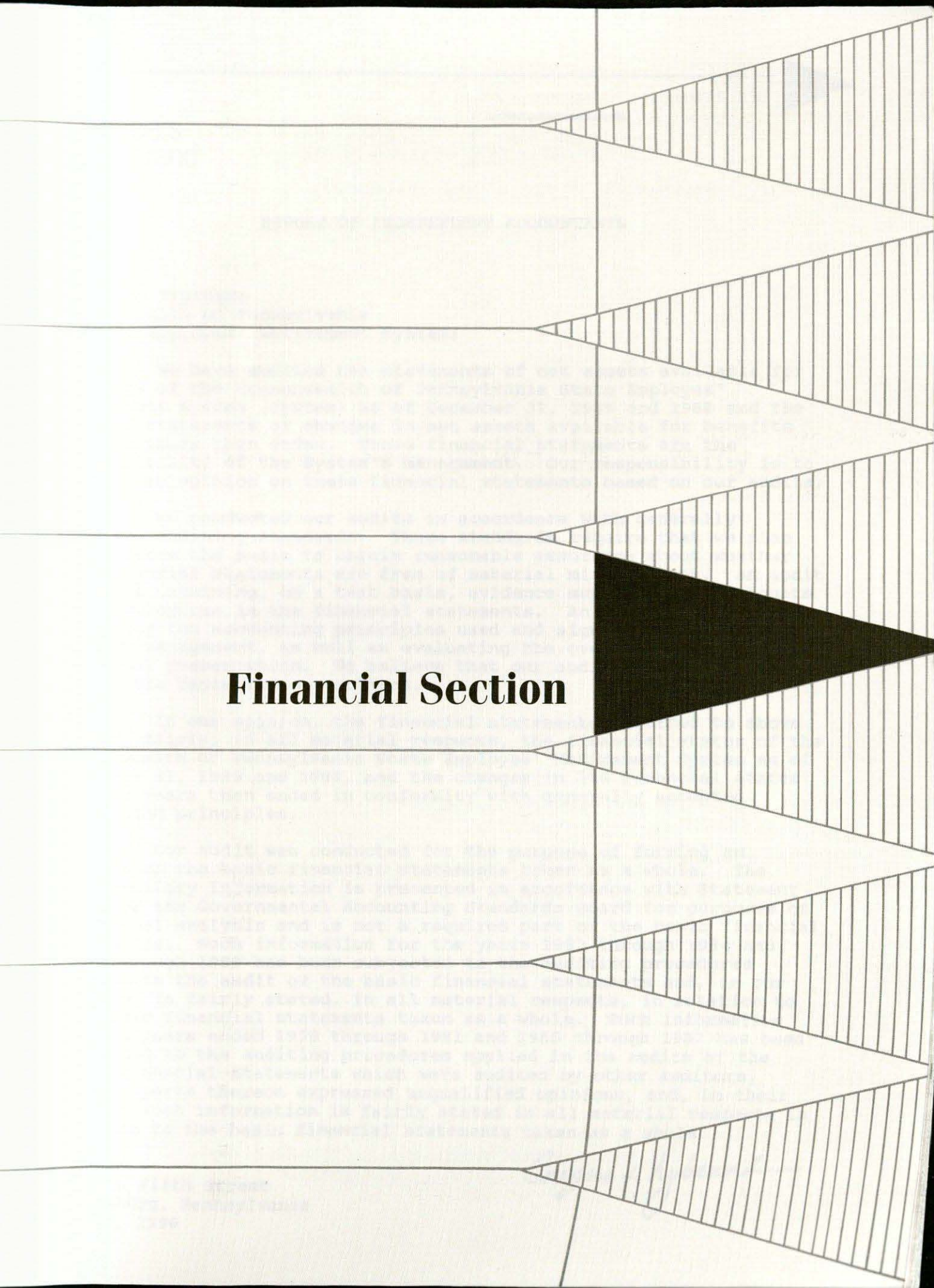
STATE EMPLOYES' RETIREMENT SYSTEM
ADMINISTRATIVE BUDGET SUMMARY
(000's omitted)

ADMINISTRATIVE EXPENSES

STATE EMPLOYES' RETIREMENT FUND	Proposed <u>1991-92</u>	Authorized <u>1990-91</u>	Actual <u>1989-90</u>
Personnel Expense	\$6,416	\$5,541	\$4,274
Operational Expense			
State Treasury	400	380	378
Auditor General	5	3	2
Comptroller Operations	51	43	41
Commonwealth Central Services & Other Contracted Services	285	241	240
Postage & Printing	355	283	281
Data Processing	315	287	285
Office Space Rental	420	384	368
Office Expense	<u>495</u>	<u>436</u>	<u>434</u>
Total Operating Expenses	\$2,326	\$2,057	\$2,029
Fixed Asset Expense			
Equipment & Furniture	100	297	242
Less Augmentation: Revenue from Legal Fees	0	(97)	(5)
New Programs & Expansion of Existing Programs:			
State College Field Office	0	275	0
Harrisburg Field Office	0	146	0
Publications Administration	66	0	0
Training Office	97	0	0
Computer System Redesign	2,800	0	0
Additional Staffing:			
Administrative	0	25	0
Investment Office	<u>149</u>	<u>50</u>	<u>0</u>
Total State Employees' Retirement Fund	<u>\$11,954</u>	<u>\$8,488</u>	<u>\$6,550</u>
Number of Full-time Positions (Authorized)	169	159	133



Financial Section





Coopers
& Lybrand

certified public accountants

REPORT OF INDEPENDENT ACCOUNTANTS

Board of Trustees
Commonwealth of Pennsylvania
State Employees' Retirement System:

We have audited the statements of net assets available for benefits of the Commonwealth of Pennsylvania State Employees' Retirement System (System) as of December 31, 1989 and 1988 and the related statements of changes in net assets available for benefits 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 financial status of the Commonwealth of Pennsylvania State Employees' Retirement System as of December 31, 1989 and 1988, and the changes in its financial status for the years then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplementary Information is presented in accordance with Statement No. 5 of the Governmental Accounting Standards Board for purposes of additional analysis and is not a required part of the basic financial statements. Such information for the years 1982 through 1984 and 1988 through 1989 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. Such information for the years ended 1978 through 1981 and 1985 through 1987 has been subjected to the auditing procedures applied in the audits of the basic financial statements which were audited by other auditors, whose reports thereon expressed unqualified opinions, and, in their opinion such information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

5 North Fifth Street
Harrisburg, Pennsylvania
May 15, 1990

Coopers & Lybrand

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

December 31, 1989 and 1988

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
ASSETS		
Investments at fair value:		
United States Government securities	\$1,500,946	\$1,069,735
Corporate and foreign bonds and notes	1,064,314	1,273,451
Common and preferred stocks, including collective trust funds	4,922,289	3,921,550
Temporary investments	612,912	669,771
Mortgage loans	589,250	556,540
Real estate	828,661	566,432
Venture capital	88,274	82,473
Total investments	<u>9,606,646</u>	<u>8,139,966</u>
Contributions receivable:		
Employers	106,685	98,853
Employes	5,133	5,350
Accrued investment income receivable	72,572	66,467
Due from brokers	8,118	15,777
Cash	1	1
Total assets	<u>9,799,155</u>	<u>8,326,414</u>
LIABILITIES		
Accounts payable and accrued expenses	(6,754)	(6,333)
Due to brokers	(7,827)	(8,251)
Total liabilities	<u>(14,581)</u>	<u>(14,584)</u>
Contingencies (Note 7)		
NET ASSETS AVAILABLE FOR BENEFITS	<u><u>\$9,784,574</u></u>	<u><u>\$8,311,830</u></u>

The accompanying notes are an integral part
of the financial statements.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

for the years ended December 31, 1989 and 1988

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
ADDITIONS:		
Investment income:		
Net appreciation in fair value of investments	\$ 912,653	\$ 450,932
Interest and dividends	569,655	491,644
	<hr/>	<hr/>
	1,482,308	942,576
Less investment expenses	17,601	12,798
	<hr/>	<hr/>
	1,464,707	929,778
Contributions:		
Employers	416,513	382,413
Employes	164,653	153,131
	<hr/>	<hr/>
Total additions	2,045,873	1,465,322
	<hr/>	<hr/>
DEDUCTIONS:		
Benefits and refunds paid to participants	567,101	515,143
Administrative expenses	6,028	5,391
	<hr/>	<hr/>
Total deductions	573,129	520,534
	<hr/>	<hr/>
Net increase	1,472,744	944,788
Net assets available for benefits at beginning of year	8,311,830	7,367,042
	<hr/>	<hr/>
Net assets available for benefits at end of year	<u>\$9,784,574</u>	<u>\$8,311,830</u>

The accompanying notes are an integral part
of the financial statements.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

1. Description of the System:

The State Employees' Retirement System (System) is the administrator of a cost-sharing multiple-employer retirement system established by the Commonwealth of Pennsylvania (Commonwealth) to provide pension benefits for employees of state government and certain independent agencies. At December 31, 1989, there were 112 participating state and independent agencies. The System is considered part of the Commonwealth of Pennsylvania financial reporting entity and is included in the Commonwealth's financial reports as a pension trust fund.

Membership in the System is mandatory for most state employees, members and employees of the legislature and certain elected persons in the executive branch. Certain other employees are not required, but are given the option to participate. At December 31, 1989, System membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	76,166
Current employees:	
Vested	67,485
Nonvested	42,334
Total members	185,985

The System provides retirement, death, and disability benefits. Retirement benefits vest after 10 years of credited service. Employees who retire at age 60, or with 35 years of service if under age 60, are entitled to a normal annual retirement benefit. Members of the legislature and certain law enforcement officers can retire with full benefits at age 50.

