COMMONWEALTH OF PENNSYLVANIA

STATE EMPLOYES' RETIREMENT SYSTEM

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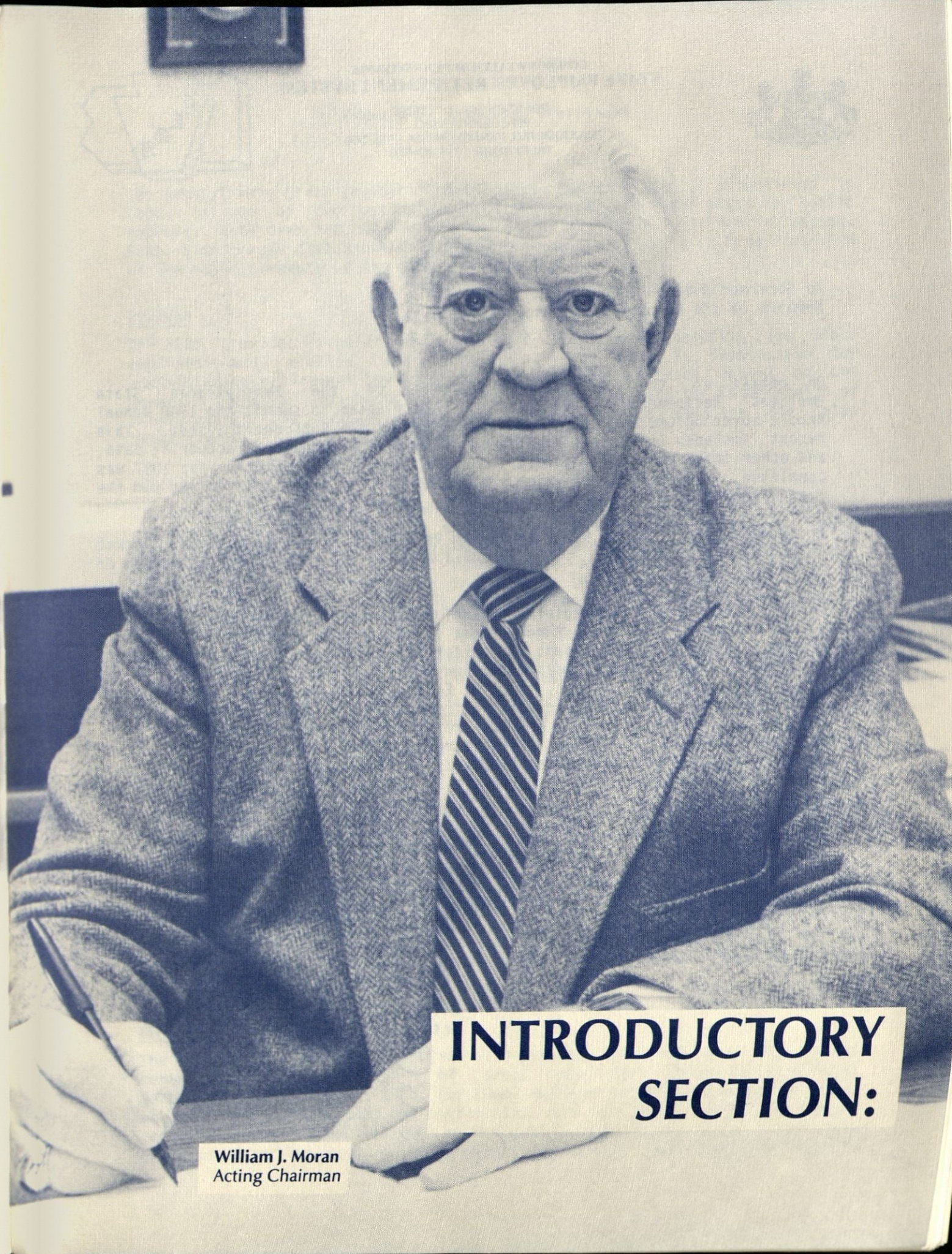


INTRODUCTORY SECTION:

William J. Moran
Acting Chairman

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM
BOAS SCHOOL BUILDING
909 GREEN STREET
HARRISBURG, PENNSYLVANIA 17102-2999
TELEPHONE: 717-787-6293

To Governor Robert P. Casey and
Members of the Pennsylvania General Assembly

On behalf of the Board of Trustees of the Pennsylvania State Employes' Retirement System (SERS), I am pleased to submit the 1988 Annual Report covering the activities and operations of the Retirement System. This report includes investment highlights, financial information, actuarial data, and other information of interest. An independent audit for the year 1987 was completed, the results of which are included. The financial records for the year 1988 are currently under examination.

At December 31, 1988 the State Employes' Retirement Fund had a total market value of $8.1 billion. The Fund had a total investment rate of return of 12.8% for 1988.

In 1988, two significant legislative actions impacted the membership. SERS worked closely with the Pennsylvania Congressional members to assist in causing a limited reinstatement of preferential tax treatment to members' retirement contributions, when withdrawn at retirement. This action reversed the impact of a 1986 change to the Federal tax law which resulted in additional tax liability for many retiring members. Also during 1988, State legislation was enacted which granted retirees a cost of living increase effective January 1, 1989. This increase, which will assist retired state employes in keeping up with the effects of inflation, was welcomed by the more than 50,000 retirees who received it. This legislation raised pensions an average of 8.1%.

If you require any further information, please contact Executive Director John R. Brosius at (717) 787-6780.

Respectfully submitted,

William J. Moran
Acting Chairman

Summary of SERS Plan Provisions

The Pennsylvania State Employes' Retirement System (SERS), established in 1923, is one of the nation's oldest statewide retirement plans for public employes. With over 183,000 members and approximately $8.1 billion in assets, SERS also ranks 21st among public plans in pension assets. 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 statute 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 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 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 a member 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 own contributions and

credited interest vest immediately and are returned upon termination of service if the member is not eligible for other benefits. After each annual actuarial valuation of the liabilities and reserve requirements of the Fund, the employer's contribution rate is set. For 1988, employers contributed at a composite rate of 13.09% of employee payroll. This is the same rate used for fiscal year 1987-88.

