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Public School Employees' Retirement System
PO Box 125
Harrisburg, Pennsylvania 17108
Telephone: 717-787-8540

Component Unit Financial Report

For The
Fiscal Year Ended June 30, 1990

Bernard J. Freitag
Chairman
Richard C. Harris
Vice Chairman
Board of Trustees

James A. Perry
Executive Director

Report prepared by the Public School Employees' Retirement System staff

Committee Co-Chairmen

*Yvonne C. Wineholt
Director of Fiscal Control*

*Douglas A. Bonsall
Public Relations Director*

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A detailed listing of the Fund's investments is provided in a separate report entitled, "Investment Portfolio," which can be obtained by contacting the System's main office.

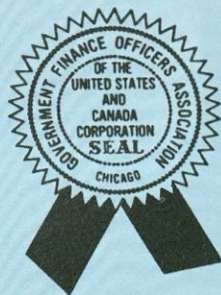
Certificate of Achievement for Excellence in Financial Reporting

Presented to

Commonwealth of Pennsylvania Public
School Employee Retirement System

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 1989

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFR's) achieve the highest standards in government accounting and financial reporting.

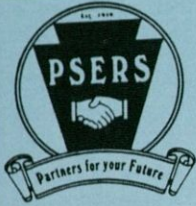


Gary R. Nordstrom
President

Jeffrey L. Esser
Executive Director

Introductory Section

Letter of Transmittal



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYES' RETIREMENT SYSTEM
Telephone (717) 787-8540

Mailing Address
PO Box 125
Harrisburg PA 17108-0125

Building Location
5 North 5th Street
Harrisburg PA 17101

December 1, 1990

The Board of Trustees
Public School Employes' Retirement System
Harrisburg, PA 17101

We are pleased to present the seventy-first Annual Financial Report for the Pennsylvania Public School Employes' Retirement System (the System) for the fiscal year ended June 30, 1990. The management of the System is solely responsible for the accuracy and completion of this report, pursuant to section 24 Pa.C.S. §8502(n) of the Public School Employes' Retirement Code (Retirement Code).

The System was established on July 18, 1917 to provide retirement benefits to public school employes of the Commonwealth of Pennsylvania. The System has experienced various benefit modifications over its 73 years in existence which are provided in a plan history included in this **Introductory Section**.

The members eligible to participate in the System include all full time public school employes and part time public school employes who render at least 80 days or 500 hours of service yearly in any of 633 reporting units in Pennsylvania. As of June 30, 1990, the System had 200,000 active members with an approximate annual active payroll of \$5.5 billion.

The annuitant membership was comprised of 100,071 retirees and beneficiaries who receive \$64.3 million each month. The average yearly benefit paid to annuitants is \$7,700. The average benefits for each option type are detailed in the **Statistical Section** of this report.

The System is a cost-sharing multi-employer defined benefit pension plan, to which 633 reporting units contribute. The Commonwealth of Pennsylvania provides half of the employer contributions to the System. The System is administered by a staff of 218. The System is headquartered in Harrisburg, Pennsylvania and field offices are maintained in strategic areas of the state to enable direct contact with the membership and employers of the System.

The report has been prepared in accordance with the principles of governmental accounting and reporting as promulgated by the Governmental Accounting Standards Board (GASB). The report consists of five sections: the **Introductory Section** containing the Transmittal Letter, the Chairman's Report, and the Administrative Organizational Structure; the **Financial Section** containing the opinion of the independent certified public accounting firm and the financial statements of the System; the **Actuarial Section** containing the opinion of the independent actuarial firm and the results of their latest actuarial valuation; the **Statistical Section** containing significant data pertaining to the System; and the **Investment Section** containing an overview of the System's investment activities. A detailed listing of the System's investments is provided in a separate report which can be obtained by contacting the System's main office.

The Pennsylvania Public School Employes' Retirement System was established by law as an independent administrative board, directed by a governing board which exercises control and management of the System, including the investment of its assets. The System is reporting as a component unit of the Commonwealth of Pennsylvania as defined by the GASB financial reporting

Introductory Section

entity guidelines. Although the Commonwealth does not appoint a majority of the voting members of the System's Board of Trustees, the Retirement Code created financial interdependence by obligating the Commonwealth for the System's debt. Therefore, the Public School Employees' Retirement System should be reported by a discrete presentation in the Commonwealth of Pennsylvania Comprehensive Annual Financial Report for years subsequent to approval and implementation of GASB's current exposure draft on reporting entity.

An annual audit of the System by an independent certified public accounting firm is required by the Retirement Code. The System has contracted with KPMG Peat Marwick for the audit of its financial statements and has received a favorable opinion as evidenced in the **Auditor's Opinion Letter** in the **Financial Section** of this report.

Major System Initiatives

The System continues to move forward with its strategic planning process. A measured step strategy has been adopted to make continued incremental improvements in fulfilling the Mission Statement. As part of this process, the System's management is developing various collaborative arrangements with organizations that impact on the System's operations and with other organizations that have similar interests.

The System began development of a comprehensive business plan to integrate all information and systems. Inputs and outputs of the System have been identified and a conceptual design of the member system is currently in progress.

The System has begun its effort to internalize a portion of the investment management. Currently, \$750 million of fixed income investments and \$350 million of equity investments are managed internally. With the proposed expansion of the internal investment program and hiring of additional professional portfolio managers, the allocations to internal fixed income investments and internal equity investments are expected to increase to \$2 billion and \$1.5 billion, respectively.

Also, the System has hired a director for real estate investments and a real estate consultant to develop, monitor, recommend, and appraise these investments.

The System established a new equity portfolio comprised of companies incorporated or headquartered in Pennsylvania. The investments in this portfolio must meet the System's normal prudent investment criteria. The System has allocated approximately \$150 million to this unique initiative of which \$50 million has been invested to date.

New initiatives have been undertaken in an effort to improve benefit communications with the membership and the school districts. A committee was established to study, review and improve benefit correspondence. A workshop was conducted with participation by member, annuitant and school district representatives who provided their perspective on the System's communications. A writing course was also structured for System personnel with a goal to improve written communications.

Due to the growth of the System and the resulting increase in the management responsibilities of the Executive Director, the Board of Trustees established an Assistant Executive Director position. The Board recruited candidates for this position and appointed Mr. Arthur J. Granito who previously served the System as Director of the Bureau of Fiscal Control. Mr. Granito assumed his new responsibilities effective September 28, 1990.

Initiatives have been undertaken in promoting proposed legislation that will authorize the Board to establish administrative staff salaries to assure that the System has the human resources required for adequate administration of future initiatives.

Although the System does not provide payment toward medical benefits, it does administer 65-Special group medical coverage for those electing to participate. The System has contracted with a consultant to review the cost and services of this program. The System is committed to assuring that its members are receiving good value for their dollars spent on medical insurance.

The System currently has seven field offices located throughout the state with at least one additional office to be established in the 1990/91 fiscal year.

The Financial Picture

The System maintains a full accrual accounting system. More specific accounting information is detailed in the **Summary of Significant Accounting Policies (Note 2)** in the notes to the financial statements.

The System has established policies and procedures for the review and verification of all payments made from the Fund.

The System's assets totaled \$16.3 billion at book value (\$17.3 billion at market value) as of June 30, 1990. This was an increase of \$2.0 billion over the prior year book value. Based on market valuation of its assets, the System is the 14th largest public pension fund in the nation and the 28th largest among public and corporate pension funds worldwide.

The System's administrative budget request is appropriated by the Pennsylvania General Assembly from the investment income of the System. For the fiscal year 1989/90, the appropriation was \$13,757,000.

Revenues

Public employe retirement systems are established by law to pay retirement benefits and to accumulate the resources with which to pay such benefits. The System accumulates its resources through collection of contributions from its members and employers and from income earned on invested contributions. Contributions and investment income for 1990 totaled \$2,829.3 million detailed as follows:

Revenue Source	1990 (Millions)	1989 (Millions)
Member Contributions	\$ 311.4	\$ 287.8
Employer Contributions	1,086.5	989.5
Investment Income	1,431.4	1,173.2
Total	\$2,829.3	\$2,450.5

The largest portion of the increase resulted from the investment earnings of the System, an increase of \$258.2 million over the prior year. The investment income is detailed in **Note 4** of the financial statements.

The increase in contributions resulted from the increase in salaries paid to participating members upon which the members' and employers' contributions to the System are based. The employer rate of contribution was 19.68 percent of salaries for the 1989-90 fiscal year. This rate is shared equally by the school districts and the Commonwealth of Pennsylvania. Additional revenue details are provided in **Schedule 2** of the **Financial Section** of this report.

Expenses

The largest single factor of expense relates to the purpose for which the System was created: payment of benefits. These payments, coupled with the expense to administer the plan, constitute the total expenses of the System. Expenses by type for 1990 and 1989 are shown for comparative purposes.

Introductory Section

Expenses	1990 (Millions)	1989 (Millions)
Retirement Benefits	\$803.8	\$709.7
Disabilities	28.3	25.4
Lump-Sum Payments	83.3	116.2
Refunds	11.2	12.1
Administrative	13.6	11.1
Net Transfers	2.6	11.3
Total	\$942.8	\$885.8

Pension payments to the System's 100,071 annuitants now exceed \$64.3 million per month. Expenses to administer the System continue to represent a small fraction of total expenses, constituting only 1 percent of the System's total expenditures. A detailed breakdown of these expenses, with budget comparisons by expenditure category, appears in the **Financial Section (Schedule 3)**.

The ten-year trend in expense by type is presented in **Schedule 2** of the **Financial Section**.

Funding

The System uses an actuarial reserve type of funding which is financed by member contributions, employer contributions and earnings from invested assets. For the year ended June 30, 1990, member contributions constituted 11 percent of the annual funding, employer contributions constituted 38 percent and investment earnings accounted for 51 percent.

The employer rate of contribution as a percent of salaries decreased from 19.68% for the fiscal year 1989-90 to 19.18% for 1990-91. This .50% decrease was attributable to the Board's prudent investment policy of maximizing return while minimizing risk.

Funding is the process of specifically setting aside money for current and future use. Proper funding entails an actuarial examination of the fund balances to ensure money will be available for future and current benefit payments. With such a systematic approach, reliance can be placed on the balances of these accounts. Continuous improvement in the funding by increased earnings and contributions is sought along with control over expenses. As of June 30, 1990, the Fund balance increased \$1,886.5 million over the prior year — from \$13,999.3 million to \$15,885.8 million after meeting the retirement obligations of the System.

The results of the latest actuarial valuation indicate that the rates of contribution payable by the members and employers, when taken together with the current assets of the System, are adequate to fund the actuarial liabilities on account of all benefits payable under the System. Additional information on the System's pension benefit obligation, actuarial liability and funding progress is contained in the **Actuarial** and **Financial Sections** of this report.

Investments

Earnings from the investment portfolio represent a major source of revenue to the System, accounting for over one-half of total revenues for the year.

Investments of the System netted \$1,431.4 million in earnings for the year. The investment portfolio totalled \$16.5 billion, at market value, as of June 30, 1990. This represents an increase of approximately \$1.8 billion over the prior year.

The investment portfolio is high quality and well-diversified to emphasize a long-term investment approach. The investment objective of the System is to produce a real return over inflation over time. The Board of Trustees recognizes that the objectives of a sound and prudent policy are to produce investment results that will preserve the assets of the System, as well as maximize earnings consistent

The Public School Employees' Retirement System of Pennsylvania

Introductory Section

with its long-term needs. For the fiscal year ended June 30, 1990, the time-weighted rate of return on the System's investments was 9.2%.

A detailed listing of the System's investments is available in a separate report that can be obtained by contacting the System's main office.

Federal and State Tax Status

The System is a qualified trust fund under Section 401(a) of the Internal Revenue Code. As a result of the qualified status, the trust fund is entitled to an exemption, under Section 501(a) of the Code, from Federal income taxation on its investment earnings. Additionally, contributions made on behalf of the active members are tax deferred under Section 414(h) of the Internal Revenue Code. The trust fund and any benefits accruing to the members of the System are exempt from Pennsylvania state and municipal taxes.

Professional Services

Professional consultants are appointed by the Board of Trustees to perform services essential to the efficient operation of the System. An annual audit by an independent certified public accounting firm and annual valuation by an actuarial consultant attest to the financial and actuarial soundness of the System. The investment performance of the System is reviewed by investment evaluation firms on a quarterly basis. The consultants providing services to the System are listed in the **Introductory Section** of this report.

Other Information

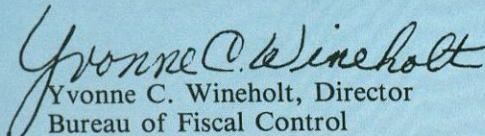
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Public School Employees' Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 1989. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

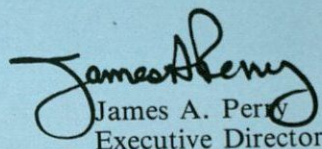
In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such Comprehensive Annual Financial Report must satisfy both generally accepted accounting principles and applicable legal requirements.

The certificate is valid for a period of one year only. The Public School Employees' Retirement System has received a Certificate of Achievement for the last seven consecutive years (fiscal years ended June 30, 1983 — June 30, 1989). We believe our current report continues to conform to the Certificate of Achievement program requirements and we will be submitting this report to GFOA to determine eligibility for the 1990 certificate.

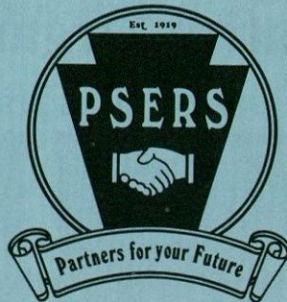
A reproduction of this award appears in this **Introductory Section**. Its attainment represent a significant accomplishment by the Retirement System.

Respectfully submitted,


Yvonne C. Wineholt, Director
Bureau of Fiscal Control


James A. Perry
Executive Director

Mission Statement



The Board of Trustees of the Public School Employes' Retirement System, empowered by statute with the authority and having fiduciary responsibility to ensure the timely and accurate payment of benefits to the members of the System and to maintain the stability of the Fund, shall:

- 1. effectively collect contributions to the Fund*
- 2. prudently invest the assets of the Fund, and*
- 3. diligently obtain and maintain the long-term, optimum value of the total Fund for the members of the System, the Commonwealth and its taxpayers, and the school districts of the Commonwealth.*

*Adopted
4/26/85*

Administrative Organization

PSERS Board of Trustees **as of June 30, 1990**

Secretary of Education of the Commonwealth of Pennsylvania (ex officio)
Honorable Donald M. Carroll, Jr.

Treasurer of the Commonwealth of Pennsylvania (ex officio)
Honorable Catherine Baker Knoll

Executive Secretary of the Pennsylvania School Boards Association, Inc. (ex officio)
Mr. Joseph V. Oravitz

Two Members Appointed by the Governor of the Commonwealth of Pennsylvania
Mr. Albert Fondy (term expires January 1, 1991)
Mr. Winston J. Churchill, Jr. (term expires February 14, 1992)

Three Members Elected from Among the Professional Contributors of the System for a Term of Three Years
Mr. Bernard J. Freitag (term expires January 1, 1993)
Mr. Dennis Ciani (term expires January 1, 1991)
Mr. Jacque D. Angle (term expires January 1, 1992)

One Member Elected from Among Nonprofessional Contributors of the System for a Term of Three Years
Ms. Mary Ann Caputo (term expires January 1, 1992)

One Member of the Annuitant Group of the System Elected from Among their Number for a Term of Three Years
Ms. Alma Kay Crawford (term expires January 1, 1993)

One Member Elected by Members of Pennsylvania Public School Boards from Among their Number for a Term of Three Years
Mr. Richard C. Harris (term expires January 1, 1991)

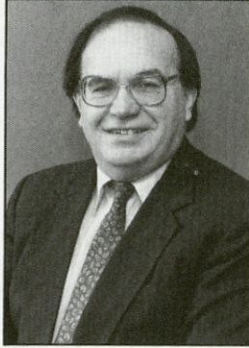
Two Members (nonvoting) Appointed by the Speaker of the House from the Pennsylvania House of Representatives,
One Representing the Majority Party and One Representing the Minority Party
Honorable Max Pievsky
Honorable Peter R. Vroon

Two Members (nonvoting) Appointed by the President Pro Tempore of the Pennsylvania Senate, One Representing
the Majority Party and One Representing the Minority Party
Honorable John W. Regoli
Honorable M. Joseph Rocks

PSERS Board of Trustees



Bernard J. Freitag
Chairman



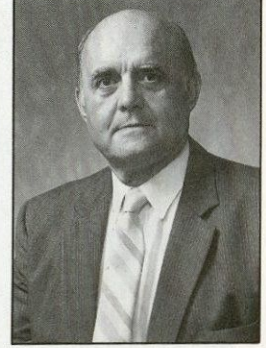
Richard C. Harris
Vice Chairman



Jacque D. Angle



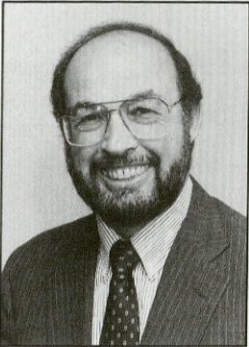
Mary Ann Caputo



Donald M. Carroll, Jr.



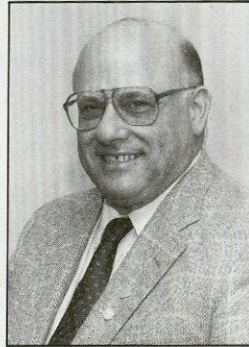
Winston J. Churchill, Jr.



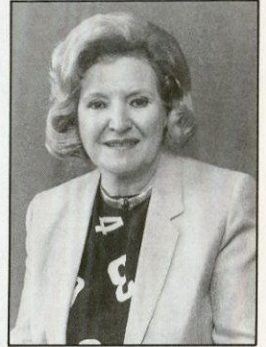
Dennis Ciani



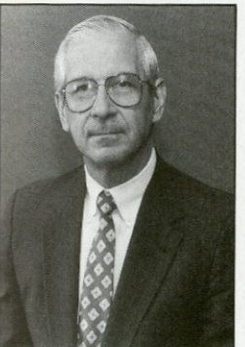
Alma Kay Crawford



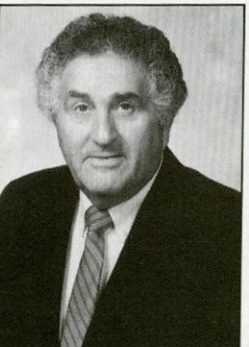
Albert Fondy



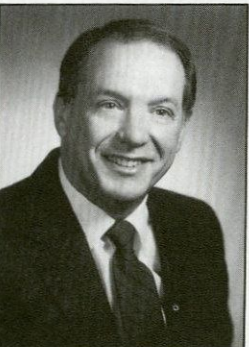
Catherine Baker Knoll



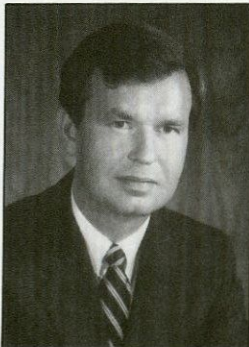
Joseph V. Oravitz



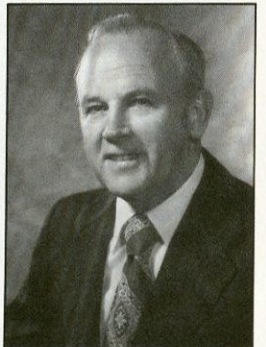
Max Pievsky



John W. Regoli



M. Joseph Rocks



Peter R. Vroon

1990 Board Committees

Appeals

Mr. Ciani, Chair
Ms. Caputo
Mr. Carroll
Ms. Crawford
Mr. Oravitz

Audit/Budget

Mr. Oravitz, Chair
Mr. Carroll
Ms. Crawford
Mr. Rocks

Building

Mr. Fondy, Chair
Ms. Caputo
Mr. Ciani

Election

Mr. Oravitz, Chair
Mr. Ciani
Mr. Fondy

Finance

Mr. Harris, Chair
Mr. Angle
Mr. Carroll
Mr. Churchill
Mr. Fondy
Ms. Knoll
Mr. Pievsky
Mr. Vroon

Investment Management & Administrative Oversight

Mr. Freitag, Chair
Mr. Angle
Mr. Churchill
Mr. Harris

Legislative Monitor

Ms. Crawford

Personnel

Mr. Angle, Chair
Ms. Caputo
Mr. Churchill
Mr. Ciani
Mr. Fondy
Mr. Harris

Proxy

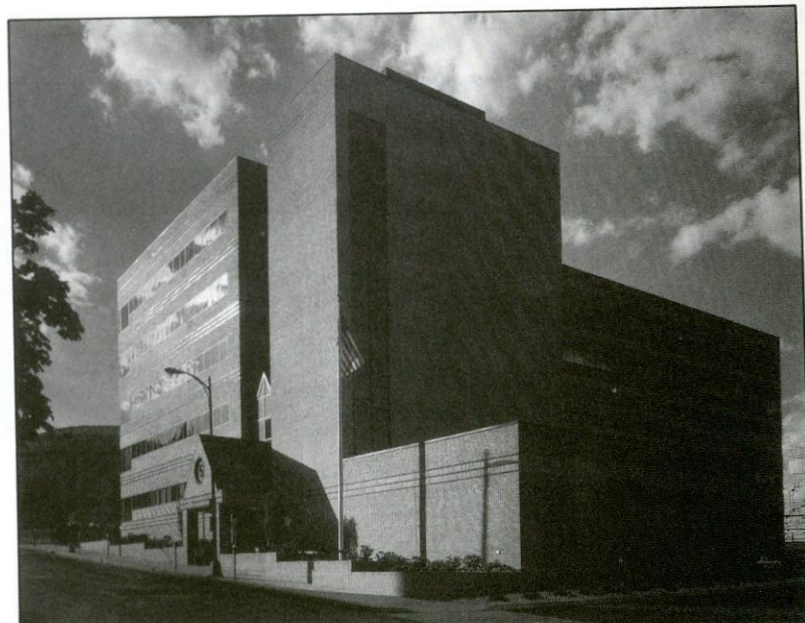
Mr. Churchill, Chair
Ms. Crawford
Mr. Fondy
Ms. Knoll

Real Estate

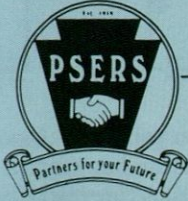
Ms. Knoll, Chair
Mr. Angle
Mr. Harris

NOTE: Mr. Freitag is a voting ex-officio member of all committees.

PSERS Headquarters Building



Chairman's Report



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Bernard J. Freitag, Chairman of the Board
Telephone: 215-757-7420

December 1, 1990

Honorable Robert P. Casey
Governor of Pennsylvania

Members of the Legislature
Members of the Retirement System

Dear Governor Casey, Legislators and Members:

On behalf of the Board of Trustees of the Pennsylvania Public School Employees' Retirement System, I am pleased to report the very positive results in this seventy-first Annual Financial Report for the fiscal year ended June 30, 1990. The report presents an in-depth review of the financial, actuarial and investment status of the Retirement Fund.