The general annual benefit is 2% of the member's high three-year average salary times years of service. Members of the legislature who were members of the System before March 1, 1974 are entitled to a benefit of 7.5% of average salary for each year of legislative service.

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

1. Description of the System, continued:

Covered employes are required to contribute to the System at a rate of 5% of their gross pay, except for employes hired on or after July 22, 1983, who contribute at a rate of 6.25% of their gross pay. Increased contributions are required of previously noted legislators and judges (18.75% and 7.5% to 10.0% of gross pay, respectively) who are entitled to increased benefits. The contributions are recorded in an individually identified account which is also credited with interest, calculated quarterly to yield 4% per annum, as mandated by statute. Accumulated employe contributions and credited interest, which amounted to \$1,725,724,000 and \$1,602,386,000 as of December 31, 1989 and 1988, respectively, vest immediately and are returned upon termination of service if the employe is not eligible for other benefits.

Participating agency contributions are also mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide the System with assets sufficient to meet the benefits to be paid to System members.

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

2. Significant Accounting Policies:Basis of Accounting:

The financial statements are prepared using the accrual basis of accounting. The System has adopted Statements No. 3, "Deposits with Financial Institutions, Investments (including Repurchase Agreements), and Reverse Repurchase Agreements," and No. 5, "Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Governmental Employers," of the Governmental Accounting Standards Board (GASB) for reporting and disclosure purposes.

Valuation of Investments:

Marketable securities are stated at fair value. Temporary investments are valued at cost, which closely approximates market value. Securities traded on a national securities exchange are valued at the last reported sales price on the last day of business of each plan year. Securities which were not traded on the last day of the plan year or which were not traded on a national securities exchange are valued by the plan advisor based on similar securities sales.

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

2. Significant Accounting Policies, continued:Valuation of Investments, continued:

The fair value of the participation units owned by the System in the collective trust funds was based on quoted redemption value on the last business day of the plan year.

Mortgage loans are valued by the mortgage advisors using a discounted cash flow method. Real estate and venture capital pools are stated at appraised value.

Realized gains or losses on sales of investments are determined on a specific identification or average cost basis, depending upon the type of investment, and included in the statements of changes in net assets available for benefits.

3. Funding Status and Progress:

The amount shown as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended, on an ongoing basis, to facilitate the assessment of System funding status and progress made in accumulating sufficient assets to pay benefits when due and to allow for appropriate comparison of this data among public employee retirement systems. The pension benefit obligation is calculated based on GASB Statement No. 5 and is independent of the actuarial funding method used to determine contributions to the System as discussed in Note 4.

The pension benefit obligation was determined as part of an actuarial valuation at December 31, 1989 and 1988. Significant actuarial assumptions used include (a) a rate of return on the investment of present and future assets of 8.75% per year compounded annually in 1989 and 1988, (b) projected salary increases of 4% per year compounded annually, attributable to inflation in 1989 and 1988, (c) additional projected salary increases of approximately 1.6% and 2.2% in 1989 and 1988, respectively, attributable to merit/promotion, and (d) no post-retirement benefit increases.

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

3. Funding Status and Progress, continued:

The pension benefit obligation at December 31, 1989 and 1988 is as follows:

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employes entitled to benefits but not yet receiving them	\$3,474,269	\$3,330,537
Current employes:		
Accumulated employe contributions	1,725,724	1,602,386
Employer-financed, vested	3,277,541	3,004,531
Employer-financed, nonvested	303,984	319,760
<u>Total pension benefit obligation</u>	<u>8,781,518</u>	<u>8,257,214</u>
Net assets available for benefits, at fair value (Note 2)	<u>9,784,574</u>	<u>8,311,830</u>
Net assets in excess of pension benefit obligation	<u>\$1,003,056</u>	<u>\$ 54,616</u>

A comparative ten-year summary of the pension benefit obligation, which has been calculated in conformance with the requirements of GASB Statement No. 5, is presented as supplementary information following the notes to the financial statements. This information is presented for purposes of additional analysis of System progress in accumulating sufficient assets to pay benefits when due. The calculation of the pension benefit obligation under GASB Statement No. 5 differs from the calculation required under Financial Accounting Standards Board (FASB) Statement No. 35 of the actuarial present value of accumulated plan benefits principally by the consideration of future salary increases.

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

3. Funding Status and Progress, continued:

The significant actuarial assumptions used in the valuations of the actuarial present value of accumulated plan benefits under FASB Statement No. 35 as of December 31, 1989 and 1988 are as follows:

Mortality:

Superannuation (normal retirement) and early retirement:

The 1971 Group Annuity Mortality Table

Disability:

Modifications of the 1965 Railroad Retirement Board Mortality among Totally Disabled Annuitants

Assumed rate of return on investments:

7.25% in 1989 and 7.75% in 1988

The accumulated plan benefit information at December 31, 1989 and 1988 is as follows:

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
Actuarial present value of accumulated plan benefits:		
Vested benefits:		
Participants currently receiving payments	\$4,322,357	\$3,685,141
Other participants	3,805,152	3,523,943
	<hr/>	<hr/>
Nonvested benefits	8,127,509	7,209,084
	140,921	240,864
	<hr/>	<hr/>
Total	<u>\$8,268,430</u>	<u>\$7,449,948</u>

The changes in the actuarial present value of accumulated plan benefits for the year ended December 31, 1989 are as follows:

	(000's omitted)
Actuarial present value of accumulated plan benefits at January 1, 1989	\$7,449,948
Increase during the year attributable to:	
Passage of time and other causes	402,482
Plan provision changes	20,000
Change in interest rate	396,000
	<hr/>
	<u>\$8,268,430</u>

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

4. Contributions:

The System funding policy provides for periodic member contributions at statutory rates and employer contributions at actuarially determined rates (expressed as a percentage of annual gross pay) that are sufficient to accumulate assets to pay benefits when due. All required contributions were made for the years 1989 and 1988.

Employer contribution rates are determined using the entry age normal actuarial cost method, with amortization of the unfunded actuarial liability and of supplemental annuities arising from cost of living and other adjustments over varying periods ending June 30, 2004. These rates are computed based upon actuarial valuations on the Commonwealth's fiscal year of June 30; therefore the employer contribution rates in effect for the System's year end of December 31 reflect a blended average of the rates as calculated. The blended contribution rates were as follows:

	<u>1989</u>	<u>1988</u>
Employer normal cost	4.71%	4.59%
Amortization of unfunded actuarial liability	6.45	6.87
Amortization of supplemental annuities	1.91	1.63
	<u> </u>	<u> </u>
Total employer cost	<u>13.07%</u>	<u>13.09%</u>

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the pension benefit obligation, except for an assumed rate of return on investments of 5.5% per annum and certain revisions to salary increase assumptions.

5. 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 man" 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, defines permissible investments of the System, including all investment types held in the portfolio at December 31, 1989 and 1988 and at all times during the years.

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

5. Investments, continued:

The investments of the System at December 31, 1989 and 1988 have been categorized to indicate the level of risk assumed by the System, in accordance with GASB Statement No. 3. In accordance with a contractual relationship between the Commonwealth's Treasury Department and a custodial agent, substantially all securities subject to categorization are held in book entry form in a unique account so as to be identified at all times as the possession of the Commonwealth; all such investments, as well as certain securities held in physical form at the Commonwealth's Treasury Department, the statutory custodian of the Fund, are reflected in Category 1, which is defined as securities insured or registered, or held by the System or its agent in the System's name. GASB Statement No. 3 provides for Category 2 and 3 investments, which reflect a higher risk. The System has no holdings of these types at December 31, 1989 and 1988. Certain investments have not been categorized because securities are not used as evidence of the investment. The investments not categorized include ownership interests in collective trust funds and mortgage loans, real estate and venture capital pools.

Summary of Investment Risk

	<u>Fair Value</u>	
	<u>1989</u>	<u>1988</u>
	(000's omitted)	
<u>Category 1</u>		
United States Government securities	\$ 946,086	\$ 353,548
Corporate and foreign bonds and notes	1,013,925	1,259,048
Common and preferred stocks	2,068,625	1,658,407
Mortgage loans	1,348	1,361
	<u>4,029,984</u>	<u>3,272,364</u>
<u>Not Categorized</u>		
Investments held by broker/dealers under reverse repurchase agreements:		
United States government securities	554,860	716,187
Corporate and foreign bonds and notes	50,389	14,403
Common and preferred stocks	18,574	60,354
Collective trust funds	2,835,090	2,202,789
Temporary investments	612,912	669,771
Mortgage loans	587,902	555,187
Real estate	828,661	566,432
Venture capital	88,274	82,479
	<u>5,576,662</u>	<u>4,867,502</u>
Total investments	<u>\$9,606,646</u>	<u>\$8,139,966</u>

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

5. Investments, continued:

The System participates in a security lending program, whereby certain securities are transferred to an independent broker/dealer in exchange for collateral equal to 102% of the market value of securities on loan (reverse repurchase agreements). As the System represents only one of several Commonwealth agencies participating in the security lending program and, as collateral received by the custodial agent in exchange for System securities is not specifically identifiable by agency, the System does not record the receipt of such collateral or the corresponding liability to return collateral via repurchase of securities under loan. Securities under loan, however, are maintained on the System's financial records and have been classified accordingly in the summary of investment risk.

The System has minimized its exposure to credit risk due to broker/dealer default by having the custodial agent determine daily that required collateral meets 102% of the market value of securities on loan. The System has not experienced any losses due to credit risk on security lending activity since implementation of the program.

Security lending income, which represents the investment return on collateral, less certain fees paid to the custodial agent and broker/dealer, totalled \$1,467,000 and \$1,642,000 for 1989 and 1988, respectively, and is included in investment income.