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. Service is limited to required military service.

Non-Intervening Military Service is limited to 5 years of credit, with certain prohibitions due to a member's use of this service towards another pension.

Out-of-State Educational Service is limited to 10 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 State.

Retirement Benefit

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 age for members of the Legislature, corrections officers, liquor law enforcement officers, psychiatric security aides, and officers of the state police is age 50.

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 amount of 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 x years of service x final average salary. The final average salary, generally speaking, is the average of the 3 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 that 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 that the member received.

Option 2. This plan will also provide the member with less money 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 for that person's lifetime. Upon the member's death, his/her Designated Survivor will begin to receive the same monthly pension that the member received.

Option 3. This plan also provides the member with a monthly pension that is 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 for that person's lifetime. Upon the member's death, his/her Designated Survivor 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 any 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. Approval by the Retirement Board is required in advance of the member's actual retirement.

Disability Retirement Eligibility

To be eligible to apply for a disability pension a member must have at least five years credited service. 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 should die 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.

Should a member die 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 retired members is effective January 1, 1989.

The 1989 cost of living increase is based upon the number of full years of service in the System and the number of full years a member has been on retirement. The formula for the most recent monthly increase is as follows:

1. Full years of credited service times $2.00 plus
2. Full years on retirement as of July 1, 1988 times $.50

To qualify, a member had to retire before July 1, 1987.

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.

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

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 not 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.

SERS Board Members as of December 31, 1988

Mr. William J. Moran, Acting Chairman
Hon. Anthony B. Andrezeski, State Senator
Mr. Robert A. Bittenbender, Executive Director, Senate Appropriations Committee (R)
Hon. David J. Brightbill, State Senator
Hon. G. Davis Greene, Jr., State Treasurer
Mr. Charles J. Lieberth, Retired Member and Former Secretary of Department of Labor and Industry
Hon. Nicholas Maiale, State Representative
Hon. Harold F. Mowery, Jr., State Representative
Mr. K. Paul Muench, Budget Analyst, House Appropriations Committee (R)
Mr. James I. Scheiner, Former Secretary of Department of Revenue

SERS Administrative Staff

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

Fund Custodian

The State Treasurer

Agent Bank and Trust Accounting Services

First Pennsylvania Bank, N.A., Philadelphia, PA

Consultants

Wilshire Associates, Santa Monica, CA (Investments)
Ronald A. Karp Associates, Inc., Summit, NJ (Real Estate)
Hay/Huggins Company, Inc., Philadelphia, PA (Consulting Actuary)

Independent Auditor

Coopers & Lybrand, Harrisburg, PA

Investment Managers

Aetna Life Insurance Co., Reading, PA
APA/Fostin Pennsylvania Venture Capital Fund, New York, NY and Pittsburgh, PA
Barrow, Hanley, Mewhinney & Strauss, Inc., Dallas, TX
Brentwood Associates Buyout Fund, L.P., Los Angeles, CA
Butcher & Singer/Keystone Venture II, L.P., Philadelphia, PA
CEO Venture Fund-S, Pittsburgh, PA
Connecticut General Life Insurance Company, Hartford, CT
Copley Real Estate Advisors, Boston, MA
Corporate Property Investors, New York, NY
Delaware Investment Advisers, Philadelphia, PA
F.I.A. Associates, Inc., Sacramento, CA
Fidelity Bank, N.A. & Latimer & Buck Financial Services, Inc., Phila., PA
First Pennsylvania Bank N.A., Philadelphia, PA
Fostin Capital Associates, Pittsburgh, PA
Geewax, Terker & Company, Phoenixville, PA
Genesis Seed Fund, Ltd., Philadelphia, PA
Heitman Advisory Corporation, Chicago, IL
JMB Institutional Realty Corp., Chicago, IL
John Hancock, Boston, MA
Maverick Pennsylvania Fund, Pittsburgh, PA
McGlinn Capital Management, Inc., Wyomissing, PA
Mellon Bank, N.A., Pittsburgh, PA
Miller, Anderson & Sherrerd, Bala Cynwyd, PA
Murphy & Fauver, L.P., New York, NY
NEPA Venture Fund, L.P., Bethlehem, PA
Payden & Rygel, Los Angeles, CA
Pennsylvania Fund #1, Pittsburgh, PA
Pilgrim, Baxter, Greig and Associates, Wayne, PA
Pittsburgh Seed Fund, Pittsburgh, PA
PNC Venture Group I, Pittsburgh, PA
Provident Investment Counsel, Pasadena, CA
Prudential Asset Management Co., Inc., Newark, NJ
PSI Institutional Realty, Glendale, CA
Sentinel Corporation, New York, NY
Sun Bank, N.A., Orlando, FL
TDH II Limited, Radnor, PA
Trinity Investment Management Corporation, Bellefonte, PA
Wells Fargo Investment Advisors, San Francisco, CA
W. R. Huff Asset Management, New York, NY
Zero Stage Capital II - Central Pennsylvania L.P., State College, PA

FINANCIAL SECTION:

Ernst & Whinney

300 Locust Court
212 Locust Street
Harrisburg, Pennsylvania 17101

717/232-7575

Board of Directors
Commonwealth of Pennsylvania
State Employes' Retirement System

We have examined the statements of net assets available for benefits of the Commonwealth of Pennsylvania State Employes' Retirement System as of December 31, 1987 and 1986, and the related statements of changes in net assets available for benefits for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial status of the Commonwealth of Pennsylvania State Employes' Retirement System at December 31, 1987 and 1986, and the changes in its financial status for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Ernst & Whinney

Harrisburg, Pennsylvania
May 13, 1988

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

	December 31 1987	1986
	(000s omitted)	
ASSETS		
Investments at fair value--Notes B and E:		
United States government securities	$ 1,809,646	$ 1,968,252
Corporate and foreign bonds and notes	912,035	754,379
Common and preferred stocks including collective trust funds	3,044,177	3,014,003
Temporary investments	426,563	361,307
Mortgages	490,811	427,832
Real estate	421,293	389,865
Venture capital	61,272	31,932
Total Investments	7,165,797	6,947,570
Contributions receivable:		
Employers	97,168	98,760
Employes	6,393	5,559
Accrued investment income receivable	72,024	72,134
Other receivables	35,191	3,812
Cash	4	4
Total Assets	7,376,577	7,127,839
LIABILITIES		
Accounts payable and accrued expenses	(9,535)	(7,623)
NET ASSETS AVAILABLE FOR BENEFITS--Note C	$ 7,367,042	$ 7,120,216

See notes to financial statements.