The growth of the Retirement System is steady. The market value of assets surpassed \$17 billion at fiscal year end; active membership approximates 200,000 and as of August 1990, annuitants now total over 100,000 receiving pension benefits in excess of \$64 million per month.

The financial integrity and actuarial soundness of the System are attested by the accompanying reports of the independent auditor and consulting actuary.

This report highlights many of the significant activities of the Retirement System for the year ended June 30, 1990, as well as plans to continue improving services to the active and retired members of the System.

The Board of Trustees is committed to assuring that the retirement funds are managed prudently for the sole benefit of the members.

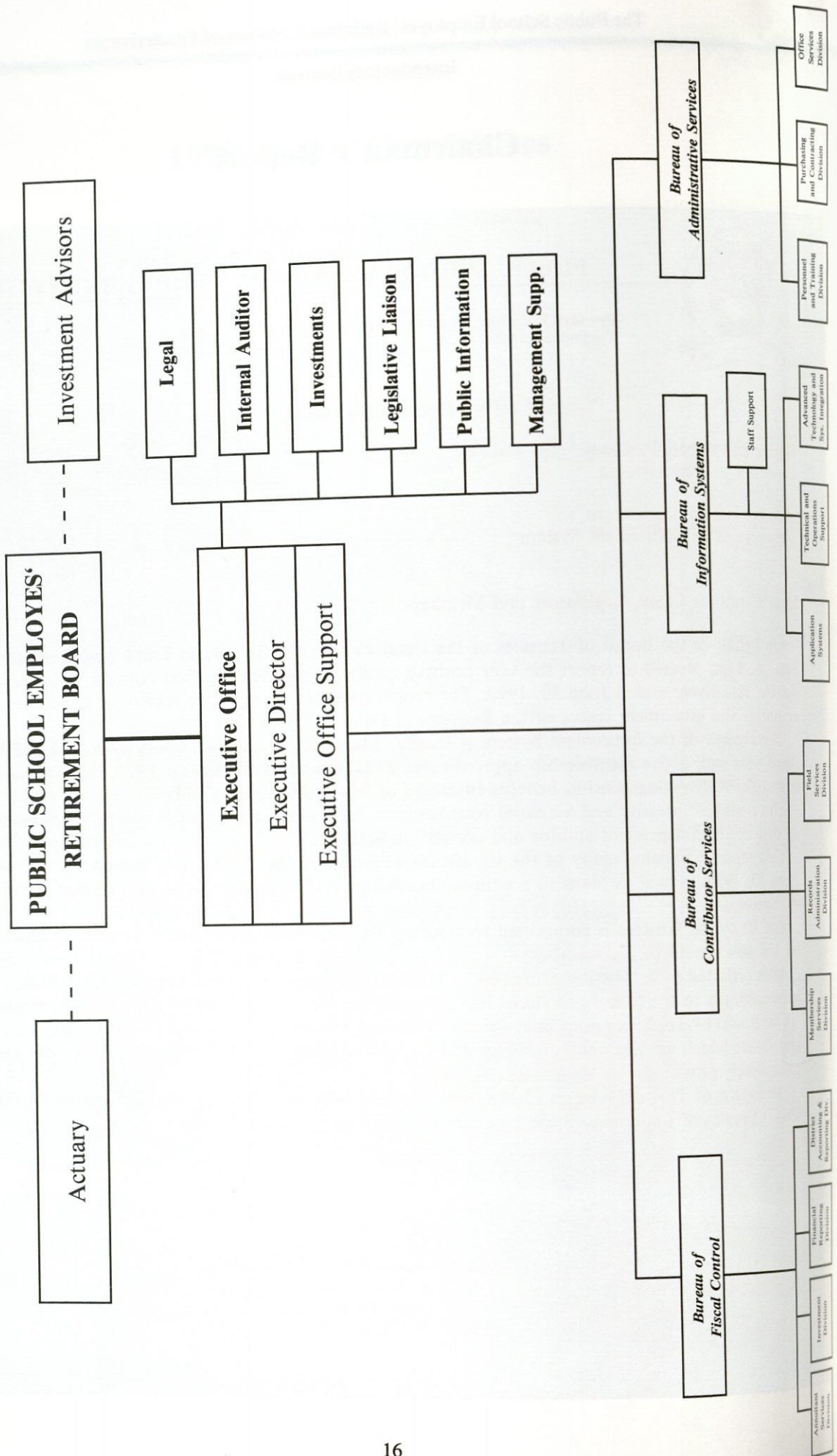
As is reflected in its Mission Statement, the Board of Trustees is also keenly aware of its responsibilities to the Commonwealth, its taxpayers, and the school districts of the Commonwealth.

The Board of Trustees appreciates the cooperation extended to it by the Governor's Office and the Legislature which enables and empowers us to meet the challenges which face us currently and to make timely provisions for the challenges ahead.

The Board of Trustees pledges to continue to administer the affairs of the Pennsylvania Public School Employees' Retirement System in the most competent and efficient manner possible.

Bernard J. Freitag
Chairman
Board of Trustees

Organizational Chart of the Public School Employees' Retirement System



Organizational Structure of the Public School Employees' Retirement System

Public School Employees' Retirement Board

The Board, consisting of fifteen members, adopts and promulgates rules and regulations for the uniform administration of the System and exercises a fiduciary responsibility over the investment of the Fund's assets. In addition, the Board certifies salary deductions and contribution rates, makes actuarial investigations of the Retirement System, provides for independent audits of the System, and publishes an annual financial statement of the condition of the Retirement Fund. Administratively, the Board reviews the activities performed by the System's Executive Office.

Executive Office

The Executive Director serves as chief administrative officer of a rapidly growing governmental agency which is chartered to administer a large pension fund for public school employes. Generally, the Executive Director directs and manages the operation of the Retirement System to achieve the primary objectives of the Fund as established by the Retirement Board. This office plans, formulates, and recommends to the Board policies and directions which further sound management practices and represent the best interests of the active members and annuitants of the System. Particularly, the Executive Director monitors the operation of the investment portfolio and evaluates portfolio performance for consideration by the Board, certifies expenditures of the Fund, and measures performance of professional individuals or firms with whom the Board contracts for specialized services. The Executive Director also apprises the Board of any development which will in any way affect the Retirement System and its operation.

Additional functions of the Executive Office are performed by specialized support staff. The Public Relations Office is responsible for the coordination and release of information about the Retirement System. In fulfilling this obligation, this office prepares press releases, bulletins, newsletters, the annual report, pamphlets, and members' handbooks, and answers written, personal, and telephone inquiries. This office is responsible for the development of the agency video series and for coordination of the annual Board seminar. It also maintains personal contact with school retiree groups across the state by providing speakers and displays.

The legislative liaison in the Executive Office monitors and reports on legislative activities which may impact on members' benefits or the administration of the System.

The Investment Office is responsible for the investment activities of the Retirement System as opposed to the administrative functions of investment accounting. The Fund's assets are allocated to numerous investment advisors for investment in the areas of equities, fixed income, real estate, venture capital, and options. A portion of the portfolio is now managed in-house. The Chief Investment Officer oversees the performance and operations of the investment advisors and reports to the Board. He is responsible for assuring that the Board's investment policies and decisions are carried out. The Investment Office and the Board have formulated a plan for meeting the earnings requirements of the Fund's target liability by the use of strategic asset allocation.

Legal services are provided by a team of professional personnel shared by PSERS, the State Employees' Retirement System, and the Pennsylvania Municipal Retirement System. The legal staff is responsible for interpretation of the Retirement Code, for representation of the System in administrative hearings and courts, for determination of legality of contracts, for supervising outside lawyers who represent the Systems in real estate and other commercial transactions, and for providing advice related to matters of corporate governance.

The Management Support team is responsible for the implementation of a work management study to improve PSERS's efficiency and support resource allocations.

Bureau of Administrative Services

The Bureau of Administrative Services directs and coordinates staff activities relating to personnel, purchasing, and office services, as well as preparation of and year-round monitoring of the administrative budget. The Bureau Director is responsible for conducting all elections to the Board of Trustees.

Personnel and Training Division

This division coordinates a comprehensive human resources operation through establishing and maintaining personnel and training policies and programs. Specifically, the division maintains a compensation and classification system; administers the Commonwealth benefits and employee services program; oversees the recruitment, selection, and placement of job candidates; develops, conducts, and evaluates employee development and training programs; administers and maintains the automated personnel management system; oversees the labor relations function; and maintains personnel and leave records. Also, the Affirmative Action, State Employee Assistance Program, employee services, retirement counseling, and employee evaluation function are carried out in this division.

Purchasing and Contracting Division

This division administers the agency procurement function through the purchase and maintenance of supplies, furniture and equipment. The division reviews agency purchase requests, making recommendations to management and staff, formulating specifications, securing and awarding bids, preparing purchasing documents, determining the need for maintenance agreements and ensuring compliance with the agency's and Commonwealth requirements and procedures. The division prepares, maintains and administers Service Purchase Contracts for services, maintenance and computer software, and controls the agency master file on blueback contracts. The division chief serves as the agency Contract Compliance Officer, MBE-WBE Compliance Officer and Surplus Property Control Officer. Automotive services, telephone services and office equipment repairs are coordinated in this division.

Office Services Division

This division develops techniques to improve practices and the allocation of resources, develops administrative procedures, conducts space and equipment utilization studies, and negotiates leases. The division also manages a forms and publications program by providing graphic, composition, reproduction, and distribution services. The division coordinates, directs and tests a Disaster Recovery program and operates a consolidated mail and messenger service. The division chief has primary responsibility for the coordination of building management and security at the agency's headquarters building.

Bureau of Contributor Services

The Bureau of Contributor Services provides direct and indirect professional and technical services to the 200,000 active membership from the moment of enrollment to the receipt of the first regular monthly retirement check. This is the sole program Bureau of PSERS and is organized into three divisions: Field Services, Records Administration, and Membership Services.

The Bureau Director, along with the Assistant Director, provide administrative leadership to the staff of the Bureau, specifically to the three division chiefs who manage the programs.

Field Services Division

Our Field Program services PSERS members, annuitants, and school districts through ten field offices that are strategically located throughout the Commonwealth of Pennsylvania. Each field representative is a professional liaison between the agency, the members and the reporting units.

Our Board of Trustees requires mandatory counseling for members before they retire. PSERS offers several retirement seminars to cover this mandatory counseling: pre-retirement seminars which are large seminars for members of PSERS that will be retiring two or more years in the future, benefits counseling which are for members of PSERS retiring in the current school year, individual counseling which is provided as needed, and the new Pre-Retirement Education Programs (PREP) which are sessions targeted at members retiring within the next ten to fifteen years; they are expanded pre-retirement seminars that include guest speakers, such as attorneys, insurance company representatives, Blue Cross/Blue Shield representatives, etc.

The field representatives also train reporting units in retirement reporting requirements, solve problems between the reporting units and PSERS, and speak at in-service day programs.

Records Administration Division

The Records Administration Division is responsible for the security and accuracy of our members' records, and functions as an information center for the membership who call or write about their accounts. The Division consists of four sections: Member Communications, Research and Reports, Information Processing, and Files Maintenance.

Member Communications — This section is responsible for oral and written communications relative to a member's record in the System. This section has the general telephone number for all of PSERS, and is the main link between PSERS and the outside world (school districts, members, SERS, legislative offices, field offices, etc.)

Research and Reports — This section is responsible for determining eligibility for membership in PSERS, review of beneficiary information for compliance with legal requirements, and the maintenance of Kardex, our master cross-reference file of each member.

Information Processing — Word Processing provides typing support to all bureaus within the agency, as well as providing recording and transcription services for meetings within the Agency. Data Entry transfers data to machine readable formats and performs data entry and verification services. This unit also develops and maintains programs to perform data validation and consistency edits.

Files Maintenance — This section is responsible for the security and management of the approximately 375,000 records of current and former public school employes. They are currently converting all paper documents to an updatable microfiche system to provide maximum disaster recovery capability.

Membership Services Division

The Membership Services Division consists of four sections: Retirement Support/Retirement Processing, Purchase of Service, Refund Section, and Closing and Adjusting.

Retirement Support/Retirement Processing — This section is responsible for the final eligibility determination and computation of all the various types of retirement allowances.

Purchase of Service — This area establishes a members eligibility to purchase service in PSERS, in compliance with the Retirement Code and PSERS Rules and Regulations.

Refund Section — This section provides assistance regarding refund benefits and tax information to members and districts by means of discussions, telephone inquiries and correspondence.

Closing and Adjusting — This section determines who is eligible to receive death benefits and performs complex retirement computations.

Bureau of Fiscal Control

This bureau has responsibility for the planning, organization, and direction of a complete accounting system. Fulfilling this responsibility includes recording of all financial transactions, preparation of financial statements and the assisting in administrative budget, accounting for the investment portfolio transactions, consulting with the Board of Trustees on financial matters, and serving as liaison with financial consultants, actuaries, fund evaluators, investment advisors, other state and federal agencies, and all reporting units.

Division of Investment Accounting

The Division of Investment Accounting has responsibility for managing investment transactions to guarantee adherence to policies and guidelines prescribed by the Board. It serves as intermediary with custodial banks, investment advisors, the State Treasury Department, brokers, and the investment evaluator. The division accounts for a \$16 billion investment portfolio through the processing and reconciliation of all investment transactions.

Division of Financial Reporting

The Division of Financial Reporting has responsibility for the classification, analysis, and reporting of all financial transactions. The General Ledger Section records all financial data including outgoing payments from the Fund and incoming receipts to the Fund. It maintains the cash receipts journal, cash disbursements journal and the general ledger and is responsible for the preparation of financial statements. The Data Control Section controls the updates to the individual members' savings accounts and the application of interest, the auditing of withdrawals from these accounts and the reconciliation of the total member balances with the General Ledger.

Division of Annuitant Services

The Division of Annuitant Services administers a \$64 million monthly annuitant payroll. This administration involves the creation and maintenance of the automated payroll file, deduction of hospitalization costs for eligible annuitants, and provision of tax and accounting information. The Division is responsible for calculating and processing post-retirement death benefits and also provides general information and assistance to the annuitant membership.

Division of District Accounting and Reporting

The Division of District Accounting and Reporting has responsibility for the collection, posting and reconciliation of member and employer contributions. Supported by the Accounts Receivable Section and the District Reporting Section, this division collects all membership salary and service data, handles all employe and employer billings and receivable procedures, and provides services to the reporting units by interpreting the Rules and Regulations regarding membership and by ensuring the proper application of reporting codes and procedures.

Bureau of Information Systems

The Bureau of Information Systems has the responsibility for planning, administering, and controlling all electronic data processing activities within PSERS. Additionally, this bureau interprets and applies agency policies and objectives across all data processing activities, provides professional services for feasibility studies, system analysis, system design and programming, data communications and data management, hardware and software selection and computer operations. The bureau also formulates short-term and long-range developmental plans to permit the agency to meet directed missions.

The staff support group reports to the Bureau Director and is responsible for testing and training of all end-user software and application systems which reside on the mainframes and microcomputers. Responsibilities include the development of training material and course outlines; training individuals and groups of end-users; development of test files, system integration testing; development of user and operational manuals. Another major responsibility of this group is centralized end-user contact for the bureau. All problems and requests related to hardware, software, training, information and services will be directed to this group.

Responsibilities include identification and tracking of problems or requests; processing requests with end-user software, if possible; forwarding, all problems/requests to appropriate divisions; summarizing problems and requests reported; recommending to bureau management methods to eliminate problems and improve methods to handle requests.

Application Systems and Staff Support Division

This division has two main functions: data administration and development and maintenance of all application systems.

Responsibilities for data administration include design, definition and control of all data collected by this agency; planning for future data needs; development of data standards; development of procedures for the collection and use of data; data dictionary administration.

Responsibilities for the application systems support function are systems analysis and design, feasibility and workflow analysis, conceptual system design, detailed system design, program and system specifications, identifying potential applications for automation, developing program logic and translating logic into machine readable code, program testing and debugging, creation of screen and image printer formats, development of system and source library routines; maintenance and enhancements to existing systems; implementation of federal and state legislation; implementation of federal and state court decisions; development of operational, program and system documentation.

Technical and Operations Support Division

This division has the responsibility for the administration and operation of the agency's mainframe and microcomputer systems and all associated software.

This division provides software support in the areas of data communications, data management, end user software, operating systems, compilers, system utilities, vendor supplied applications and microcomputer packages. This support includes the modification and enhancement of existing software and the development of supporting software when necessary. It develops and enforces efficiency and usage standards for the various software products and evaluates their performance on a continuing basis. The division provides technical training and assistance to management and BIS staff in the areas of project development, problem analysis and resolution, and development of long and short range plans. It develops backup and recovery procedures for data management, data communications and other critical system resources. It provides for the security and integrity of data, system access security and change control security.

Introductory Section

This division monitors system hardware and software for acceptable performance and resource utilization, making adjustments to configurations and parameters when necessary. It analyzes current workload and usage trend data to ensure sufficient availability of resources to meet future agency needs.

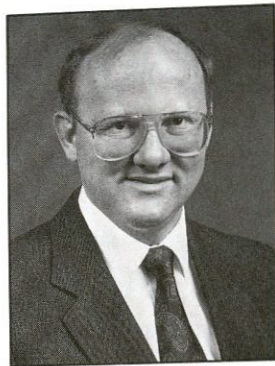
This division provides for the operation and control of the computer mainframes, associated peripherals and data entry equipment. In addition support is provided for the agency's data communications networks and microcomputer clusters. The division evaluates performance and assures effective availability and utilization of this hardware consistent with agency needs and priorities. It is also accountable for the organization and execution of control functions (input-output validation, computer job accounting, output distribution and quality checks of completed work), the performance of data entry and verification services and the programs necessary to perform the verification and editing.

Advanced Technology and Systems Integration Division

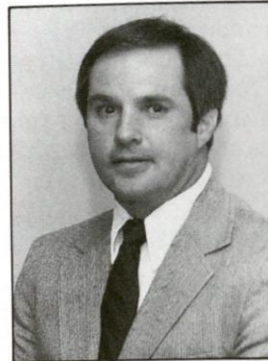
This division has the responsibility for performing research into technological developments within the information processing industry, the evaluation of the impact and implications of those advancements relative to the hardware components and software products in use within the agency, and the selection, testing, and the application of systems integration engineering principles to assure proper merger of new technology into the existing environment.

Specifically, the division provides the expertise to evaluate new vendor offerings and ascertain their applicability toward the improvement of services to users of electronic information processing systems. Additionally, the division is responsible for the development of strategic plans to assure the successful integration of selected new technology while minimizing the impact, disruption, and displacement of those products currently being utilized within the agency.

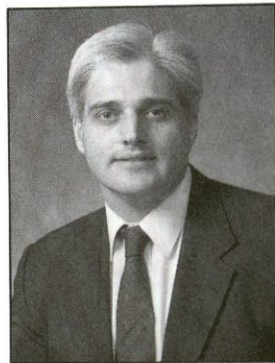
Administrative Staff



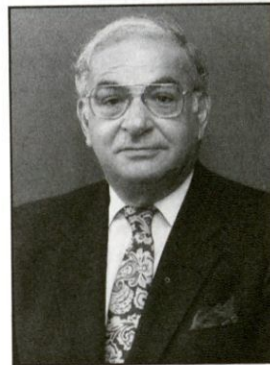
James A. Perry
Executive Director



Arthur J. Granito
Assistant Executive
Director



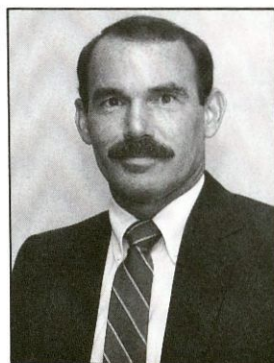
John C. Lane
Acting Chief
Investment Officer



Abbott A. Leban
Chief Counsel



Yvonne C. Wineholt
Director of
Fiscal Control



Dale W. Houck
Director of
Information Systems



Linda L. Weidner
Director of
Contributor Services



Thomas E. Yagel
Director of
Administrative Services

NOTE: A change occurred in the administrative staff between the end of the fiscal year (June 30, 1990) and the issuance of this financial report. Arthur J. Granito, formerly Director of the Bureau of Fiscal Control, was named the System's Assistant Executive Director effective September 21, 1990. Yvonne C. Wineholt was named to be Director of the Bureau of Fiscal Control.