The System's investments, including investments bought, sold, as well as held during the year appreciated (depreciated) in fair value by \$912,653,000 and \$450,932,000 in 1989 and 1988, respectively, as follows:

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
Fair value as determined by quoted market price or the system advisor:		
United States Government securities	\$ 48,536	\$ (7,000)
Corporate and foreign bonds and notes	16,551	(7,778)
Common and preferred stocks, including collective trust funds	823,773	431,246
	<u>888,860</u>	<u>416,468</u>
Fair value estimated by using discounted cash flow or appraised value:		
Mortgage loans	7,353	4,522
Real estate	12,854	29,593
Venture capital	3,586	349
	<u>19,793</u>	<u>34,464</u>
Total appreciation	<u>\$912,653</u>	<u>\$450,932</u>

Continued

NOTES TO FINANCIAL STATEMENTS, Continued

5. Investments, continued:

The fair value of individual investments that represent 5% or more of the System's net assets available for benefits are as follows:

	<u>1989</u>	<u>1988</u>
	(000's omitted)	
Wells Fargo Bank:		
Equity Index Fund -		
23,679,726 units in 1989 and 1988	\$1,629,930	\$1,239,135
Asset Allocation Fund -		
35,775,833 and 35,775,781 units	700,336	626,624

6. Income Taxes:

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

7. Contingencies:

The System is involved in various lawsuits which, if settled adversely, would not have a material effect on the financial statements in management's opinion. However, 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.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM

TEN-YEAR HISTORICAL TREND INFORMATION

Analysis of Funding Progress
(in millions of dollars)

at December 31, 1989

	(1)	(2)	(3)	(4)	(5)	(6)
						Unfunded (Assets in Excess of) Pension Benefit Obligation as a Percentage of Annual Covered Payroll
Fiscal Year	Net Assets Available for Benefits*	Pension Benefit Obligation	Percentage Funded (1)/(2)	Unfunded (Assets in Excess of) Pension Benefit Obligation (2)-(1)	Annual Covered Payroll	(4)/(5)
1980	\$2,689	\$6,120	43.9%	\$3,431	\$2,130	161.1%
1981	2,817	6,456	43.6	3,639	2,187	166.4
1982	3,730	5,931	62.9	2,201	2,334	94.3
1983	4,396	6,367	69.0	1,971	2,386	82.6
1984	4,922	6,896	71.4	1,974	2,464	80.1
1985	6,157	6,565	93.8	408	2,427	16.8
1986	7,120	6,984	101.9	(136)	2,518	(5.4)
1987	7,367	7,384	99.8	17	2,663	0.6
1988	8,312	8,257	100.7	(55)	2,779	(2.0)
1989	9,785	8,782	111.4	(1,003)	2,998	(33.5)

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded (assets in excess of) pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally the greater this percentage, the stronger the Plan. Trends in unfunded (assets in excess of) benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded (assets in excess of) pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the Plan.

* Reflects investment valuation at fair value (Note 2).

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYEES' RETIREMENT SYSTEM

TEN-YEAR HISTORICAL TREND INFORMATION
Revenues by Source and Expenses by Type
(in thousands of dollars)

at December 31, 1989

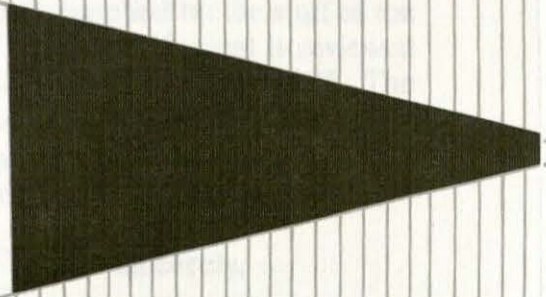
Fiscal Year	Revenues by Source			Total	Employer Contributions as a Percentage of Annual Covered Payroll
	Employee Contributions	Employer Contributions*	Investment Income**		
1980	\$110,531	\$305,547	\$300,700	\$716,778	14.3%
1981	116,283	325,688	14,070	456,041	14.9
1982	121,589	383,519	758,038	1,263,146	16.4
1983	135,841	413,809	488,266	1,037,916	17.3
1984	121,929	439,835	363,365	925,129	17.9
1985	132,695	460,435	1,105,778	1,698,908	19.0
1986	139,454	407,276	916,323	1,463,053	16.2
1987	147,061	366,463	223,382	736,906	13.8
1988	153,131	382,413	929,778	1,465,322	13.8
1989	164,653	416,513	1,464,707	2,045,873	13.8

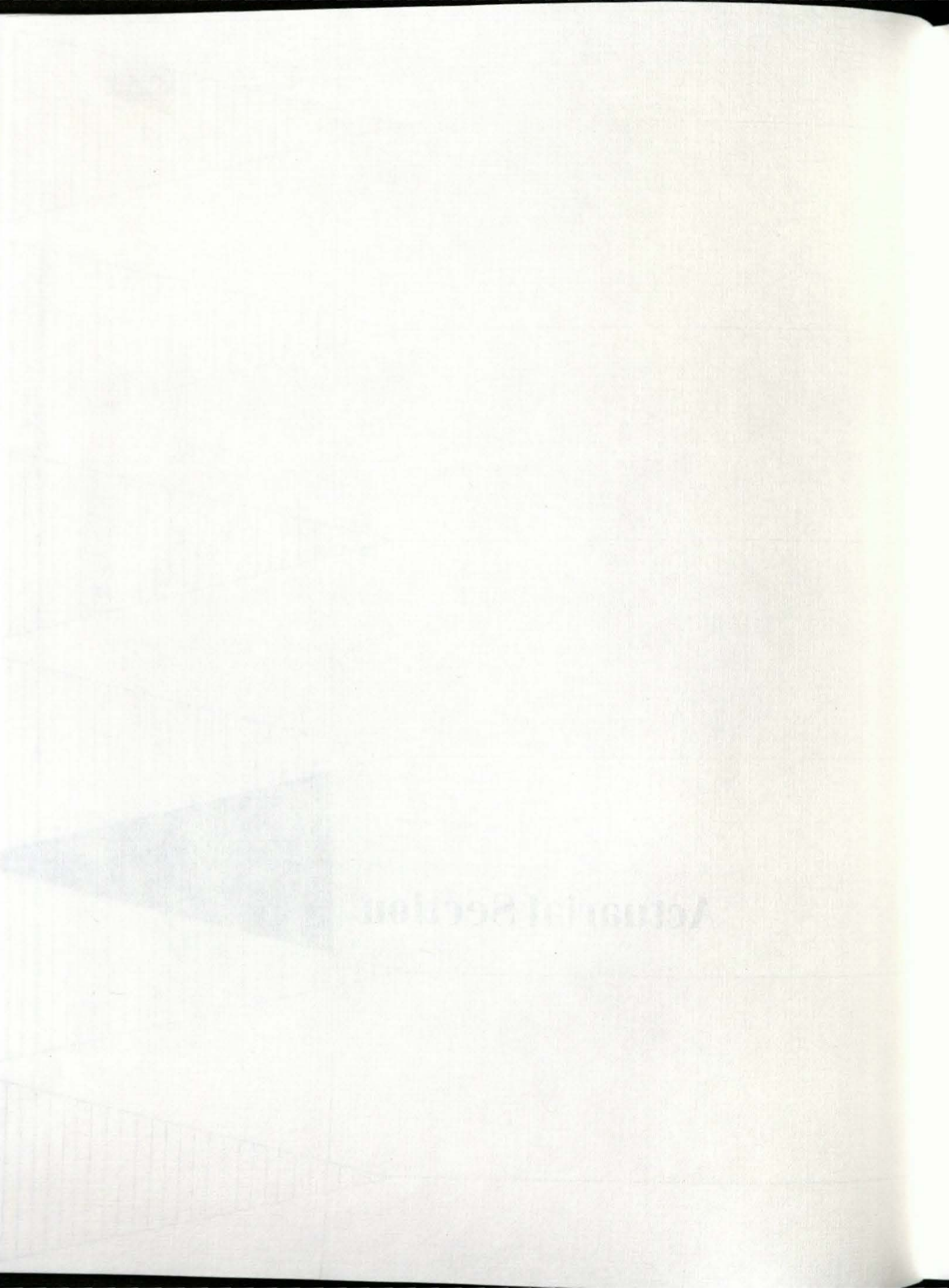
* Contributions were made in accordance with actuarially determined contribution requirements.

** Includes net realized and unrealized appreciation or depreciation in fair value of investments and is net of investment expense.

Fiscal Year	Expenses by Type			Total
	Benefit Payments	Refunds of Employee Contributions	Administrative Expenses	
1980	\$281,343	\$13,922	\$2,466	\$297,731
1981	311,838	13,862	3,001	328,701
1982	335,342	11,785	2,938	350,065
1983	360,434	8,528	2,856	371,818
1984	384,406	11,247	4,044	399,697
1985	447,556	10,680	5,472	463,708
1986	483,603	11,338	4,938	499,879
1987	474,598	10,671	4,811	490,080
1988	504,697	10,446	5,391	520,534
1989	556,324	10,777	6,028	573,129

Actuarial Section





Hay/Huggins Company, Inc.
Actuarial and Benefits Consultants
1500 K Street, N.W.
Suite 1000
Washington, DC 20005
(202) 637-6600
Fax: (202) 637-0160

May 1, 1991

Hay/Huggins
Company

Retirement Board
Pennsylvania State Employees'
Retirement System
909 Green Street
Harrisburg, PA 17102-2999

Dear Board Members:

An actuarial valuation was last performed as of December 31, 1989 to determine actuarial liabilities under the Pennsylvania State Employees' Retirement System. The valuation was carried out in accordance with sound actuarial principles in a manner which, in my opinion, reflects the applicable provisions of the State Employees' Retirement Code. The valuation also served as the basis for determining the contributions required to be made by the Commonwealth to fund the liabilities of the System.