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

	Year Ended December 31 1987	1986
	(000s omitted)	
ADDITIONS		
Contributions--Notes A and D:		
Employers	$ 366,463	$ 407,276
Employes	147,061	139,454
Investment income, net of direct investment expenses of $8,388 in 1987 and $6,692 in 1986	424,277	404,839
	937,801	951,569
DEDUCTIONS:		
Benefits paid to participants	485,269	494,941
Administrative expenses	4,811	4,938
	490,080	499,879
	447,721	451,690
Net realized and unrealized appreciation (depreciation) in fair value of investments --Note E	(200,895)	511,484
NET ADDITIONS	246,826	963,174
Net assets available for benefits at beginning of year	7,120,216	6,157,042
NET ASSETS AVAILABLE FOR BENEFITS AT END OF YEAR	$ 7,367,042	$ 7,120,216

See notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

December 31, 1987

NOTE A--DESCRIPTION OF THE SYSTEM

The State Employes' 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 employes of state government and certain independent agencies. At December 31, 1987, there were 107 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 employes; members and employes of the legislature, certain elected persons in the executive branch, and certain other employes are not required but are given the option to participate. At December 31, 1987, System membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employes entitled to benefits but not yet receiving them	72,386
Current employes:	
Vested	64,996
Nonvested	44,503
Total members	181,885

The System provides retirement, death, and disability benefits. Retirement benefits vest after 10 years of credited service. Employes who retire at age 60, or with 35 years of service if under age 60, are entitled to an unreduced annual retirement benefit. Members of the legislature and certain law enforcement officers can retire on 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. Judges who were members of the System before March 1, 1974 are entitled to a benefit of 3% to 4% of average salary for each year of judicial service.

Covered employes are required by statute 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

NOTE A--DESCRIPTION OF THE SYSTEM--Continued

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 $1,491,286,000 and $1,388,102,000 as of December 31, 1987 and 1986, 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.

NOTE B--SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting: The financial statements are prepared using the accrual basis of accounting. In 1986, the System initially 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.

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

Mortgages are valued by the mortgage advisors using a discounted cash flow method. Real estate and venture capital 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.

NOTE B--SIGNIFICANT ACCOUNTING POLICIES--Continued

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

	December 31 1987	1986
	(000s omitted)	
Wells Fargo Bank Equity Index Fund-- 26,311,421 and 26,091,255 units at December 31, 1987 and 1986, respectively	$1,180,840	$1,112,726

NOTE C--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 employe 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 comparisons of this data among public employe retirement systems. The measure is independent of the actuarial funding method used to determine contributions to the System as discussed in Note D.

The pension benefit obligation was determined as part of an actuarial valuation at December 31, 1987 and 1986. 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 1987 and 1986, (b) projected salary increases of 4% per year compounded annually, attributable to inflation in 1987 and 1986, (c) additional projected salary increases of approximately 1.60% per year in 1987 and 1986, attributable to merit/promotion, and (d) no postretirement benefit increases.

NOTE C--FUNDING STATUS AND PROGRESS--Continued

The pension benefit obligation as of the end of each plan year is as follows:

	December 31 1987	1986
	(000s omitted)	
Net assets available for benefits, at market per Note B	$7,367,042	$7,120,216
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employes entitled to benefits but not yet receiving them	2,980,107	2,848,786
Current employes:		
Accumulated employe contributions including allocated investment income	1,491,286	1,388,102
Employer-financed vested	2,612,733	2,553,354
Employer-financed nonvested	300,181	193,733
Total pension benefit obligation	7,384,307	6,983,975
Assets in excess of (unfunded) benefit obligation	$ (17,265)	$ 136,241

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 financial information following the footnotes. This information is presented for purposes of additional analysis of System progress in accumulating sufficient assets to pay benefits when due. The calculation of actuarial liabilities under GASB Statement No. 5 (the Pension Benefit Obligation presented above) differs principally by the consideration of future salary increases from the calculation required under Statement No. 35 of the Financial Accounting Standards Board of the actuarial present value of accumulated plan benefits presented below.

The accumulated plan benefit information as of the end of each plan year is as follows:

	December 31 1987	1986
	(000s omitted)	
Actuarial present value of accumulated plan benefits:		
Vested benefits:		
Participants currently receiving payments	$3,118,766	$3,117,029
Other participants	3,401,188	3,326,952
	6,519,954	6,443,981
Nonvested benefits	234,305	170,184
Total	$6,754,259	$6,614,165

NOTE C--FUNDING STATUS AND PROGRESS--Continued

The actuarial present value of accumulated plan benefits was $5,398,172,000 as of December 31, 1985.

The significant actuarial assumptions used in the valuations of the actuarial present value of accumulated plan benefits as of December 31, 1987 and 1986 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	7.75% in 1987 and 7% in 1986

The effect of the change in the assumed rate of return on investments resulted in a decrease in the actuarial present value of accumulated plan benefits of approximately $399,371,000.

NOTE D--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.

