Pennsylvania Municipal Retirement System

Comprehensive Annual Financial Report
For the fiscal year ended December 31, 1993

George E. Gift, Jr.
Chairman
Pennsylvania Municipal Retirement Board

James B. Allen
PMRS Secretary

Report prepared by the Pennsylvania Municipal Retirement System staff

Larry E. Barbour
Accounting Division Chief

Jean A. Eckard
Information Specialist

Table of Contents

INTRODUCTORY SECTION

- **Letter of Transmittal**
- **GFOA Certificate of Achievement**
- **Administrative Organization**
  Pennsylvania Municipal Retirement Board
  Administrative Staff
  Professional Consultants
  Organizational Chart
- **Chairman's Report**
- **Summary of Plan Provisions**

Letter of Transmittal

Pennsylvania Municipal Retirement System

P.O. BOX 1165
HARRISBURG, PENNSYLVANIA 17108-1165

717-787-2065 – 800-622-7968

May 16, 1994

Members of the Pennsylvania Municipal Retirement Board
Pennsylvania Municipal Retirement System
P. O. Box 1165
Harrisburg, Pennsylvania 17108-1165

It is with a continuing commitment to complete financial disclosure that we present the Comprehensive Annual Financial Report of the Pennsylvania Municipal Retirement System (the System) for the fiscal year ended December 31, 1993. As required by the Pennsylvania Municipal Retirement Law, Act of 1974, P.L. 34, No. 15 (the Act) as amended, the System presents this Comprehensive Annual Financial Report to the governing board, to the members of the General Assembly of Pennsylvania, and to the individual participating municipal employers.

The System is solely responsible for the accuracy of the data in this report and the completeness of the presentation. As the two individuals responsible for the overall management of the System and its financial records, we are confident we are presenting a complete report. To the best of our knowledge, the enclosed information is accurate in all material respects.

Overview of the System

The Pennsylvania Municipal Retirement System, which is an agent multiple-employer system, is headquartered in Harrisburg, Pennsylvania. It is a state retirement agency created by the Pennsylvania General Assembly in 1974. Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board (the Board).

Since its inception with the passage of the Act, the System has existed to administer sound, cost-effective pension plans on a contracted basis for local government employees. This includes accounting services, actuarial valuations, employee consulting, and asset management. Any Pennsylvania county, city, town, township, borough, municipal authority, or institution supported and maintained by a municipality may participate. A complete list of participating public plans as of December 31, 1993 can be found in the Statistical Section of this report.

The System offers two benefit approaches: defined benefit and defined contribution. The annual benefit is dependent upon the individual municipality's contracted benefit package because the System offers flexible pension plan design based on each municipality's individual needs. Benefits provided to participants in the System include both age and service retirements, vesting, disability benefits, survivor benefits, and death benefits. The plan cost is determined by individual plan characteristics. The System's individual plans may have a municipal contribution and an employee contribution or merely an employer charge. Municipal contributions typically range from 1 to 14 percent of projected payroll for municipal employees and 9 to 40 percent for police and firefighters. The employee contribution also is determined by plan contract. In 1993, plan requirements ranged from no employee contribution to as high as 8 percent of earnings.

1993 CAFR

The 1993 Comprehensive Annual Financial Report is presented in five sections: introductory, financial, actuarial, statistical, and investment. The Introductory Section contains this transmittal letter, the Certificate of Achievement

Letter of Transmittal *(Continued)*

for Excellence in Financial Reporting, the System's administrative organizational structure, the Board Chairman's report, and a summary of plan provisions; the Financial Section presents the opinion of the System's independent auditors, Ernst & Young, and the financial statements of the System; the Actuarial Section presents the opinion of the independent actuarial firm, The Segal Company, and the results of its annual actuarial valuation; the Statistical Section includes significant financial and demographic data generally presented on a multi-year basis and also the Schedule of Participating Employers; and the Investment Section contains an overview of the System's investment activities and policies.

Economic Environment

As 1993 began, uncertainty was the mood of the U.S. economic markets. The business community's reaction to the new presidency, the unknown impact of health care reform, and the yet to be revealed details of President Clinton's first tax package all led to a hesitancy in market movements.

As the year unfolded, two known events led the way for what was to become a strong economic recovery: lower interest rates and increasing consumer confidence. The Gross Domestic Product expansion rate for the fourth quarter of 1993 was the best of the year and represented the eighth consecutive postive quarter. The final piece of good news that helped the market close the year on a positive note was that despite the growth, inflation remained in check at an annual rate of only 2.7 percent. The specific markets all turned in nice returns. The Standard & Poor's 500 index returned 10.1 percent for the year. In the broadest equity market, the Russell 2,000 index had a return of 18.9 percent for the year. The world equity market as measured by the EAFE index produced a strong 32.9 percent return for the year.

The bond market also reacted to the good news of low interest and no inflationary pressures by returning 9.75 percent in the Lehman Aggregate Bond index. The weakest market during 1993 remained the real estate market. The good news was that as measured by the CDA universe, the median rate of return was positive at 6.4 percent.

Financial Information

The report's financial statements were prepared in accordance with generally accepted accounting principles of government accounting and reporting as adopted by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants. The financial statements and the supplementary information in the report have been prepared in accordance with the standards for disclosure allowed by Statement No. 6 of the National Council on Governmental Accounting. The accrual basis of accounting is used to record all financial transactions including assets and liabilities as well as revenues and expenses. Gains and losses on sales and exchanges of investments are recognized on the transaction date.

The System's total assets were $397,445,672 as of December 31, 1993. During 1993, the System's assets increased by $38,169,866 which included contributions of $25,399,607. Investment related income increased the portfolio by $45,673,490.

The System has established internal computerized control policies and procedures for the review and verification of all receipts and payments made to and from the fund. The System prepares a yearly budget which must be adopted by the Board. The budget is also presented to and reviewed by the Local Government Committees of the Pennsylvania House and Senate at least two months prior to the beginning of the fiscal year. The committees can approve the budget, reject it, or take no action by the end of the year in which case the proposed budget becomes final. Budgetary controls include monthly review and presentation by management with bimonthly Board reviews. For 1993, the adopted budget was $1,410,361 exclusive of investment fees; expenditures (exclusive of investment fees and depreciation) amounted to $1,278,251 allowing the System to end the year $132,110 under budget.

Revenues

The System was established by law to pay pension benefits when due. It accumulates sufficient funds to pay benefits through employee and employer contributions and through investment earnings. The following schedule presents a summary of revenues for the fiscal year ended December 31, 1993 and the amount and percentage of increases and decreases in relation to December 31, 1992 revenues.

Letter of Transmittal *(Continued)*

Revenues	Amount	Percent of Total	Increase (Decrease) from 1992	Percent of Increase (Decrease)
Member Contributions........	$ 8,005,897	11.23%	$ 314,593	4.09%
Municipal Contributions	17,393,710	24.40	(61,654)	(.35)
Assessments...............	213,540	.30	7,640	3.71
Investment Income	45,673,490	64.07	15,230,693	50.03
Total	**$71,286,637**	**100.00%**	**$ 15,491,272**	

The most significant increase in revenues was derived from investment income. Investment revenues are a combination of earnings from bonds, equities, real estate, and a short-term cash management fund. The largest portions of the investment revenue came from equities ($33,774,634) and bonds ($13,402,352).

Another major source of revenue is from municipal and member contributions. Municipal contributions are based upon an actuarial valuation, using the Entry Age Normal Actuarial Cost Method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined. Member contributions vary according to the type of pension plan. Under Articles II and III of the Act, members are required to contribute 3 to 8 percent of their salary. The amount a member contributes under Article IV of the Act is based upon contracted plan provisions and is principally expressed as a percent of compensation or salary. The final portion of revenue is derived from assessments. Each municipality is charged a $20 assessment per member to help cover administrative expenses incurred by the System.

Ten-year historical trend information listing the System's revenues by source is presented in Schedule 2 of the Financial Section of this report.

Expenses

The System's primary expense represents the purpose for which it was created: payment of benefits. The following schedule presents a summary of the System's expenditures for the fiscal year ended December 31, 1993 and the percentage of increases and decreases in relation to December 31, 1992 amounts.

Expenses	Amount	Percent of Total	Increase (Decrease) from 1992	Percent of Increase (Decrease)
Annuity benefits.............	$12,144,279	54.08%	$ 855,486	7.58%
Disability benefits	760,676	3.39	102,413	15.56
Terminations	7,188,219	32.01	4,222,730	142.40
Administrative	2,361,854	10.52	$ 102,579	4.54
Total	**$22,455,028**	**100.00%**	**$5,283,208**	

The major expense-related items for 1993 were Payment of Benefits, Refunds of Contributions Due to Termination or Death, and administrative expenses. A breakdown of the System's expenses including ten-year historical trend information is presented in Schedules 2 and 3 of the Financial Section of this report.

Investment Highlights

The Board's investment objective is to benefit the System's member municipalities by adding value to their assets. Recognizing that inflation can erode value, the Board's goal is to have the fund earn at least 2 percent more annually than the average annual inflation rate over a long period of time.

Letter of Transmittal *(Continued)*

The System invests its assets in order to maximize current and future income yield and provide long-term stability. For the fiscal year ended December 31, 1993, investments provided 64.0 percent of the System's total revenues.