Valuations are made annually based on data supplied by the staff of the Retirement Board. The experience under the Retirement System is reviewed every five years. The last such review was for the period of 1981 to 1985. The results of the review are used to develop the assumptions underlying the actuarial valuations. Thus, required contributions are determined on a sound actuarial basis reflecting actual experience under the system.

Sincerely,



Edwin C. Hustead
Senior Vice President

HayGroup

**ACTUARIAL BALANCE SHEET
AS OF DECEMBER 31, 1989
(000's omitted)**

ASSETS

* ACTUARIAL VALUE OF ASSETS IN THE FUND \$8,526,209

PRESENT VALUE OF FUTURE PROJECTED CONTRIBUTIONS:

MEMBER CONTRIBUTIONS (1)	\$1,505,549	
EMPLOYER NORMAL CONTRIBUTIONS (2)	\$1,311,714	
ACCRUED LIABILITY CONTRIBUTIONS (3)	\$1,584,905	
SUPPLEMENTAL ANNUITY CONTRIBUTIONS(4)	\$561,815	
		\$4,963,983

TOTAL ASSETS \$13,490,192

LIABILITIES

PRESENT VALUE OF BENEFITS PAYABLE
TO ANNUITANTS & BENEFICIARIES \$4,258,648

PRESENT VALUE OF PROJECTED BENEFITS PAYABLE
TO ACTIVE & INACTIVE MEMBERS \$9,231,544

TOTAL LIABILITIES \$13,490,192

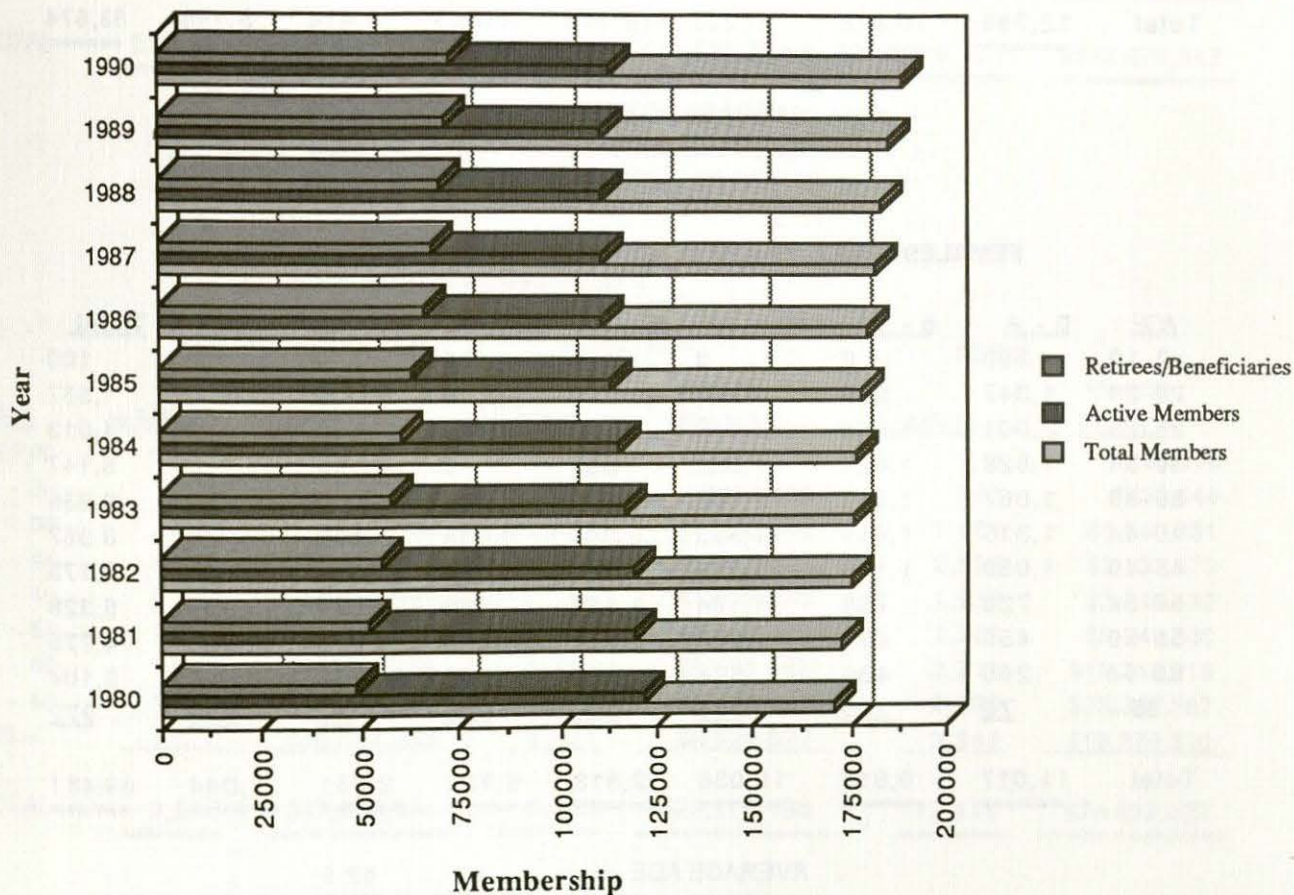
- (1) Present Value of contributions that current active members will make.
- (2) Present Value of the normal contributions employers will make on behalf of current active members including contributions on behalf of special enforcement officers and state police.
- (3) Present Value of the contributions necessary to pay off the accrued liabilities of the Pension Plan. The liability is comprised of two parts. A \$1.06 billion segment is being funded over 30 years from July 1, 1969; The remainder is being funded over 30 years from July 1, 1974.
- (4) Present Value of the contributions necessary to fund the cost-of-living increases granted in 1974, 1979, 1984 and 1989. These liabilities are funded over separate 20 year periods.

* The Actuarial value of the fund assets is determined by using the five-year moving average method which recognizes the difference between the expected actuarial value of assets and the market value of assets over a five-year period.

**STATE EMPLOYES' RETIREMENT SYSTEM
COMPARATIVE MEMBERSHIP STATISTICS
As of December 31, 1990**

<u>Ending December 31</u>	<u>Total Members</u>	<u>% Change</u>	<u>Active Members</u>	<u>% Change</u>	<u>Retirees & Beneficiaries</u>	<u>% Change</u>
1990	188,114	1.71%	114,032	1.58%	74,082	1.92%
1989	184,945	1.02%	112,259	0.32%	72,686	2.12%
1988	183,076	1.06%	111,901	0.14%	71,175	2.55%
1987	181,147	0.95%	111,743	-0.10%	69,404	2.68%
1986	179,448	0.84%	111,855	-1.83%	67,593	5.59%
1985	177,953	0.66%	113,940	-1.71%	64,013	5.18%
1984	176,786	0.50%	115,923	-1.33%	60,863	4.17%
1983	175,915	0.44%	117,488	-1.72%	58,427	5.10%
1982	175,139	1.68%	119,548	-0.15%	55,591	5.84%
1981	172,250	0.87%	119,724	-1.84%	52,526	7.67%
1980	170,756	-0.11%	121,973	-2.27%	48,783	5.74%

**State Employees' Retirement System
Comparative Membership Statistics***



*Membership figures are subject to minor adjustments during Actuarial Review

STATE EMPLOYEES' RETIREMENT SYSTEM
AGE AND SERVICE PROFILE OF ACTIVE MEMBERS AS OF DECEMBER 31, 1989

ALL EMPLOYEES

MALES - FULL YEARS OF SERVICE TO DECEMBER 31, 1989

<u>AGE</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 +</u>	<u>TOTAL</u>
0-19	20	0	0	0	0	0	0	20
20-24	940	62	0	0	0	0	0	1,002
25-29	2,681	1,379	187	0	0	0	0	4,247
30-34	2,300	2,549	1,649	213	0	0	0	6,711
35-39	1,993	2,084	2,719	2,357	261	0	0	9,414
40-44	1,745	1,709	2,110	4,317	2,755	136	0	12,772
45-49	1,028	978	1,078	1,983	2,993	1,398	100	9,558
50-54	811	836	796	1,133	1,581	1,459	856	7,472
55-59	699	655	792	1,113	1,066	1,104	1,259	6,688
60-64	438	473	607	756	721	650	693	4,338
65 +	<u>144</u>	<u>153</u>	<u>267</u>	<u>245</u>	<u>236</u>	<u>167</u>	<u>240</u>	<u>1,452</u>
Total	<u>12,799</u>	<u>10,878</u>	<u>10,205</u>	<u>12,117</u>	<u>9,613</u>	<u>4,914</u>	<u>3,148</u>	<u>63,674</u>

AVERAGE AGE 44.4
 AVERAGE SERVICE ... 13.8

FEMALES - FULL YEARS OF SERVICE TO DECEMBER 31, 1989

<u>AGE</u>	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 +</u>	<u>TOTAL</u>
0-19	100	0	0	0	0	0	0	100
20-24	1,347	220	0	0	0	0	0	1,567
25-29	2,001	1,550	462	0	0	0	0	4,013
30-34	1,829	1,824	1,985	509	0	0	0	6,147
35-39	1,867	1,581	2,055	2,825	607	0	0	8,935
40-44	1,315	1,619	1,522	2,001	1,714	196	0	8,367
45-49	1,039	1,110	1,238	1,182	966	557	81	6,173
50-54	720	758	1,104	1,152	786	472	336	5,328
55-59	459	621	925	1,166	888	416	300	4,775
60-64	265	430	574	750	565	303	217	3,104
65 +	<u>75</u>	<u>105</u>	<u>171</u>	<u>228</u>	<u>196</u>	<u>87</u>	<u>110</u>	<u>972</u>
Total	<u>11,017</u>	<u>9,818</u>	<u>10,036</u>	<u>9,813</u>	<u>5,722</u>	<u>2,031</u>	<u>1,044</u>	<u>49,481</u>