Professional Consultants

Investment Advisors

Acorn Asset Management (*Options*)
One Water Street - 2nd Floor
White Plains, NY 10601

Bankers Trust Co. (*Equities*)
West Building 6th Floor
280 Park Avenue
New York, NY 10017

CEO Venture Fund (*Venture Capital*)
4516 Henry Street, Suite 402
Pittsburgh, PA 15213

Cashman, Farrell & Associates (*Equities*)
1235 Westlakes Drive
Berwyn, PA 19312

Columbus Circle Investors, Inc. (*Equities*)
Metro Center, 8th Floor
One Station Place
Stamford, CT 06902

Commonwealth of Pennsylvania (*Short Term*)
Treasury Department
Harrisburg, PA 17120

Commonwealth Ventures Partners - Century IV
(*Venture Capital*)
Century IV Partners
1760 Market Street
Philadelphia, PA 19103

Crabbe-Huson Co. (*Equities*)
One Financial Center
121 SW Morrison, Suite 1400
Portland, OR 97204

Criterion Investment Management Co. (*Fixed
Income*)
1000 Louisiana Street, Suite 6000
Houston, TX 77002

Darien Capital Management (*Options*)
66 Fieldpoint Road - 3rd Floor
Greenwich, CT 06830

Delaware Investment Advisers (*Equities & Fixed
Income*)
One Commerce Square
Philadelphia, PA 19103

Dreman Value Management, Inc. (*Equities*)
70 Pine Street
New York, NY 10270

Eagle Asset Management (*Equities*)
880 Carillon Parkway Box 10520
St Petersburg, FL 33716

Fidelity Bank (*Mortgages & Real Estate*)
P.O. Box 1300
Philadelphia, PA 19105

First Pennsylvania Bank (*Custodial Bank &
Security Lending*)
Center Square West 10th Floor
16th & Market Streets
Philadelphia, PA 19101

Genesis Seed Fund, Ltd. (*Venture Capital*)
Two Penn Center Plaza
Philadelphia, PA 19102

Glenmede Trust Co. (*Fixed Income &
Convertibles*)
229 South 18th Street
Philadelphia, PA 19103

Hudson Capital Advisors (*Equities*)
3 East 54th Street
New York, NY 10022

Jones Lang Wootton Realty Advisors (*Real
Estate*)
101 East 52nd Street, 20th Floor
New York, NY 10022

Loomis, Sayles & Co. (*Fixed Income*)
One Financial Center, 34th Floor
Boston, MA 02111

Loomis, Sayles & Co. (*Options*)
5100 Poplar Avenue, Suite 2200
Memphis, TN 38137

Loyalhanna Commonwealth Fund (*Venture
Capital*)
681 Andersen Drive
Pittsburgh, PA 15220

Investment Advisors (Continued)

Mackenzie Financial Corp. (*Equities*)
150 Bloor Street, West - 5th Floor
Toronto, Ontario
Canada M5S 2X9

Mellon Bank, N.A. (*Fixed Income & Equities*)
One Mellon Bank Center
Pittsburgh, PA 15258-0001

Mellon Capital Management (*Equities & Balanced*)
595 Market Street, Suite 2900
San Francisco, CA 94105

Miller Anderson & Sherrerd (*Fixed Income & Equities*)
One Tower Bridge
West Conshohocken, PA 19428

Morgan Grenfell Capital Management (*Fixed*)
885 Third Avenue
New York, NY 10022-4802

Morgan Stanley Asset Management Inc.
(*Fixed Income & Farmland*)
1221 Avenue of the Americas - 21st Floor
New York, NY 10020

NEPA Management Corp. (*Venture Capital*)
Goodman Drive
Lehigh University
Bethlehem, PA 18015

Newbold's Asset Management (*Equities*)
937 Haverford Road
Bryn Mawr, PA 19010-3845

Oppenheimer Capital Corp. (*Equities*)
Oppenheimer Tower, 37th Floor
World Financial Center
New York, NY 10281

Oppenheimer Option Management (*Options*)
Division of Oppenheimer Capital
Oppenheimer Tower, 37th Floor
World Financial Center
New York, NY 10281

PNC Financial Corp.
Advanced Investment Management (*Equities*)
Two Oliver Plaza, Suite 2020
Pittsburgh, PA 15222

Pacific Investment Management Co. (*Fixed Income*)
840 Newport Center Drive, 3rd Floor
P.O. Box 9000
Newport Beach, CA 92658-9030

Pennsylvania Investment Private Placement
(*CIGNA*)
(*Venture Capital*)
Connecticut General Life Insurance Co.
P.O. Box 2975
Hartford, CT 06152

Pennsylvania Venture Capital Fund
(*APA/Fostin*)
(*Venture Capital*)
Fostin Capital Associates
Fostin Plaza VI
681 Andersen Drive
Pittsburgh, PA 15220

Pilgrim Baxter Greig & Associates (*Equities*)
1255 Drummers Lane
Suite 200
Wayne, PA 19087

Pittsburgh National Bank (*Fixed Income*)
One Oliver Plaza, 27th Floor
Pittsburgh, PA 15265

Putnam Advisory Co., Inc. (*Fixed Income*)
One Post Office Square
Post Office Stop A7A
Boston, MA 02109

Security Pacific Investment Managers (*Equities*)
300 South Grand Avenue, Suite 2200
Los Angeles, CA 90071

Small Manager Fund Advisors

Acadian Financial Research, Inc.
260 Franklin Street
Boston, MA 02110

Beutel Goodman International, PLC
5-6 St. Andrew's Hill
London, England EC4V5BY

Birmingham Capital Management Co., Inc.
31 Inverness Center Parkway, Suite 100
Birmingham, AL 35242

Cutler & Company, Inc.
503 Airport Road
Medford, OR 97504

Dietche & Field Advisers, Inc.
437 Madison Avenue
New York, NY 10022

Evaluation Associates Inc. - Americas Fund
200 Connecticut Avenue
Norwalk, CT 06854

Fielding Management Company, Inc.
379 Park Avenue
Rochester, NY 14607

Gulf Investment Management, Inc.
820 Gessner, Suite 720
Houston, TX 77024-4258

Income Research & Management, Inc.
155 Federal Street - 4th Floor
Boston, MA 02110

London & Bishopgate International, Inc.
866 Third Avenue
New York, NY 10022

Mortgage Government Securities, Inc./AIM
11 Greenway Plaza 2112
Houston, TX 77046

Munder Capital Management
260 East Brown Street, Suite 100
Birmingham, MI 48011

NCM Capital Management
2 Mutual Plaza
501 Willard Street
Durham, NC 27701

Payden & Rygel
333 South Grand Avenue, Suite 3250
Los Angeles, CA 90071

PCM International
745 Broad Street, 2 Plaza
Newark, NJ 07101

Roxbury Capital Management
1800 Avenue of the Stars, Suite 1100
Los Angeles, CA 90067

State Street Bank & Trust Company
P.O. Box 470
Boston, MA 02102

Trust Company of the West
400 South Hope Street
Los Angeles, CA 90071

World Invest Ltd.
56 Russell Square
London, England WC1B4HP

Investment Evaluator

Evaluation Associates, Inc.
Norwalk, CT

Real Estate Consultant

MacFarlane Realty Advisors
Philadelphia, PA

Venture Capital Consultant

Springhouse Associates
Ambler, PA

Actuary

Buck Consultants
Chicago, IL

Auditor

KPMG Peat Marwick
Harrisburg, PA

Medical Examiners

Dr. Stanley R. Goldman, M.D.
Harrisburg, PA

Dr. Jonathan B. Tocks, M.D.
Enola, PA

Dr. Richard Davis, M.D.
Enola, PA

Dr. Robert Little, M.D.
Harrisburg, PA

A History of the Public School Employees' Retirement System

The following is a brief history of PSERS.

- 1917 — The Pennsylvania Public School Employees' Retirement Act became law on July 18.
- 1918 — Henry H. Baish became the System's first Secretary. The first Board was comprised of seven members.
- 1919 — The law went into full effect July 1 with the merger of 13 school district retirement systems into the new statewide system. Membership was 37,503.
- 1920 — By July, 204 members had been granted full retirement and 50 had been granted disabilities. The average annuity was \$275 a year.
- 1920-1923 — The Institute for Government Research called PSERS one of the nation's "safe and sound systems". (Ninety percent of the country's systems were found to be unsafe.)
- 1924 — PSERS membership had grown to 54,677. The balance in the retirement fund was \$7.3 million.
- 1929 — Membership totaled 71,313. Funds were invested exclusively in Pennsylvania state, county, city, borough, and township bonds with preference for school district bonds. The System was not threatened by the "Crash".
- 1933 — Membership had grown to 74,698. U.S. government bonds were added to the list of legal investments.
- 1935 — At the height of the depression, the year's annual report noted that through PSERS bond investments, jobs had been created building schools and roads in Pennsylvania.
- 1941-1942 — Even with nationwide conscription to fight a war on two fronts, PSERS membership grew from 82,956 to 83,482.
- 1944 — The System's first Secretary, Mr. Baish, left after 25 years. He was succeeded by J.Y. Shambach.
- 1949 — The minimum compensation paid former teachers from the Fund was set at \$50 a month.
- 1950 — Mr. Shambach was replaced by Dr. George C. Richwine who served as acting Secretary until 1953. At mid-century, membership was 91,000, with assets of \$576.7 million.
- 1953 — Rex T. Wrye was appointed as Secretary.
- 1960 — Membership had grown to 141,000, and total assets were \$1.5 billion.
- 1963 — The minimum benefit paid to retirees became \$100 a month.

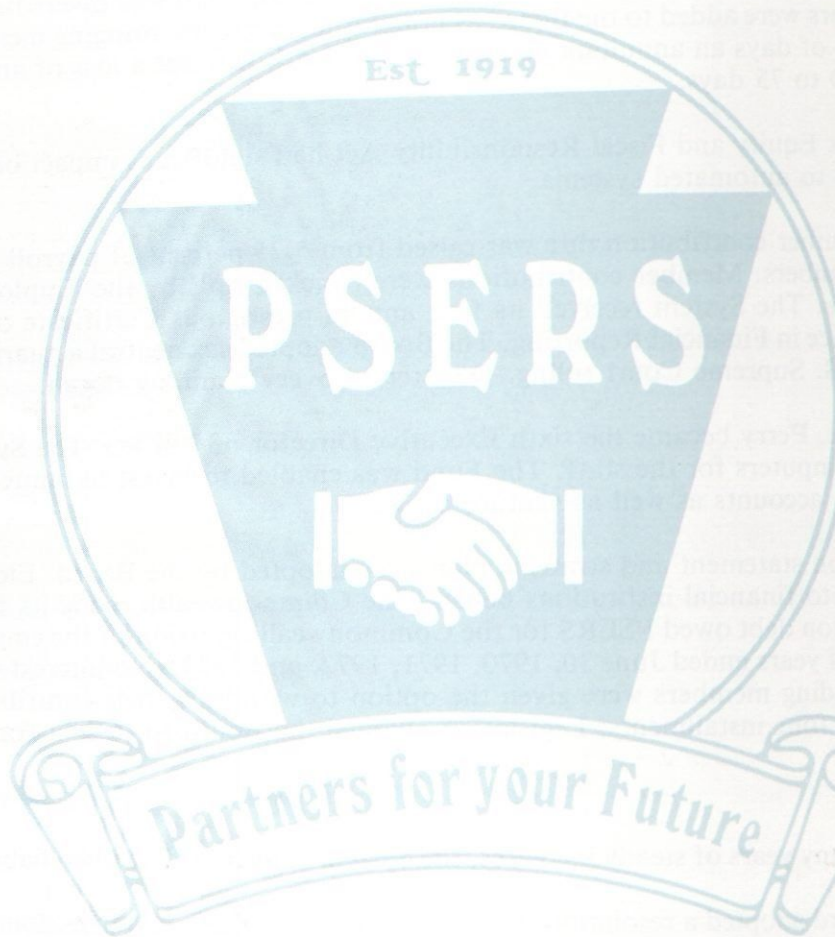
History (Continued)

- 1965 — Membership was 171,000 and assets were \$2.1 billion.
- 1967 — The first ad hoc cost-of-living adjustment was granted; subsequent adjustments were granted in 1974, 1979, 1981, 1984, and 1989.
- 1970 — Mr. Wrye died and was succeeded by Frank R. Cashman as executive director. Annuitants totaled 32,140 with an annual payroll of \$104 million. The basic benefit formula increased to two percent of final average salary. The System's computerization began.
- 1972 — The first of a continuing report was presented by the actuary hired for the examination of the actuarial soundness of the Fund.
- 1973 — A field staff was formed with offices around the state to counsel members and instruct reporting units.
- 1974 — Final average salary was redefined as average compensation in the highest three periods of 12 consecutive months.
- 1975 — Act 96, a new Retirement Code, was enacted in 1975 with a profound effect on the System:
- PSERB became an "independent administrative Board".
 - Board membership increased.
 - The System's authority to invest in common stock was liberalized.
 - The lump-sum withdrawal of accumulated deductions at retirement was permitted.
 - Part-time employees were made eligible for PSERS membership.
 - Withdrawal (early) retirement eligibility was lowered from 25 to 10 years.
 - Eligibility for full death benefit was reduced from 25 to 10 years.
 - Eligibility for disability was lowered from 10 years to 5 years.
- 1976 — PSERS moved into City Towers, combining an operation that was scattered in three different locations in Harrisburg.
- 1977 — Assistant Executive Director M. Andrew Sheffler succeeded Mr. Cashman as Executive Director.
- 1979 — The System's first "outside" audit occurred.
- 1980 — The Board joined George Washington University in financing an office building/retail center in the District of Columbia. A security system was installed at the headquarters building.

Introductory Section

History (Continued)

- 1982 — The Fund could invest up to 50 percent of its total assets at book value in common stock. Various investment advisors were hired, and the portfolio was diversified. Four appointed legislators were added to the Board as non-voting members, bringing membership to 15. The number of days an annuitant could return to work without a loss of annuity was changed from 60 to 75 days.
- The Tax Equity and Fiscal Responsibility Act had significant impact on the members and changes to automated systems.
- 1983 — The member contribution rate was raised from 5.25 percent of payroll to 6.25 percent for new members. Member contributions were "picked up" by the Employer for federal tax purposes. The System received its first annual prestigious Certificate of Achievement for Excellence in Financial Reporting. The Board adopted sex neutral actuarial tables as a result of a U.S. Supreme Court ruling. Disaster recovery planning began.
- 1984 — James A. Perry became the sixth Executive Director of PSERS. The System began to buy microcomputers for the staff. The Fund was enabled to invest in limited partnerships and separate accounts as well as venture capital.
- 1985 — A mission statement and strategic plan were adopted by the Board. Electronic transfer of benefits to financial institutions began. The Commonwealth made its final payment on a \$90 million debt owed PSERS for the Commonwealth portion of the employer contribution for fiscal years ended June 30, 1970, 1971, 1972, and 1973. (No interest was paid.) Retiring or refunding members were given the option to withdraw their contributions and interest in up to four installments. Legislation enabled the Board to deduct for child and spousal support.
- 1985-1986 — After many years of steady increases, the System's unfunded accrued liability was decreased.
- 1986 — The Board adopted a resolution on divestment of assets in companies doing business in South Africa. Mandatory retirement counseling was enacted. The conversion of all retirement records to microfiche was begun, and the correspondence unit was established to answer mail and telephone calls more quickly and efficiently. The employe contribution rate was reduced for the first time in 23 years. An automated general ledger system was installed to provide PSERS with more timely financial information and to reduce the level of manual account postings required.
- 1986-Present — Retirement windows were enacted to allow for early retirement without penalties. A provision in the U.S. Tax Reform Act eliminating the "three year rule" for taxation of retirement benefits had a negative impact on the System's members and automated processes.
- 1987 — The System moved into a new headquarters building at 5 North Fifth Street, Harrisburg.
- 1988 — The technical corrections bill amending the U.S. Tax Reform Act was passed. This provided tax relief for members of the System on pre-1983 member contribution withdrawals.
- 1990 — The 100,000th annuitant was added to the payroll. The investment and legal staffs were expanded.



Finance Section

Independent Auditors' Report

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.

225 Market Street

Suite 300

P.O. Box 1190

Harrisburg, PA 17108-1190

Telephone 717 238 7131

Telecopier 717 233 1101

The Board of Trustees
Commonwealth of Pennsylvania
Public School Employees' Retirement System

We have audited the accompanying balance sheets of the Commonwealth of Pennsylvania Public School Employees' Retirement System as of June 30, 1990 and 1989, and the related statements of revenues, expenses, changes in fund balance and changes in financial position 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 position of the Commonwealth of Pennsylvania Public School Employees' Retirement System at June 30, 1990 and 1989, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles.

The analysis of funding progress on Schedule 1 is not a required part of the basic financial information of the System but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit this information and express no opinion on it.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information included in Schedules 2 through 4 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the examinations of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG Peat Marwick

October 5, 1990

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Balance Sheets
June 30, 1990 and 1989
 (Amounts in Thousands)

Assets	1990	1989
Investments, at cost (note 4):		
Fixed income investments and mortgage investments (market value \$8,440,132 in 1990 and \$6,561,707 in 1989)	\$ 8,431,027	\$ 6,445,204
Common and preferred stocks (market value \$6,092,843 in 1990 and \$5,381,486 in 1989)	5,144,729	4,449,807
Other long-term investments (market value \$798,302 in 1990 and \$731,517 in 1989)	745,485	675,898
Short-term investments (market value \$1,206,676 in 1990 and \$1,988,845 in 1989)	1,204,793	1,988,338
Total investments	15,526,034	13,559,247
Receivables:		
Contributions:		
Employes	52,318	50,806
Employers	186,199	169,526
Commonwealth of Pennsylvania	135,317	129,161
Investment:		
Income	200,536	235,254
Proceeds	149,926	173,915
Other	145	1,805
Total receivables	724,441	760,467
Cash	4	3
Fixed assets (net of accumulated depreciation of \$2,110 and \$1,367 in 1990 and 1989, respectively)	5,642	6,247
TOTAL ASSETS	\$16,256,121	\$14,325,964

Liabilities and Fund Balance

Liabilities:		
Accounts payable and accrued expenses	\$ 29,893	\$ 34,946
Installment benefits payable	45,111	45,188
Investment purchases payable	295,350	246,576
Total liabilities	370,354	326,710

Unfunded Actuarial Liability (note 1d)

Fund balance (note 3):		
State accumulation account	6,740,158	5,581,105
Members' savings account	3,458,222	3,171,058
Reserve for retirement	5,489,181	5,064,075
Reserve for disabilities	198,206	183,016
Total fund balance	15,885,767	13,999,254

TOTAL LIABILITIES AND FUND BALANCE **\$16,256,121** **\$14,325,964**

See accompanying notes to financial statements.

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Statements of Revenues, Expenses and Changes in Fund Balance
Years ended June 30, 1990 and 1989
(Amounts in Thousands)

	Year ended June 30, 1990				
	Total	State Accumulation Account	Members' Savings Account	Reserve for Retirement	Reserve for Disabilities
Revenue:					
Contributions:					
Employers	\$ 545,181	\$ 545,181	\$ —	\$ —	\$ —
Employes	311,434	—	311,434	—	—
Commonwealth of Pennsylvania	541,266	541,266	—	—	—
	1,397,881	1,086,447	311,434	—	—
Investment revenue, net of related expenses (note 4)	1,431,387	1,006,108	129,986	285,237	10,056
Total revenue	2,829,268	2,092,555	441,420	285,237	10,056
Expenses:					
Benefits	915,414	—	—	887,065	28,349
Refunds	11,177	—	11,177	—	—
Net transfers to (from) State Employees' Retirement System	2,566	5,764	(3,198)	—	—
Administrative expenses	13,598	13,598	—	—	—
Total expenses	942,755	19,362	7,979	887,065	28,349
Excess (deficiency) of revenues over expenses	1,886,513	2,073,193	433,441	(601,828)	(18,293)
Transfers between reserves for:					
Retirements by members	—	(820,410)	(150,504)	927,657	43,257
Annuitants who returned to service	—	9,017	322	(5,076)	(4,267)
Actuarial requirements	—	(98,728)	—	104,239	(5,511)
Other	—	(4,019)	3,905	114	—
Net transfers between reserves	—	(914,140)	(146,277)	1,026,934	33,483
Fund balance at beginning of year	13,999,254	5,581,105	3,171,058	5,064,075	183,016
Fund balance at end of year	\$15,885,767	\$6,740,158	\$3,458,222	\$5,489,181	\$198,200

See accompanying notes to financial statements.

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Statements of Revenues, Expenses and Changes in Fund Balance (Continued)

Years ended June 30, 1990 and 1989

(Amounts in Thousands)

	Year ended June 30, 1989				
	Total	State Accumulation Account	Members' Savings Account	Reserve for Retirement	Reserve for Disabilities
Revenue:					
Contributions:					
Employers	\$ 499,273	\$ 499,273	\$ —	\$ —	\$ —
Employes	287,803	—	287,803	—	—
Commonwealth of Pennsylvania	490,237	490,237	—	—	—
	1,277,313	989,510	287,803	—	—
Investment revenue, net of related expenses (note 4)	1,173,176	779,447	119,023	265,291	9,415
Total revenue	2,450,489	1,768,957	406,826	265,291	9,415
Expenses:					
Benefits	851,308	—	—	825,926	25,382
Refunds	12,134	—	12,134	—	—
Net transfers to State Employees' Retirement System	11,281	10,069	1,212	—	—
Administrative expenses	11,055	11,055	—	—	—
Total expenses	885,778	21,124	13,346	825,926	25,382
Excess (deficiency) of revenues over expenses	1,564,711	1,747,833	393,480	(560,635)	(15,967)
Transfers between reserves for:					
Retirements by members	—	(720,253)	(126,290)	811,006	35,537
Annuitants who returned to service	—	10,843	—	(8,189)	(2,654)
Actuarial requirements	—	(78,100)	—	128,235	(50,135)
Other	—	17,275	(17,275)	—	—
Net transfers between reserves	—	(770,235)	(143,565)	931,052	(17,252)
Fund balance at beginning of year	12,434,543	4,603,507	2,921,143	4,693,658	216,235
Fund balance at end of year	\$13,999,254	\$5,581,105	\$3,171,058	\$5,064,075	\$183,016

See accompanying notes to financial statements.

Notes to Financial Statements June 30, 1990 and 1989

(1)

Organization and Description of the System

(a) Organization

The Commonwealth of Pennsylvania Public School Employees' Retirement System (the "System") was established as of July 18, 1917, under the provisions of P.L. 1043, No. 343. The System is a cost-sharing multiple-employer plan and its designated purpose is to provide retirement allowances and other benefits to members. Membership in the System is mandatory for substantially all full-time public school employes in the Commonwealth. At June 30, 1990 there were 633 reporting units, generally school districts. Membership as of June 30, 1989, the most recent year for which actual amounts are available, consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employes entitled to, but not receiving benefits	<u>126,000</u>
Currently employed members:	
Vested	126,000
Nonvested	<u>74,000</u>
	<u>200,000</u>

All members are fully vested in their individual balance in the Members' Savings Account which is described in note 3(b).

Responsibility for the organization and administration of the System is vested in the Board of Trustees.

The System, based primarily upon the criterion of financial interdependency, is considered a component unit of the Commonwealth of Pennsylvania financial reporting entity and is included in the Comprehensive Annual Financial Report of the Commonwealth of Pennsylvania.

(b) Benefits

Significant amendments to the System were made in the 1975 revision of the Pennsylvania School Employees' Retirement Code ("the Code") by the Pennsylvania General Assembly. Under the provisions of the Code, members are eligible for monthly retirement benefits upon reaching (a) age 62; (b) age 60 and 30 or more years of service or; (c) 35 or more years of service regardless of age. For a period expiring September 30, 1991, the Code

currently permits school employes with at least 30 years of credited service to retire without a reduction in benefits. This so-called "early retirement window" does not require a minimum age in conjunction with length of service for a member to be eligible for full benefits.

Such benefits are generally equal to 2 percent of the member's final average salary (as defined) multiplied by the number of years of credited service. After completion of 10 years of service, a member's right to the defined benefit is vested and early retirement benefits may be elected. Under certain features of the System, active members may purchase credit for types of prior educational or military service on a lump-sum or installment purchase basis.

In addition to regular retirement benefits, the System also provides for disability retirement benefits and death benefits. Participants are eligible for disability retirement benefits after completion of 5 years of eligible service. Such benefits are equal to 2 percent of the member's final average salary (as defined) multiplied by the number of years of credited service, but not less than one third of such salary, nor greater than the benefit the member would have had at superannuation retirement age.

Death benefits are payable upon the death of an active member who has reached age 62 or who has at least 10 years of eligible service. Such benefits are actuarially equivalent to the benefit which would have been effective if the member had retired on the day before death.

Members with credited service in the State Employees' Retirement System may elect to transfer such service to the Public School Employees' Retirement System upon commencement of employment in the public school system. Similarly, a member with credited service in the System may transfer such service to the State Employees' Retirement System upon becoming a member of that system.

Upon termination of a member's employment in the public school sector, the member's accumulated contributions plus interest are refundable from the Members' Savings Account.

(c) Contributions

The contribution policy is set by the Code and requires contributions by active members, employers and the Commonwealth. The rate of contribution for most active members was set by law at 5.25 percent of the member's compensation. For members joining the System on or after July 22, 1983, the rate of contribution is 6.25 percent. The contributions required of employers and the Commonwealth are based upon an actuarial valuation.