On December 31, 1993, the market value of the System's investments was $434,441,140. This represents an increase of $46,865,920 over the previous year. For the last five years, the System's annualized return was 11.2 percent. At December 31, 1993, the System's investment portfolio was distributed as follows: 49.5 percent in domestic equities, 6.6 percent in international equities, 32.2 percent in bonds, 9.6 percent in real estate, and 2.1 percent in cash equivalents.

Additional information on the System's investments is provided in the Investment Section of this report.

Funding

The System's level of funding is based on the actuarial reserve method. Funds are derived from the excess of revenues over expenses and are accumulated by the System in order to meet current and future benefit obligations to retirees and beneficiaries. As the funding level increases, the assets accumulate and strengthen the investment income potential. Net operating income for the 1993 fiscal year was $48,831,609. This represents an increase in the fund balance of 14.1 percent over the 1992 fund balance.

To comply with GASB Statement No. 5 disclosure requirements, a pension benefit obligation (PBO) of $353.1 million was calculated during the most recent actuarial valuation dated January 1, 1993. The market value of the System's assets exceeds this amount by $32 million. This indicates that the contribution rates and the current assets of the System are adequate to fund the System's actuarial liabilities. Additional information on the System's pension benefit obligation, actuarial liability, and funding progress can be found in the Actuarial and Financial Sections of this report.

As an agent multiple-employer PERS, the System reports to each of the trustees of the plans it administers providing the governing authority of the member plans with complete actuarial, accounting, and funding data. PBOs for each plan were calculated and distributed. Detailed information on the funding level ranges of the System's plans can be found in the Actuarial Section of this report under "Schedule of Contribution Requirements vs. Actual Contributions."

Major Initiatives

During the 1993 financial year, the System implemented its pre-retirement program which includes seminars to be held on an ongoing basis at various locations throughout the commonwealth. The purpose of the program is to provide members of the System who are nearing retirement with detailed information that will help them make informed decisions when planning for retirement. Topics covered include retirement options, samples of how the retirement benefit is calculated with each different option, the procedure for requesting a retirement estimate, information on Social Security, IRS taxes, and the retirement application procedure.

Initiatives concerning the investment portfolio involved a commitment of 5 percent of the assets to an international index duplicating the EAFE index. The money was placed with State Street Global Advisors. The Board also hired a consultant, Legg Mason, to examine the real estate portion of the portfolio. The firm is expected to report in 1994 on the design of the portfolio and possible future projects.

The System added a municipal services representative position in order to better serve our municipalities. By having an individual devoted solely to special services, management hopes to provide faster turnaround for contracts, cost studies, and all municipal services including more frequent visits to member municipalities. Other special services added for members include a second toll-free phone line and a telecommunications device for the deaf (TDD) to aid hearing impaired individuals who need to contact the System's office.

The year was also extremely active from a plan membership perspective. Thirty-two member plans were added and approval was given for withdrawal of only five member municipalities. The System now has 511 defined benefit plans and 50 defined contribution plans. It administers to over 7,760 active employees and over 2,100 retirees and beneficiaries. Most membership activity during the year was associated with benefit consulting and redesigning plan structures. By year-end 1993, 56 plans increased benefits and consequently costs by amending plan contracts.

Letter of Transmittal *(Continued)*

A major project which involved the entire staff was relocation of the System's administrative headquarters to another Harrisburg site in December 1993. The offices are in a more professional setting and contain ample space for staff expansion.

The Board's major initiatives for 1994 include implementation of recommendations contained in the 1993 federal compliance analysis of the System. Some regulations will be modified, and legislation will be sought to provide consistency between state operations and the federal plan qualifications provisions. The Board also plans to request proposals and award contracts for actuarial services and investment consultant services.

During 1994, staff plans to issue a revised Municipality Procedures Manual which was developed to assist plan member municipal officers and employees who are responsible for completing forms and reports. Staff also plans to continue the transition to its computer system through enhanced software and hardware.

Professional Services

The financial information has been audited by the independent accounting firm of Ernst & Young which is completing year one of a three-year contract with a two-year renewal option. The actuarial information was prepared with the help of E. Greenblum, consulting actuary from The Segal Company. The firm has completed its fifth year of a five-year contract which was competitively bid. The investment portion of the report was prepared with the cooperation of our independent investment consultant, R. Dahab of Dahab Associates. This firm's competitively bid contract with an extension to year-end 1993 was completed on December 31, 1993. Without the complete cooperation and commitment of these three advisors in serving the Pennsylvania Municipal Retirement System, this report could not have been prepared.

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 Pennsylvania Municipal Retirement System for its comprehensive annual financial report for the fiscal year ended December 31, 1992. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

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 CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The Pennsylvania Municipal Retirement System has received a Certificate of Achievement for the last three consecutive years (fiscal years ended December 31, 1990 - December 31, 1992). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

Acknowledgements

We extend a sincere thank you to our Board members who faithfully serve the System without remuneration. Their leadership and support provide responsible management of the System's assets.

In addition, we extend a special appreciation to the System's staff for contributions made in the preparation of this comprehensive annual financial report. Without their dedicated service, the report could not have been published on a timely basis. Staff's concerted efforts and productivity were also appreciated and needed in order to handle 1993's membership growth and operational changes. Finally and most importantly, we thank our members for the opportunity to meet their pension needs.

Respectfully submitted,

Larry E. Barbour
Larry E. Barbour
Chief of Accounting

James B. Allen
James B. Allen
Secretary

Certificate of Achievement

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Pennsylvania Municipal Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended December 31, 1992

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

Arnold L. Holz

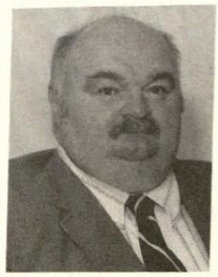
President

Jeffrey L. Esser

Executive Director

Administrative Organization

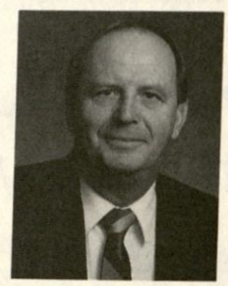
Pennsylvania Municipal Retirement Board as of December 31, 1993



George E. Gift, Jr.
Chairman
serves until replacement named
Pennsylvania State Fire Fighters Association

John G. Brown, III
Vice-Chairman
term expires July 3, 1994
Pennsylvania State Association of Township Supervisors

Barbara W. Bigelow
term expires November 5, 1995
Pennsylvania League of Cities



James B. Bonner
serves until replacement named
Pennsylvania State Association of Boroughs

Richard G. Bonneville
term expires November 5, 1995
Chiefs of Police Association

Douglas K. Bowen
term expires November 5, 1995
Pennsylvania Municipal Authorities Association

David W. Hays
term expires February 24, 1997
First Class Township Commissioners

Catherine Baker Knoll
appointed by statute
State Treasurer (ex-officio)
represented by **Duane M. Searle**
Associate General Counsel

Paul S. McMillen
term expires March 11, 1996
Pennsylvania State Association of County Commissioners

Brenda K. Mitchell
appointed by statute
Secretary of the Commonwealth

Veronica T. Recker
term expires September 23, 1997
Pennsylvania Municipal Retirement System Retired Members

Administrative Organization *(Continued)*

Administrative Staff as of December 31, 1993

James B. Allen
Secretary

Edward L. Bechtel
Assistant Secretary

Larry E. Barbour
Accounting Division Chief

Benjamin F. Mader
Membership & Municipal Services Division Chief

Vacant
Operations Division Chief

Professional Consultants as of December 31, 1993

Actuary

The Segal Company
Washington, DC
Eli Greenblum,
A.S.A.,M.A.A.A.

Auditor

Ernst & Young
Harrisburg, PA
Independent Auditors
Stephen A. Baloga

Comptroller

Commonwealth of Pennsylvania
Harrisburg, PA
Central Services
Bruno J. Chiesa

Investment Consultant

Dahab Associates, Inc.
Islip, NY
Richard E. Dahab, C.F.A.
President

Legal Counsel

Commonwealth of Pennsylvania
Harrisburg, PA
Jeffrey B. Clay
Chief Counsel

Investment Advisors

Bond, Procope Capital Management, Inc.
New York, NY
Alan B. Bond, President

Chase Investment Counsel Corp.
Charlottesville, VA
Derwood S. Chase, Jr., President

Connecticut General Life Insurance Co. (CIGNA)
Hartford, CT
William J. Grady, Managing Director

First Fidelity Bank
Philadelphia, PA
Robert C. Smith, Senior Vice President

JMB Institutional Realty Corporation
Chicago, IL
George C. Gaines, Managing Director

Newbold's Asset Management, Inc.
Bryn Mawr, PA
Timothy M. Havens, President

The Prudential Asset Management Company, Inc. (PRISA)
Newark, NJ
Lester F. Lockwood, Vice President

The Putnam Companies, Inc.
Boston, MA
Valora S. Gurganious, Senior Vice President