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 a Commonwealth of Pennsylvania fiscal year basis ending June 30 such that employer contribution rates in effect for the System's fiscal year ending December 31 reflect a blended average of the rates as calculated. The blended contribution rates were as follows:

	1987	1986
Employer normal cost	4.03%	5.01%
Amortization of unfunded actuarial accrued liability	7.35	8.83
Amortization of supplemental annuities	1.71	1.72
Total employer cost	13.09%	15.56%

NOTE D--CONTRIBUTIONS--Continued

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. The salary growth assumption was increased by .25% of payroll per year in the 1987 valuation. The effect of this change in salary increase assumption, resulted in an increase in the employer contribution of $14,913,000. Other factors in the actuarial valuation had the effect of offsetting this increase.

NOTE E--INVESTMENTS

As provided by statute, the State Employes' Retirement Board of Trustees (Board) has exclusive control and management responsibility of System funds and full power to invest the same. 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, to this end, has adopted its Statement of Investment Policy to formally document investment objectives and responsibilities. This policy as well as applicable state law defines permissable investments of the System including all investment types held in the portfolio at December 31, 1987 and 1986 and at all times during the fiscal years then ended.

Applicable System investments, basically those evidenced by securities existing in physical or book entry form, are categorized below to give an indication of the level of risk assumed by the System at December 31, 1987 and 1986. 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 via 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 categorization. The System has no holdings of these types at December 31, 1987 and 1986.

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

NOTE E--INVESTMENTS--Continued

	Market and Carrying Value December 31	
	1987	1986
	(000s omitted)	
Category No. 1 Investments		
United States government securities	$ 714,575	$ 847,673
Corporate and foreign bonds and notes	881,990	732,701
Common and preferred stocks	1,525,163	1,663,306
Mortgages	1,778	4,252
	3,123,506	3,247,932
Other--Not Categorized		
Investments held by broker/dealers under reverse repurchase agreements:		
United States government securities	1,095,071	1,120,579
Corporate and foreign bonds and notes	30,045	21,678
Common and preferred stocks	59,030	28,400
Investment in equity collective trust funds	1,459,984	1,322,297
Investment in State Treasury investment pool	426,563	361,307
Investment in mortgage loans	489,033	423,580
Investment in real estate funds	421,293	389,865
Investment in venture capital funds	61,272	31,932
Total Investments	$7,165,797	$6,947,570

By means of a supplemental contract between the Commonwealth's Treasury Department and the custodial agent, the System participates in a security lending program, whereby ownership of System securities is 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 above summary of investment risk.

NOTE E--INVESTMENTS--Continued

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 $2,978,000 and $2,108,000 for 1987 and 1986, 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 $(200,895,000) in 1987 and $511,484,000 in 1986 as follows:

	1987	1986
	(000s omitted)	
Fair value as determined by quoted market price or the system advisor:		
United States government securities	$(124,053)	$ 84,911
Corporate and foreign bonds and notes	(31,871)	20,188
Common and preferred stocks including collective trust funds	(57,604)	336,032
	(213,528)	441,131
Fair value estimated by using discounted cash flow or appraised value:		
Mortgages	(12,882)	44,118
Real estate	26,131	26,759
Venture capital	(616)	(524)
Total	$(200,895)	$511,484

NOTE F--INCOME TAXES

The System has not requested a determination letter from the IRS relating to the status of the Plan under the Internal Revenue Code.

NOTE G--CONTINGENCIES

The System is involved in several lawsuits which, if settled adversely, would not have a material impact on the financial statements. However, the individual cases involve legal issues that if extended to the entire membership may result in significant additional costs to the System.

Ernst & Whinney

300 Locust Court
212 Locust Street
Harrisburg, Pennsylvania 17101

717/232-7575

Board of Directors
Commonwealth of Pennsylvania
State Employes' Retirement System

The audited financial statements of the System and our report thereon are presented in the preceding section of this report. The financial information hereinafter is presented in accordance with Statement No. 5 of the Governmental Accounting Standards Board for purposes of additional analysis and is not required for a fair presentation of the financial status or changes in the financial status of the System. Such information for the years 1978 through 1981 and 1985 through 1987 has been subjected to the auditing procedures applied in our examinations of the financial statements, and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole. Such information for the years 1982 through 1984 has been derived from financial statements examined by other auditors whose reports thereon expressed unqualified opinions.

Ernst & Whinney

Harrisburg, Pennsylvania
May 13, 1988

TEN-YEAR HISTORICAL TREND INFORMATION

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

December 31, 1987

Analysis of Funding Progress
(in millions of dollars)

Fiscal Year	(1)* Net Assets Available for Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1)÷(2)	(4) Unfunded (Assets in Excess of) Pension Benefit Obligation (2)-(1)	(5) Annual Covered Payroll	(6) Unfunded (Assets in Excess of) Pension Benefit Obligation as a Percentage of Covered Payroll (4)÷(5)
1978	$2,275	$4,204	54.1%	$1,929	$1,889	102.1%
1979	2,424	4,869	49.8	2,445	1,985	123.2
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	.6

* Reflects investment valuation at fair market value, as per Note B.

TEN-YEAR HISTORICAL TREND INFORMATION--Continued

COMMONWEALTH OF PENNSYLVANIA
STATE EMPLOYES' RETIREMENT SYSTEM

Revenues by Source and Expenses by Type
(in thousands of dollars)

Revenues by Source					Employer Contributions as a Percentage of Covered Payroll
Fiscal Year	Employe Contributions	Employer Contributions*	Investment Income**	Total	
1978	$104,425	$254,135	$ 266,176	$ 624,736	13.5%
1979	105,480	268,143	340,639	714,262	13.5
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