AVERAGE AGE 42.9
 AVERAGE SERVICE ... 12.0

STATE EMPLOYES' RETIREMENT SYSTEM
AGE & BENEFIT PROFILE OF RETIREES & BENEFICIARIES
AS OF DECEMBER 31, 1989

REGULAR RETIREMENTS

AGE	MALE		FEMALE		TOTAL	
	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION
50 - 54	115	\$1,909,055	3	\$42,998	118	\$1,952,053
55 - 59	377	\$6,120,326	40	\$567,139	417	\$6,687,465
60 - 64	3,020	\$34,439,338	2,064	\$15,226,023	5,084	\$49,665,361
65 - 69	6,574	\$60,266,106	4,864	\$30,211,667	11,438	\$90,477,773
70 - 74	6,129	\$41,917,537	4,891	\$25,708,474	11,020	\$67,626,011
75 - 79	5,205	\$31,962,541	4,137	\$21,269,712	9,342	\$53,232,253
80 - 84	2,944	\$17,499,462	2,331	\$11,623,898	5,275	\$29,123,360
85 - 89	1,082	\$6,568,866	1,018	\$4,710,893	2,100	\$11,279,759
OVER 90	322	\$1,910,606	355	\$1,724,301	677	\$3,634,907
TOTAL	25,768	\$202,593,837	19,703	\$111,085,105	45,471	\$313,678,942

AVERAGE AGE 72.6

AVERAGE ANNUAL PENSION... \$6,898

EARLY RETIREMENTS

AGE	MALE		FEMALE		TOTAL	
	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION
UNDER 30	0	0	8	\$6,476	8	\$6,476
30 - 34	91	\$77,049	306	\$257,395	397	\$334,444
35 - 39	533	\$548,341	1,298	\$1,292,440	1,831	\$1,840,781
40 - 44	1,345	\$1,809,276	1,160	\$1,422,403	2,505	\$3,231,679
45 - 49	1,212	\$2,526,997	726	\$1,283,535	1,938	\$3,810,532
50 - 54	1,039	\$4,662,048	750	\$2,281,452	1,789	\$6,943,500
55 - 59	1,565	\$12,840,858	1,146	\$6,072,160	2,711	\$18,913,018
60 - 64	1,552	\$14,335,092	1,338	\$8,032,195	2,890	\$22,367,287
65 +	1,673	\$10,857,233	1,671	\$8,522,077	3,344	\$19,379,310
TOTAL	9,010	\$47,656,894	8,403	\$29,170,133	17,413	\$76,827,027

AVERAGE AGE 54.1

AVERAGE ANNUAL PENSION... \$4,412

STATE EMPLOYES' RETIREMENT SYSTEM
AGE & BENEFIT PROFILE OF DISABLED AND BENEFICIARY & SURVIVOR RETIREES
AS OF DECEMBER 31, 1989

DISABILITY RETIREMENTS

AGE	MALE		FEMALE		TOTAL	
	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION
UNDER 30	0	0	2	\$10,756	2	\$10,756
30 - 34	19	\$124,564	24	\$132,593	43	\$257,157
35 - 39	62	\$373,684	94	\$534,964	156	\$908,648
40 - 44	151	\$921,327	110	\$636,319	261	\$1,557,646
45 - 49	204	\$1,401,482	144	\$828,260	348	\$2,229,742
50 - 54	264	\$1,879,725	177	\$1,126,677	441	\$3,006,402
55 - 59	358	\$2,583,564	290	\$1,744,010	648	\$4,327,574
60 - 64	487	\$3,115,785	335	\$1,755,956	822	\$4,871,741
65 +	667	\$3,375,867	679	\$2,804,414	1,346	\$6,180,281
TOTAL	2,212	\$13,775,998	1,855	\$9,573,949	4,067	\$23,349,947

AVERAGE AGE 59.1

AVERAGE ANNUAL PENSION . . . \$5,741

BENEFICIARIES & SURVIVOR RETIREMENTS

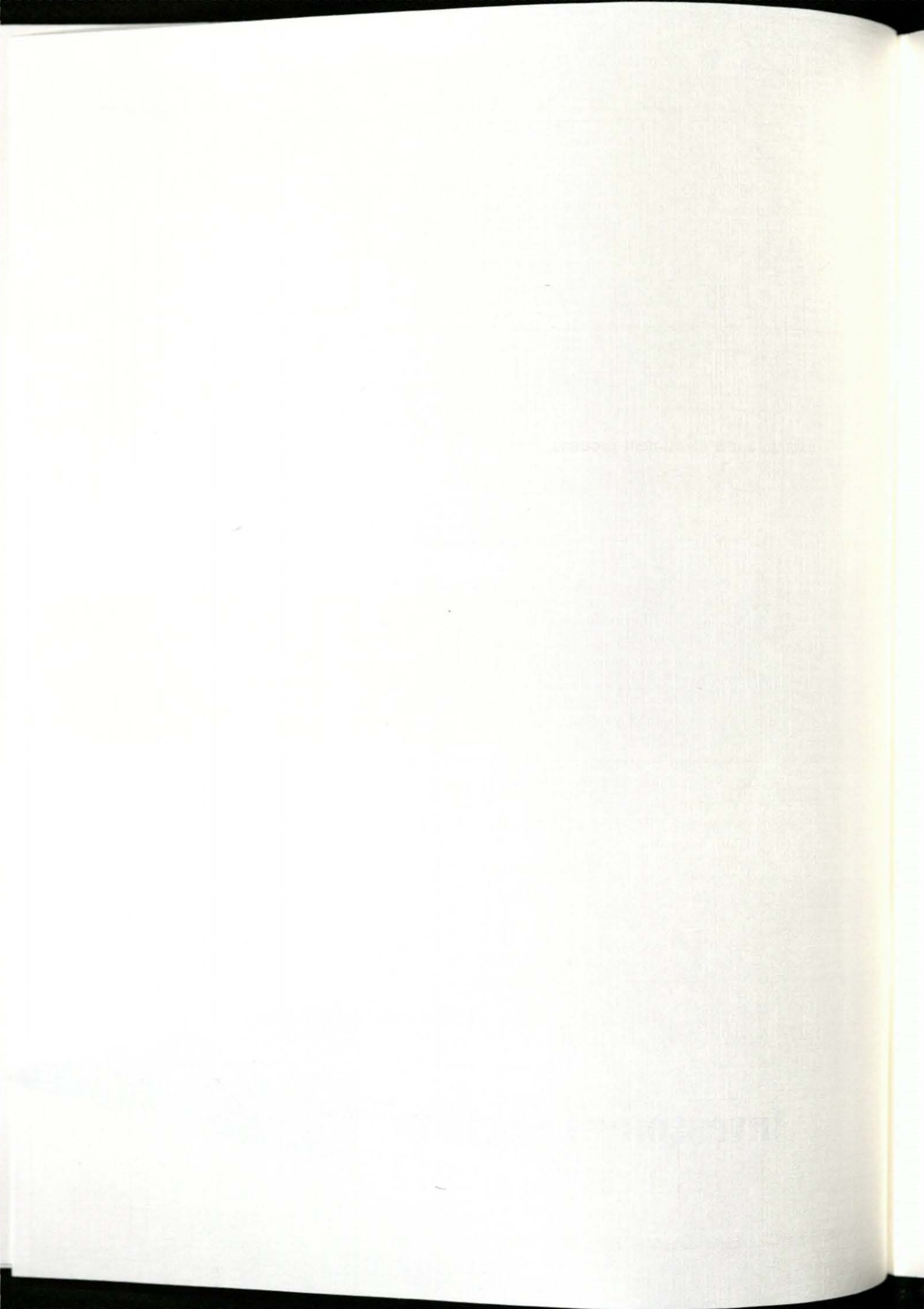
AGE	MALE		FEMALE		TOTAL	
	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION	NUMBER	ANNUAL PENSION
UNDER 25	0	0	2	\$6,136	2	\$6,136
25 - 29	4	\$10,649	4	\$6,037	8	\$16,686
30 - 34	9	\$31,023	4	\$9,616	13	\$40,639
35 - 39	11	\$57,458	16	\$84,684	27	\$142,142
40 - 44	21	\$88,615	25	\$69,790	46	\$158,405
45 - 49	26	\$68,651	53	\$168,500	79	\$237,151
50 - 54	22	\$57,555	98	\$337,267	120	\$394,822
55 - 59	28	\$129,519	158	\$748,146	186	\$877,665
60 - 64	26	\$128,357	439	\$2,084,503	465	\$2,212,860
65 - 69	47	\$188,692	739	\$3,064,651	786	\$3,253,343
70 - 74	69	\$233,718	1,172	\$4,280,614	1,241	\$4,514,332
75 - 79	48	\$158,772	1,192	\$4,331,583	1,240	\$4,490,355
80 - 84	30	\$100,847	919	\$3,339,965	949	\$3,440,812
85 - 89	9	\$23,935	482	\$1,380,951	491	\$1,404,886
90 +	6	\$16,647	220	\$482,182	226	\$498,829
TOTAL	356	\$1,294,438	5,523	\$20,394,625	5,879	\$21,689,063

AVERAGE AGE 73.5

AVERAGE ANNUAL PENSION . . . \$3,689



Investment Section



Investment Policy

The State Employees' Retirement Board adopted a formal Statement of Investment Policy in 1979 which has been revised 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 the assets of the Fund, 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;

Where investment characteristics, including yield, risk, and liquidity, are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania;

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 contracts with highly qualified investment advisors and consultants to provide expert, professional judgment in all investment decisions;

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;

An annual Investment Plan is prepared to control the allocation of funds during the year among investment advisors and categories of assets; and

All records of investment transactions are available for public inspection at the offices of the State Employees' Retirement System.