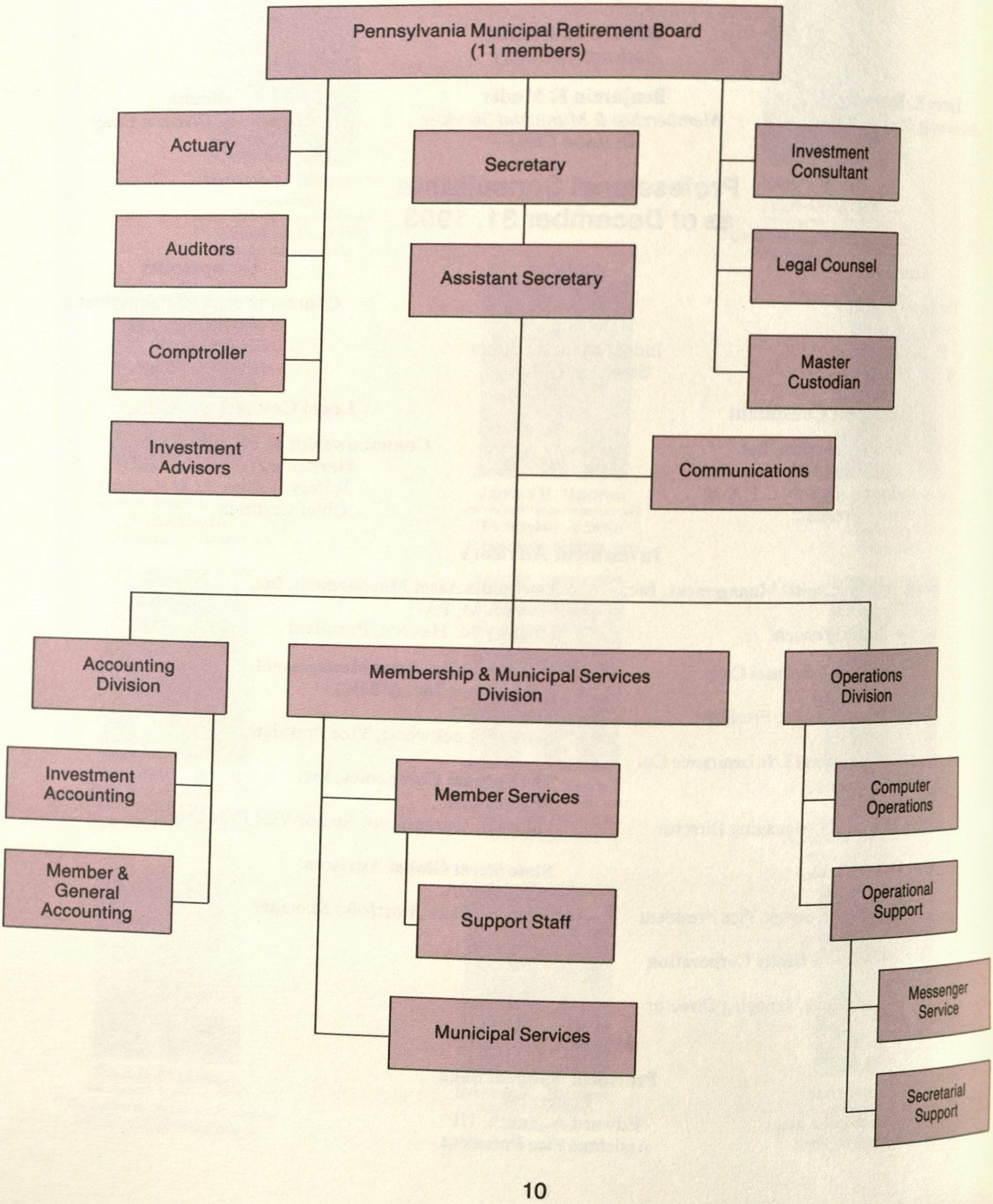
State Street Global Advisors
Boston, MA
Lynn S. Blake, Portfolio Manager

Master Custodian

Provident National Bank
Lester, PA
Edward A. Smith, III
Assistant Vice President

Administrative Organization *(Continued)*

Organizational Chart



Chairman's Report

Pennsylvania Municipal Retirement System
P.O. BOX 1165
HARRISBURG, PENNSYLVANIA 17108-1165

717-787-2065 – 800-622-7968

May 16, 1994

Members of the Pennsylvania Municipal Retirement System
Pennsylvania Municipal Retirement System
P. O. Box 1165
Harrisburg, Pennsylvania 17108-1165

Dear PMRS Members:

On behalf of the Pennsylvania Retirement Board, it is a pleasure to present the ninth Comprehensive Annual Financial Report of the Pennsylvania Municipal Retirement System. The report illustrates the System's strong record of consistency and strength as shown by the continued growth of assets, participating plans, and individual members.

During the 1993 fiscal year, the System's investments increased by $46 million at market for a total of over $434 million at market as of December 31, 1993. The System added 32 new member plans increasing the number of participating employers to over 560. The System now administers to over 10,000 employees, pensioners, and survivor beneficiaries.

In 1993, the Board approved an excess interest award of 0.49 percent to be applied to accounts of record as of December 31, 1992. Although the amount may seem small, the award added to the 6.5 percent regular interest produced a compounded rate of return of over 7.0 percent on each plan's December 31, 1992 asset balance. This brought the System's five year rate of return net of expenses to 9.99 percent. A total of $1,697,000 in excess investment monies was awarded to the System's municipalities. This still left the System with a 6.0 percent reserve as a cushion should the markets have a downturn in 1994.

Board membership experienced only one change this year. The State Treasurer, the Honorable Catherine Baker Knoll who serves on the Board ex-officio, named Associate General Counsel Duane M. Searle as her new representative. We are pleased to welcome him to the Board. Also, we congratulate two current members who were named to second four-year terms: David W. Hays representing the First Class Township Commissioners and Veronica T. Recker representing the System's retired members.

On behalf of the Board and the System's staff, I extend a special thank you to all of the System's participating plans — the administrative boards, the staffs, contact persons, and each individual plan member. The Board and staff appreciate your continued support and cooperation.

As the governing body with the fiduciary responsibility for the System's pension plans, the Board assures you that our ultimate goal is to continue providing financially secure retirement benefits for all of our plan members.

Sincerely,

George E. Gift, Jr.

George E. Gift, Jr.
Chairman

Summary of Plan Provisions*

The System offers a variety of alternative pension plans. Municipalities may design their own pension benefit structures. Most municipalities select this option and work with the System to create a combination of benefits that meet the individual needs of the municipality and its employees. Additionally, the System has two basic benefit plans designed by the State General Assembly: one for municipal employees and one for police and firefighters.

Superannuation and Early Annuity Eligibility Benefits

Under the basic plans, the minimum normal retirement age is 65 for municipal employees and 55 for police and firefighters. A member may retire early at any age after 24 years of service. Under an optional plan design, a municipality may choose any age or service requirement permitted under its particular municipal code. Early retirement under the optional plan may also be designed to meet the needs of the municipality.

There are two approaches to accumulating retirement benefits. Under the defined contribution approach, the benefit accrues based on the level of contributions and the investment earnings credited to the fund. The defined benefit approach depends upon the individual's age, years of credited service, and an actual benefit formula which usually includes a salary factor.

Disability Annuity Eligibility Benefits

A member who is unable to work because of serious injury or illness may apply for a disability annuity. The application and required medical documentation will be reviewed by the Board and the System's medical examiners to determine whether the member is eligible for the disability benefit.

A disability that results directly from doing one's job is classified as a job-related disability. A disability that is not caused by one's work is termed a nonservice disability.

Conditions for disability benefits are defined in the municipality's contract. The System's basic plans provide for (1) a service connected disability of 50 percent of the disabled individual's final average salary offset by workmen's compensation, and (2) a nonservice disability with a minimum of 10 years' service and a 30 percent final average salary annuity.

Vesting Annuity Eligibility Benefits

Conditions for vesting are defined in the municipality's contract. The basic plans have a 12 year service requirement for vesting.

A member who terminates service before retirement may elect to withdraw the member's accumulated contributions in the System and defer receipt of benefits until normal retirement age. When the member receives the vested benefits, payments will be reduced to reflect the withdrawal.

Benefit Payment Options

Depending on the municipality's contractual agreement, employees may choose individual alternatives for the monthly retirement allowance or may select one from a list of options. Typical options are as follows:

- **Single Life Annuity:** Provides a continual income throughout the annuitant's lifetime with no beneficiary benefit
- **Option 1:** Reduced lifetime benefit with remaining lump sum value of account to beneficiary
- **Option 2:** Joint and 100 percent survivorship annuity
- **Option 3:** Joint and 50 percent survivorship annuity

** Descriptions are not identical to those in the audit report. Information has been rewritten for ease of understanding.*

Summary of Plan Provisions *(Continued)*

Death Benefit Eligibility

A death benefit provides some continuation of payment or presentation of benefits to a beneficiary given certain eligibility requirements of the covered individual. If an active member or vestee with minimum years of service dies, the death benefit goes into effect provided the municipality has included this feature in its plan.

Termination of Service

A member always receives his accumulated deductions and interest earned at the regular rate of interest, currently 6.5 percent. Depending upon the municipality's contract structure, the member might also receive excess investment monies upon withdrawal.

If a member terminates employment and goes to work for another municipality which is a member of the System, the employee may transfer his service credits unimpaired to the new municipal employer.