Financial Section

Notes to Financial Statements (Continued)

using the "entry age normal" method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined. The combined amounts required from the employers and Commonwealth were 19.68 percent and 19.27 percent of active member payroll for the years ended June 30, 1990 and 1989, respectively, and consisted of:

	(Amounts in Thousands)			
	1990		1989	
	Amount	% of Current Covered Payroll	Amount	% of Current Covered Payroll
Employer normal cost	\$ 465,936	8.44	\$443,148	8.63
Amortization of unfunded actuarial accrued liability	409,626	7.42	377,935	7.36
Amortization of supplemental annuities	210,885	3.82	168,427	3.28
	\$1,086,447	19.68	\$989,510	19.27

For the year ended June 30, 1990, contributions were made in accordance with the actuarially determined amounts. Employers and the Commonwealth share such cost equally. For the fiscal year ended June 30, 1990, Commonwealth school districts contributed \$545,181,000 and the Commonwealth contributed \$541,266,000 to the System. The difference between these two amounts results from timing differences in cash payments to the System. The Commonwealth contribution approximates 10 percent of current covered payroll. The estimated covered payroll for the year ended June 30, 1990 was approximately \$5,520,564,000. Effective July 1, 1990, the combined contribution rate was decreased to 19.18 percent of covered payroll.

(d) Actuarial Valuation

The contribution policy requires employers and the Commonwealth to make a normal contribution and a past service contribution as determined by a qualified actuary. The System's actuary uses the "entry age normal" method to determine normal costs. As of June 30, 1989, the date of the most recent actuarial report, the actuary computed that, utilizing the present method of funding, the unfunded actuarial accrued liability for prior service increased by \$140,414,000 from the prior year and

was \$7,217,564,000. The actuary calculates that the average funding period to amortize total unfunded accrued and supplemental annuity liabilities is 17.2 years as of June 30, 1989.

Such liability includes \$109,831,000 as of June 30, 1989 and 1988, related to unaccrued interest receivable on Commonwealth contributions which were not paid on a timely basis.

Such interest receivable relates to an underfunding of Commonwealth contributions for fiscal years ended June 30, 1970 to 1973, and is not recorded on the System's financial statements. However, the System's actuary considers the interest receivable an asset in the calculation of the actuarial valuation.

Significant assumptions underlying the actuarial computations include: (a) assumed rate of return on investments of 5.50 percent; (b) assumed rate of salary increases ranging from 6.99 percent at age 25 to 1.89 percent at age 69 per year; (c) assets valued at cost; (d) no post-retirement benefit increases assumed in the future; and (e) mortality, vesting, retirement age and withdrawal estimates based on tables furnished by the actuary.

(2)

Summary of Significant Accounting Policies

The financial statements of the System are prepared on the accrual basis of accounting and conform to generally accepted accounting principles. In order to assist the reader in understanding the accompanying financial statements, a summary of the more significant accounting policies is presented below:

(a) Investments

Income on investments is primarily recognized on the accrual basis. Income on some other long-term investments is recognized when received, which is not materially different than that recognized on the accrual basis. Gains and losses on sales of investments are recognized on the trade date.

Corporate and government bonds with fixed maturities are reported at cost as of the trade date of the transaction.

Investments in common and preferred stocks are carried at cost. Gains and losses on stock sales are recognized on the basis of the average cost of the stocks sold.

Mortgage investments are carried at the amount of the unpaid principal balance of the loan.

Other long-term investments are carried at cost as of the trade date.

Investments which have incurred permanent impairment are written down to market value and losses are charged against investment income.

Notes to Financial Statements (Continued)

Short-term investments, principally investments in the state treasury investment pool are carried at cost, which approximates market value.

During the fiscal year ended June 30, 1990, the System owned no securities issued by school districts, the Commonwealth, or any related parties and made no loans to school districts, the Commonwealth, or any related party.

(b) Fixed Assets

Fixed assets, consisting primarily of data processing equipment, are carried at cost. The System depreciates fixed assets by the straight-line method over an estimated useful life of seven years.

(c) Federal Income Tax Status

During the years ended June 30, 1990 and 1989, the System qualified under the provisions of Section 501(a) of the Internal Revenue Code and was exempt from Federal income taxes.

(d) Compensated Absences

The system records a liability for employees' vacation and sick pay as earned.

**(3)
Description of Funds**

The Code requires the following funds to be maintained by the System:

(a) State Accumulation Account

The State Accumulation Account is credited with the contributions of the Commonwealth and the employers. Additionally, interest earnings of the System (after crediting the Members' Savings Account with the 4 percent interest and the reserves for retirement and disabilities with 5.50 percent interest) are credited to this account. Each year, the amounts necessary, as determined by the actuary for the payment of retirement and death benefits, are transferred from the State Accumulation Account to the Reserve for Retirement and Reserve for Disabilities. All administrative expenses necessary for the operation of the System are paid from the State Accumulation Account.

(b) Members' Savings Account

The Members' Savings Account is credited with all contributions made by active members of the System. Interest is added to the member's individual account at

an annual rate of 4 percent.

Upon death or retirement of a member the accumulated contributions plus interest are transferred to the Reserve for Retirement or Reserve for Disabilities for subsequent payment of benefits.

(c) Reserve for Retirement

The Reserve for Retirement represents the amounts transferred from the Members' Savings and State Accumulation accounts, plus additional contributions made by the Commonwealth and employers for the payment of supplemental annuities and cost-of-living increases. All death and retirement benefits are paid from this reserve. Annual interest of 5.50 percent is credited to the Reserve for Retirement.

(d) Reserve for Disabilities

The Reserve for Disabilities represents the amounts transferred from the Members' Savings and State Accumulation accounts, plus additional contributions made by the Commonwealth and employers for the payment of supplemental annuities and cost-of-living increases. All disability benefits are paid from this reserve. Annual interest of 5.50 percent is credited to the Reserve for Disabilities.

**(4)
Investments**

The Board of Trustees (the "Board") has the responsibility to invest and reinvest available funds of the System, in accordance with the guidelines and limitations set forth in the Code and other applicable state law. The Board accomplishes the daily management of the System's investments through investment advisors who act as agents for the System and through internal investment managers. Under the Code the Board may make investments in U.S. government and agency obligations, common and preferred stocks, mortgages, real estate, venture capital, and to the extent of not more than 10 percent of the book value of System assets, other prudent investments not otherwise specifically authorized, all in such manner as to maximize return while maintaining a sound portfolio within the guidelines of the Code. By law, investments in common stock are limited to 50 percent of the total assets of the System. Additionally, the amount invested in common stock of any one entity may not exceed 2 percent of the book value of the assets of the System at the date of purchase, nor may the System own more than 5 percent of the total issued and outstanding common stock of any entity. Under other applicable state law, the Board may also invest System funds in state, municipal, public authority, corporate, and other qualified debt obligations.

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Notes to Financial Statements (Continued)

A summary of investment securities as of June 30, 1990 and 1989 and the approximate market values follows:

	(Amounts in Thousands)			
	1990		1989	
	Book Value	Market Value	Book Value	Market Value
Fixed income and mortgage investments:				
Domestic portfolio:				
U.S. Government and agency obligations	\$ 3,971,047	\$ 3,992,356	\$ 3,586,301	\$ 3,669,239
Mortgage backed securities	2,425,260	2,445,387	1,236,675	1,270,187
Corporate bonds	1,375,858	1,365,090	1,125,091	1,150,468
Miscellaneous fixed income	156,185	155,803	88,085	90,101
FHA/VA residential mortgages	143,517	129,863	163,572	150,012
Convertible bonds	100,204	98,070	113,154	112,464
FHA project mortgages	32,946	25,508	36,241	27,536
Global portfolio	226,010	228,055	96,085	91,700
	8,431,027	8,440,132	6,445,204	6,561,707
Common and preferred stocks:				
Domestic portfolio:				
Common stock	5,019,989	5,969,198	4,396,745	5,326,421
Preferred stock	50,093	48,351	53,062	55,065
Global portfolio	74,647	75,294	—	—
	5,144,729	6,092,843	4,449,807	5,381,486
Other long-term investments:				
Real estate owned	214,776	214,661	204,004	203,709
Equity real estate	318,258	363,016	314,138	363,844
Equity participating mortgages	94,244	102,418	97,744	103,952
Venture capital	68,207	68,207	60,012	60,012
Farmland investments	50,000	50,000	—	—
	745,485	798,302	675,898	731,517
Short-term investments:				
Domestic portfolio:				
Pa. Treasury short-term investment fund	1,065,680	1,065,680	1,504,397	1,504,397
Other U.S. short-term investments	—	—	333,080	333,266
Global portfolio	139,113	140,996	150,861	151,182
	1,204,793	1,206,676	1,988,338	1,988,845
	\$15,526,034	\$16,537,953	\$13,559,247	\$14,663,555

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Notes to Financial Statements (Continued)

The Systems's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1990. In accordance with a contractual relationship between the Commonwealth's Treasury Department and a custodial agent, substantially all investments subject to categorization are held in book-entry form in the Commonwealth's name. Therefore, all such investments as well as certain securities physically held at the Commonwealth's Treasury Department are reflected in Category 1, which is defined as insured or registered investments or investments for which the securities are held by the System or its agent in the System's name.

Investments may also be categorized as Category 2, which is defined as uninsured or unregistered investments for which the securities are held by a financial institution's agent in the System's name, and Category 3, which is defined as uninsured or unregistered investments for which the securities are held by the broker or dealer or by its agent but not in the System's name. The System has no investments which would be classified in Categories 2 or 3. However, the System does have investments which are not in any of the three defined categories, because the securities are not used as evidence of the investment. Such investments are separately identified.

	Category 1	Not Categorized	Market Value
(Amounts in Thousands)			
U.S. Government and agency obligations	\$ 3,971,047	\$ —	\$ 3,992,356
Corporate and municipal bonds	1,375,858	—	1,365,090
Convertible bonds	100,204	—	98,070
Common stock	5,019,989	—	5,969,198
Preferred stock	50,093	—	48,351
Mortgage backed securities	2,425,260	—	2,445,387
FHA/VA residential mortgages	143,517	—	129,863
FHA project mortgages	32,946	—	25,508
Miscellaneous fixed income	156,185	—	155,803
Real estate	214,776	—	214,661
Equity real estate	318,258	—	363,016
Equity participating mortgages	94,244	—	102,418
Farmland investments	50,000	—	50,000
Global fixed income	226,010	—	228,055
Global equity	74,647	—	75,294
Global short-term investments	—	139,113	140,996
Venture capital	—	68,207	68,207
State Treasury investment fund	—	1,065,680	1,065,680
	\$14,253,034	\$1,273,000	\$16,537,953

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Notes to Financial Statements (Continued)

In accordance with contracts between the Commonwealth and the custodial agent, the System participates in a securities lending program, whereby System securities are transferred to an independent broker or dealer in exchange for collateral equal to 102 percent of the market value of securities on loan. Securities under loan are maintained on the System's financial records and

are classified in the preceding summary of investment risk. As the System does not trade or sell the collateral received in the securities lending program, such collateral is not considered an asset of the System and a corresponding liability is not required on the balance sheet.

The System has authorized investment managers to write covered call stock index options up to an amount of \$1,150,000,000 of the equity portfolio.

The major components of investment revenues for the years ended June 30, 1990 and 1989 are as follows:

	(Amounts in Thousands)	
	1990	1989
Fixed income and mortgage investments	\$ 594,520	\$505,558
Common and preferred stocks	208,784	189,961
Other long-term investments	45,048	51,784
Short-term investments	152,058	175,243
Stock index option writing gain (loss)	9,658	(19,835)
Securities lending income	2,680	4,276
	1,012,748	906,987
Net amortized discount (premium)	(224)	(1,064)
Net gain on investment transactions	448,556	291,032
Total investment revenues before investment expenses	1,461,080	1,196,955
Investment expenses	(29,693)	(23,779)
Net investment revenues	\$1,431,387	\$1,173,176

Investment expenses are primarily composed of investment management fees.

The amounts for investment expenses do not reflect \$853,000 and \$995,000 in 1990 and 1989, respectively, which were paid on behalf of the System through the use of directed commissions. Additionally, the amounts do not include a portion of master trust fees which were paid through interest earnings on trades funded prior to settlement. The amount of master trust fees not reflected in investment expenses was \$231,000 and \$281,000 in 1990 and 1989, respectively.

(5)

Funding Status and Progress

The amount shown on the following page 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 to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems. The measure

is independent of the actuarial funding method used to determine contributions to the System, discussed in notes 1(c) and 1(d).

The pension benefit obligation was determined as part of an actuarial valuation at June 30, 1989, the date of the most recent actuarial report. Significant actuarial assumptions used include: (a) a rate of return on the investment of present and future assets of 5.50 percent per year compounded annually; (b) projected salary increases ranging from 6.99 percent at age 25 to 1.89 percent at age 69 per year; and (c) no postretirement benefit increases.

The Public School Employees' Retirement System of Pennsylvania

Financial Section

Notes to Financial Statements (Continued)

At June 30, 1989, the unfunded pension benefit obligation was \$5,602,170,000 as follows:

	(Amounts in Thousands)
Pension benefit obligation:	
Annuitants and survivor annuitants currently receiving benefits, and terminated members not yet receiving benefits	\$ 6,826,150
Current members:	
Accumulated member contributions with interest	3,039,030
System-financed vested	5,708,443
System-financed nonvested	4,027,801
Total pension benefit obligation	19,601,424
Less: Net assets available for benefits, at cost (market value is \$16,897,787)	13,999,254
Unfunded pension benefit obligation	\$ 5,602,170

(6) Relationships With Other Commonwealth Agencies

The System is established by state law as an independent administrative board of the Commonwealth of Pennsylvania, which is directed by a governing board which exercises control and management of the System, including the investment of its assets. The System's Board has fifteen members including the Commonwealth's Secretary of Education, the State Treasurer, the Executive Secretary of the Pennsylvania School Boards Association, two members appointed by the Governor, six elected members (three from among the System's professional members, one from among the System's nonprofessional members, one from among the System's annuitants, and one from among school board members in Pennsylvania), and two members from the Senate and two members from the House of Representatives. The System's board members from the Senate and House of Representatives serve without a vote in board matters.

The Treasurer of the Commonwealth of Pennsylvania is the custodian of the Public School Employees' Retirement Fund. The retirement plan of the System is a contributory defined benefit plan for which the benefit payments to members and contribution rates by employers and employees are specified in state law. The Commonwealth's contribution is disbursed to the Department of Education and the Department remits the contribution to the System in quarterly installments. Changes in benefit and contribution provisions for each retirement plan must be made by legislation. Under statutory provision, all legislative bills and amendments proposing to change the System's retirement plan are to be accom-

panied with an actuarial note prepared by an enrolled pension actuary providing an estimate of the cost and actuarial effect of the proposed change.

(7) Litigation and Contingencies

The System is subject to various threatened and pending lawsuits which deal with the question of benefit eligibility. It is the opinion of management that the ultimate liability arising from such litigation and threats of litigation will not have a material effect on the financial statements of the System.

(8) Commitments

The System has commitments to fund various venture capital partnerships which amounted to \$23.2 million at June 30, 1990.

(9) Ten-Year Historical Trend Information

Ten-year historical trend information designed to provide information about the System's progress made in accumulating sufficient assets to pay benefits when due is presented in Schedules 1 and 2.

Financial Section

Schedule 1

Analysis of Funding Progress

Years Ended June 30, 1986 through 1989

(Dollar Amounts in Millions)

	(1)	(2)	(3)	(4)	(5)	(6)
Valuation As of 6/30*	Net Assets Available for Benefits	Pension Benefit Obligation	Percentage Funded (1) ÷ (2)	Unfunded Pension Benefit Obligation (2) - (1)	Annual Covered Payroll	Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) ÷ (5)
1989	\$13,999.3	\$19,601.4	71.42%	\$5,602.2	\$5,055.8	110.81%
1988	12,434.5	18,086.5	68.81%	5,652.0	4,641.9	121.81%
1987	11,041.4	16,366.1	67.51%	5,324.7	4,415.1	120.61%
1986	9,348.5	14,870.9	62.91%	5,522.4	4,159.1	132.81%

An isolated analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation 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 System. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the System.

*Information prior to 1986 is unavailable.

Schedule 2

Revenues by Source and Expenses by Type

Years ended June 30, 1981 through 1990

(Dollar Amounts in Thousands)

Revenues by Source

Fiscal Year	Employees Contributions	Employers and Commonwealth Contributions		Investment Revenues	Total Revenues
		Dollar Amount	Percentage of Total Payroll		
1990	\$311,434	\$1,086,447	19.68%	\$1,431,387	\$2,829,268
1989	287,803	989,510	19.27%	1,173,176	2,450,489
1988	275,994	932,532	19.54%	978,063	2,186,589
1987	250,420	888,260	19.90%	1,359,118	2,497,798
1986	228,760	831,840	20.04%	1,119,487	2,180,087
1985	217,946	763,488	19.31%	785,867	1,767,301
1984	197,096	608,617	17.06%	594,135	1,399,848
1983	184,639	541,109	16.00%	559,355	1,285,103
1982	180,562	501,025	15.00%	435,888	1,117,475
1981	175,306	478,859	15.00%	351,220	1,005,385

Expenses by Type

Fiscal Year	Benefits	Disabilities	Lump-Sums and Installments	Refunds	Administrative	Net Transfers	Total Expenses
1990	\$803,784	\$28,349	\$ 83,281	\$11,177	\$13,598	\$2,566	\$942,755
1989	709,726	25,382	116,200	12,134	11,055	11,281	885,778
1988	652,258	23,334	76,642	12,684	10,196	18,332	793,446
1987	623,576	22,084	131,683	11,374	9,507	6,658	804,882
1986	585,122	21,835	77,553	12,710	8,506	8,863	714,589
1985	560,484	20,781	75,061	13,623	7,992	4,118	682,059
1984	501,434	19,069	70,785	14,684	6,955	6,677	619,604
1983	476,714	17,564	85,461	18,539	8,219	6,579	613,076
1982	450,863	18,795	53,199	19,206	5,892	5,052	553,007
1981	435,498	13,817	43,021	18,216	5,130	7,000	522,682

Schedule 3
Administrative Expenses
Years ended June 30, 1990 and 1989
(Dollar Amounts in Thousands)

	1990		1989	
	Actual	Budget	Actual	Budget
Personnel costs:				
Salaries and wages	\$ 5,745		\$ 5,017	
Social security contributions	631		614	
Retirement contributions	710		634	
Employees' insurance contributions	809		713	
Other employe benefits	193		72	
Total personnel costs	8,088	\$ 8,314	7,050	\$ 7,618
Operating costs:				
Auditor General services	2		1	
Treasury services	507		606	
Civil Service Commission services	25		23	
Classification and pay services	5		5	
Purchasing services	9		7	
Consultant fees	9		10	
Legal fees	45		22	
Specialized services	248		184	
Printing	145		177	
Postage	659		376	
Telephone and telegraph	140		125	
Dues and subscriptions	22		18	
Electricity	78		60	
Motorized equipment supplies and repair	8		4	
Travel	223		156	
Contracted maintenance services	411		347	
Rental of real estate	788		754	
Rental of equipment	90		84	
Office supplies	427		187	
Miscellaneous expenses	48		37	
Total operating costs	3,889	4,725	3,183	3,844
Fixed charges:				
Furniture and equipment	565		155	
Depreciation	1,056		667	
Total fixed charges	1,621	2,190	822	1,998
Total administrative expenses	\$13,598	\$15,229¹	\$11,055	\$13,460²

¹ Includes \$13,757,000 related to the 1989-90 appropriation and \$1,472,000 related to the 1988-89 appropriation.

² Includes \$12,640,000 related to the 1988-89 appropriation and \$820,000 related to the 1987-88 appropriation.

Schedule 4
Summary Schedule of Cash Receipts and
Disbursements
Years ended June 30, 1990 and 1989
(Dollar Amounts in Thousands)

	<u>1990</u>	<u>1989</u>
Cash balance at beginning of year	\$ 3	\$ 2
Add cash receipts:		
Investment sales and maturities	17,325,916	14,602,533
Contributions:		
Employers	529,151	494,021
Employes	309,923	284,620
Commonwealth of Pennsylvania	535,110	477,891
Interest and dividends	1,052,532	830,631
Transfers from State Employees' Retirement System	1,695	1,403
Refund of expenditures	4,957	5,407
Other receipts	2,090	3,333
Total cash receipts	19,761,374	16,699,839
Less cash disbursements:		
Investment purchases	18,776,104	15,795,321
Benefit payments	917,083	837,721
Refunds	11,485	12,476
Transfers to State Employees' Retirement System	10,653	17,057
Administrative expenses	13,977	12,251
Other disbursements	32,071	25,012
Total cash disbursements	19,761,373	16,699,838
Cash balance at end of year	\$ 4	\$ 3

Actuarial Section

Actuary's Certification Letter

BUCK CONSULTANTS

Xerox Centre
55 West Monroe Street Suite 1700
Chicago, Illinois 60603

January 19, 1990

Retirement Board
Public School Employees'
Retirement System of Pennsylvania
P.O. Box 125
Harrisburg, PA 17108

Ladies and Gentlemen:

We have completed the June 30, 1989 actuarial valuation of the Public School Employees' Retirement System of Pennsylvania. The valuation was prepared on the basis of the data submitted by the Retirement System office and the actuarial assumptions adopted by the Retirement Board, and reflects the benefits in effect on the valuation date.

There were no fiscally-significant legislated changes made in the benefit or contribution provisions of the System during the fiscal year ended June 30, 1989.

Financing Objective and Employers' Contribution Rate

The financing objective of the System is to:

- (a) fully fund all current costs based on the normal contribution rate determined under the funding method; and
- (b) liquidate all unfunded accrued and supplemental annuity liabilities based on the level of contributions required to support the legislated amortization schedules.

On the basis of the current valuation, the total contribution rate payable by the employers for the year commencing July 1, 1990 should be set equal to 19.18 percent of payroll.

The contribution rate of 19.18 percent of payroll payable by the employers, when taken together with the contributions payable by the members, is sufficient to achieve the financing objective set forth above.

When compared with the previous year's employers' rate of 19.68 percent, the current employers' rate of 19.18 percent shows a decrease of .50 percent from the prior year.

Commonwealth's Assets and Participant Data

The individual data for members of the System as of the valuation date were reported to the actuary by the Retirement System's staff. While the actuary did not verify the data at their source, he did perform tests for internal consistency and reasonability in relation to the data submitted for the previous valuation. It is our understanding that the outside auditor of the System has also made an examination of the data.

The valuation balance sheet includes an amount of \$109,831,000 representing the accumulated interest receivable on the Commonwealth's deficiency in contributions. The Board decided to freeze the accumulated interest receivable as of June 30, 1985 at the then current amount of \$109,831,000, until the issue of removing this receivable item from the valuation balance sheet is resolved.

Actuarial Assumptions and Methods

The rates of separation, salary increase and mortality after retirement used in the valuation were those adopted by the Retirement Board upon the recommendation of the actuary. An interest rate of 5½ percent was used in the valuation, as specified by the Statutes of the Commonwealth pertaining to the System. In our opinion, the actuarial assumptions used in the valuation are, in the aggregate, reasonable.

The actuarial cost method utilized is the entry age normal method with open-end accrued liability, as specified in the Statutes. The application of the method produces a rate of employer contribution which should remain fixed as a level percentage of payroll for each individual member included in the valuation. The rate of contribution determined under the method covers both the normal costs of the System on account of currently accruing benefits and the amortization of the total unfunded accrued liability of the System over specified liquidation periods.