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

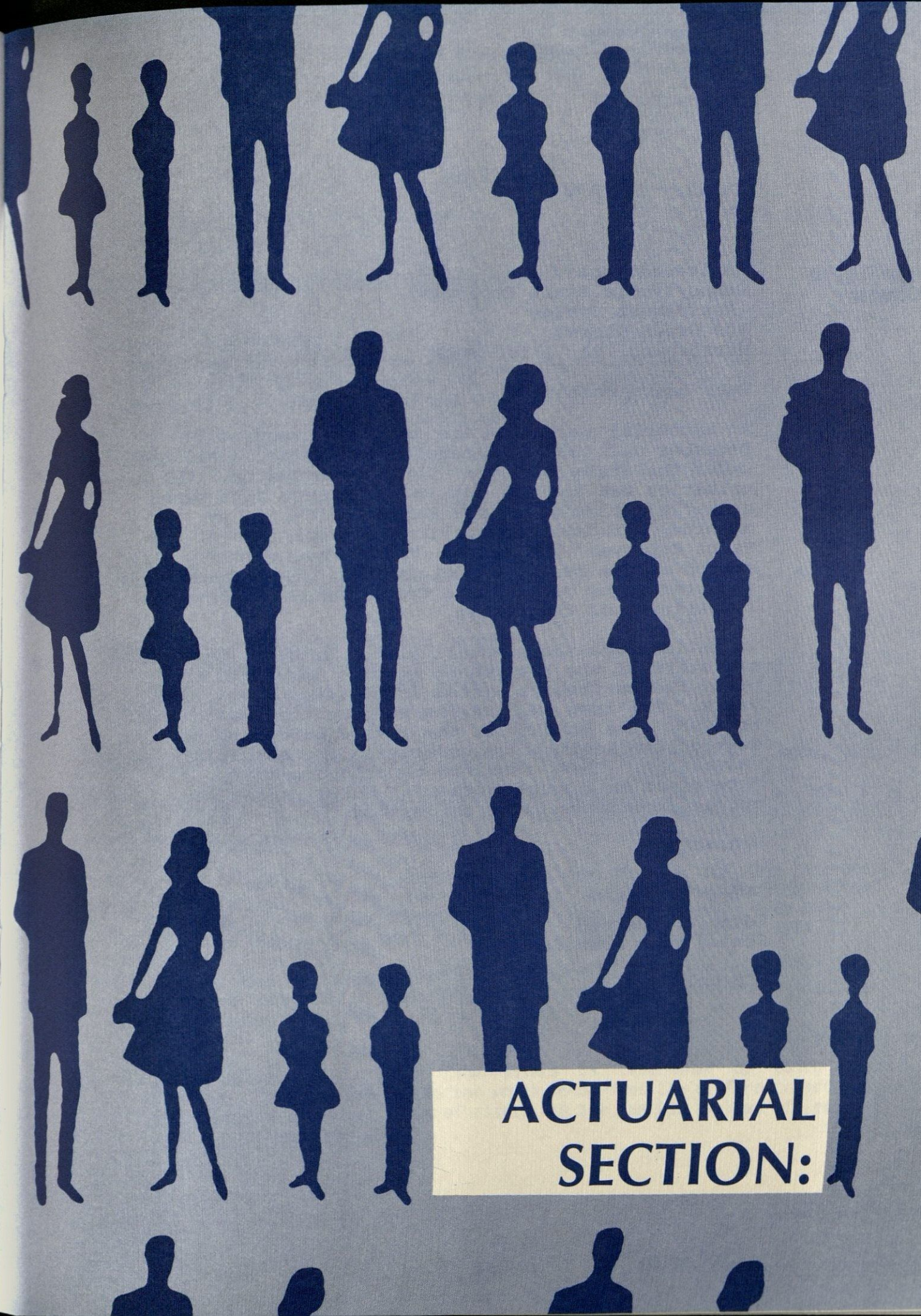
** Includes net realized and unrealized appreciation or depreciation in fair value of investments.

Expenses by Type				
Fiscal Year	Benefit Payments	Refunds of Employe Contributions	Administrative Expenses	Total
1978	$165,334	$49,615	$1,679	$216,628
1979	232,332	28,473	2,323	263,128
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

SERS

Administrative Budget Summary

State Employes' Retirement Fund	Administrative Expenses (000's Omitted) Proposed 1989-90	Authorized 1988-89	Actual 1987-88
Personnel Expense	$4,433	$3,465	$3,305
Benefits Administration and Operational Expenses:			
State Treasury	414	394	410
Auditor General	14	13	10
Comptroller's Operations	66	63	60
Commonwealth Central Services and Other Contracted Services	125	314	256
Postage and Printing	275	257	243
Data Processing	277	274	137
Rental of Office Space	399	308	308
Office Expense	355	266	258
Independent Audit	44	44	45
New Programs and Expansion of Existing Programs:			
Northeast Field Office	---	239	---
Pittsburgh Field Office	---	156	---
Deferred Compensation Program	---	114	---
Additional Staffing - Administrative Services - Records Management	---	20	---
Philadelphia Field Office	244	---	---
Additional Legal Staff	115	---	---
Total Operating Expenses	$2,328	$2,462	$1,727
Fixed Assets			
Equipment and Furniture	119	104	171
Less Augmentation: Revenue from Legal Fees	(75)		
Total State Employes' Retirement Fund	$6,805	$6,031	$5,203
Number of Full-time Positions	135	119	108



ACTUARIAL SECTION:

Hay/Huggins Company, Inc.
Actuarial and Benefits Consultants
1500 K Street, NW
Suite 1000
Washington, DC 20005
(202) 637-6600
Fax: (202) 637-0244

January 16, 1989

Hay/Huggins Company

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

Dear Board Members:

An actuarial valuation was last performed as of December 31, 1987 to determine actuarial liabilities under the State Employes' 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 Employes' 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 1981 to 1985. The results of the review were 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

ECH/bml

Actuarial Balance Sheet
As of December 31, 1987
($ in Thousands)

ASSETS

Actuarial Value of Assets in the Fund*		$ 6,716,513
Present Value of Future Projected Contributions:		
Member contributions (1)	$1,305,834	
Employer normal contributions (2).	1,199,202	
Accrued liability contributions (3). . . .	1,988,710	
Supplemental annuity contributions (4) . .	369,367	4,863,113
Total Assets		$11,579,626

LIABILITIES

Present Value of benefits payable to annuitants and beneficiaries	$ 3,666,886
Present Value of projected benefits payable to active and inactive members.	7,912,740
Total Liabilities	$11,579,626

(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 $1.4 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 1969, 1974, 1979, and 1984. These liabilities are being 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.