FINANCIAL SECTION

- **Report of Independent Auditors**
- **Comparative Balance Sheets**
- **Statements of Revenues, Expenses, and Changes in Fund Balance**
- **Statements of Cash Flows**
- **Notes to Financial Statements**
- **Schedules:**
  Analysis of Funding Progress
  Revenues by Source and Expenses by Type
  Administrative Expenses
  Investment Summary

Report of Independent Auditors

ERNST & YOUNG

■ Central Pennsylvania Practice
300 Locust Court
212 Locust Street
Harrisburg, Pennsylvania 17101

■ Phone: 717 232 7575
Fax: 717 232 6797

Report of Independent Auditors

Board of Directors
Pennsylvania Municipal Retirement System

We have audited the accompanying balance sheets of the Pennsylvania Municipal Retirement System (the System) as of December 31, 1993 and 1992, and the related statements of revenues, expenses, and changes in fund balance and cash flows 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 Pennsylvania Municipal Retirement System at December 31, 1993 and 1992 and the results of its operations and cash flows for the years then ended, in conformity with generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying Schedules of Funding Progress, Ten-Year Historical Information, Administrative Expenses, and Investment Summary Information are presented in accordance with Statement No. 5 of the Governmental Accounting Standards Board for purposes of additional analysis and are not a required part of the financial statements. Such information for the years 1984 and 1988 through 1993 has been subjected to the auditing procedures applied in our audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole. Such information for the years 1985 through 1987 has been derived from financial statements audited by other auditors whose reports thereon expressed unqualified opinions.

Ernst + Young

May 6, 1994

Comparative Balance Sheets
December 31, 1993 and 1992

	1993	1992
Assets:		
Cash	$ 3,577	$ 3,519
Short-term investments	8,957,000	12,870,000
Total cash and short-term investments	**8,960,577**	**12,873,519**
Contributions receivable	1,328,067	2,303,303
Accrued investment income	2,708,409	2,565,998
Investment sales receivable	880,572	5,035,609
Investments:		
Bonds, at cost (market value $140,145,296 in 1993 and $125,445,080 in 1992)	124,529,240	111,729,313
Common and preferred stocks, at cost (market value $243,861,584 in 1993 and $206,072,120 in 1992)	212,679,124	175,371,680
Real estate mutual funds, at cost (market value $41,477,260 in 1993 and $43,188,020 in 1992)	46,202,824	49,270,251
Total investments	**383,411,188**	**336,371,244**
Fixed assets	156,859	126,133
Total assets	**$397,445,672**	**$359,275,806**
Liabilities and Fund Balance:		
Liabilities:		
Accounts payable and accrued expenses	$ 599,028	$ 595,207
Investment purchases payable	1,203,303	11,868,867
Total liabilities	**1,802,331**	**12,464,074**
Fund Balance:		
Members' Reserve Account	97,915,928	91,249,013
Municipal Accounts	161,093,399	148,221,747
Retired Members' Reserve Account	130,653,970	118,587,367
Disability Reserve Account	1,032,422	1,032,422
Undistributed earnings (deficit)	4,947,622	(12,278,817)
Total fund balance	**395,643,341**	**346,811,732**
Total liabilities and fund balance	**$397,445,672**	**$359,275,806**

See notes to financial statements.

Statements of Revenues, Expenses, and Changes in Fund Balance
Years Ended December 31, 1993 and 1992

	1993	1992
Operating Revenues:		
Member contributions	$ 8,005,897	$ 7,691,304
Municipal contributions	17,393,710	17,455,364
Assessments	213,540	205,900
Investment income	45,673,490	30,442,797
Total operating revenues	**71,286,637**	**55,795,365**
Operating Expenses:		
Annuity benefits	12,144,279	11,288,793
Disability benefits	760,676	658,263
Terminations	7,188,219	2,965,489
Administrative	2,361,854	2,259,275
Total operating expenses	**22,455,028**	**17,171,820**
Net operating income	**48,831,609**	**38,623,545**
Fund balance, beginning of year	**346,811,732**	**308,188,187**
Fund balance, end of year	**$395,643,341**	**$346,811,732**

See notes to financial statements.

Statements of Cash Flows
Years Ended December 31, 1993 and 1992

	1993	1992
Operating Activities:		
Net operating income	$ 48,831,609	$ 38,623,545
Adjustments to reconcile net operating income to net cash provided by (used in) operating activities:		
Depreciation/amortization	21,159	18,672
Investment income	(45,673,490)	(30,442,797)
Gain on sale of investments	(22,492,846)	(20,615,744)
Loss on sale of investments	4,389,075	2,357,690
Permanent decline in value of real estate investment	4,879,582	0
Changes in operating assets and liabilities:		
(Increase) decrease in contributions receivable	975,236	(1,164,922)
(Increase) decrease in accrued investment income	(142,411)	75,752
(Increase) decrease in investment sales receivable	4,155,037	(4,184,515)
Increase (decrease) in accounts payable and other liabilities	(10,661,743)	10,701,658
Net cash used in operating activities	**(15,718,792)**	**(4,630,661)**
Investing Activities:		
Purchases of investments	(212,771,088)	(182,105,581)
Proceeds from sale of investments	178,955,333	150,482,529
Investment income	45,673,490	30,442,797
Net cash provided by (used in) investing activities	**11,857,735**	**(1,180,255)**
Capital and Related Financing Activities:		
Acquisition of Capital Assets	(51,885)	(92,067)
Net cash used in capital and related financing activities	**(51,885)**	**(92,067)**
Increase (decrease) in cash and cash equivalents	**(3,912,942)**	**(5,902,983)**
Cash and cash equivalents at beginning of year	**12,873,519**	**18,776,502**
Cash and cash equivalents at end of year	**$ 8,960,577**	**$ 12,873,519**

See notes to financial statements.

Notes to Financial Statements
Years Ended December 31, 1993 and 1992

(A)
Organization and Description of the System

Organization

The Pennsylvania Municipal Retirement System (the System) was created by the Pennsylvania General Assembly in 1974 with the passage of the Pennsylvania Municipal Retirement Law, Act of 1974, P.L. 34, No. 15 (the Act). The System is an agent multiple-employer system, and its designated purpose is to administer sound, cost-effective pensions for local government employees. Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board (the Board).

Membership in the System is optional for Pennsylvania's local governments. When a municipality joins the System, its permanent employees contractually become members. Seasonal and temporary employees as well as elected officials may also become members through contractual agreement. At January 1, 1993, the date of the most recent actuarial valuation, there were 511 municipalities with defined benefits and 50 with defined contributions.* Membership consisted of:

Participating Local Government Employers

	Defined Benefits	Defined Contributions
Counties	4	0
Cities	20	0
Boroughs	130	7
Townships of the First Class	19	0
Townships of the Second Class	75	23
Authorities and Other Units	124	18
Police	130	2
Firefighters	9	0
Total	511	50

* *This includes fourteen defined benefit plans and two defined contribution plans in which there were no active participants as of the valuation date.*

Notes to Financial Statements *(Continued)*

Individual Membership

Active Members	
Defined Benefit Plans	
Municipal	6,574
Police	759
Firefighters	154
Total	**7,487**
Defined Contribution Plans	
Municipal	271
Police	3
Firefighters	0
Total	**274**
Total active members	**7,761**
Retirees and Beneficiaries	
Retirees	1,842
Beneficiaries	269
Total	**2,111**
Inactive participants with rights to deferred pension	
Defined Benefit	137
Defined Contribution	13
Total	**150**
Inactive participants with rights to return of contributions	
Defined Benefit	114
Defined Contribution	8
Total	**122**
Total individual memberships	**10,144**

Benefits

The System has the broad authority of enabling a municipality to design its own retirement benefit structure. As an alternative, the System has two basic benefit plans: one for municipal employees (Article II of the Act) and one for uniformed employees (Article III of the Act). Members are eligible for monthly retirement benefits upon reaching the age of 65 and 55, under Articles II and III, respectively, or upon accumulating 24 years of service. Under Articles II and III of the Act, vesting occurs after 12 years of service.

Such benefits under Articles II and III are generally equal to (a) the actuarial value of the members' contributions and (b) a municipal annuity which is based upon a percentage of a member's salary or compensation.

The plans also provide death, disability, and early retirement benefits. These benefit provisions and all other requirements are established under Articles II and III of the Act.

Under Article IV of the Act, municipalities may provide for benefits different from those available under Articles II and III. Vesting provisions, if any, under Article IV may vary.

Contributions

Contributions to the System are made by members and municipalities. Under Articles II and III of the Act, members are required to contribute 3 to 8 percent of their salary. The amount a member contributes under Article IV of the Act is based upon contracted plan provisions and is principally expressed as a percent of compensation or

Notes to Financial Statements *(Continued)*

salary. The contributions required of municipalities are based upon an actuarial valuation, using the Entry Age Normal Actuarial Cost Method, computed as a percentage of the total compensation of all active members during the period for which the amount is determined. The required contributions from municipalities for the year ended December 31, 1993 consisted of the following:

Municipality normal cost	$10,528,029
Amortization of unfunded actuarial accrued liability	4,333,603
Total*	**$14,861,632**

Total contributions to the System during 1993 amounted to $25,399,607 of which $8,005,897 and $17,393,710 were made by its members and municipalities respectively. The difference between the municipalities' required and actual contributions is due to the municipalities transferring state aid money to the System as required under the Municipal Pension Plan Funding Standard and Recovery Act of 1984 (Act 205).