The current assets applicable to the System were supplied by the Retirement System office and were taken at book value.

In determining the rate of amortization of the unfunded accrued and supplemental liabilities of the System (exclusive of the July 1, 1979, July 1, 1984, and January 1, 1989 supplemental increases), it was assumed that each annual payment is 4 percent greater than the previous payment, as specified by the Statutes of the Commonwealth. The July 1, 1979, July 1, 1984, and January 1, 1989 supplemental increases are funded through level annual payments.

Unfunded Accrued Liability

The unfunded accrued liability represents the present value of the portion of benefits accrued to the valuation date in respect of active members, annuitants, and survivor annuitants, adjusted for experience gains and losses, which is not covered by the current assets of the System. Under the entry age normal cost method used for valuation purposes,

the unfunded accrued liability is determined as the present value of total prospective benefits payable, less the current assets of the System, less the present value of prospective normal contributions payable.

As of June 30, 1989, the total unfunded accrued liability amounted to \$7,107,733,000. The portion of the total unfunded accrued liability which is due to supplemental annuities that have been granted to certain annuitants is equal to \$1,324,388,000.

In order to liquidate the total unfunded accrued liability of \$7,107,733,000, the individual portions which have been established from time to time are to be amortized over varying periods ranging from 3 to 29 years. The average funding period for the total unfunded accrued liability is 17.2 years as of June 30, 1989, as compared to 18.0 years as of June 30, 1988.

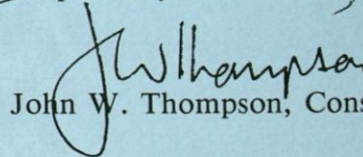
Funding Adequacy

The results of the valuation indicate that the rates of contribution payable by members and employers, when taken together with the current assets of the System, are adequate to fund the actuarial liabilities on account of all benefits payable under the System. The liquidation period for the 11 portions of the unfunded accrued liability range from 3 to 29 years.

Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the schedules which are presented in the body of the report.

Respectfully submitted,



John W. Thompson, Consulting Actuary

Actuarial Valuation

As of June 30, 1989

Section I - Financial Results

Section I of this report summarizes the major financial results developed in the valuation as well as the actuarial methods and assumptions used.

Schedule I

Summary of Principal Results

(Dollar Amounts in Thousands)

	Valuation Date	
	6/30/89	6/30/88
Assets (book value)	\$14,109,085	\$12,544,374
Accounts receivable included in assets:		
From State:		
Principal amount	\$ 129,161	\$ 116,815
Interest	109,831	109,831
From School Districts	169,526	163,335
From Members	50,806	48,046
Total accounts receivable included in assets	\$ 459,324	\$ 438,027
Member average contribution rate	5.69%*	5.53%*
Employer contribution rate:		
Normal	8.28%	8.44%
Accrued liability	7.31%	7.42%
Supplemental annuity:		
Increases effective:		
Prior to July 1, 1979	1.31%	1.39%
July 1, 1979	1.07%	1.18%
July 1, 1984	.54%	.60%
January 1, 1989 (Act No. 112)	.67%	.65%
Total employer rate	19.18%	19.68%
Total contribution rate (member plus employer)	24.87%	25.21%

*Average weighted member contribution rate.

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Schedule I (Continued)

	Valuation Date	
	6/30/89	6/30/88
Unfunded accrued liability:		
Before consideration of Act 96	\$4,629,171	\$4,368,127
Increase due to Act 96	573,498	584,161
Increase due to 1984 "Early Retirement Window" program	47,903	47,928
Increase due to Unisex Factors	44,665	44,436
Increase due to 1986 "Early Retirement Window" program	38,214	37,851
Increase due to change in actuarial assumptions	348,689	345,377
Act 112 - Current window extension	101,205	100,000
Total unfunded accrued liability	5,783,345	5,527,880
Unfunded supplemental annuity liability:		
Increases effective:		
Prior to July 1, 1979	\$ 190,492	\$ 242,492
July 1, 1979	449,849	479,088
July 1, 1984	282,989	294,959
January 1, 1989 (Act 112)	401,058	412,900
Total unfunded supplemental annuity liability	1,324,388	1,429,439
Total unfunded accrued and supplemental annuity liability	\$7,107,733	\$6,957,319
Accrued liability funding period:		
Established prior to Act 96	17.5 years	18.4 years
Established due to Act 96	15 years	16 years
Established due to 1984 "Early Retirement Window" program	21 years	22 years
Established due to Unisex Factors	24 years	25 years
Established due to 1986 "Early Retirement Window" program	27 years	28 years
Established due to change in actuarial assumptions	27 years	28 years
Act 112 - current window extension	29 years	30 years
Supplemental annuity liability funding period:		
Increases effective:		
Prior to July 1, 1979	3 years	4 years
July 1, 1979	11 years	12 years
July 1, 1984 increases	15 years	16 years
January 1, 1989 (Act 112)	19 years	20 years
Average funding period to amortize total unfunded accrued and supplemental annuity liability:	17.2 years	18.0 years

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Schedule II
Valuation Balance Sheet
As of June 30, 1989
(Dollar Amounts in Thousands)

Assets

Current Assets:

Members' Savings Account	\$ 3,171,058
Annuity Reserve Account*	5,345,819
State Accumulation Account	5,592,208
Total Current Assets	\$14,109,085

Future Assets:

Member contributions	3,201,360
Employer contributions:	
Normal	4,658,570
Accrued liability	5,783,345
Supplemental annuity liability	1,324,388
Total Future Assets	14,967,663

Total Assets **\$29,076,748**

Liabilities

Active membership:

Benefits payable due to:	
Member contributions accumulated to date	\$3,171,058
Future member contributions	3,201,360
Remaining benefits payable to produce 2 percent benefit formula amounts	16,034,123
Total Active Membership Liabilities	\$22,406,541

Retired membership:

Benefits payable to annuitants and survivor annuitants	6,670,207
--	-----------

Total Liabilities **\$29,076,748**

* Includes Supplemental Retirement Allowance Account of \$1,324,388 thousands.

Schedule III
Approximate Reconciliation of Total Unfunded Accrued
and Supplemental Annuity Liability
Based on Provisions in Effect on June 30, 1989
(Dollar Amounts in Millions)

State Accumulation Account and Annuity Reserve Account	Amount
(1) Unfunded accrued liability as of 6/30/88	\$6,957.3
(2) Interest at 5½ percent for 1 year	382.7
(3) Less: accrued liability contribution with interest for ½ year	560.4
(4) Expected unfunded accrued liability as of 6/30/89 = (1) + (2) - (3)	6,779.6
(5) Actual unfunded accrued liability as of 6/30/89	7,107.7
Net Increase From Expected	\$ 328.1

Explanation of net increase:

Experience:

Interest surplus	\$(467.1)
Salary increases above expected	677.3
Retirement and other separations	100.0
Pensioners' mortality experience	17.9
Net Experience Increase	\$328.1

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Schedule IV
Relationship Between Accrued Liabilities and Assets
of System over Last 10 Years
(Dollar Amounts in Thousands)

Valuation as of 6/30	Aggregate Accrued Liabilities for:			Reported Assets**	Portion of Accrued Liabilities Covered By Reported Assets		
	(1) Active Member Contributions	(2) Annuityants and Beneficiaries	(3) Active Members (Employer Financed Portion)*		(1)	(2)	(3)
1989	\$3,171,058	\$6,670,207	\$11,375,553	\$14,109,085	100%	100.0%	37.5%
1988	2,921,143	6,416,543	10,164,007	12,544,374	100%	100.0%	31.5%
1987	2,668,271	5,740,249	9,003,259	11,151,231	100%	100.0%	30.5%
1986	2,464,839	5,348,751	8,181,910	9,458,315	100%	100.0%	20.1%
1985	2,274,834	4,950,826	7,332,210	7,992,817	100%	100.0%	10.5%
1984	2,085,294	4,822,488	6,712,779	6,897,484	100%	99.8%	0.0%
1983	1,919,861	4,361,033	5,987,048	6,109,592	100%	96.1%	0.0%
1982	1,868,012	4,031,176	5,465,494	5,977,119	100%	100.0%	1.4%
1981	1,717,739	3,876,225	5,042,226	5,399,010	100%	95.0%	0.0%
1980	1,578,884	3,569,221	3,515,904	4,901,476	100%	93.1%	0.0%

* Equal to active members' liabilities (employer financed portion) less present value of future normal contributions based on new entrant normal rate.

**Includes accounts and interest receivable.

Schedule V
Analysis of Accrued Liability of
System as of June 30, 1989
(Dollar Amounts in Millions)

Item	Amount
(1) Estimated value of accumulated benefits of System:	
Vested benefits	
— Members currently receiving payments	\$ 6,670.2
— Other members	8,903.4
Subtotal	15,573.6
Nonvested benefits	1,531.7
Total value of accumulated benefits	17,105.3
(2) Value of additional accrued liabilities reflecting effect of anticipated future increases in pay	4,111.5
(3) Total accrued liability of System = (1) + (2)	21,216.8
(4) Book value of assets	14,109.1
(5) Unfunded accrued and supplemental annuity liability of System (as shown in Schedule I)	\$ 7,107.7

Notes:

- (A) Accumulated benefits shown under item (1) above are made up of (a) benefits currently being paid to annuitants and beneficiaries, plus (b) accrued benefits of active membership based on service and pay history up to the current valuation date of June 30, 1989. Thus, accumulated benefits do not reflect the effect of future pay increases on the benefit ultimately payable upon retirement or separation from employment.
- (B) Item (3) shows the total accrued liability of the System as determined under the funding method, i.e., the entry-age normal cost method. Item (3) reflects the effect of anticipated future pay increases on the benefits ultimately payable.
- (C) The calculation of the estimated value of accumulated benefits took into account the probability of future payments by use of the same decrements as to death, disability, withdrawal, and retirement which were used in the regular valuation of the System. These decrements are set forth in Schedule VI. The interest rate used is the same as for the regular valuation, namely 5½ percent. As mentioned in note (A) above, the estimated value does not include any allowance for future pay increases.

Schedule VI
Pension Benefit Obligation Information
as of June 30, 1989

1. Statement No. 5 of the Governmental Accounting Standards Board (GASB) requires in part that a computation and disclosure of a standardized measure of the pension obligation for public employee retirement systems, and state and local governmental employers be made for purposes of assessing the funding status and funding progress of these systems and employers.

This measure is the actuarial present value (APV) as of the valuation date of credited projected benefits prorated on service, which is referred to in Statement No. 5 as the "pension benefit obligation" (PBO).

2. The determination of the pension benefit obligation as of June 30, 1989 includes an adjustment for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to June 30, 1989.

Significant actuarial assumptions used to determine the pension benefit obligation as of June 30, 1989 include the following:

- (1) An assumed rate of return on the investment of present and future assets of 5½% per annum, compounded annually.
- (2) Assumed projected annual salary increases ranging from 6.99% at age 25 to 1.89% at age 69, which reflect an allowance for inflation and merit or seniority increases.
- (3) No post-retirement benefit increases assumed in the future.

The relevant amounts as of June 30, 1989 are shown below:

Pension benefit obligation:

Annuitants and survivor annuitants currently receiving benefits	\$ 6,670,207,134
Inactive and terminated vested members not yet receiving benefits	155,942,913
Subtotal	6,826,150,047
Current members:	
Accumulated member contributions with interest	3,039,029,525
System - financed vested	5,708,443,327
System - financed non-vested	4,027,801,227
Subtotal	12,775,274,079
Total Pension Benefit Obligation	\$19,601,424,126

The actuarial present value of credited projected benefits for active members is the portion of the total projected benefits allocated to the accrued liability using the unit credit actuarial cost method.

Schedule VII Outline of Actuarial Assumptions and Methods

Interest rate: 5½ percent per annum, compounded annually. Interest rate is specified by Statutes of the Commonwealth and was first used in 1974. (4 percent used since 1960 in determining actuarial equivalent benefits.)

Separations from service and salary increase: Representative values of the assumed annual rates of separation (adopted in 1986) and annual rates of salary increase (used since 1974) are as follows:

Age	Annual Rate of						Salary Increase
	Withdrawal	Death	Disability	Vesting & Early Retirement		Super-annuation Retirement	
				Less than 25 Years of Service	25 or More Years of Service		
Men							
25	10.01%	.07%	.01%	1.52%			6.99%
30	7.02%	.07%	.01%	1.52%			6.32%
35	5.88%	.07%	.02%	1.47%			5.23%
40	5.24%	.12%	.06%	1.10%	.13%		4.14%
45	4.85%	.20%	.11%	1.00%	.15%		3.27%
50	4.58%	.32%	.26%	1.30%	.30%	22.00%	2.60%
55	4.42%	.53%	.49%	2.30%	3.41%	20.90%	2.13%
60	4.37%	.94%	1.01%	3.26%	4.95%	18.15%	1.91%
65		1.74%				44.00%	1.90%
69		2.58%				16.50%	1.89%
Women							
25	9.96%	.03%	.01%	7.20%			6.99%
30	9.02%	.03%	.02%	4.40%			6.32%
35	7.92%	.04%	.05%	2.10%			5.23%
40	6.62%	.07%	.07%	1.40%	1.32%		4.14%
45	5.70%	.11%	.10%	1.50%	1.32%		3.27%
50	5.14%	.15%	.23%	2.05%	.86%	22.00%	2.60%
55	4.80%	.21%	.45%	3.00%	5.77%	19.80%	2.13%
60	4.74%	.34%	.79%	5.15%	11.00%	19.80%	1.91%
65		.63%				36.30%	1.90%
69		1.10%				27.50%	1.89%

Death after retirement: The 1984 George B. Buck Mortality Tables (adopted in 1986) for service retirements and dependent beneficiaries. Special mortality tables were used for disability retirements. (The 1963 George B. Buck Mortality Tables, adopted in 1967, used in determining actuarial equivalent benefits.)

Valuation method: Projected benefit method with level percentage entry age normal cost and open-end unfunded accrued liability. Gains and losses are reflected in the period remaining to liquidate the unfunded accrued liability. This method was required by a Statute of the Commonwealth enacted in 1975.

Asset valuation method: Initial cost on bonds, stocks, and unpaid principal balance on mortgages.

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Schedule VII (Continued)

Pension Benefit Obligation: The measure of the actuarial present value (APV) as of the valuation date of credited projected benefits prorated on service, or pension benefit obligation (PBO) as referred to in Statement No. 5 of the Governmental Accounting Standards Board (GASB), includes an adjustment for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to June 30, 1989. Significant actuarial assumptions used to determine the pension benefit obligation as of June 30, 1989 include the following:

- (1) An assumed rate of return on the investment of present and future assets of 5½% per annum, compounded annually.
- (2) Assumed projected annual salary increases ranging from 6.99% at age 25 to 1.89% at age 69, which reflect an allowance for inflation and merit or seniority increases.
- (3) No post-retirement benefit increases assumed in the future.

Miscellaneous: The valuation was based on members of the System as of June 30, 1989 and does not take into account future members. In determining the rate of amortization of the unfunded accrued and supplemental liabilities of the System (exclusive of the July 1, 1979, July 1, 1984, and January 1, 1989 supplemental increases), it was assumed that each annual payment is 4 percent greater than the previous payment, as specified by the Statutes of the Commonwealth. The July 1, 1979, July 1, 1984, and January 1, 1989 supplemental increases are funded through level annual payments.

Table B
 Amounts and Survivor Annuities of the System
 As of June 30, 1989

Year Ended 6/30	Number of Annuities	Additional	Change in Membership	Amount	Class
1989	95,460	4,214	477.2	2,017.7	4,777.1
1988	92,300	4,252	452.2	2,127.5	4,444.4
1987	89,140	4,290	427.2	2,237.3	4,111.7
1986	86,000	4,328	402.2	2,347.1	3,779.0
1985	82,880	4,366	377.2	2,456.9	3,446.3
1984	79,760	4,404	352.2	2,566.7	3,113.6
1983	76,640	4,442	327.2	2,676.5	2,780.9
1982	73,520	4,480	302.2	2,786.3	2,448.2
1981	70,400	4,518	277.2	2,896.1	2,115.5
1980	67,280	4,556	252.2	3,005.9	1,782.8
1979	64,160	4,594	227.2	3,115.7	1,450.1
Total					
1989	28,138	1,342	147.2	712.7	1,777.1
1988	27,368	1,342	142.2	747.5	1,444.4
1987	26,598	1,342	137.2	782.3	1,111.7
1986	25,828	1,342	132.2	817.1	779.0
1985	25,058	1,342	127.2	851.9	446.3
1984	24,288	1,342	122.2	886.7	113.6
1983	23,518	1,342	117.2	921.5	218.9
1982	22,748	1,342	112.2	956.3	323.2
1981	21,978	1,342	107.2	991.1	427.5
1980	21,208	1,342	102.2	1,025.9	531.8
1979	20,438	1,342	97.2	1,060.7	636.1
Total					
1989	67,322	2,872	330.0	1,305.0	3,000.0
1988	65,932	2,910	305.0	1,415.0	2,667.3
1987	64,542	2,948	280.0	1,525.0	2,334.6
1986	63,152	2,986	255.0	1,635.0	2,001.9
1985	61,762	3,024	230.0	1,745.0	1,669.2
1984	60,372	3,062	205.0	1,855.0	1,336.5
1983	58,982	3,100	180.0	1,965.0	1,003.8
1982	57,592	3,138	155.0	2,075.0	671.1
1981	56,202	3,176	130.0	2,185.0	338.4
1980	54,812	3,214	105.0	2,295.0	0.0
1979	53,422	3,252	80.0	2,405.0	0.0
Total					
Grand Total					

Section II - Membership Data

Data regarding the membership of the System for use as a basis for the valuation were furnished by the System's office. Tables A and B following summarize the membership of the System as of June 30, 1989 upon which the valuation was based. Detailed tabulations of the data are given in Section IV. Tables C and D show historical membership data for the last 10 years.

Table A
Active Membership of System
As of June 30, 1989

Group	Number	Annual Salaries
Active members included in valuation:		
Men	70,147	\$2,146,139,776
Women	130,283	2,909,653,341
Total	200,430	\$5,055,793,117*

In addition to the above, 30,800 inactive members and vestees were included in the valuation.

*For valuation purposes, salaries of \$4,928,487,347 were reported for the fiscal year ended June 30, 1989, which when annualized amount to \$5,055,793,117.

Table B
Annuitants and Survivor Annuitants of the System
As of June 30, 1989

Class	Number	Annual Annuities
Retired on account of superannuation and those in receipt of withdrawal annuities:		
Men	28,136	\$246,783,696
Women	59,368	423,483,167
Total	87,504	670,266,863
Retired on account of disability:		
Men	1,345	9,416,643
Women	2,453	14,164,106
Total	3,798	23,580,749
Survivor annuitants in receipt of benefits:		
Men	467	1,856,103
Women	3,689	14,462,684
Total	4,156	16,318,787
Annuities in lieu of return of accumulated deductions:		
Men	-	-
Women	3	209
Total	3	209
Grand Total	95,461	\$710,166,608

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Section II - Membership Data (Continued)

Table C
History of Active Membership Data
for Last 10 Years

Valuation as of 6/30	Number of Active Members	Percentage Change in Membership	Annual Active Member Payroll	Percentage Change in Payroll
1989	200,430	2.34%	\$5,055,793,000	10.24%
1988	195,842	(2.77)%	4,586,367,000	3.88%
1987	201,415	.92%	4,415,102,000	8.57%
1986	199,571	(1.07)%	4,066,471,000	4.59%
1985	201,735	.32%	3,887,867,000	5.49%
1984	201,083	(1.01)%	3,685,611,000	8.30%
1983	203,138	(2.90)%	3,403,263,000	4.72%
1982	209,210	(2.44)%	3,249,799,000	3.07%
1981	214,438	(1.85)%	3,152,967,000	6.24%
1980	218,487	.04%	2,967,712,000	7.74%

Table D
History of Annuitant and Survivor Annuitant Membership
for Last 10 Years

Year Ended 6/30	Number of Annuitants	Percentage Change in Membership		Annual Annuities (Millions)	Percentage Change in Annuities
		Additions	Deletions		
1989	95,461	4,852	2,315	\$710.2	11.77%
1988	92,924	5,818	3,271	635.4	4.44%
1987	90,377	6,671	2,940	608.4	6.51%
1986	86,646	6,586	2,828	571.2	5.15%
1985	82,888	6,051	2,879	543.2	3.07%
1984	79,716	5,989	2,611	527.0	12.03%
1983	76,338	7,345	2,252	470.4	7.20%
1982	71,245	6,098	2,303	438.8	4.23%
1981	67,450	5,565	2,237	421.0	3.16%
1980	64,122	5,070	1,947	408.1	26.94%

Table E
Summary of Accrued and Unfunded Accrued Liabilities
for Last 10 Years
(Dollar Amounts in Millions)

Valuation As of 6/30	Aggregate Accrued Liabilities	Valuation* Assets	Assets As a Percentage of Accrued Liabilities	Unfunded Accrued Liabilities (UAL)	Total Annual Payroll	UAL As a Percentage of Total Payroll
1989	\$21,216.8	\$14,109.1	66.5%	\$7,107.7	\$5,055.8	140.6%
1988	19,501.7	12,544.4	64.3%	6,957.3	4,641.9	149.9%
1987	17,411.7	11,151.2	64.0%	6,260.5	4,416.9	141.7%
1986	15,995.5	9,458.3	59.1%	6,537.2	4,159.0	157.2%
1985	14,557.9	7,992.8	54.9%	6,565.1	3,887.9	168.8%
1984	13,620.6	6,897.5	50.6%	6,723.1	3,685.6	182.4%
1983	12,267.9	6,109.6	49.8%	6,158.3	3,403.3	180.9%
1982	11,364.7	5,977.1	52.6%	5,387.5	3,249.8	165.8%
1981	10,636.2	5,399.0	50.8%	5,237.1	3,153.0	166.1%
1980	8,664.0	4,901.5	56.6%	4,933.9	2,967.7	166.2%

*Includes Commonwealth interest receivable.

Section III - Summary of Benefit and Contribution Provisions

Membership

For valuation purposes, all employees are considered to be members of Class T-C. All employees who become members on and after January 1, 1966 are members of the dual coverage group. Joint coverage members are those who became members prior to that date but subsequent to May 28, 1957. Joint coverage members may elect to become members of the dual coverage group but must make up the difference in accumulated deductions.

“Final average salary” means the highest average annual salary for any 3 years of service.

Benefits

Superannuation Annuity

Eligibility	Age 62, or age 60 with 30 years of service, or 35 years of service regardless of age.
Amount	Two percent of final average salary times years of service. Minimum of \$100 per year of service. Benefit of a joint coverage member is reduced by 40 percent of primary insurance amount (subject to certain limitations) after age at which Social Security benefits become payable.

Vesting Annuity

Eligibility	10 years of service.
Amount	Accrued benefit deferred to superannuation retirement age.