COMPARATIVE STATISTICS
SERS MEMBERSHIP

Active Membership

As of December 31	Number	Rate of Increase (Decrease)
1988	111,901	0.1%
1987	111,743	(0.1%)
1986	111,855	(1.8%)
1985	113,940	(1.7%)
1984	115,923	(1.3%)
1983	117,488	(1.7%)
1982	119,548	(0.1%)
1981	119,724	(1.8%)
1980	121,973	(2.2%)
1979	124,812	(2.0%)
1978	127,417	0.2%
1977	127,183	(1.1%)

Retirees and Beneficiaries

As of December 31	Number	Rate of Increase (Decrease)
1988	71,175	2.6%
1987	69,404	2.7%
1986	67,593	5.6%
1985	64,013	5.1%
1984	60,863	4.1%
1983	58,427	5.1%
1982	55,591	5.8%
1981	52,526	7.6%
1980	48,783	5.7%
1979	46,137	9.8%
1978	41,997	11.0%
1977	37,811	8.7%

Total Membership

December 31	Number
1988	183,076
1987	181,147
1986	179,448
1985	177,953
1984	176,786
1983	175,915
1982	175,139
1981	172,250
1980	170,756
1979	170,949
1978	169,414
1977	164,994

Note: Preliminary statistics are based on internal SERS records.

INVESTMENT SECTION:

Investment Highlights

The market value of the State Employes' Retirement Fund investments was $8,140.9 million as of December 31, 1988. This was an increase of $941.1 million from the $7,199.8 million market value as of December 31, 1987. 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 21st largest public pension fund in the nation and the 41st largest public and corporate pension fund.

For the year ended December 31, 1988, SERS realized a 12.8% total investment rate of return after fees. This return exceeded the 4.3% for the 1988 GNP Implicit Price Deflator. The fund achieved in equity securities a 17.5% total return compared to the 16.8% total return of the S&P 500 Composite Index. The fund achieved in bond securities an 8.9% total return compared to the 7.6% total return of the Shearson Lehman Govt/Corp Bond Index. SERS investment rates of return for the last five years are provided in Exhibit A.

SERS invests in different types of assets and uses multiple external managers with various investment styles as a method to ensure overall fund diversification. As of December 31, 1988, the asset distribution was: 41% equities; 27% bonds; 10% mortgages; 7% real estate; 14% short-term securities; and 1% leveraged buyouts (LBOs) & venture capital. SERS had retained the services of forty investment managers and had fifty-five investment portfolios as of December 31, 1988. Exhibit B provides a Summary of Assets by Investment Manager and the distribution of the Fund's assets at December 31, 1988. SERS asset distribution for the last five years is provided in Exhibit C.

As of December 31, 1988, SERS had placed over $623 million in portfolios which were specially designed for Pennsylvania investment. This represents 8% of SERS total fund. The Pennsylvania portfolios include: an equity index fund; a private placement long term loan account; a mortgage - conventional commercial, FHA projects, and residential properties - portfolio; several equity real estate portfolios; two LBO limited partnerships; and ten venture capital limited partnerships. SERS has committed additional amounts to these portfolios and to several new Pennsylvania portfolios.

STATE EMPLOYES' RETIREMENT FUND MARKET VALUE
FOR THE PERIOD 1979 - 1988 ($ in Millions)

Year	Market Value	Year	Market Value
1979	$2,309	1984	$4,747
1980	$2,556	1985	$5,954
1981	$2,684	1986	$6,948
1982	$3,505	1987	$7,200
1983	$4,214	1988	$8,141

Investment Policy

The State Employes' 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 counselors 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 Employes' Retirement System.

Investment Objectives

To assure an adequate accumulation of reserves in the Fund at the least cost to the citizens of the Commonwealth and to provide some protection against the erosion of principal by inflation, the 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 Employes' 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 Standard and Poor's 500 Stock Composite Index;

D. Achieve in Fixed Income Securities, exclusive of residential and commercial mortgages, but including mortgage-backed securities, a total return that exceeds the total return of the Shearson/Lehman 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); and

H. Achieve returns greater than are available from publicly traded stocks and bonds through investment in qualified venture capital firms.

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.

Exhibit A

State Employes' Retirement Fund
Rate of Return by Investment Type
1984 - 1988

Investment Type	1988	1987	1986	1985	1984
SERS - Equities	**17.5%**	**1.5%**	**17.0%**	**30.5%**	**4.1%**
S&P 500 Index	16.8	5.2	18.6	32.0	6.1
SERS - Fixed Income	**8.9**	**3.7**	**16.2**	**21.6**	**14.6**
Shearson Lehman Govt/Corp Index	7.6	2.3	15.6	21.3	15.0
SERS - Real Estate	**7.9**	**9.0**	**7.8**	**10.0**	**15.1**
NCREIF/EAI (70/30)	8.5	6.0	7.3	9.8	12.4
SERS - Short-Term Securities	**7.5**	**6.6**	**6.5**	**9.4**	**10.2**
90-Day Treasury Bills	6.7	5.4	6.1	7.7	9.8
SERS - Total Fund*	**12.8**	**3.3**	**15.2**	**23.1**	**9.4**
Inflation - GNP Implicit Price Deflator	4.3	3.0	2.0	3.5	3.8
Inflation - Consumer Price Index	4.4	4.4	1.1	3.8	3.9
Actuarial Investment Return	5.5	5.5	5.5	5.5	5.5

* The rate of return for the Wells Fargo Asset Allocation Fund is included in the Total Fund rate of return. The Venture Capital and LBO rates of return which are included in the Total Fund rate of return were estimated.