Investment Objectives

The investment objectives of the Fund are to assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation. The minimum total return objectives of the Fund, including income and both realized and unrealized gains and losses over full economic cycles, are:

- A. Achieve and maintain State Employees' Retirement Fund in excess of Accrued Benefit Liability;
- B. Achieve a Real Total Rate of Return (as measured by the GNP Implicit Price Deflator). Achieve an Absolute Total Rate of Return not less than the actuarial investment return assumption (currently 5 1/2%);
- C. Achieve in Equity Securities (Common Stock, Convertible Preferred Stock, and Convertible Bonds) a total return that exceeds the total return of the Wilshire 5000 Index;
- D. Achieve in Bonds/Mortgages a total return that exceeds the total return of the Shearson Lehman Aggregate Bond Index;
- E. Achieve in residential mortgage investments a total return superior to the total return of the Salomon Brothers Mortgage Pass-Through Security Total Rate of Return Index. Commercial mortgage investment return should be competitive with the total return on similar institutional portfolios and on other fixed income investments;
- F. Achieve in Equity Real Estate Investments a total return that is competitive with market returns for similar types of real estate investments;
- G. Achieve in Short-Term Securities relative performance better than U.S. Treasury Bills (90 days).

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. In addition, investments are selected in accordance with quality guidelines.

Investment Highlights

The market value of the State Employees' Retirement System investments including accruals, was \$9,772.7 million as of December 31, 1990. This was an increase of \$96.7 million from the \$9,676.0 million market value as of December 31, 1989. The increase was from investment income, changes in asset market values, net realized and unrealized gains and losses, and from net contributions (employer and employee contributions minus benefit and administrative payments). Based on market value of assets, SERS is the 23rd largest public pension fund in the nation and the 38th largest public and corporate pension fund.

For the year ended December 31, 1990, SERS realized a 1.1% total investment rate of return after fees. The Fund achieved in equity securities a -5.6% total return compared to the -6.2% total return of the Wilshire 5000 Index. The Fund achieved in bonds & mortgages a 7.6% total return compared to the 8.9% total return of the Shearson Lehman Aggregate Bond Index. SERS annualized five year investment rate of return is 9.9% from 1986 through 1990. This return exceeded the 3.3% for the GNP Implicit Price Deflator and the 5.5% actuarial investment return assumption.

SERS invests in six asset classes and uses multiple external investment advisors with various investment styles as a method to ensure overall fund diversification. As of December 31, 1990, the asset class allocation was: 44.4% stocks; 33.0% bonds & mortgages; 8.8% real estate; 12.8% cash; 0.7% venture capital; and 0.3% alternative investments. As of December 31, 1990 SERS had 53 external investment advisors managing 65 portfolios.

As of December 31, 1990, SERS had \$941.6 million, almost 10% of SERS total fund, invested in Pennsylvania. Of this amount, SERS had placed over \$757.4 million in portfolios which were specially designed for Pennsylvania investment. The Pennsylvania portfolios include: a stock index fund; a private placement long term loan account; a mortgage-portfolio (conventional commercial, FHA projects, and residential properties); several real estate portfolios; 14 venture capital limited partnerships; and one LBO limited partnership. SERS has committed additional amounts to these portfolios and to several new Pennsylvania portfolios.

Rate of Return

Asset Class	5 years 1986-90	1990	1989	1988	1987	1986
SERS - Stocks	11.0%	-5.6%	27.9%	17.4%	1.6%	17.0%
Wilshire 5000 Index	11.2%	-6.2%	29.2%	17.9%	2.3%	16.1%
S&P 500 Index	13.2%	-3.2%	31.5%	16.8%	5.2%	18.6%
SERS - Bonds & Mortgages	9.5%	7.6%	11.6%	8.9%	3.7%	16.2%
Shearson Lehman Aggregate Bond Index	9.8%	8.9%	14.5%	7.9%	2.8%	15.3%
SERS - Real Estate	6.8%	1.8%	7.1%	7.9%	8.6%	8.6%
FRC Property Index	4.1%	0.2%	4.7%	5.9%	4.3%	5.4%
SERS - Cash	8.3%	8.8%	10.7%	7.4%	6.6%	7.9%
90-Day Treasury Bills	7.1%	8.3%	9.0%	6.7%	5.4%	6.1%
SERS - Venture Capital	2.2%	-0.4%	6.3%	1.7%	-0.1%	3.5%
SERS - Alternative Investments	NA	3.2%	4.0%	3.1%	NA	NA
SERS - Total Fund*	9.9%	1.1%	17.8%	12.9%	3.4%	15.3%
Inflation - GNP Implicit Price Deflator	3.3%	4.0%	3.4%	4.3%	3.0%	2.0%
Inflation - Consumer Price Index	4.1%	6.1%	4.6%	4.4%	4.4%	1.1%
Actuarial Investment Return	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%

* Includes the Wells Fargo Asset Allocation Fund.

The venture capital and alternative investments rates of return were estimated.

Investment Advisors

Aetna Life Insurance Company
Hartford, CT
(real estate)

Alex. Brown Kleinwort Benson
Realty Advisors Corporation
Sacramento, CA
(real estate)

APA Capital Risque III
New York, NY and Paris, France
(alternative investments)

APA/Fostin Pennsylvania Venture Capital Fund
Philadelphia, PA and Pittsburgh, PA
(venture capital)

Barrow, Hanley, Mewhinney & Strauss, Inc.
Dallas, TX
(stocks)

Brentwood Associates Buyout Fund, L.P.
Los Angeles, CA
(alternative investments)

Butcher & Singer/Keystone Venture II, L.P.
Philadelphia, PA
(venture capital)

CEO Venture Fund-S
CEO Venture Fund II
Pittsburgh, PA
(venture capital)

Code, Hennessy & Simmons, L.P.
Chicago, IL
(alternative investments)

Connecticut General Life Insurance Company
Hartford, CT and Philadelphia, PA
(bonds & mortgages)

Copley Real Estate Advisors
Boston, MA
(real estate)

Corporate Property Investors
New York, NY
(real estate)

Delaware Investment Advisers
Philadelphia, PA
(bonds & mortgages)

Fostin Capital Associates
Fostin Capital Associates II
Pittsburgh, PA
(venture capital)

Geewax, Terker & Company
Phoenixville, PA
(stocks)

Genesis Seed Fund, Ltd.
Philadelphia, PA
(venture capital)

Grotech Partners III
Timonium, MD
(venture capital)

Heitman Advisory Corporation
Chicago, IL
(real estate)

JMB Institutional Realty Corporation
Chicago, IL
(real estate)

John Hancock Mutual Life Insurance Company
Boston, MA
(real estate)

Latimer & Buck Financial Services, Inc.
Philadelphia, PA
(bonds & mortgages)

Maverick Pennsylvania Fund
Pittsburgh, PA
(alternative investments)

McGlinn Capital Management, Inc.
Wyomissing, PA
(stocks)

Mellon Bank, N.A.
Pittsburgh, PA
(stocks)

Mellon Bond Associates
Philadelphia, PA
(bonds & mortgages)

Mellon Equity Associates
Pittsburgh, PA
(stocks)

Investment Advisors (Continued)

Metric Institutional Realty Advisors
Foster City, CA
(real estate)

Miller, Anderson & Sherrerd
West Conshohocken, PA
(stocks, bonds & mortgages)

Morgan Grenfell Investment Services Limited
New York, NY
(stocks)

Murphy & Fauver, L.P.
New York, NY
(alternative investments)

NEPA Venture Fund, L.P.
Bethlehem, PA
(venture capital)

Payden & Rygel
Los Angeles, CA
(cash)

Pennsylvania Fund #1
RR&Z Capital Group Inc.
Pittsburgh, PA
(alternative investments)

Pilgrim, Baxter, Greig and Associates
Wayne, PA
(stocks)

Pittsburgh Seed Fund
Pittsburgh, PA
(venture capital)

PNC Venture Group I
Pittsburgh, PA
(venture capital)

Point Venture Partners
Pittsburgh, PA
(venture capital)

Provident Investment Counsel, Inc.
Pasadena, CA
(stocks)

The Prudential Asset Management Company,
Inc.
Newark, NJ
(real estate)

PSI Institutional Realty
Glendale, CA
(real estate)

Scudder, Stevens & Clark, Inc.
New York, NY
(stocks)

Sentinel Corporation
New York, NY
(real estate)

SunBank Capital Management, N.A.
Orlando, FL
(stocks)

TDH II Limited
Radnor, PA
(venture capital)

Trinity Investment Management Corporation
Bellefonte, PA
(stocks)

Wells Fargo Nikko Investment Advisors
San Francisco, CA
(stocks, TAA)

W.R. Huff Asset Management
Morristown, NJ
(bonds & mortgages)

Zero Stage Capital II - Central Pennsylvania
Limited Partnership
State College, PA
(venture capital)

Asset Allocation
December 31, 1990
(\$ in millions)