Each municipality is also charged a $20 assessment per member to help cover administrative expenses incurred by the System.

Contributions Required and Contributions Made

The System's funding policy requires actuarially determined contributions at rates that accumulate sufficient assets to pay benefits when due. The System's actuary used the Entry Age Normal Actuarial Cost Method to determine plan liabilities and normal cost. Under this method, a normal cost is calculated that would fund each employee's benefits during the employee's career as a level percent of pay.

At each valuation date, the unfunded actuarial accrued liability is calculated as the present value of all plan benefits, less the present value of future normal cost accruals, less current assets (actuarial value).

The normal cost rate is applied to the projected payroll, and projected employee contributions are deducted. Actuarial gains (or losses) are reflected by decreases (or increases) in the unfunded actuarial accrued liability. Under Act 205, the unfunded accrued liability is being amortized as a level dollar amount over the lesser of:

1. a. 30 years with respect to the initial liability as of January 1, 1985 (or first valuation),
   b. 20 years with respect to changes due to plan provisions and actuarial assumptions,
   c. 15 years with respect to actuarial gains and losses, or
2. the average assumed working lifetime of active employees as of the date the liability was established.

Significant actuarial assumptions used to compute the actuarially determined contribution requirement include (a) a rate of return on the investment of present and future assets of 6.5 percent a year (net of investment and certain administrative expenses) compounded annually, (b) projected salary increases of 5.5 percent a year compounded annually comprised of 5.0 percent increases for inflation and 0.5 percent increases for merit/seniority, (c) post-retirement cost-of-living increases of 5.0 percent per annum until maximum is reached (optional in contracts), and (d) pre- and post-retirement mortality based on the 1971 Group Annuity Mortality Table set back 0 years for males, 6 years for females, and disability set forward 5 years.

(B)
Significant Accounting Policies

Basis of Accounting

The System's financial statements are prepared using the accrual basis of accounting and in accordance with NCGA Statement No. 6. Employee and employer contributions are recognized as revenues in the same period that services are performed. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made.

Statements of Cash Flows

The System has adopted Governmental Accounting Standards Statement No. 9 which permits the presentation of a "Statement of Cash Flows" in place of the "Statement of Changes in Financial Position." Cash equivalents for

* *Total does not include $20.00 per member administrative charges to municipalities.*

Notes to Financial Statements *(Continued)*

purposes of the Statements of Cash Flows are defined as short-term investments with a remaining maturity at the date of acquisition of three months or less.

Fund Balance

Details concerning the pension benefit obligation have not been disclosed in the fund balance section of the balance sheets as required by NCGA Statement No. 6, since such actuarial information is not available as of December 31, 1993. Such information as of January 1, 1993 and 1992 is disclosed in Note E to the financial statements.

Methods Used to Value Investments

Corporate and government bonds with fixed maturities are reported at cost. 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 stocks sold. Real estate mutual funds are carried at cost. Gains and losses on sales and exchanges of investments are recognized on the transaction date.

Short-term investments, which include investments in the state treasury pool, U.S. Treasury bills, and other short-term investment vehicles are carried at cost which approximates market value.

Fixed Assets

Fixed assets, primarily office furniture and equipment, are recorded at amortized cost. Depreciation is provided on the straight-line method over the estimated useful lives of the assets, typically eight years.

Excess Interest

In addition to regular interest, the System may also award excess interest. Excess interest is investment earnings on the System's assets in excess of that required for allocation to regular interest and administrative expenses.

Rates for excess interest are determined yearly by the Board with advice from the System's actuary. The excess interest is distributed to the member accounts, the municipal accounts, and the retiree accounts as directed by the municipality.

Federal Income Tax Status

During the years ended December 31, 1993 and 1992, the System qualified under the provisions of the Internal Revenue Code and was exempt from federal income taxes.

(C)
Description of Funds

The Act defines the following funds to be maintained by the System:

Members' Reserve Account

The Members' Reserve Account is credited with all contributions made by active members of the System. Interest is added to each member's individual account at an annual rate determined by the Board. The System's current interest rate is 6.5 percent.

Upon retirement or disability of an active member, the member's accumulated contributions plus interest are transferred to the Retired Members' Reserve Account or the Disability Reserve Account for subsequent benefit payments. Withdrawals of members' contributions not eligible for benefits are paid from this reserve.

Municipal Accounts

Separate municipal accounts are maintained for each municipality. The Municipal Reserve Account is credited with each municipality's contributions toward the superannuation retirement and death benefits of its members. Annual interest is added to each separate municipal account at the current rate of 6.5 percent.

Notes to Financial Statements *(Continued)*

Retired Members' Reserve Account

The Retired Members' Reserve Account represents the amounts transferred from the Members' Reserve Account, the Municipal Accounts, and the Disability Reserve Account. All retirement and retirees' death benefits plus voluntary and involuntary early retirements are paid from this reserve. Annual interest is credited to the Retired Members' Reserve Account at the current rate of 6.5 percent.

Disability Reserve Account

The Disability Reserve Account is credited with the contributions made by municipalities toward the disability retirement of member employees.

Undistributed Earnings (Deficit)

The System approved a distribution of excess interest at a rate of 6.69 percent during 1992. Such calculation, as described in Note B, was prepared in accordance with a Board approved formula and was based on the actuarial value (market value) of the System's assets as of December 31, 1991 and the expected cash flows of the System for 1992. This distribution, which amounted to $20,058,000, combined with the excess of regular interest at 6.5 percent (distributed directly from undistributed earnings) and administrative costs over the investment income during 1992 resulted in a deficit in undistributed earnings of $12,278,817 at December 31, 1992.

The System approved a similar distribution of excess interest at a rate of 0.49 percent during 1993 which amounted to $1,697,000. The excess of investment income over administrative expenses was sufficient to result in a surplus of undistributed earnings as of December 31, 1993 after the distribution of excess interest and regular interest of 6.5 percent.

(D) Investments

Members of the Board are trustees of the System's assets. They have exclusive responsibility for the management of such assets and have full power to invest the System's assets, subject to the terms, conditions, limitations, and restrictions imposed by law upon fiduciaries.

The Board has authorized investments in U.S. government and agency securities, foreign government bonds denominated in U.S. dollars and rated "AAA," corporate bonds rated "A" or better, equity securities, and real estate commingled funds allowing for equity participation. The Board specifically prohibits investments in commodities, mineral rights, and options. Additionally, short-selling and margin purchase transactions are prohibited.

The Board achieves day-to-day management of the investment portfolio through the use of investment advisors. Restrictions concerning diversification within each advisor and among advisors are provided by adopted investment policy.

The System invests in the Commonwealth of Pennsylvania Treasury Department's short-term cash management fund. The fund comprises various short-term investments, including repurchase agreements. Restrictions on these repurchase agreements are outlined below.

Repurchase agreements with nonbanking institutions are allowable if (a) the institution has a minimum of $50 million in capital, (b) the collateral that is pledged to the Treasury is composed of U.S. government securities with a maturity of four years or less, (c) the collateral's market value equals or exceeds the amount invested by the Treasury, and (d) the collateral is delivered to Treasury's Book Entry Account at the Philadelphia Federal Reserve Bank.

Repurchase investments in banking institutions are subject to identical restrictions as those noted above for non-banking institutions.

The System's investments are categorized below to give an indication of the level of risk assumed by the System at December 31, 1993. 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 via a unique account so as to be identified at all times as the possession of the Commonwealth. Therefore, all such investments are reflected in Category 1, which is defined as investments which are insured or registered or securities held by the System or its agent in the System's name. Investments may also be categorized as Category 2, which is

Notes to Financial Statements *(Continued)*

defined as investments which are uninsured and unregistered, with the securities held by the System's master custodian (bank) or agent in the System's name, and Category 3, which is defined as investments which are uninsured and unregistered, with the securities held by the System's master custodian (bank) or 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.

Investments (Book Value)	Category 1	Not Categorized	Total
U.S. government and agency bonds (market value $116,383,328)	$103,507,214	$ 0	$103,507,214
Corporate bonds and notes (market value $23,761,968)	21,022,026	0	21,022,026
Common and preferred stocks (market value $243,861,584)	212,679,124	0	212,679,124
Real estate mutual funds (market value $41,477,260)	0	46,202,824	46,202,824
State Treasury short-term investment fund (market value $8,957,000)	0	8,957,000	8,957,000
Total (market value $434,441,140)	**$337,208,364**	**$55,159,824**	**$392,368,188**

Investments that represented 5 percent or more of the plan's net assets at December 31, 1993 and 1992 were:

Security	Rate	Due Date	Book Value	Market Value
1993				
The Prudential Asset Management Company, Inc.	Variable	Variable	$27,125,751	$ 22,937,419
State Street Index Fund	Variable	Variable	98,461,768	109,070,931
1992				
State Street Index Fund	Variable	Variable	$76,822,956	$ 89,705,000

(E) Funding Status and Progress

The amount shown below 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. This measure is the actuarial present value of credited projected benefits and is intended to (a) help users assess the System's funding status on a going-concern basis, (b) assess progress being made in accumulating sufficient assets to pay benefits when due, and (c) allow for comparisons among public employee retirement plans. The measure is independent of the actuarial funding method used to determine contributions to the System.