STATE EMPLOYES' RETIREMENT SYSTEM
Summary of Assets by Investment Manager
December 31, 1988
($ in Millions)

% of Fund	Investment Managers	Total Assets Market Value	Equities	Bonds	Mortgages & Mtge-Backed Securities	Equity Real Estate	LBO & Venture Capital	Cash & Short-Term*
5.0%	Barrow Hanley	$ 406.4	$ 397.4	$ ---	$ ---	$ ---	$ ---	$ 9.0
.3%	Centre Square Investment Group	20.3	20.3	---	---	---	---	---
.8%	Geewax, Terker & Co.	63.9	61.1	---	---	---	---	2.8
.9%	McGlinn	70.0	56.1	---	---	---	---	13.9
1.4%	Mellon-PA Index Fund	114.0	113.8	---	---	---	---	.2
2.5%	Mellon-Special Equity	207.1	202.5	---	---	---	---	4.6
1.5%	Miller, Anderson & Sherrerd	125.4	124.3	---	---	---	---	1.1
1.4%	Pilgrim, Baxter, Greig & Assoc.	114.9	100.2	---	---	---	---	14.7
1.4%	Provident Investment	114.1	111.2	---	---	---	---	2.9
2.8%	Sun Bank, N.A.	225.5	203.6	---	---	---	---	21.9
3.5%	Trinity	280.7	278.3	---	---	---	---	2.4
15.2%	Wells Fargo S&P 500	1,239.1	1,239.1	---	---	---	---	---
4.1%	Wells Fargo Ext. Equity	337.0	337.0	---	---	---	---	---
.6%	Miller, Anderson & Sherrerd International Equity	50.5	50.5	---	---	---	---	---
7.7%	Wells Fargo Asset Allocation	626.6	62.6	62.6	---	---	---	***501.4
0.0%	Cigna PA Private Placement	1.1	---	1.1	---	---	---	---
1.1%	Delaware	91.4	---	85.5	---	---	---	5.9
1.2%	W. R. Huff	99.1	---	97.1	---	---	---	2.0
7.5%	Mellon - Bond Index Fund	610.4	---	608.6	---	---	---	1.8
12.0%	Miller, Anderson & Sherrerd	977.0	---	473.7	241.6	---	---	261.7
7.2%	Payden & Rygel	582.5	---	582.3	---	---	---	.2
3.1%	SERS Treasury Bonds	252.7	---	252.7	---	---	---	---
7.1%	Fidelity	579.1	---	---	556.5	---	---	22.6
1.2%	Heitman	97.1	---	---	---	97.1	---	---
.4%	JMB PA Advisors	30.8	---	---	---	30.8	---	---
1.5%	Aetna	125.0	---	---	---	125.0	---	---
0.0%	CIIF II	2.3	---	---	---	2.3	---	---
1.2%	Corporate Property Investors	96.7	---	---	---	96.7	---	---
.4%	F.I.A. Associates, Inc.	32.9	---	---	---	32.9	---	---
.5%	John Hancock	36.4	---	---	---	36.4	---	---
.5%	JMB Group Trust III	44.3	---	---	---	44.3	---	---
.6%	Prudential	46.0	---	---	---	46.0	---	---
.3%	PSI Institutional Fund III	20.5	---	---	---	20.5	---	---
.4%	Sentinel Corporation	34.5	---	---	---	34.5	---	---
.3%	APA/Fostin Venture Capital	20.2**	---	---	---	---	20.2	---
.5%	PA Venture Capital LPs (9)	42.6**	---	---	---	---	42.6	---
.2%	LBO LPs (4)	19.7**	---	---	---	---	19.7	---
3.7%	Treasury STIF Investment Manager	302.1	---	---	---	---	---	302.1
0.0%	Cash in Transit	1.0						1.0
100%	TOTAL	$8,140.9	$3,358.0	$2,163.6	$798.1	$566.5	$ 82.5	$1,172.2
	PERCENT	100%	41.2%	26.6%	9.8%	7.0%	1.0%	14.4%

* Cash & Short-term managed by the PA State Treasury. Values are at cost.
** Market values for the Venture Capital & LBO limited partnerships are estimates.
***Cash for Wells Fargo Asset Allocation managed by Wells Fargo.

Exhibit C

State Employes' Retirement Fund
Market Value of Assets by Investment Type
1984 - 1988
($ in Millions)

Year	Total	Equities	Bonds	Mortgages & Mortgage-Backed Securities	Equity Real Estate	LBO & Venture Capital	Cash & Short-Term
1988	$8,141 100%	$3,358 41%	$2,164 27%	$798 10%	$566 7%	$83 1%	$1,172 14%
1987	$7,200 100%	$3,046 42%	$2,477 35%	$733 10%	$421 6%	$61 1%	$ 461 6%
1986	$6,948 100%	$3,025 43%	$2,294 33%	$846 12%	$387 6%	$32 1%	$ 364 5%
1985	$5,954 100%	$2,287 38%	$2,042 34%	$627 11%	$350 6%	$14 0%	$ 634 11%
1984	$4,747 100%	$1,504 32%	$1,309 27%	$506 11%	$382 8%		$1,046 22%