Withdrawal Annuity

Eligibility	Vestee with 10 years of service may elect to receive a reduced vesting annuity which commences earlier than the superannuation retirement age.
Amount	Actuarial equivalent of the vesting annuity which would have commenced at superannuation retirement age. If member separates after age 55 with 25 or more years of service, reduction is $\frac{1}{4}\%$ for each month by which commencement of payments precedes superannuation retirement age. Benefit of a joint coverage member is reduced after age at which Social Security benefits become payable.

The Public School Employees' Retirement System of Pennsylvania

Actuarial Section

Section III (Continued)

Disability Annuity

Eligibility 5 years of service.

Amount Two percent of final average salary per year of service, but not less than $33\frac{1}{3}$ percent of such salary, nor greater than the benefit member would have had at superannuation retirement age. Minimum of \$100 per year of service.

Optional Benefits

Option 1. Reduced benefit with refund of balance of present value of annuity at retirement over payments received. If balance is less than \$5,000, benefit is paid in lump sum; otherwise, beneficiary may elect annuity and/or lump sum.

Option 2. Joint and 100 percent survivorship annuity.

Option 3. Joint and 50 percent survivorship annuity.

Option 4. Benefit of equivalent actuarial value.

Death Benefit

Eligibility Death of an active member or vestee who was eligible to receive an annuity.

Amount Annuity which would have been effective if the member retired on the day before death. Option 1 assumed payable if no other option elected.

Return of Contributions

Eligibility Death or separation from service where no other benefit payable.

Amount Refund of accumulated deductions (less annuity payments received in the case of a retired member).

Contributions

By Members

Members who were hired prior to July 22, 1983 contribute at a rate of $5\frac{1}{4}$ percent of compensation, while members who were hired on or after July 22, 1983 contribute at a rate of $6\frac{1}{4}$ percent of compensation. Reduction for a joint coverage member of 40 percent of Social Security tax, exclusive of disability and medical coverage portion.

By Commonwealth and School Districts

Balance of required contribution determined as normal contribution, accrued liability contribution, and supplemental annuity contribution, is shared equally by the Commonwealth and the School Districts.

Section III Summary of Benefit and
Contribution Provisions

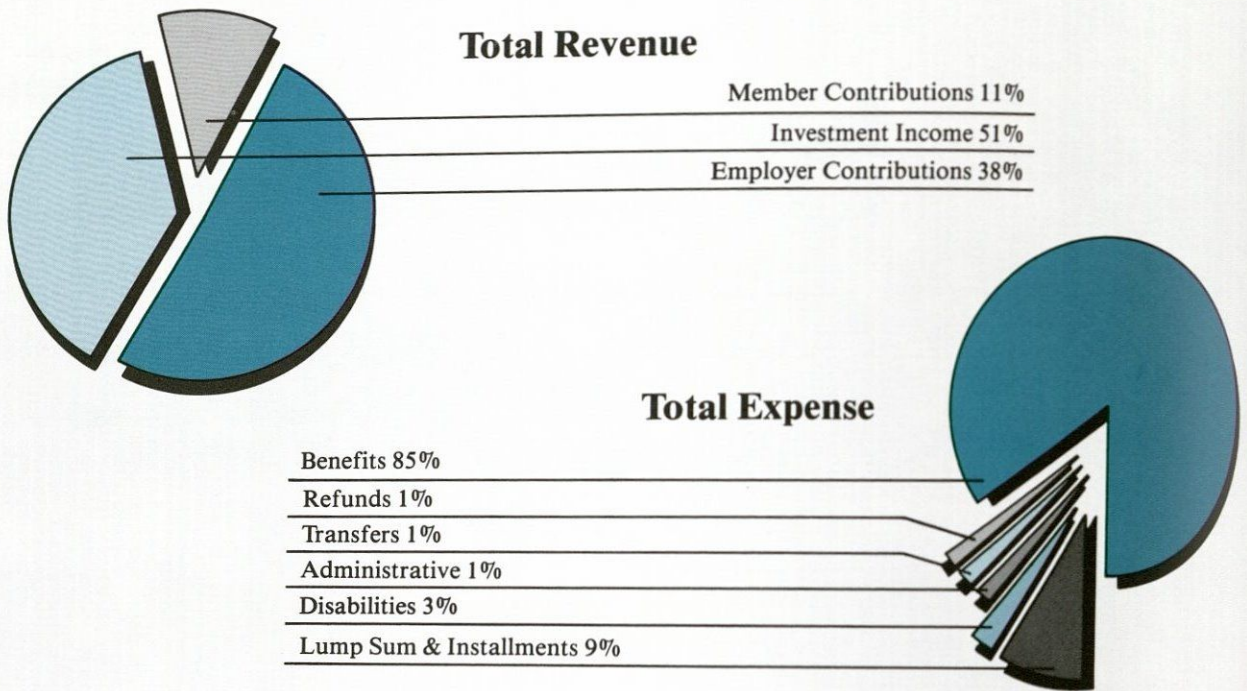


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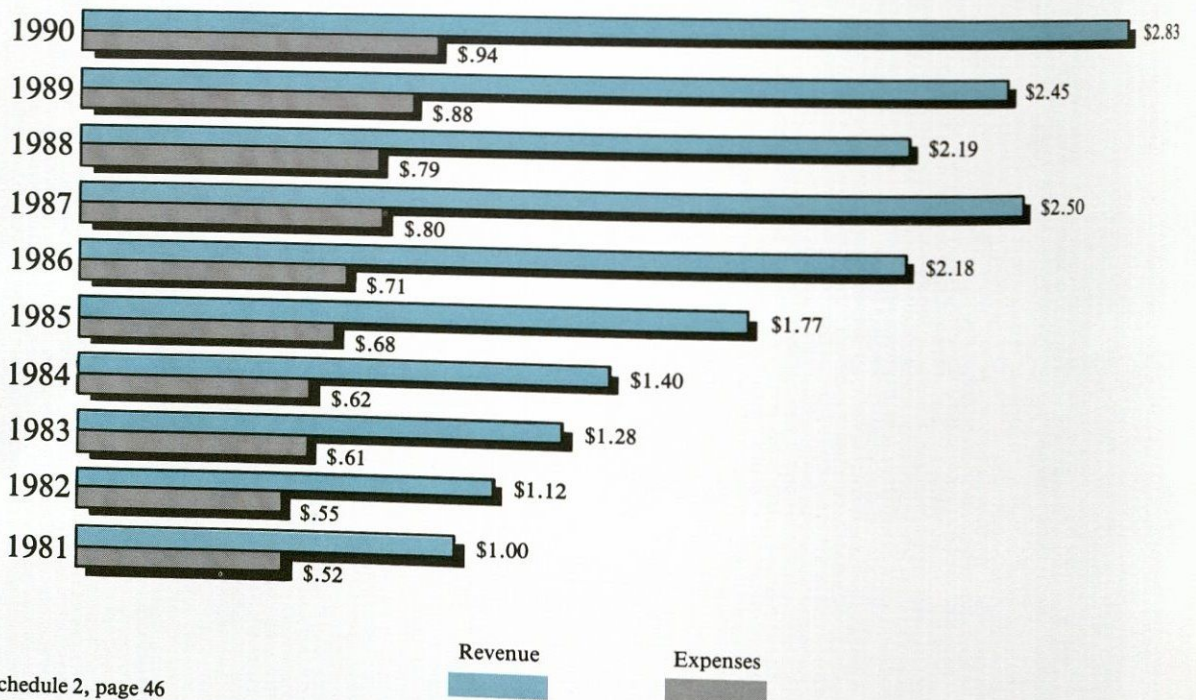
Statistical Section

Components of Total Revenue and Expense — 1990



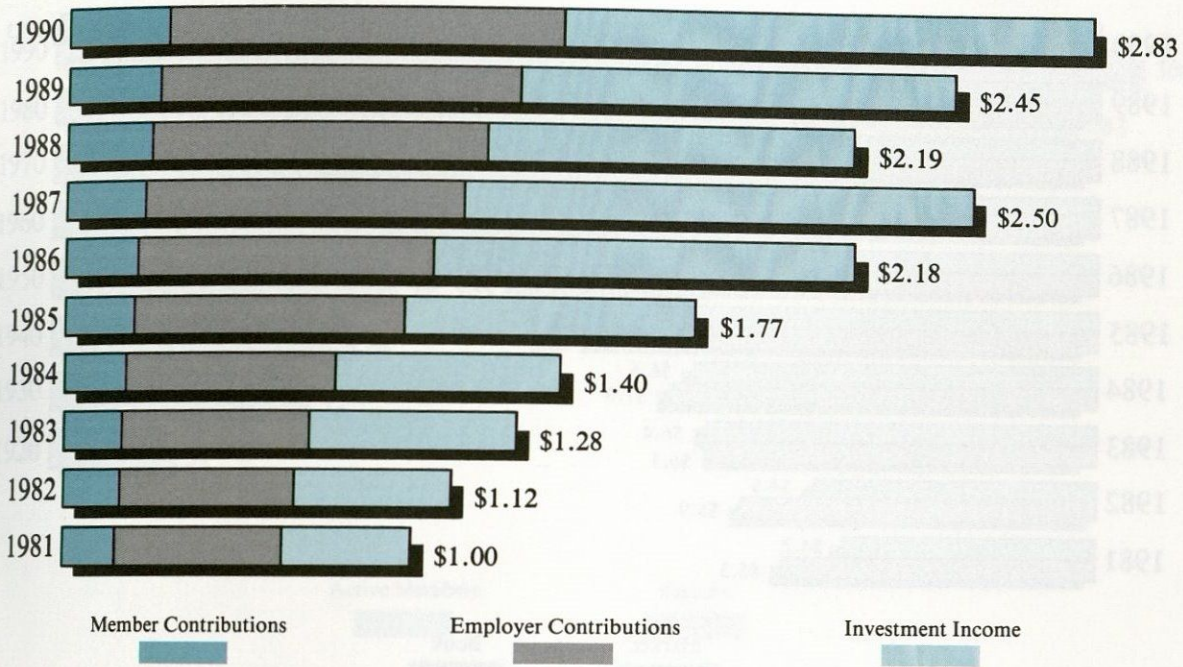
Data from Schedule 2, page 46

Revenue vs. Expense — 10 Year Trend (Amounts in Billions)



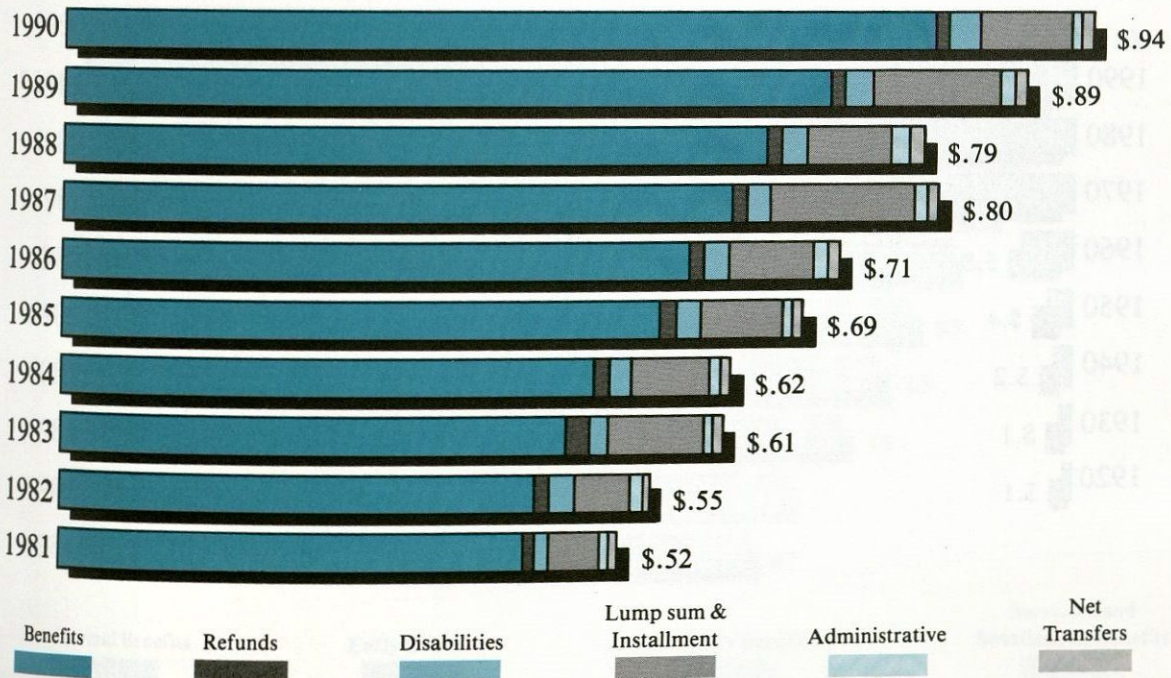
Data from Schedule 2, page 46

Revenue By Source — 10 Year Trend (Amount in Billions)



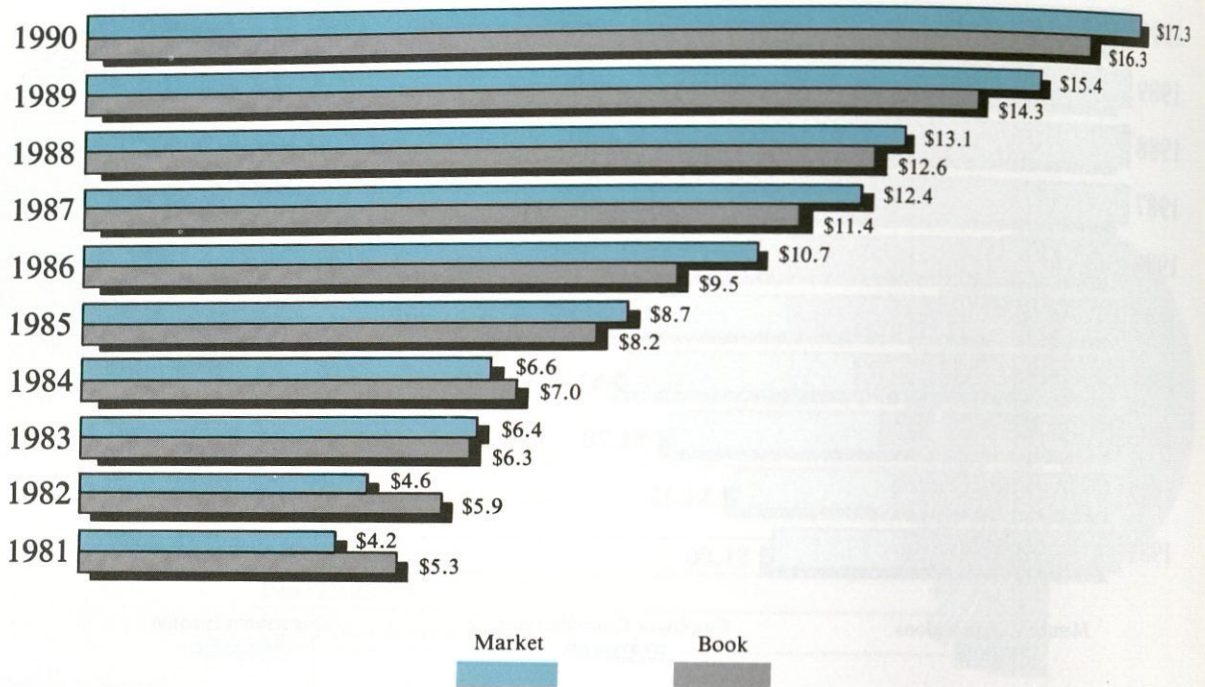
Data from Schedule 2, page 46

Expense By Type — 10 Year Trend (Amount in Billions)

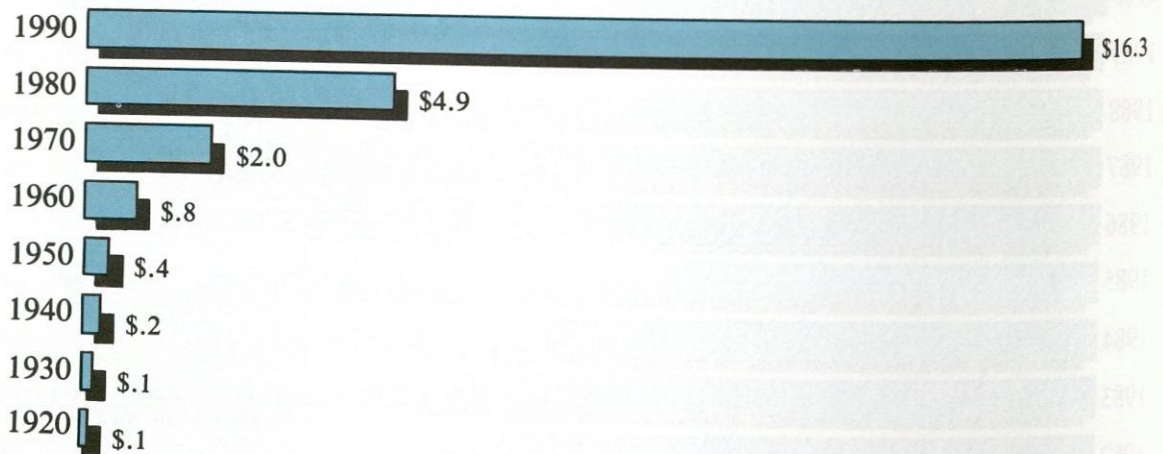


Data from Schedule 2, page 46

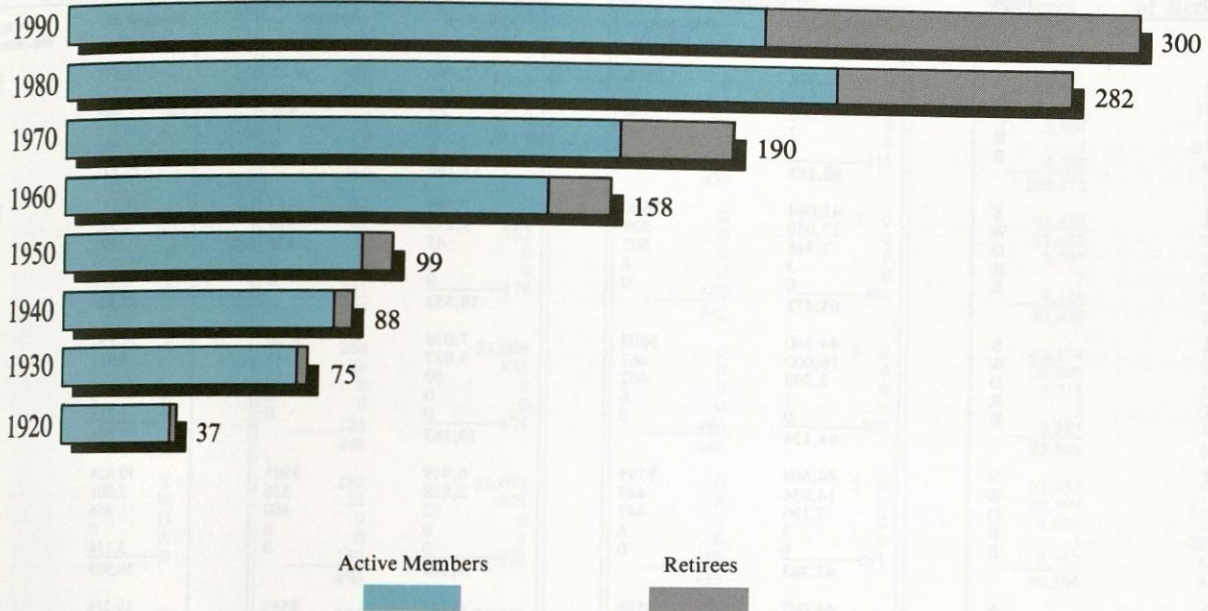
Total Assets — 10 Year Trend (Amounts in Billions)



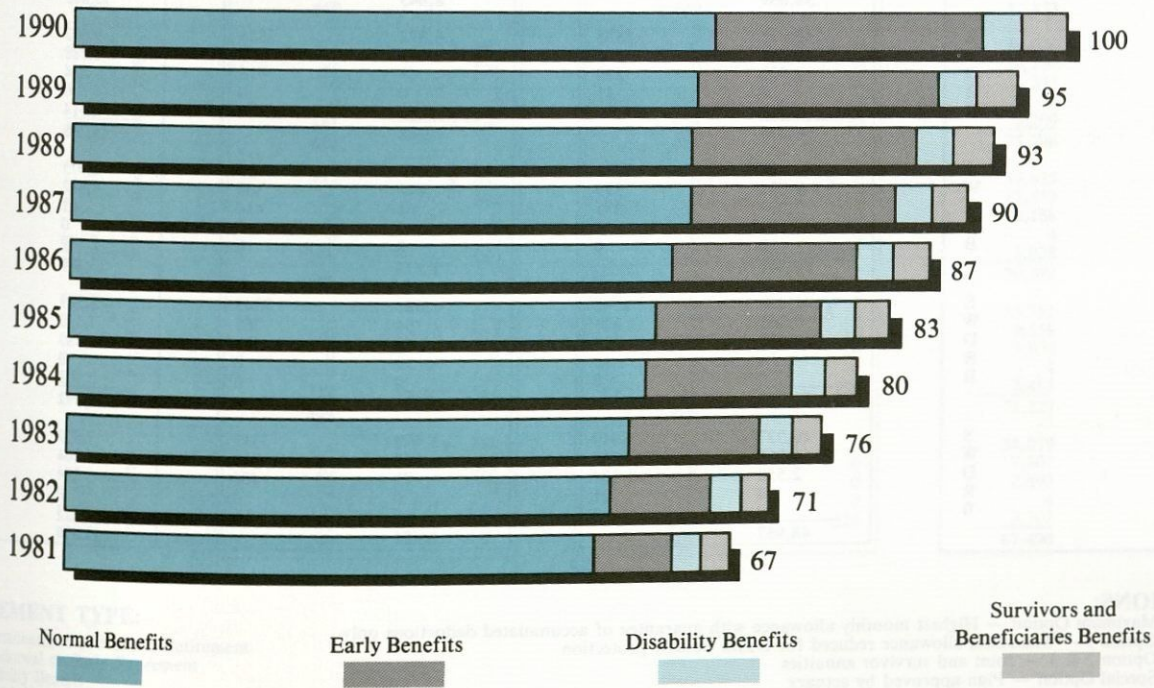
Asset Growth (Book Value — Amounts in Billions)



Total Membership — Active & Retired (In Thousands)



Retired Members — 10 Year Trend (In Thousands)



Data from pages 72-73.