The pension benefit obligation which was determined for the most recent actuarial valuation, dated January 1, 1993, was done so in compliance with GASB Statement No. 5. Significant actuarial assumptions used include (a) a 7.0 percent discount rate per year (assumed net rate of return on the investment of present and future assets)

Notes to Financial Statements *(Continued)*

compounded annually, (b) projected salary increases of 5.5 percent per year compounded annually comprised of 5.0 percent increases for inflation and 0.5 percent increases for merit/seniority, (c) post-retirement cost-of-living increases of 5 percent per annum until maximum is reached (optional in contracts), and (d) pre- and post-retirement mortality based on the 1971 Group Annuity Mortality Table set back 0 years for males, 6 years for females, and disability set forward 5 years.

The System's assets in excess of the pension benefit obligation were as follows at January 1:

	Benefit Information Date	
	January 1, 1993	January 1, 1992
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$115,232,000	$ 101,258,300
Current employees		
Accumulated employee contributions including allocated investment income	84,581,000	73,417,500
Employer-financed vested	128,253,600	108,818,100
Employer-financed nonvested	25,025,500	23,397,500
Total pension benefit obligation	**353,092,100**	**306,891,400**
Net assets available for benefits, at cost (market value is $385,145,708 in 1993 and $350,336,432 in 1992)	**346,811,732**	**308,188,187**
Unfunded (assets in excess of) pension benefit obligation	**$ 6,280,368**	**$ (1,296,787)**

(F)
Relationships with Other Commonwealth Agencies

Responsibility for the organization and administration of the System is vested in the eleven-member Pennsylvania Municipal Retirement Board. The State Treasurer and the Secretary of the Commonwealth serve on the Board by virtue of statute. Eight Board members are also appointed by the Governor after being nominated by their respective organizations. One member each represents the Chiefs of Police Association, Pennsylvania League of Cities, Pennsylvania Municipal Authorities Association, Pennsylvania State Association of Boroughs, Pennsylvania State Association of County Commissioners, Pennsylvania State Association of Township Commissioners, Pennsylvania State Association of Township Supervisors, and the Pennsylvania State Fire Fighters Association. In addition, one Board position is filled by a retired member of the Pennsylvania Municipal Retirement System. Interested individuals submit an application, and then the Governor appoints someone from the list of applicants.

The System is not included as a component unit of the Commonwealth of Pennsylvania for financial reporting purposes because the System independently fixes and collects charges for providing municipal pension benefits, receives no funds from the Commonwealth, has no continuing policy-making affiliation with the Commonwealth, and exercises complete autonomy over financial and operational matters.

In evaluating how to define the System for financial reporting purposes, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made by applying the criteria set forth in Generally Accepted Accounting Principles. The basic, but not the only, criterion for including a potential component unit within the reporting entity is the governing body's ability to exercise oversight responsibility. The most significant manifestation of this ability is financial interdependency. Other manifestations of the ability to exercise oversight responsibility include, but are not limited to, the selection of governing authority, the designation of management, the ability to significantly influence operations, and accountability for fiscal matters. A second criterion used in evaluating potential component units is the scope of public service. Application of this criterion involves considering whether the activity benefits the System and/or its patrons. A third criterion

Notes to Financial Statements *(Continued)*

used to evaluate potential component units for inclusion or exclusion from the reporting entity is the existence of special financing relationships, regardless of whether the System is able to exercise oversight responsibilities. Since the System does not exercise any oversight responsibility over other entities, it has no component units.

(G) Litigation and Contingencies

The System is subject to various threatened and pending lawsuits which generally deal with issues concerning upgrading of benefits. Management does not anticipate that the ultimate liability arising from such litigation and threats of litigation will have a material effect on the financial statements of the System.

(H) Plan Termination

Member municipalities may withdraw from the System if the conditions for withdrawal under the Act have been met. Requirements include a minimum of five years of membership and approval of the Board. In the event of withdrawal, a municipality is entitled to receive a net refund of the amount then standing to the credit of the municipality in the municipal account, the member employees' account, and the retired members' reserve account. In no event shall the municipality refund exceed the pro rata interest of the withdrawing municipality in the net assets of the entire fund based on market value of the fund investments. Liability for any continuation of retirement or disability benefits being paid from the System shall attach to the withdrawing muncipality.

(I) Historical Trend Information

Historical trend information designed to provide information about the System's progress made in accumulating sufficient assets to pay pension benefits when due is presented immediately following the Notes to Financial Statements in Schedules 1 and 2.

Schedule 1
Analysis of Funding Progress
for Last 7 Years*

Valuation as of 1/1	(1) Net Assets Available for Benefits at Cost	(2) Pension Benefit Obligation	(3) Percentage Funded (1)÷(2)	(4) Unfunded (Assets in Excess of) Pension Obligation (2)-(1)	(5) Annual Covered Payroll	(6) Unfunded (Assets in Excess of) Pension Obligation as % of Covered Payroll (4)÷(5)
1993	$346,811,732	$353,092,100	98.2%	$ 6,280,368	$199,520,300	3.1%
1992	308,188,187	306,891,400	100.4%	(1,296,787)	183,077,135	(0.7%)
1991	280,860,370	276,842,300	101.5%	(4,018,070)	169,014,027	(2.4%)
1990	259,678,437	242,959,900	106.9%	(16,718,537)	154,392,434	(10.8%)
1989	233,842,678	227,907,400	102.6%	(5,935,278)	148,709,536	(4.0%)
1988	215,563,330	227,201,900	94.9%	11,638,570	139,935,278	8.3%
1987	175,901,000	208,149,600	84.5%	32,248,600	132,969,603	24.3%

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

** Data is unavailable prior to 1987.*

Schedule 2*
Revenues by Source and Expenses by Type
for Last 10 Years

Revenues by Source

Fiscal Year	Member Contributions	Municipal Contributions[1]	Municipal Assessments[2]	Investment Income[3]	Total Revenue
1993	$8,005,897	$17,393,710	$213,540	$45,673,490	$71,286,637
1992	7,691,304	17,455,364	205,900	30,442,797	55,795,365
1991	7,049,195	14,175,058	200,520	25,317,942	46,742,715
1990	6,511,819	13,609,021	195,460	17,379,987	37,696,287
1989	5,983,693	17,457,290	198,460	20,488,089	44,127,532
1988	5,630,152	13,657,999	192,800	14,620,070	34,101,021
1987	5,570,496	24,008,631	181,920	25,445,009	55,206,056
1986	5,419,728	15,486,732	198,655	26,648,239	47,753,354
1985	5,007,502	13,578,542	185,743	12,528,442	31,300,229
1984	4,608,207	12,594,534	174,400	8,572,487	25,949,628

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

[2] *Municipal assessments are receipts but not assets of the plans.*

[3] *The investment income does not include any unrealized gains or losses resulting from changes in market movements in the System's portfolio.*

Expenses by Type

Fiscal Year	Total Benefit Expenses	Administrative Expenses		Total Expenses
		Operational Expenses	Investment Management Fees	
1993	$20,093,174	$1,299,410	$1,062,444	$22,455,028
1992	14,912,545	1,300,173	959,102	17,171,820
1991	17,456,476	1,169,439	788,983	19,414,898
1990	14,723,270	1,132,739	658,345	16,514,354
1989	16,570,180	1,129,091	592,502	18,291,773
1988	14,360,550	923,046	538,077	15,821,673
1987	13,917,366	943,489	541,004	15,401,859
1986	12,568,611	794,026	499,771	13,862,408
1985	6,733,542	836,823	323,843	7,894,208
1984	4,754,871	969,879	238,612	5,963,362

* *Schedule 2 is continued on the next page.*

Schedule 2 *(Continued)*

Expenses by Type (Continued)

Benefit Expenses

Fiscal Year	Annuity Benefits	Disability Benefits	Terminations	Total Benefit Expenses
1993	$12,144,279	$760,676	$7,188,219	$20,093,174
1992	11,288,793	658,263	2,965,489	14,912,545
1991	10,438,173	592,732	6,425,571	17,456,476
1990	8,992,091	632,732	5,098,447	14,723,270
1989	8,365,751	659,164	7,545,265	16,570,180
1988	7,406,401	489,130	6,465,019	14,360,550
1987	6,332,690	395,846	7,188,830	13,917,366
1986	6,021,055	341,426	6,206,130	12,568,611
1985	4,887,994	341,246	1,504,302	6,733,542
1984	2,736,754	331,384	1,686,733	4,754,871

Schedule 3
Administrative Expenses
Comparative Two-Year Schedule
Years Ended December 31, 1993 and 1992

	1993 Actual	1993 Budget	1992 Actual	1992 Budget
Personnel costs:				
Salaries and wages	$ 555,270		$ 533,816	
Social Security contributions	42,152		40,343	
Retirement contributions	42,565		39,938	
Insurance contributions	143,880		148,108	
Other employee benefits	3,422		2,626	
Total personnel costs	**787,289**	**$ 851,211**	**764,831**	**$ 768,121**
Professional costs:				
Performance evaluation	33,250		32,000	
Actuarial	201,481		158,130	
Data processing	8,076		27,686	
Audit	20,000		20,000	
Legal	30,240		24,171	
Security movement & control	9,735		10,759	
Investment advisors	1,062,444		959,102	
Miscellaneous professional	41,797		75,707	
Total professional costs	**1,407,023**	**1,464,444**	**1,307,555**	**1,348,152**
Communication costs:				
Printing	17,412		18,870	
Telephone	9,798		8,735	
Postage	30,541		25,306	
Travel	13,512		12,099	
Advertising	998		125	
Total communication costs	**72,261**	**78,750**	**65,135**	**66,650**
Other services and charges:				
Office space rental	54,125		50,749	
Equipment leasing	5,069		16,934	
Supplies	8,666		9,054	
Maintenance	3,745		24,214	
Bonding & insurance	940		534	
Dues & subscriptions	1,577		1,597	
Total other services and charges	**74,122**	**78,400**	**103,082**	**77,300**
Depreciation	21,159		18,672	
Total administrative expenses	**$2,361,854**	**$2,472,805**	**$2,259,275**	**$2,260,223**