Investment Manager - Portfolio	Stocks (with accruals)	Bonds & Mortgages (with accruals)	Real Estate	Cash	Venture Capital	Alternative Investments	Total Market Value	Percent of Total Market Value
Barrow, Hanley, Mewhinney & Strauss, Inc.	\$487.0						\$487.0	5.0%
Geewax, Terker & Company	72.8						72.8	0.7%
McGlenn Capital Management, Inc.	46.6						46.6	0.5%
Mellon Capital Management - PA Index	128.9						128.9	1.3%
Mellon Equity Associates - Special Equity	249.7						249.7	2.6%
Miller, Anderson & Sherrerd	170.9						170.9	1.7%
Pilgrim, Baxter, Greig & Associates	150.0						150.0	1.5%
Provident Investment Counsel, Inc.	181.2						181.2	1.9%
SunBank Capital Management, N.A.	302.2						302.2	3.1%
Trinity Investment Management Corporation	187.2						187.2	1.9%
Wells Fargo Nikko - Equity Index Fund (S&P 500)	1,637.9						1,637.9	16.8%
Wells Fargo Nikko - Extended Equity Market Fund	364.6						364.6	3.7%
Wells Fargo Nikko - Hedge Account	38.4						38.4	0.4%
Miller, Anderson & Sherrerd - International	91.9						91.9	0.9%
Morgan Grenfell Investment - International	46.2						46.2	0.5%
Scudder, Stevens & Clark, Inc. - International	46.4						46.4	0.5%
Wells Fargo Nikko - Asset Allocation Fund	137.9	\$137.9		\$413.6			689.3	7.1%
Cigna - PA Private Placement		2.6					2.6	0.0%
Delaware Investment Advisers		118.8					118.8	1.2%
W. R. Huff Asset Management		172.5					172.5	1.8%
Mellon Bond Associates - Bond Index		645.6					645.6	6.6%
Miller, Anderson & Sherrerd		1,252.1					1,252.1	12.8%
U. S. Treasury bonds & notes		173.1					173.1	1.8%
Latimer & Buck Financial Services, Inc.		719.3					719.3	7.4%
Heitman Advisory Corporation - separate account			\$250.7				250.7	2.6%
JMB - separate account			161.8				161.8	1.7%
Aetna - 4 pooled funds			126.2				126.2	1.3%
Corporate Property Investors			122.4				122.4	1.3%
JMB Group Trust III			47.7				47.7	0.5%
9 other real estate pooled funds			153.4				153.4	1.6%
Payden & Rygel				709.1			709.1	7.3%
PA State Treasury - Treasury Investment Pool Fund *				132.0			132.0	1.4%
APA/Fostin Pennsylvania Venture Capital Fund**					\$20.6		20.6	0.2%
13 other PA venture capital limited partnerships **					47.2		47.2	0.5%
6 alternative investments **						\$25.7	25.7	0.3%
investment manager cash in transit				1.1			1.1	0.0%
TOTAL MARKET VALUE	\$4,339.6	\$3,221.9	\$862.2	\$1,255.7	\$67.8	\$25.7	\$9,772.7	100.0%
PERCENT OF TOTAL MARKET VALUE	44.4%	33.0%	8.8%	12.8%	0.7%	0.3%	100%	
1990 Investment Plan Policy - Target	45%	35%	10%	8%	1%	1%	100%	
1990 Investment Plan Policy - Range	40%-50%	30%-40%	7.5%-12.5%	5.5%-10.5%	0%-1%	0%-1%		

* Treasury Investment Pool Fund values are at cost.

** Venture capital and alternative investment market values are estimates.

Numbers may not add due to rounding.

Market Value
1985-90
(\$ in millions)

<u>Asset Class</u>	<u>12/31/90</u>	<u>12/31/89</u>	<u>12/31/88</u>	<u>12/31/87</u>	<u>12/31/86</u>
Stocks	\$4339.6	\$4484.7	\$3,431.5	\$3,164.4	\$3,113.1
Bonds & Mortgages	3221.9	2886.6	2,673.4	2,720.2	2,660.2
Real Estate	862.2	833.0	566.5	421.3	387.2
Cash	1255.7	1382.4	1,387.0	832.6	755.4
Venture Capital	67.8	67.4	62.8	53.3	31.9
Alternative Investments	<u>25.7</u>	<u>21.9</u>	<u>19.7</u>	<u>8.0</u>	<u>0</u>
Total Fund	\$9,772.7	\$9676.0	\$8,140.9	\$7,199.8	\$6,947.8

Asset Allocation
1985-90

<u>Asset Class</u>	<u>12/31/90</u>	<u>12/31/89</u>	<u>12/31/88</u>	<u>12/31/87</u>	<u>12/31/86</u>
Stocks	44.4%	46.4%	42.2%	43.9%	44.8%
Bonds & Mortgages	33.0%	29.8%	32.8%	37.8%	38.3%
Real Estate	8.8%	8.6%	7.0%	5.9%	5.6%
Cash	12.8%	14.3%	17.0%	11.6%	10.9%
Venture Capital	0.7%	0.7%	0.8%	0.7%	0.4%
Alternative Investments	<u>0.3%</u>	<u>0.2%</u>	<u>0.2%</u>	<u>0.1%</u>	<u>—</u>
Total Fund	100.0%	100.0%	100.0%	100.0%	100.0%

Numbers may not add due to rounding

**Commissions
Paid by SERS Stock Managers
1990**

	<u>Broker</u>	<u>Commissions</u>	<u>Broker</u>	<u>Commissions</u>
B			Miller Tabak Hirsch & Co.	\$56,457.78
G			Montgomery Securities	61,226.00
M			Morgan Stanley	77,153.26
M	Adams Harkness & Hill, Inc.	\$ 7,098.00	Neuberger & Berman	3,456.00
M	Alex Brown & Sons	47,872.46	O'Neill, William & Co.	7,040.00
Pi	Alpha Management, Inc.	20,102.00	Oppenheimer & Co.	207,712.10
Pr	Autranet, Inc.	3,648.00	Paine Webber Jackson Curtis	68,068.00
Su	Bear Stearns	135,602.94	Pennsylvania Group, Inc.	25,272.00
Tr	Blair, William, & Co.	6,689.00	Pershing Div. of DL & J	94,925.00
W	Bridge Trading	17,065.50	Piper, Jaffray & Hopwood	4,034.00
W	Broadcort	149,202.50	Prescott Ball & Turben	6,636.00
W	Cantor Fitzgerald	59,455.50	Prudential/Bache Securities	48,686.00
Mi	Capital Institutional Svcs.	28,662.00	Pryor Govan & Counts	21,634.00
Mc	County Natwest Sec. Corp.	5,948.00	Quick & Reilly	14,858.00
Sc	County Securities Corp. USA	5,648.00	Robert Brandt & Co.	4,964.00
We	Cowen & Co.	23,079.00	Robert W. Baird	14,436.00
Cig	Cyrus J. Lawrence	130,363.25	Salomon Brothers	44,602.86
Del	Dean Witter Reynolds	27,232.00	Sanford C. Bernstein	29,999.00
W.	Drexel Burnham Lambert, Inc.	18,355.00	Shearson Lehman Hutton, Inc.	141,705.89
Mei	Ewing Capital	18,679.50	Shields Capital	5,856.00
Mil	Execution Services	10,300.00	Smith Barney Harris Upham	103,572.00
U. S	F & G Institutional Trading	3,219.00	Stamford Company, Inc.	5,742.00
Lati	First Boston Corp.	113,445.50	Standard & Poors	11,395.00
Hei	First Manhattan Co.	3,234.00	Stifel Nicolaus Co.	6,200.49
JMI	Goldman Sachs	123,212.00	Stuart Frankel & Company	26,678.00
Aetu	Gordon Hasket	22,408.00	The Chapman Company	17,766.00
Corj	Hambrecht & Quist, Inc.	7,916.72	W. R. Lazard & Laidlaw	17,285.00
JME	Helfant Trading, Inc.	28,967.00	Wall Street Discount	5,879.00
9 od	Instinet	94,620.50	Warburg, S. G. & Co., Inc.	4,415.00
Paye	Interstate Securities	14,977.00	Weeden & Co.	29,570.72
PA S	Janney Montgomery Scott	7,302.00	Weiss Peck & Greer	17,130.00
APA	Jefferies & Co.	132,969.75	Wertheim & Co.	3,614.64
13 o	Jones & Associates	8,895.00	Wertheim Schroder	47,360.00
6 alt	Josephthal & Co.	7,501.00	Wilshire Assoc.	375,648.72
inve:	Keefe Bruyette & Woods	6,570.00	Wood Gundy, Inc.	3,040.00
TOT	Kidder Peabody & Co.	87,452.16	Other brokers	49,866.00
PER:	Legg Mason Wood Walker, Inc.	30,368.70		
	Lynch, Jones & Ryan	199,739.13		
	Mabon Nugent	8,050.00		
	Merrill Lynch	160,641.00		

Total Commissions

\$3,440,375.07

1990

1990:

* Treas

** Ver

PENN

Pennsylvania Investments

Members of the State Employees' Retirement Board (Board), employees of SERS and agents of the Board stand in a fiduciary relationship to the members of the System regarding the investments and disbursements of the Fund. Subject to restrictions on investments contained in the Retirement Code and the Fiscal Code, the Board has exclusive control and management of the Fund and full power to invest the assets of the Fund. The Board adopted a formal Statement of Investment Policy in 1979 which has been revised to reflect and incorporate legislative changes governing investments. Where investment characteristics including yield, risk and liquidity are equivalent, the Board's policy favors investments which have a positive impact on the economy of Pennsylvania.

SERS investment portfolios have always had substantial investments in Pennsylvania firms, as some of the largest national firms are headquartered in the Pittsburgh, Philadelphia and Harrisburg areas. These firms include Bell Atlantic, Westinghouse, Sun, Rohm & Haas, and H. J. Heinz. In addition, SERS has invested in portfolios which were designed to give emphasis to investments in Pennsylvania. As of December 31, 1990, SERS had \$941.6 million (almost 10% of SERS total fund) invested in Pennsylvania. Of this amount, SERS had placed \$757.4 million in portfolios which were specially designed for Pennsylvania investments.

Stocks

SERS designed the Pennsylvania Equity Index Fund which increases the exposure in smaller "in-state" corporations. The fund consists of 228 corporations that are either Pennsylvania-based or employ Pennsylvanians equal to at least 25% of its total corporate employment. Mellon Capital Management manages this passive fund for SERS. Research conducted in 1986 indicated past performance of the Pennsylvania Equity Index Fund had substantially outperformed the Standard & Poor's 500 Composite Index for the previous 10 year, 5 year and 3 year periods. The market value of the Pennsylvania Equity Index Fund was \$128.9 million as of December 31, 1990.