The Public School Employees' Retirement System of Pennsylvania

Statistical Section

Schedule of Retired Members by Type of Benefit

Year	Retirement Type**	Option 1*		Option 2*		Option 3*	
		Number of Retirees	Average Mo. Benefit	Number of Retirees	Average Mo. Benefit	Number of Retirees	Average Mo. Benefit
1990	S	45,728	\$678	7,498	\$621	11,875	\$831
	W	18,982	559	3,639	403	3,726	703
	D	3,441	524	29	433	424	648
	R	2	6	0	0	0	0
	B	0	0	0	0	3,792	355
		68,153		11,166		19,817	
1989	S	45,064	\$660	7,235	\$618	11,257	\$813
	W	17,059	509	3,273	376	3,311	664
	D	3,346	507	45	474	406	612
	R	3	6	0	0	0	0
	B	0	0	0	0	3,531	338
		65,472		10,553		18,505	
1988	S	44,840	\$603	7,076	\$566	10,990	\$747
	W	16,000	467	3,037	345	3,038	612
	D	3,293	462	50	452	395	558
	R	3	6	0	0	0	0
	B	0	0	0	0	3,285	325
		64,136		10,163		17,708	
1987	S	44,608	\$595	6,919	\$565	10,624	\$736
	W	14,956	449	2,818	336	2,801	596
	D	3,196	447	52	460	366	548
	R	3	6	0	0	0	0
	B	0	0	0	0	3,114	314
		62,763		9,789		16,905	
1986	S	44,047	\$588	6,745	\$565	10,216	\$726
	W	13,224	403	2,540	315	2,477	563
	D	3,095	440	55	464	344	531
	R	4	11	0	0	0	0
	B	0	0	0	0	2,953	303
		60,370		9,340		15,990	
1985	S	43,418	\$587	6,554	\$568	9,781	\$717
	W	11,638	378	2,232	300	2,148	536
	D	2,999	433	57	464	333	523
	R	4	11	0	0	0	0
	B	0	0	0	0	2,791	288
		58,059		8,843		15,053	
1984	S	42,918	\$538	6,372	\$526	9,392	\$666
	W	10,366	363	1,915	291	1,888	529
	D	2,922	390	61	416	314	472
	R	4	11	0	0	0	0
	B	0	0	0	0	2,614	273
		56,210		8,348		14,208	
1983	S	42,224	\$541	6,093	\$535	8,975	\$659
	W	9,235	373	1,621	303	1,682	540
	D	2,804	385	61	416	303	457
	R	4	11	0	0	0	0
	B	0	0	0	0	2,449	261
		54,267		7,775		13,409	
1982	S	41,334	\$546	5,686	\$545	8,389	\$653
	W	7,265	326	1,154	266	1,120	468
	D	2,705	379	65	411	280	454
	R	4	11	0	0	0	0
	B	0	0	0	0	2,303	247
		51,308		6,905		12,092	
1981	S	40,337	\$549	5,499	\$551	7,879	\$652
	W	6,058	335	865	285	864	471
	D	2,558	374	71	404	264	439
	R	4	11	0	0	0	0
	B	0	0	0	0	2,313	224
		48,957		6,435		11,320	

*OPTIONS:

- 1 — Maximum Option — Highest monthly allowance with guarantee of accumulated deductions only
- 2 — Option 1 — Maximum allowance reduced for Death Benefit protection
- 3 — Option 2 & 3 — Joint and survivor annuities
- 4 — Special Option — Plan approved by actuary
- 5 — Beneficiary options — Life, 5 and 10 year certain annuity plans

The Public School Employees' Retirement System of Pennsylvania

Statistical Section

Schedule of Retired Members by Type of Benefit (Continued)

Year	Retirement Type**	Option 4*		Option 5*		Total Retirees	% Increase of Retirees
		Number of Retirees	Average Mo. Benefit	Number of Retirees	Average Mo. Benefit		
1990	S	290	\$1,281	0	\$ 0	65,391	2.4%
	W	49	1,222	0	0	26,396	11.5%
	D	0	0	0	0	3,894	2.6%
	R	0	0	0	0	2	-33.3%
	B	157	187	439	315	4,388	6.4%
		496		439		100,071	4.9%
1989	S	277	\$1,221	0	\$ 0	63,833	1.0%
	W	29	982	0	0	23,672	7.1%
	D	0	0	0	0	3,797	1.6%
	R	0	0	0	0	3	0.0%
	B	151	178	442	301	4,124	6.1%
		457		442		95,429	2.7%
1988	S	268	\$1,098	0	\$ 0	63,174	1.2%
	W	24	835	0	0	22,099	7.3%
	D	0	0	0	0	3,738	3.4%
	R	0	0	0	0	3	0.0%
	B	156	178	446	303	3,887	4.6%
		448		446		92,901	2.8%
1987	S	282	\$1,073	0	\$ 0	62,433	1.8%
	W	24	823	0	0	20,599	12.8%
	D	0	0	0	0	3,614	3.4%
	R	0	0	0	0	3	-25.0%
	B	150	332	453	291	3,717	4.5%
		456		453		90,366	4.3%
1986	S	296	\$1,049	0	\$ 0	61,304	2.1%
	W	21	745	0	0	18,262	13.9%
	D	0	0	0	0	3,494	3.1%
	R	0	0	0	0	4	0.0%
	B	147	159	456	276	3,556	5.2%
		464		456		86,620	4.5%
1985	S	309	\$1,046	0	\$ 0	60,062	1.8%
	W	21	743	0	0	16,039	13.0%
	D	0	0	0	0	3,389	2.8%
	R	0	0	0	0	4	0.0%
	B	139	152	449	297	3,379	5.3%
		469		449		82,873	4.0%
1984	S	324	\$ 963	0	\$ 0	59,006	2.4%
	W	21	694	0	0	14,190	13.0%
	D	0	0	0	0	3,297	4.1%
	R	0	0	0	0	4	0.0%
	B	141	148	454	296	3,209	6.0%
		486		454		79,706	4.3%
1983	S	333	\$ 952	0	\$ 0	57,625	3.3%
	W	21	694	0	0	12,559	31.4%
	D	0	0	0	0	3,168	3.9%
	R	0	0	0	0	4	0.0%
	B	136	150	443	296	3,028	6.1%
		490		443		76,384	7.2%
1982	S	352	\$ 946	0	\$ 0	55,761	3.1%
	W	20	677	0	0	9,559	22.4%
	D	0	0	0	0	3,050	5.4%
	R	0	0	0	0	4	0.0%
	B	132	143	418	296	2,853	5.4%
		504		418		71,227	5.5%
1981	S	364	\$ 955	0	\$ 0	54,079	2.8%
	W	20	698	0	0	7,807	23.5%
	D	0	0	0	0	2,893	7.3%
	R	0	0	0	0	4	0.0%
	B	89	133	305	324	2,707	6.1%
		473		305		67,490	5.2%

**RETIREMENT TYPE:
 S - Superannuation or Normal Retirement
 W - Withdrawal or Early Retirement
 D - Disability Benefit
 R - Refund Annuity
 B - Beneficiaries Receiving Annuities

Schedule of Employers

School Districts

A

Abington
 Abington Heights
 Albert Gallatin
 Aliquippa
 Allegheny-Clarion Valley
 Allegheny Valley
 Allentown City
 Altoona Area
 Ambridge Area
 Annville-Cleona
 Antietam
 Apollo-Ridge
 Armstrong
 Athens Area
 Austin Area
 Avella Area
 Avon Grove
 Avonworth

B

Bald Eagle Area
 Baldwin-Whitehall
 Bangor Area
 Beaver Area
 Bedford Area
 Belle Vernon Area
 Bellefonte Area
 Bellwood-Antis
 Bensalem Township
 Benton Area
 Bentworth
 Berlin Brothers Valley
 Bermudian Springs
 Berwick Area
 Bethel Park
 Bethlehem Area
 Bethlehem-Center
 Big Beaver Falls Area
 Big Spring
 Blackhawk
 Blacklick Valley
 Blairsville-Saltsburg
 Bloomsburg Area
 Blue Mountain
 Blue Ridge
 Boyertown Area
 Bradford Area
 Brandywine Heights Area
 Brentwood Boro
 Bristol Boro
 Bristol Township
 Brockway Area

Brookville Area
 Brownsville Area
 Burgettstown Area
 Burrell
 Butler Area

C

California Area
 Cambria Heights
 Cameron County
 Camp Hill
 Canon-McMillan
 Canton Area
 Carbondale Area
 Carlisle Area
 Carlynton
 Carmichaels Area
 Catasauqua
 Centennial
 Center Area
 Central Bucks
 Central Cambria
 Central Columbia
 Central Dauphin
 Central Fulton
 Central Greene
 Central York
 Chambersburg Area
 Charleroi Area
 Chartiers-Houston
 Chartiers Valley
 Cheltenham Township
 Chester-Upland
 Chestnut Ridge
 Chichester
 Clairton
 Clarion Area
 Clarion-Limestone Area
 Claysburg-Kimmel
 Clearfield Area
 Coatesville Area
 Cocalico
 Colonial
 Columbia Boro
 Commodore Perry
 Conemaugh Township Area
 Conemaugh Valley
 Conestoga Valley
 Conewago Valley
 Conneaut
 Connellsville Area
 Conrad Weiser Area
 Cornell

Cornwall-Lebanon
 Corry Area
 Coudersport Area
 Council Rock
 Cranberry Area
 Crawford Central
 Crestwood
 Cumberland Valley
 Curwensville Area

D

Dallas
 Dallastown Area
 Daniel Boone Area
 Danville Area
 Deer Lakes
 Delaware Valley
 Derry Area
 Derry Township
 Donegal
 Dover Area
 Downingtown Area
 DuBois Area
 Dunmore
 Duquesne City

E

East Allegheny
 East Lancaster County
 East Lebanon County
 East Lycoming
 East Penn
 East Pennsboro Area
 East Stroudsburg
 Eastern York
 Easton Area
 Elizabeth Forward
 Elizabethtown Area
 Elk Lake
 Ellwood City Area
 Ephrata Area
 Erie City
 Everett Area
 Exeter Township

F

Fairfield Area
 Fairview
 Fannett-Metal
 Farrell Area
 Ferndale Area
 Fleetwood Area
 Forbes Road

The Public School Employes' Retirement System of Pennsylvania

Statistical Section

Schedule of Employers (Continued)

Forest Area
Forest City Regional
Forest Hills
Fort Cherry
Fort Le Boeuf
Fox Chapel Area
Franklin Area
Franklin Regional
Frazier
Freedom Area
Freeport Area

G

Galeton Area
Garnet Valley
Gateway
General McLane
Gettysburg Area
Girard
Glendale
Governor Mifflin
Great Valley
Greater Johnstown
Greater Latrobe
Greater Nanticoke Area
Greencastle-Antrim
Greensburg Salem
Greensville Area
Greenwood
Grove City Area

H

Halifax Area
Hamburg Area
Hampton Township
Hanover Area
Hanover Public
Harbor Creek
Harmony
Harrisburg City
Hatboro-Horsham
Haverford Township
Hazleton Area
Hempfield
Hempfield Area
Hermitage
Highlands
Holidaysburg Area
Homer Center
Hopewell Area
Huntingdon Area

I

Indiana Area
Interboro
Iroquois

J

Jamestown Area
Jeannette City
Jefferson-Morgan
Jenkintown
Jersey Shore Area
Jim Thorpe Area
Johnsonburg Area
Juniata County
Juniata Valley

K

Kane Area
Karns City Area
Kennett Consolidated
Keystone
Keystone Central
Keystone Oaks
Kiski Area
Kutztown Area

L

Lackawanna Trail
Lake Lehman
Lakeland
Lakeview
Lampeter-Strasburg
Lancaster City
Laurel
Laurel Highlands
Lebanon
Leechburg Area
Lehigh Area
Lewisburg Area
Ligonier Valley
Line Mountain
Littlestown
Lower Dauphin
Lower Merion
Lower Moreland
Loyalsock Township

M

Mahanoy Area
Manheim Central
Manheim Township
Marion Center Area
Marple Newtown
Mars Area
McGuffey
McKeesport Area
Mechanicsburg Area
Mercer Area
Methacton
Meyersdale Area
Mid Valley

Mid-West
Middletown Area
Midland Boro
Mifflin County
Mifflinburg Area
Millcreek Township
Millersburg Area
Millville Area
Milton Area
Minersville Area
Mohawk Area
Monaca
Monessen
Moniteau
Montgomery Area
Montour
Montoursville Area
Montrose Area
Moon Area
Morrisville Boro
Moshannon Valley
Mount Carmel Area
Mount Lebanon
Mount Pleasant Area
Mount Union Area
Mountain View
Muhlenberg Township
Muncy

N

Nazareth Area
Neshaminy
Neshannock Township
New Brighton Area
New Castle Area
New Hope-Solebury
New Kensington-Arnold
Newport
Norristown Area
North Allegheny
North Clarion County
North East
North Hills
North Penn
North Pocono
North Schuylkill
North Star
Northampton Area
Northeast Bradford
Northeastern School District
of York County
Northern Bedford County
Northern Cambria
Northern Lebanon
Northern Lehigh
Northern Potter

The Public School Employes' Retirement System of Pennsylvania

Statistical Section

Schedule of Employers (Continued)

Northern Tioga
 Northern York County
 Northgate
 Northwest Area
 Northwestern
 Northwestern Lehigh
 Norwin

O

Octorara Area
 Oil City Area
 Old Forge
 Oley Valley
 Oswayo Valley
 Otto Eldred
 Owen J. Roberts
 Oxford Area

P

Palisades
 Palmerton Area
 Palmyra Area
 Panther Valley
 Parkland
 Pen Argyl Area
 Penn Cambria
 Penn Crest
 Penn Delco
 Penn Hills Township
 Penn Manor
 Penn Trafford
 Pennridge
 Penns Manor
 Penns Valley Area
 Pennsbury
 Pequea Valley
 Perkiomen Valley
 Peters Township
 Philadelphia
 Philipsburg-Osceola
 Phoenixville Area
 Pine Grove Area
 Pine-Richland
 Pittsburgh
 Pittston Area
 Pleasant Valley
 Plum Boro
 Pocono Mountain
 Port Allegany
 Portage Area
 Pottsgrove
 Pottstown
 Pottsville Area
 Punxsutawney Area
 Purchase Line

Q

Quaker Valley
 Quakertown Community

R

Radnor Township
 Reading
 Red Lion Area
 Redbank Valley
 Reynolds
 Richland
 Ridgway Area
 Ridley
 Ringgold
 Riverside
 Riverside Beaver County
 Riverview
 Rochester Area
 Rockwood Area
 Rose Tree Media

S

Saint Clair Area
 Saint Marys Area
 Salisbury-Elk Lick
 Salisbury Township
 Saucon Valley
 Sayre Area
 Schuylkill Haven Area
 Schuylkill Valley
 Scranton City
 Selinsgrove Area
 Seneca Valley
 Shade-Central City
 Shaler Area
 Shamokin Area
 Shanksville-Stonycreek
 Sharon City
 Sharpsville Area
 Shenandoah Valley
 Shenango Area
 Shikellamy
 Shippensburg Area
 Slippery Rock Area
 Smethport Area
 Solanco
 Somerset Area
 Souderton Area
 South Allegheny
 South Butler County
 South Eastern
 South Fayette Township
 South Middleton
 South Moreland
 South Park
 South Side Area

South Western
 South Williamsport Area
 Southeast Delco
 Southeastern Greene
 Southern Columbia Area
 Southern Fulton
 Southern Huntingdon
 Southern Lehigh
 Southern Tioga
 Southern York County
 Spring Cove
 Spring-Ford Area
 Spring Grove Area
 Springfield
 Springfield Township
 State College Area
 Steel Valley
 Steelton-Highspire
 Sto-Rox
 Stroudsburg Area
 Sullivan County
 Susquehanna Community
 Susquehanna Township
 Susquenita

T

Tamaqua Area
 Titusville Area
 Towanda Area
 Tredeffrin-Easttown
 Tri-Valley
 Trinity Area
 Troy Area
 Tulpehocken Area
 Tunkhannock Area
 Turkeyfoot Valley
 Tuscarora
 Tussey Mountain
 Twin Valley
 Tyrone Area

U

Union
 Union Area
 Union City Area
 Uniontown Area
 Unionville-Chadds Ford
 United
 Upper Adams
 Upper Darby
 Upper Dauphin Area
 Upper Dublin
 Upper Merion Area
 Upper Moreland Township
 Upper Perkiomen
 Upper Saint Clair Township

The Public School Employees' Retirement System of Pennsylvania

Statistical Section

Schedule of Employers (Continued)

V			
Valley Grove	West Branch Area	Williamsburg Community	
Valley View	West Chester Area	Williamsport Area	
	West Greene	Wilmington Area	
	West Jefferson Hills	Wilson	
	West Middlesex Area	Wilson Area	
	West Mifflin Area	Windber Area	
	West Perry	Wissahickon	
	West Shore	Woodland Hills	
	West York Area	Wyalusing Area	
	Western Beaver County	Wyoming Area	
	Western Wayne	Wyoming Valley West	
	Westmont Hilltop	Wyomissing Area	
	Whitehall-Coplay		
	Wilkes-Barre Area	Y	
	Wilkesburg	York	
	William Penn	York Suburban	
	Williams Valley	Yough	
W			
Wallenpaupack Area			
Wallingford Swarthmore			
Warren County			
Warrior Run			
Warwick			
Washington			
Wattsburg Area			
Wayne Highland			
Waynesboro Area			
Weatherly Area			
Wellsboro Area			
West Allegheny			

Area Vocational Technical Schools

Admiral Peary	Eastern Northampton County	Mon Valley
Allegheny Clarion	Eastern Westmoreland County	Monroe County
Altoona	Erie County	North Fayette County
Beaver County	Fayette County	North Montco
Bedford-Everett	Forbes Road East	North Westmoreland County
Berks	Franklin County	Northern Chester County
Bethlehem	Fulton County	Northumberland County
Bucks County	Greater Johnstown	Parkway West
Butler County	Greene County	Reading-Muhlenberg
Carbon County	Harrisburg-Steelton-Highspire	Schuylkill County
Central Chester County	Huntingdon County	Somerset County
Central Montgomery County	Indiana County	SUN
Central Westmoreland County	Jefferson County-DuBois	Susquehanna County
Centre County	Juniata-Mifflin	Upper Bucks County
Clarion County	Lackawanna County	Venango County
Clearfield County	Lancaster County	Washington County Alternative
Columbia-Montour	Lawrence County	West Side
Crawford County	Lebanon County	Western
Cumberland-Perry	Lehigh County	Western Montgomery County
Dauphin County	Lenape	Wilkes-Barre
Delaware County	Mercer County	York County
Eastern Montgomery County	Middle Bucks County	

Schedule of Employers (Continued)

Intermediate Units

Allegheny #3
 Appalachia #8
 Arin #28
 Beaver Valley #27
 Berks County #14
 Blast #17
 Bucks County #22
 Capital Area #15
 Carbon Lehigh #21
 Central Susquehanna #16

Central #10
 Chester County #24
 Colonial Northampton #20
 Delaware County #25
 Intermediate Unit #1
 Lancaster Lebanon #13
 Lincoln #12
 Luzerne #18
 Midwestern #4
 Montgomery County #23

Northeastern Education #19
 Northwest Tri County #5
 Pittsburgh Mt. Oliver #2
 Riverview #6
 Schuylkill #29
 Seneca Highlands #9
 Tuscarora #11
 Westmoreland #7

Colleges/Universities

Bloomsburg University
 Bucks County Community College
 Butler County Community College
 California University
 Cheyney University
 Clarion University
 Community College of Allegheny County
 Community College of Beaver County
 Community College of Delaware County
 Community College of Philadelphia
 East Stroudsburg University
 Edinboro University
 Harrisburg Area Community College
 Indiana University
 Kutztown University

Lehigh County Community College
 Lock Haven University
 Luzerne County Community College
 Mansfield University
 Millersville University
 Montgomery County Community College
 Northampton County Area Community College
 Pennsylvania College of Technology
 Pennsylvania State University
 Reading Area Community College
 Shippensburg University
 Slippery Rock University
 West Chester University
 Westmoreland County Community College

Other

Berks County Earned Income Tax Bureau
 Department of Education - Commonwealth of
 Pennsylvania
 Northern Area Special Purpose School
 Overbrook School for the Blind
 Pennsylvania School Boards Association
 Pennsylvania School for the Deaf
 Scotland School for Veterans Children

Scranton School for the Deaf
 State System of Higher Education
 Chancellor's Office
 Thaddeus Stevens School of Technology
 Western Pennsylvania School for the Blind
 Western Pennsylvania School for the Deaf

Components of Total Contribution Rate (In Percentages)

Fiscal Year	Employer Contribution			Employee Contribution (Average)	Total Contribution Rate
	Normal Requirement (A)	Accrued Liability (B)	Total Employer		
90-91	8.28	10.90	19.18	5.69	24.87
89-90	8.44	11.24	19.68	5.53	25.21
88-89	8.63	10.64	19.27	5.37	24.64
87-88	8.72	10.82	19.54	5.34	24.88
86-87	9.13	10.77	19.90	5.29	25.19
85-86	9.16	10.88	20.04	5.27	25.31
84-85	8.35	10.96	19.31	5.25	24.56
83-84	8.75	8.31	17.06	5.25	22.31
82-83	7.93	8.07	16.00	5.25	21.25
81-82	6.93	8.07	15.00	5.25	20.25
80-81	6.93	8.07	15.00	5.25	20.25

Components of Accrued Liability (In Percentages)

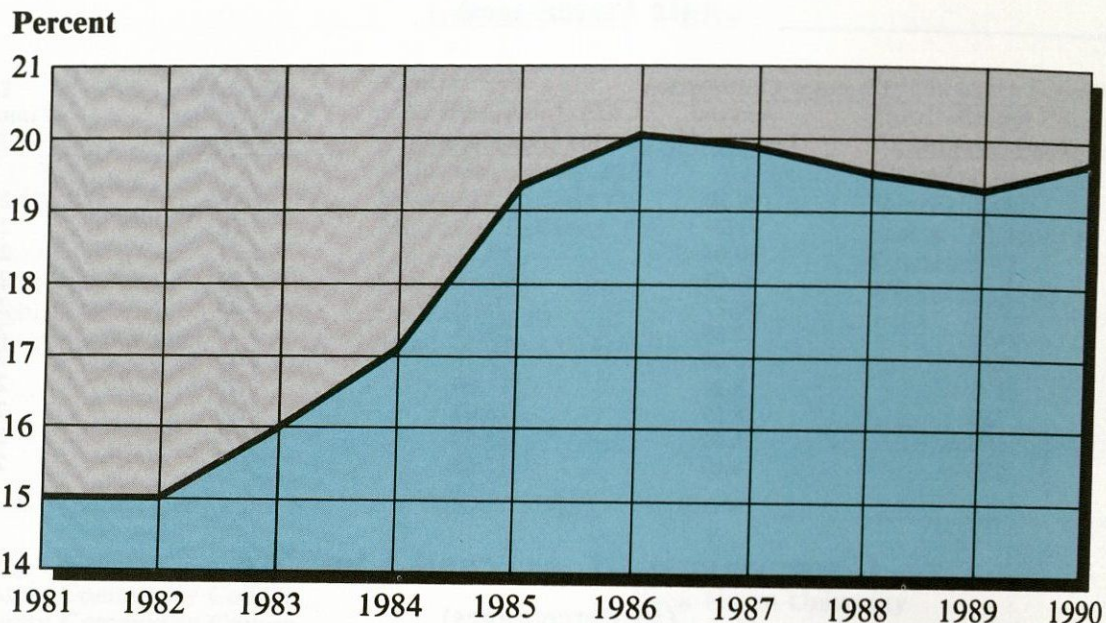
Fiscal Year	Accrued Liability (1)	Supplemental (Pre 1979) (2)	Supplemental 1979 (3)	Supplemental 1984 (4)	Supplemental 1989 (5)	Total Accrued Liability
90-91	7.31	1.31	1.07	0.54	0.67	10.90
89-90	7.42	1.39	1.18	0.60	0.65	11.24
88-89	7.36	1.40	1.25	0.63		10.64
87-88	7.38	1.43	1.34	0.67		10.82
86-87	7.10	1.55	1.41	0.71		10.77
85-86	7.10	1.55	1.49	0.74		10.88
84-85	7.72	1.55	1.69			10.96
83-84	5.07	1.55	1.69			8.31
82-83	4.83	1.55	1.69			8.07
81-82	4.83	1.55	1.69			8.07
80-81	4.83	1.55	1.69			8.07

The total contribution rate is the total of the employer and employee rates actuarially required for funding of the PSERS.