Schedule 4
Investment Summary
Year Ended December 31, 1993

January 1, 1993

Type of Investment	Book Value	Market Value	Purchases
Corporate and government bonds:			
U.S. Government bonds	$ 81,576,545	$ 92,394,666	$ 74,948,607
Corporate bonds	30,152,768	33,050,414	5,015,050
Total bonds	**111,729,313**	**125,445,080**	**79,963,657**
Common stock	175,371,680	206,072,120	131,188,402
Real estate equity	49,270,251	43,188,020	1,619,029
Cash equivalents	12,870,000	12,870,000	103,782,000
Total investments	**$349,241,244**	**$387,575,220**	**$316,553,088**

Investment Summary (Continued)
Year Ended December 31, 1992

January 1, 1992

Type of Investment	Book Value	Market Value	Purchases
Corporate and government bonds:			
U.S. Government bonds	$ 74,253,894	$ 84,748,207	$ 30,633,087
Corporate bonds	35,077,669	39,290,977	6,590,146
Total bonds	**109,331,563**	**124,039,184**	**37,223,233**
Common stock	140,247,147	171,595,088	132,523,525
Real estate equity	36,911,428	33,004,111	12,358,823
Cash equivalents	18,773,000	18,773,000	67,992,000
Total investments	**$305,263,138**	**$347,411,383**	**$250,097,581**

Schedule 4
Investment Summary (Continued)
Year Ended December 31, 1993

	December 31, 1993		
Sales and Redemptions	Book Value	Market Value	% of Total Market Value
$ 53,017,938	$103,507,214	$116,383,328	27%
14,145,792	21,022,026	23,761,968	5
67,163,730	**124,529,240**	**140,145,296**	**32%**
93,880,958	212,679,124	243,861,584	56%
4,686,456	46,202,824	41,477,260	10%
107,695,000	8,957,000	8,957,000	2%
$273,426,144	**$392,368,188**	**$434,441,140**	**100%**

Investment Summary (Continued)
Year Ended December 31, 1992

	December 31, 1992		
Sales and Redemptions	Book Value	Market Value	% of Total Market Value
$ 23,310,436	$ 81,576,545	$ 92,394,666	24%
11,515,047	30,152,768	33,050,414	9
34,825,483	**111,729,313**	**125,445,080**	**33%**
97,398,992	175,371,680	206,072,120	53%
0	49,270,251	43,188,020	11%
73,895,000	12,870,000	12,870,000	3%
$206,119,475	**$349,241,244**	**$387,575,220**	**100%**

ACTUARIAL SECTION

- **Actuary's Certification Letter**
  Pension Benefit Obligation
  Value of Plan Benefits
  Actuarial Assumptions
  Actuarial Methods
- **Membership Data**
  Active Members
  Retired Members
- **Summary of Accrued and Unfunded Accrued Liabilities**
- **Solvency Test**
- **Schedule of Contribution Requirements vs. Actual Contributions**
- **Analysis of Financial Experience**

Actuary's Certification Letter

THE SEGAL COMPANY

1920 N Street, N.W.
Suite 500
Washington, DC
20036-1601
202-833-6400
FAX: 202-833-6490

May 4, 1994

PENNSYLVANIA MUNICIPAL RETIREMENT SYSTEM

Certificate of Actuarial Valuation

This is to certify that we have prepared an annual actuarial valuation of the entire System as of January 1, 1993, in accordance with generally accepted actuarial principles and practices.

This certificate includes the following attached exhibits:

EXHIBIT I	-	Pension Benefit Obligation
EXHIBIT II	-	Actuarial Present Value of Accumulated Plan Benefits
EXHIBIT III	-	Actuarial Assumptions
EXHIBIT IV	-	Actuarial Method

Individual municipality actuarial valuation results as of January 1, 1993, have been provided separately for 507 plans, including 19 plans sponsored by distressed municipalities, which are required to redetermine contribution levels as of January 1, 1993 under applicable Commonwealth statute (Act 205). We have calculated (1) the unfunded liability; (2) the amortization required; and (3) the normal cost as a percentage of payroll. State law delegates to the governing authority the determination of payroll which is to be applied to the normal cost percentage. Other municipalities have been included in the actuarial results reported in this certificate, but individual plan funding requirements were either not required or not redetermined. Contribution requirements for 4 plans sponsored by counties are redetermined under Commonwealth statute Act 293 on a biannual basis, most recently as of January 1, 1992.

The valuation was based on information supplied by the System's auditor with respect to assets, and by the System's administrative staff with respect to reserve accounts; age, service and compensation of employees; and age and benefit amount for inactive participants and pensioners. We have not verified and customarily would not verify such information, but we have examined the data for reasonableness and have no reason to doubt its substantial accuracy. The actuarial assumptions employed in this valuation were adopted by the Pennsylvania Municipal Retirement Board with the recommendation of the actuary.

To the best of my knowledge, the information supplied in this actuarial certificate is complete and accurate, and in my opinion the assumptions used in the aggregate are reasonably related to the experience of the various plans and to reasonable expectations of anticipated experience.

Eli Greenblum, A.S.A., M.A.A.A.
Vice President & Actuary
Enrolled Actuary No. 93-3636

EG:vm
Attachments

Actuary's Certification Letter *(Continued)*

Exhibit I
Pension Benefit Obligation

The value of the pension benefit obligation required for disclosure by Statement No. 5 of the Governmental Accounting Standards Board is shown below as of January 1, 1993 and, for comparative purposes, as of January 1, 1992.

	Benefit Information Date	
Pension benefit obligation:	**January 1, 1993**	**January 1, 1992**
Participants currently receiving benefits and terminated employees not yet receiving benefits	$115,232,000	$101,258,300
Current employees		
Accumulated employee contributions including allocated investment income	84,581,000	73,417,500
Employer-financed vested	128,253,600	108,818,100
Employer-financed nonvested	25,025,500	23,397,500
Total pension benefit obligation	**$353,092,100**	**$306,891,400**

The actuarial assumptions are shown in Exhibit III. The above information was derived from the following membership data, as provided by PMRS, regarding 511 defined benefit plans and 50 defined contribution-only plans as of January 1, 1993:

a. Retirees currently receiving benefits		1,842
b. Beneficiaries currently receiving benefits		269
c. Terminated vested employees entitled to future benefits - defined benefit plans		137
d. Terminated nonvested employees entitled to contribution refunds - defined benefit plans		114
e. Active employees in defined benefit plans with aggregate salary of $193,800,700		7,487
i. vested	3,265	
ii. nonvested	4,222	
f. Participants in defined contribution-only plans		295
i. active vested (aggregate salary of $5,682,500)	274	
ii. inactive vested	21	

Actuary's Certification Letter *(Continued)*

Exhibit II
Actuarial Present Value of Accumulated Plan Benefits

The actuarial present value of accumulated plan benefits, calculated in conformance with FASB Statement No. 35, is shown below as of January 1, 1993 and, for comparative purposes, as of January 1, 1992.

	Benefit Information Date January 1, 1993	Benefit Information Date January 1, 1992
Actuarial present value of accrued vested benefits:		
Participants currently receiving benefits	$108,435,700	$ 95,885,600
Other vested benefits	156,380,800	133,884,800
Total vested benefits	**264,816,500**	**229,770,400**
Actuarial present value of nonvested accumulated plan benefits	17,883,500	17,533,300
Total actuarial present value of accumulated plan benefits	**$282,700,000**	**$247,303,700**

The amounts shown above have been calculated in accordance with Interpretations 1 and 2 promulgated by the Actuarial Standards Board for calculating such values. The actuarial assumptions used are as shown in Exhibit III.

The factors which affected the change in the actuarial present value of accumulated plan benefits from the preceding to the current benefit information date are as follows:

Factor	Change in Actuarial Present Value of Accumulated Plan Benefits
Withdrawn municipalities	$ 0
Newly entered municipalities	1,033,200
Benefits accumulated, net experience gain or loss, changes in data, upgrades	32,442,800
Benefits paid (including contribution refunds)	(14,912,500)
Interest	16,832,800
Total	**$ 35,396,300**

Actuary's Certification Letter *(Continued)*

Exhibit III
Actuarial Assumptions

The following actuarial assumptions were first adopted by the Board (upon advice of the actuary) for the January 1, 1987 actuarial valuation:

Mortality rates: 1971 Group Annuity Mortality Table for Males, with ages set back 6 years for females

Disability mortality: Mortality under stipulated table for a healthy life 5 years older

The following chart presents life expectancies that result from the application of the 1971 Group Annuity Mortality Table for Males for healthy lives aged 55 to 75.