Bonds & Mortgages

SERS had \$2.6 million invested in two loans of the Pennsylvania Private Placement Separate Account which was designed by the Milrite Council and is managed by CIGNA. The purpose of the fund was to provide long term, fixed rate loans to established Pennsylvania firms that do not have access to the public bond markets.

SERS had \$309.9 million invested in Pennsylvania mortgages (\$161.3 million in conventional commercial, \$27.5 million in FHA projects, and \$121.1 million in residential properties). The residential segment of this portfolio is comprised of \$121.1 million in competitive rate mortgages that are distributed throughout Pennsylvania. Latimer & Buck, SERS mortgage advisor, has committed on a best effort basis under their fiduciary responsibility to invest at least 50% of the SERS mortgage portfolio in Pennsylvania-based mortgages.

Real Estate

In 1987 SERS established two separate account real estate portfolios which are managed by Heitman Advisory Corporation and JMB Institutional Realty. To date, these managers have met

their commitment to invest approximately 50% of SERS portfolio in Pennsylvania properties. As of September 30, 1990, these two portfolios had over \$200 million invested in eight Pennsylvania properties.

As of September 30, 1990, SERS had an interest in \$8.6 million of various Pennsylvania properties through pooled real estate funds. In 1989, SERS hired Copley Advisors and Metric Realty Advisors, two pooled fund managers who committed to invest \$24.5 million in Pennsylvania during the next two to three years.

Venture Capital

SERS committed \$95 million to 17 Pennsylvania-based venture capital partnership funds. These funds are diversified among various geographic regions and financing stages (including four seed funds designated by the Ben Franklin Partnership). SERS, in conjunction with the Pennsylvania Public School Employees' Retirement System (PSERS), created the Pennsylvania Venture Capital Fund with the commitment of \$20 million from each fund. The partnership of Alan Patricof Associates/Fostin Capital manages this venture capital fund.

A key aspect of SERS venture capital investment is the attraction of national funds into Pennsylvania investments. Alan Patricof Associates' expertise as the lead investor in the majority of their investments continues to provide Pennsylvania with a flow of venture capital money from numerous out-of-state funds and investors. The progress of Pennsylvania within the national venture capital community should reap substantial rewards in future years for both Pennsylvania and the SERS fund. As of September 30, 1990 SERS venture capital limited partnerships have attracted \$174 million of out-of-state funds to finance their venture companies.

An entrepreneurial environment is necessary to enhance returns on venture capital investing and to continue an expansion of various business opportunities. A continuous effort to create this business environment, along with the availability of venture capital money, encourages continued economic growth as exhibited in such states as California and Massachusetts.

The limited partnerships funded by SERS have invested in 56 Pennsylvania companies. The Pennsylvania portfolio companies plus non-Pennsylvania-based companies employ 7,471 Pennsylvanians and have an estimated payroll of \$106,483,204.

As of 12/31/90, \$22 million of venture capital funds previously drawn down by SERS venture capital partnerships is currently available for investing in those companies seeking a home in Pennsylvania. In addition, \$23.4 million of committed funds are available for drawdown by SERS venture capital partnerships as of 12/31/90.

Alternative Investments

SERS has funded \$10 million to one LBO limited partnership fund with a Pennsylvania focus. This LBO fund invests in non-hostile, "friendly," privately negotiated, non-auction deals which are completed with present management in place. The LBO fund focuses on small to medium capitalization companies (between \$5 and \$100 million). SERS believes that this particular focus offers the largest potential returns given the risk levels for these types of investments.

Real Estate Separate Account Pennsylvania Properties

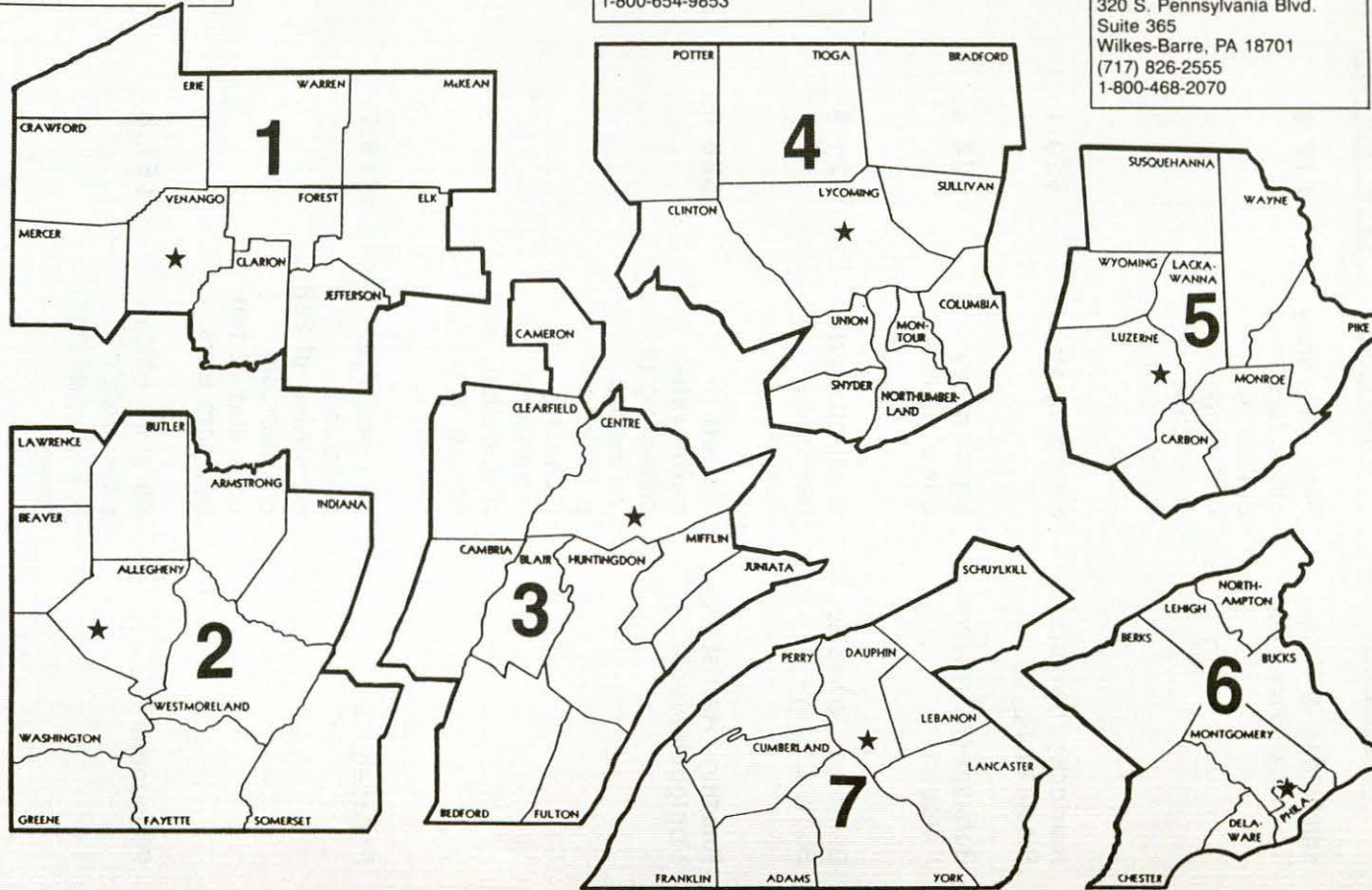
<u>Property</u>	<u>Location</u>	<u>Description</u>	<u>Market Value of SERS % (\$ in millions)</u>	<u>Manager</u>
1. Bucks County Business Park	Middletown & Falls Township, Bucks Co.	Five, one-story office flex buildings including warehouse and distribution space	\$12.9	Heitman Advisory
2. Columbia Mall	Hemlock Township, Bloomsburg	Shopping Mall	\$20.1	Heitman Advisory
3. Foster Plaza	Borough of Greentree, Pittsburgh	Multi-story office buildings	\$24.6	JMB Institutional Realty
4. Greenwood Square	Bensalem Township, Bucks County	Multi-phased flex office facility	\$21.9	Heitman Advisory
5. Heartland Properties	Reading, Harrisburg, Montgomeryville	limited partnership consisting of industrial properties including warehouse, distribution, and limited mfg. facilities	\$28.0	JMB Institutional Realty
6. Lincoln Green Apartments	Philadelphia	360 unit Apt. complex consisting of 288 one bedroom units and 72 two bedroom units	\$19.7	JMB Institutional Realty
7. 1818 Market Street	Philadelphia	40 story office tower with a 5 level parking garage	\$57.8	Heitman Advisory
8. York Galleria	York	Shopping Mall	\$30.0	Heitman Advisory

SERS REGIONAL COUNSELING FIELD OFFICE LOCATIONS

Region 1
 Seneca Office
 P.O. Box 01561
 Seneca, PA 16346
 (814) 437-4403
 1-800-752-1116

Region 4
 Montoursville Office
 Montour Plaza
 200 Howard Street
 Montoursville, PA 17754
 (717) 368-8655
 1-800-654-9853

Region 5
 Wilkes-Barre Office
 320 S. Pennsylvania Blvd.
 Suite 365
 Wilkes-Barre, PA 18701
 (717) 826-2555
 1-800-468-2070



Region 2
 Pittsburgh Office
 Foster Plaza 6 - Suite 400
 681 Anderson Drive
 Pittsburgh, PA 15220
 (412) 565-5302
 1-800-822-4256

Region 3
 State College Office
 (Projected opening 1991)

Region 7
 Harrisburg Office
 (Projected opening 1991)

Region 6
 Philadelphia Office
 Philadelphia State Office Bldg.
 1400 Spring Garden St. Room 1010
 Philadelphia, PA 19130
 (215) 560-5866
 1-800-633-5461

NOTES