Exhibit D

BROKERAGE COMMISSION SUMMARY FOR ALL MANAGERS
FOR YEAR ENDED 12/31/88

BROKER	PAID	BROKER	PAID
Adler Coleman & Co	$ 9,525.00	Lovett Mitchell	$ 3,400.00
Alex Brown & Sons	10,261.00	Lynch Jones & Ryan	128,780.40
Alpha Management Inc	17,135.00	Mabon Nugent	10,129.00
Autranet Inc	22,140.00	Merrill Lynch	302,765.50
Bear Stearns	106,159.95	Miller Tabak Hirsch	42,571.00
Blair William & Co	11,284.00	Montgomery Securites	40,719.50
Boston Institutional Svcs	11,142.50	Morgan Stanley	156,974.75
Bridge Trading	30,582.52	Nakagama & Wallace	4,000.00
Broad Court	167,601.50	Neuberger & Berman	9,396.00
Buckingham Research	6,650.00	Newhard Cook & Co	26,441.64
Burns Fry Hoare Govett Inc	30,454.00	O'Neil William & Co	12,288.00
Butcher & Singer	23,600.00	Oppenheimer & Co	134,067.00
Cantor Fitzgerald	77,456.00	Paine Webber Jackson	45,719.10
Capital Institutional Svcs	45,586.00	Pennsylvania Group Inc	8,313.00
County Securities Corp	20,941.12	Prudential Bache	62,819.00
Cowen & Co	14,984.00	Pryor Govan & Counts	51,431.00
Cyrus J Lawrence	73,226.00	Q & R Clearing Corp	5,600.00
Daniels & Bell Inc.	28,182.00	RBC Dominion Securites	3,710.00
Dean Witter Reynolds	89,887.86	Rauscher Pierce Refsnes	4,788.00
Donaldson Lufkin & Jenrette	83,741.18	Raymond James & Assoc	3,300.00
Drexel Burnham Lambert Inc	177,717.75	Robert W Baird	3,252.00
Eberstadt Fleming	18,346.00	Salomon Brothers	146,984.66
Ewing Capital	20,660.00	Sanford C Bernstein	14,213.00
First Boston Corp	111,103.00	Shearson Lehman Hutton	58,745.20
First Manhattan Co.	6,202.00	Shields Capital Corp	7,541.00
Furman Selz Mager Dietz	3,581.00	Smith Barney Harris	151,856.50
Goldman Sachs	336,642.90	Standard & Poors	33,569.00
Gordon Haskett	28,793.00	Sterling Grace	3,570.00
Hambrecht & Quist Inc	10,169.00	Steward & Frankel	3,985.00
Instinet Corp	27,415.45	Stifel Nicolaus Co	35,982.31
Interstate Securities	4,582.00	Trinity Trading	5,100.00
Janney Montgomery Scott	7,844.00	Tucker Anthony	18,914.00
Jeffries & Co	81,826.08	W & D Securities	3,850.00
Jones & Associates	3,241.00	Wall Street Discount	5,647.00
Josephthal & Co	13,134.00	Weeden & Co	57,962.00
Kidder Peabody & Co	205,566.50	Wertheim & Co	83,779.94
L F Rothschild	4,139.00	Wessels Arnold & Hend	6,000.00
Legg Mason Wood Walker	21,092.68	Wilshire Associates	285,523.50
		Other Brokers	53,069.00

Total Commissions Paid: $3,999,351.99

Member Employers

Administrative Office of the Pennsylvania Courts
Aging, Department of
Agriculture, Department of
Allegheny County, Community College of
Appalachian Regional Commission
Attorney General, Office of the
Auditor General, Department of the

Banking, Department of
Berks County Intermediate Unit #14
Bloomsburg University - Community Activities
Bloomsburg University - Kehr Union
Bloomsburg University Store
Bucks County Community College
*Bucks County Department of Health
Bucks County Intermediate Unit #22

California University - Student Association, Inc.
Center for Rural Pennsylvania
Central Susquehanna Intermediate Unit #16
*Chester County Health Department
Civil Service Commission
Clarion University - Students Association
Commerce, Department of
Community Affairs, Department of
Corrections, Department of

Delaware River Joint Toll Bridge Commission
Delaware River Port Authority
Delaware Valley Regional Planning Commission

East Stroudsburg University Student Activity Association, Inc.
Edinboro University Services, Inc.
Edinboro University Student Government Association
Education, Department of
Environmental Resources, Department of
*Erie County Department of Health
Executive Offices

Fish Commission

Game Commission
General Services, Department of
Governor's Office

Harrisburg Area Community College
Health Care Cost Containment Council
Health, Department of
Higher Education Assistance Agency
Historical & Museum Commission
House Appropriations Committee (D)
House Appropriations Committee (R)

*No new entrants in these agencies after 11/27/82, per Act 1982-204.

Member Employers

House of Representatives
House Special Leadership (D)
House Special Leadership (R)

Independent Regulatory Review Commission
Indiana University - Student Cooperative Association, Inc.
Insurance, Department of

Joint Legislative Conservation Committee
Joint State Government Commission

Kutztown University Student Government Association

Labor & Industry, Department of
Lancaster-Lebanon Intermediate Unit #13
Legislative Budget & Finance Committee
Legislative Data Processing Center
Legislative Reference Bureau
Lehigh County Community College
Lieutenant Governor's Office
Liquor Control Board
Local Government Commission
Lock Haven University - Student Cooperative Council
Luzerne County Community College
Luzerne Intermediate Unit #18

Mansfield University Community Services, Inc.
Military Affairs, Department of
Milk Marketing Board
Millersville University Student Services, Inc.
Montgomery County Community College
Municipal Employes' Retirement System

National Guard Technicians
Northampton County Area Community College

Office of Research and Liaison

Pennsylvania Convention Center Authority
Pennsylvania Crime Commission
Pennsylvania Emergency Management Agency
Pennsylvania Housing Finance Agency
Pennsylvania Public Television Network Commission
Pennsylvania Securities Commission
Pennsylvania State University
Pennvest - Pennsylvania Intrastructure
Philadelphia, Community College of
Pittsburgh, University of
Port Authority Transit Corporation
Probation & Parole, Board of
Public School Building Authority
Public School Employes' Retirement System
Public Utility Commission
Public Welfare, Department of

Member Employers

Reading Area Community College
Revenue, Department of
Riverview Intermediate Unit

Senate
Shippensburg University Student Association/University Store
Slippery Rock University Student Government Association, Inc.
State, Department of
State Employes' Retirement System
State Ethics Commission
State Police
State System of Higher Education
State Tax Equalization Board
Susquehanna River Basin Commission

Transportation, Department of
Treasury Department
Turnpike Commission

West Chester University Student Services, Inc.
Westmoreland County Community College
Williamsport Area Community College