The total employer rate is comprised of a normal retirement and an accrued liability requirement and is shared equally by the Commonwealth and the Reporting Units:

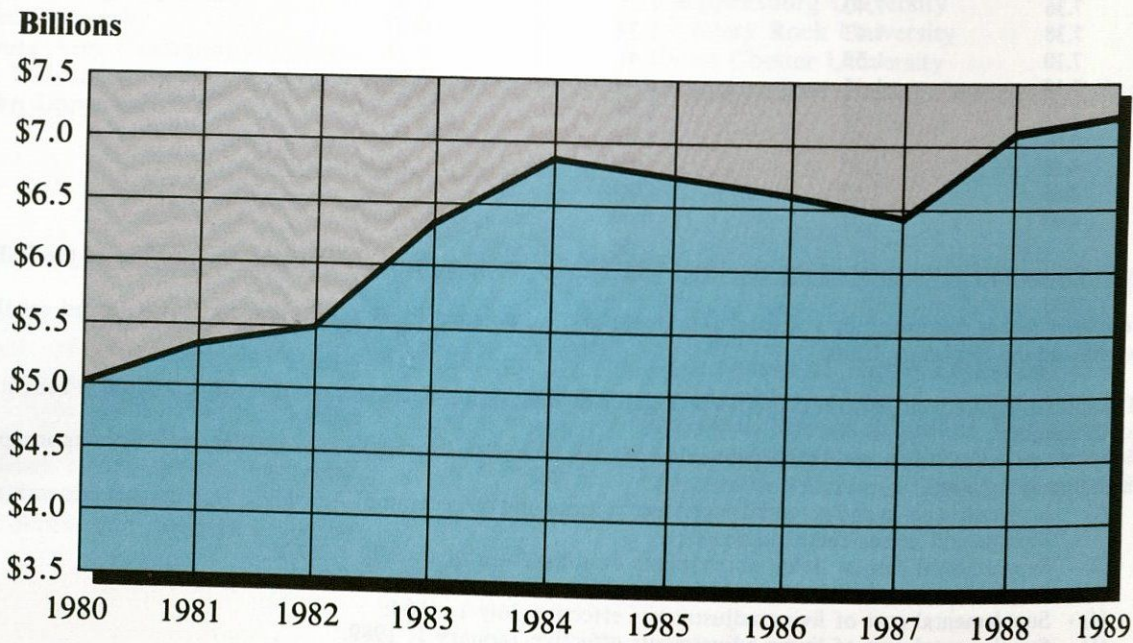
- (A) The normal requirement portion is the percentage of compensation necessary to fund any prospective benefits payable to the member.
- (B) The total accrued liability portion is the percentage of compensation necessary to fund past increased benefits or supplemental annuities as follows:
 - (1) - Increased benefits and actuarial experience prior to and on account of Act 96 of 1975; also includes early retirement window and unisex factor increases;
 - (2) - Supplemental cost of living adjustments established prior to July 1, 1979;
 - (3) - Supplemental cost of living adjustments effective July 1, 1979;
 - (4) - Supplemental cost of living adjustments effective July 1, 1984;
 - (5) - Supplemental cost of living adjustments effective January 1, 1989.

Total Employer Contribution Rate — 10 Year Trend



Data from page 79

Unfunded Accrued Liability — 10 Year Trend



Commonwealth interest receivable was not included as an asset to determine the unfunded accrued liability.

Investment Section

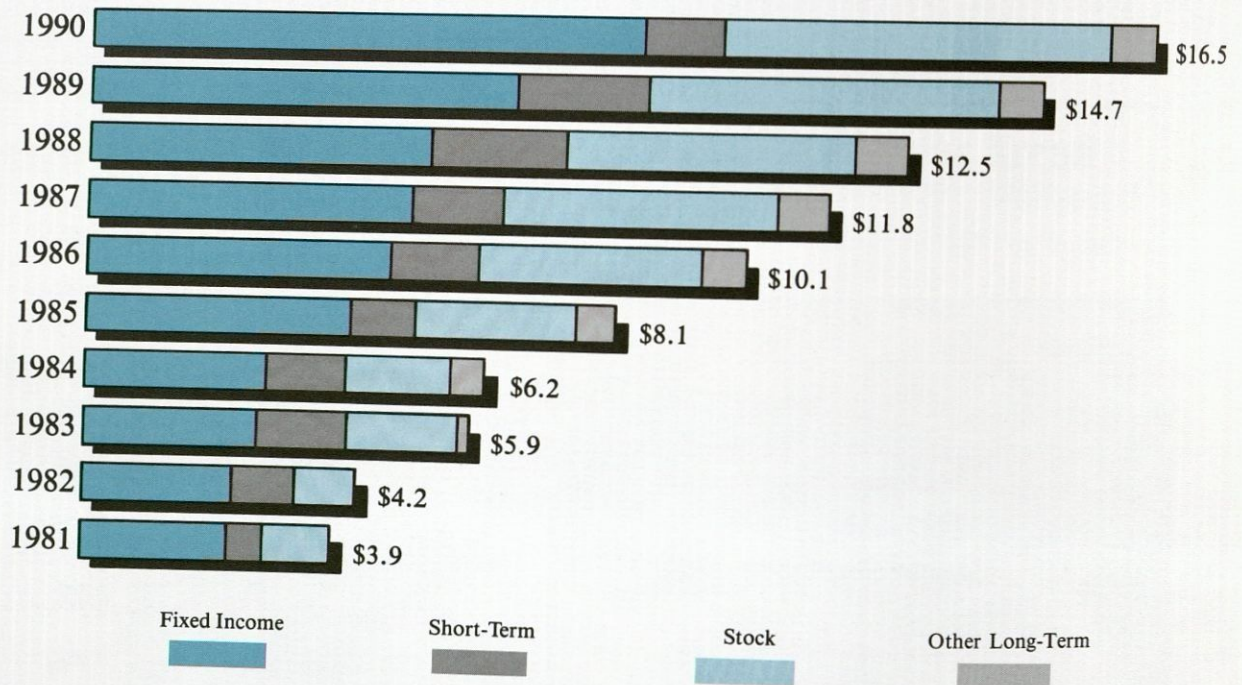
Investment Overview

The Board of Trustees' Mission Statement provides the foundation for a sound and prudent strategic investment policy. This policy insures the long-term financial health of the System for the retirement security of its members. This financially driven investment policy maximizes returns within acceptable levels of risk through strategic asset allocation decisions to meet the actuarially projected long-term liabilities of the System. From the strategic investment policy, an operating plan is developed to implement the Board's decisions. This operating plan is under constant scrutiny by the Board, the investment consultant, and the System's investment staff to insure its effectiveness in the ever changing economic environment.

The System's assets are managed by both internal and external professionals under investment guidelines adopted by the Board. The internal investment program was initiated during fiscal year 1989-1990 with investments in two asset classes, equities and fixed income. This investment program is designed to be active and innovative, but conservative in its investment approach, fulfilling the high standards and performance objectives established by the Board.

The market value of the investments of the Public School Employees' Retirement System reached \$16.5 billion as of June 30, 1990. This is an increase from \$14.7 billion at June 30, 1989. A graphical representation showing the ten year trend of assets at market value follows.

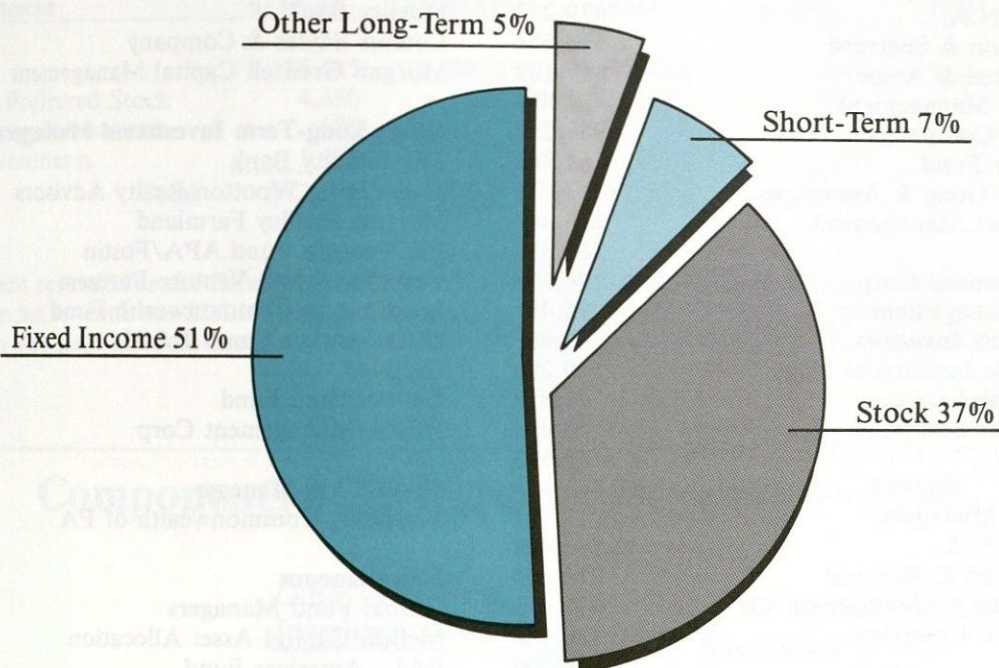
Portfolio Distribution — 10 Year Trend (Market Value — Amounts in Billions)



Investment Overview (Continued)

The composition of the Fund at market value was: fixed income, \$8.4 billion; common and preferred stocks, \$6.1 billion; other long-term investments, \$.8 billion; and short-term investments, \$1.2 billion. The distribution by percent is illustrated in the chart below.

Portfolio Distribution — 1990
(Market Value)



The time weighted rate of return for the Fund's investments was 9.2% for the fiscal year ending June 30, 1990. This compares to a 13.8% return for the year ending June 30, 1989 and an 11.8% annualized return for the 5 years ending June 30, 1990.

Equities in the domestic portfolio returned 11.8% this fiscal year, somewhat less than the return of 16.5% for the Standard and Poor's 500 Index during that period. Equities had a 20.2% return for the fiscal year ending June 30, 1989.

The domestic fixed income segment of the portfolio, consisting of corporate and government debentures and mortgage backed securities, returned 7.1% for the fiscal year matching the return for the Shearson-Lehman Government Corporate Index. The fixed income return for the prior fiscal year was 11.6%.

Other long-term investments including equity real estate returned 8.6% compared to 6.7% the prior year.

Short-term investments, composed primarily of the State Treasury Investment Pool, returned 8.8% compared to a 7.8% return on 90-day Treasury Bills. Short-term investments returned 8.6% last fiscal year.

The global portfolio, consisting of fixed income, short-term and stocks, returned 7.3% this year. The global portfolio increased from 1% to 3% of the Fund's total assets this fiscal year.

The Public School Employees' Retirement System of Pennsylvania

Investment Section

Investment Overview (Continued)

The following chart lists the market value of assets, using a settlement date basis, under management by the System's funded investment advisors at June 30, 1990. The dollar value of cash equivalents held by the managers is also included in the Treasury portfolio total.

**Investment Managers
Market Value (in thousands)**

Equity Managers			
Oppenheimer Capital Corp	\$ 998,740	Morgan Stanley Asset Management	552,833
Delaware Investment Advisers	815,112	Criterion Investment Management	312,346
Mellon Capital Management	718,384	Pittsburgh National Bank	230,141
Mellon Bank, N.A.	679,277	Putnam Advisory Co	190,447
Miller, Anderson & Sherrerd	576,654	Fidelity Bank	176,745
Cashman, Farrell & Assoc	517,102	Loomis Sayles & Company	133,398
Dreman Value Management	467,852	Morgan Grenfell Capital Management	101,046
Bankers Trust Company	388,227		
Small Manager Fund	261,381	Other Long-Term Investment Managers	
Pilgrim Baxter Greig & Associates	227,273	The Fidelity Bank	327,820
Newbold's Asset Management	216,447	Jones Lang Wootton Realty Advisors	299,448
In-House	216,354	Morgan Stanley Farmland	50,000
Mackenzie Financial Corp	174,156	PA Venture Fund APA/Fostin	20,000
Eagle Asset Management	95,431	Commonwealth Venture Partners	19,486
Columbus Circle Investors	80,882	Loyalhanna Commonwealth Fund	12,473
Security Pacific Investment Mgrs	79,296	CEO Venture Funds I & II	10,764
Hudson Capital Advisors	71,812	CIGNA	2,497
Glenmede Trust Company	55,694	Genesis Seed Fund	2,000
Crabbe-Huson	52,143	NEPA Management Corp	987
Fixed Income Managers		Short-Term Manager	
Mellon Bank, N.A.	2,153,407	Treasury, Commonwealth of PA	1,065,680
Miller, Anderson & Sherrerd	934,605		
Pacific Investment Management Co	871,023	Miscellaneous	
Glenmede Trust Company	769,766	Global Fund Managers	438,024
In-House	750,704	Mellon Capital Asset Allocation	323,610
Delaware Investment Advisers	737,529	EAI - Americas Fund	36,167

The System also has four option managers, Darien Capital Management, Oppenheimer Option Management, Acorn Asset Management, and Loomis-Sayles, who write covered index call options on \$1,150,000,000 of the equity portfolio. Brokers' fees on investment transactions for the fiscal year ending June 30, 1990 were \$7,590,719. Investment management fees totalled \$29,692,672 this fiscal year compared to \$23,778,536 last fiscal year. A breakdown of investment fees paid follows:

**Summary Of Investment Fees
Year Ended June 30, 1990**

Equity Managers	\$16,454,383
Fixed Income Managers	6,466,200
Real Estate Managers	3,181,299
Option Managers	940,124
Miscellaneous	2,650,666
Total Fees	\$29,692,672

The Public School Employees' Retirement System of Pennsylvania

Investment Section

Investment Overview (Continued)

The next schedule shows the impact of investment transactions on book value for the major asset classes during the fiscal year.

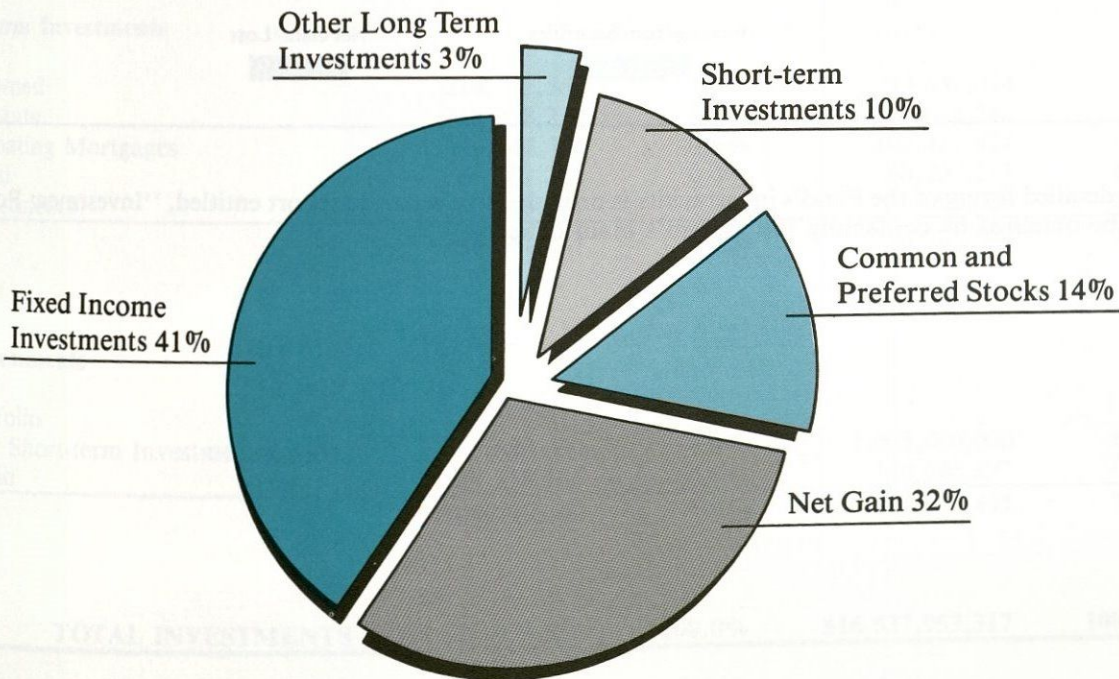
Summary of Investment Transactions
Year ended June 30, 1990
(Amounts in millions)

Type of Investment	Book Value 6/30/89	Purchases	Sales	Gain/ (Loss)	Accretion/ (Amortiza- tion)	Book Value 6/30/90
Fixed Income	\$6,445	\$9,403	(\$7,453)	\$36	\$ —	\$8,431
Common and Preferred Stock	4,450	2,955	(2,671)	411	—	5,145
Other Long-Term Investments	676	76	(7)	0	—	745
Short-term Investments	1,988	6,368	(7,153)	2	—	1,205
Total	\$13,559	\$18,802	(\$17,284)	\$449	\$ —	\$15,526

Net investment revenue for the fiscal year ending June 30, 1990 exceeded \$1.4 billion, an increase from the prior fiscal year when net revenue was \$1.1 billion. The components of investment revenue are shown in the following graph.

The category net gain includes income from security lending, gains on option overwriting, and amortization of premiums.

Components of Investment Revenue — 1990

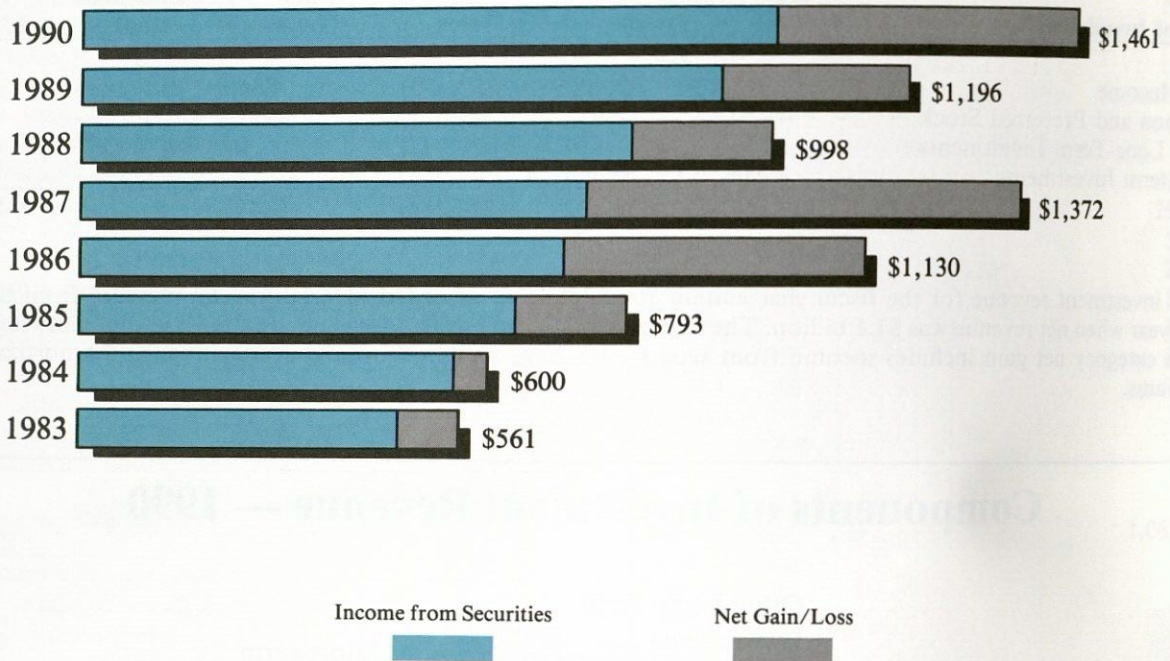


Investment Section

Investment Overview (Continued)

The following graph illustrates the eight year trend of the components of the investment revenue. In addition to realized gains and losses from the sale of investments, the category net gain/loss includes income from security lending, gains on option overwriting and amortization of premiums.

Components of Investment Revenue — 8 Year Trend
(Amounts in Millions)



A detailed listing of the Fund's investments is provided in a separate report entitled, "Investment Portfolio," which can be obtained by contacting the System's main office.

The Public School Employees' Retirement System of Pennsylvania

Investment Section

Portfolio Summary Statistics as of 6/30/90
Trade Date Basis

Type of Investment	Book Value (\$)	% Book Value	Market Value (\$)	% Market Value
Fixed Income				
Domestic Portfolio				
U.S. Government & Agency Obligations	\$ 3,971,046,599	25.6%	\$ 3,992,356,086	24.1%
Mortgage Backed Securities	2,425,260,138	15.6%	2,445,386,550	14.8%
Corporate Bonds	1,375,857,719	8.9%	1,365,090,266	8.2%
Miscellaneous Fixed Income	156,184,637	1.0%	155,802,767	0.9%
FHA/VA Residential Mortgages	143,517,319	0.9%	129,863,081	0.8%
Convertible Bonds	100,204,411	0.6%	98,069,797	0.6%
FHA Project Mortgages	32,946,070	0.2%	25,507,594	0.2%
Global Portfolio	226,009,665	1.5%	228,055,360	1.4%
	8,431,026,558	54.3%	8,440,131,501	51.0%
Common and Preferred Stock				
Domestic Portfolio				
Common Stock	5,019,988,785	32.3%	5,969,197,996	36.1%
Preferred Stock	50,092,651	0.3%	48,351,195	0.3%
Global Portfolio	74,647,310	0.5%	75,294,135	0.5%
	5,144,728,746	33.1%	6,092,843,326	36.9%
Other Long-Term Investments				
Real Estate Owned	214,775,562	1.4%	214,661,314	1.3%
Equity Real Estate	318,258,278	2.1%	363,015,542	2.2%
Equity Participating Mortgages	94,244,074	0.6%	102,417,924	0.6%
Venture Capital	68,207,213	0.4%	68,207,213	0.4%
Farmland Investments	50,000,000	0.3%	50,000,000	0.3%
	745,485,127	4.8%	798,301,993	4.8%
Short-term Investments				
Domestic Portfolio				
PA Treasury Short-term Investment Fund	1,065,680,000	6.9%	1,065,680,000	6.4%
Global Portfolio	139,113,105	0.9%	140,996,497	0.9%
	1,204,793,105	7.8%	1,206,676,497	7.3%
TOTAL INVESTMENTS	\$15,526,033,536	100.0%	\$16,537,953,317	100.0%

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