Expected Number of Years of Life Remaining

Age		Years	Age		Years
Male	Female		Male	Female	
55	61	22.7	66	72	14.4
56	62	21.9	67	73	13.8
57	63	21.1	68	74	13.1
58	64	20.3	69	75	12.5
59	65	19.5	70	76	11.9
60	66	18.8	71	77	11.3
61	67	18.0	72	78	10.8
62	68	17.3	73	79	10.3
63	69	16.5	74	80	9.7
64	70	15.8	75	81	9.2
65	71	15.1			

Termination rates before retirement: For municipal plans with 50 or more active members, the termination rates indicated below were used; for municipalities with between 11 and 49 members, a percentage of the indicated rates was used where such percentage equalled 100 percent less 2.5 percent times (50 - number of members); for municipalities with 10 or fewer members, no terminations were assumed.

Termination Rates Before Retirement

	Rate of Termination (%)		
	Uniformed Members	Municipal Members	
Years of Service	Male and Female	Male	Female
fewer than 1	15.0%	18.0%	24.0%
1 but fewer than 2	15.0	13.0	18.0
2 but fewer than 3	15.0	11.0	17.0
3 but fewer than 4	15.0	10.0	16.0
4 but fewer than 5	15.0	9.0	15.0
5 but fewer than 6	12.0	8.0	13.0
6 but fewer than 7	10.0	7.0	11.0
7 but fewer than 8	7.0	6.0	9.0
8 but fewer than 9	5.0	5.0	7.0
9 but fewer than 10	3.0	4.0	5.0
10 or more	0.0	0.0	0.0

Actuary's Certification Letter *(Continued)*

Disability rates: Rates equal to 50 percent of the rates set forth in the 1964 OASDI (Social Security) Experience for Males. Sample rates are as follows:

Age	Rate of Disablement
25	0.043%
35	0.074
45	0.180
55	0.504
65	1.160

Salary scale: 5.5 percent per year (5.0 percent inflation and 0.5 percent merit/seniority)

Retirement age: Members are assumed to retire no earlier than the age at which unreduced benefits are available. Specific assumptions regarding retirement age are as follows:

Retirement Age Assumptions

Uniformed Members		Municipal Members(1)	
age first eligible(2)	projected retirement age	age, if eligible(2)	projected rate of normal retirement(3)
56 (or younger)	3 years after first eligible	60 (and younger)	5.0%
57-59	60	61-63	7.5%
60 (or older)	at first eligibility	64-69	30.0%
		70	100.0%

(1) Members are assumed to retire over a range of ages. The probability that a member retires at a given age (if still active and eligible for unreduced benefits at that age) is shown in the chart.

(2) Rates apply only if member is eligible for unreduced benefits (no early retirement assumed).

*(3) Rates indicated are adjusted by adding 5 percent for the year in which the member is **first** eligible for normal retirement.*

Post-retirement cost-of-living increases*: 5 percent per annum until maximum is reached (optional in contracts)

Marital status and spouse's age*: 85 percent of members married at time of retirement; wives 4 years younger than their husbands

Social Security*:

(a) The Social Security Taxable Wage Base will increase by 5.5 percent compounded annually.

(b) The Consumer Price Index will increase by 5 percent compounded annually.

(c) The average total wages of all workers will increase by 5.5 percent compounded annually.

Net investment return: 6.5 percent compounded annually (net of investment and certain administration expenses) for funding purposes; 7.0 percent compounded annually (net of investment expenses) for calculation of values intended to comply with GASB Statement No. 5 and FASB Statement No. 35.

** If applicable*

Actuary's Certification Letter *(Continued)*

Exhibit IV
Actuarial Methods

Contribution requirements are individually determined for each participating municipality on an actuarial basis at least biannually as described below. The frequency of actuarial valuation is determined by applicable Commonwealth statute (Act 205 and Act 293). The following actuarial methods were adopted effective January 1, 1985, unless indicated otherwise.

Actuarial Value of Assets (adopted effective January 1, 1985; modified January 1, 1991)

The actuarial value of assets is the sum of all audited reserve accounts as of the valuation date including member, municipal, retired, and disability reserves, and a one-year administration expense reserve, plus the portion of any additional investment income (beyond the "regular" rate of 6.5 percent) to be distributed as excess interest. The actuarial value can never be less than 90 percent of market value.

Each year, municipalities may receive an excess interest allocation derived as a portion of new surplus created during the year. "Surplus" refers to the excess of market value over the actuarial value of assets. Once the preliminary actuarial asset value has been determined, a formula[1] is used to allocate the new surplus based on the prior year's investment experience. Generally, depending on the relative size of surplus to market value, between 10 percent and 90 percent of new surplus will become excess interest. For the year ended December 31, 1992, the portion of new surplus allocated to excess interest was 58.22 percent, resulting in an excess interest allocation of 0.49 percent of eligible reserve accounts.

Actuarial Cost Method — Entry Age Normal Actuarial Cost Method

Entry age is defined as attained age less credited service. The normal cost rate is derived as a level percent of future compensation of current employees, on an individual basis. This rate is applied to the projected payroll, and projected employee contributions are deducted. Actuarial gains (or losses), including the effect of contributions greater or less than the previously determined actuarial level, are reflected by decreases (or increases) in the unfunded actuarial accrued liability. Under Act 205, the unfunded actuarial accrued liability is amortized as a level dollar amount[2] over the lesser of:

(a) i. 30 years with respect to the initial liability as of January 1, 1985 (or first valuation),

ii. 20 years with respect to changes due to plan provisions and actuarial assumptions,

iii. 10 years with respect to changes in benefits for currently retired members,

iv. 15 years with respect to actuarial gains and losses, or

(b) the average assumed working lifetime of active employees as of the date the liability was established.

With the two exceptions which follow, the funding method is applied individually to each municipality:

Retired and disabled members are paid monthly benefits from the System's Retired Members' Reserve Account, which at the time of retirement receives a transfer from the municipal and member accounts in an amount actuarially determined to be sufficient to pay all future benefits for the member (and, if applicable, a surviving beneficiary). Thus, post-retirement experience is pooled within the System. (However, this procedure does not apply to the legislated ad-hoc adjustments which became effective January 1, 1989 for a segment of the retirees.)

A disabled member's pension is met in part from the amount that can be provided by the member's own accumulated contributions and from the amount that can be provided by the value of that portion of the member's accrued benefit attributable to municipal contributions, with the balance of the pension being provided by the appropriate transfer from the Disability Reserve Account. The amount of annual transfer from accumulated municipal contributions to the Disability Reserve Account is determined on the one year term cost basis (i.e., the expected cost of disabilities in the coming year).

[1] The portion of investment income to be distributed as excess interest is based on a complicated algebraic formula adopted by the Board with the advice of the System's actuary effective January 1, 1985.

[2] In certain instances, distressed municipalities may use "level percent of payroll" amortization of the initial liability, where the assumed annual payroll increase is 4 percent.

Schedule of Active Member Valuation Data
for Last 10 Years

Defined Benefit Plans

Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers[1]	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in Payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
1993	7,487	2.0%	511	4.9%	$193,837,800	9.1%	$25,890	6.9%
1992	7,337	2.4	487	3.6	177,713,900	7.3	24,222	4.8
1991	7,165	4.6	470	2.6	165,660,300	9.4	23,121	4.6
1990	6,850	(1.8)	458	1.3	151,429,600	3.5	22,107	5.5
1989	6,979	1.3	452	4.2	146,262,900	5.8	20,958	4.4
1988	6,887	0.6	434	1.6	138,269,100	4.7	20,077	4.1
1987	6,847	3.1	427	1.9	132,103,400	8.9	19,294	5.6
1986	6,640	0.4	419	—	121,313,600	5.9	18,270	5.4
1985	6,612	6.7	—	—	114,557,100	12.7	17,326	5.7
Valuation Date 12/31[2]								
1983	6,199			—	101,654,900	—	16,399	—

[1] Information prior to 1986 is incomplete.

[2] In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.

Defined Contribution Plans*

Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in Payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
1993	274	0.4%	50	13.6%	$5,682,500	6.0%	$20,739	5.6%
1992	273	44.4	44	37.5	5,363,235	44.5	19,646	0.0
1991	189	12.5	32	10.3	3,710,993	25.3	19,635	11.3
1990	168	23.5	29	26.1	2,962,834	21.1	17,636	(2.0)
1989	136	44.7	23	43.8	2,446,636	46.8	17,990	1.5
1988	94	80.8	16	60.0	1,666,178	92.3	17,726	6.4
1987	52	23.8	10	25.0	866,203	34.5	16,658	8.6
1986	42	200.0	8	100.0	644,044	293.9	15,334	31.3
1985	14	—	4	—	163,524	—	11,680	—

** Prior to 1985, the System did not have defined contribution plans.*

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls for Last 10 Years

Valuation Date 1/1	Added to Roll	Deleted from Roll	Number on Roll	Annual Annuities	Percentage Increase in Annuities	Average Annual Annuities	Percentage Increase in Average Annual Annuities
1993	211	171	2,111	$11,659,400	11.5%	$5,523	9.4%
1992	237	112	2,071	10,456,600	15.0	5,049	8.1
1991	167	85	1,946	9,091,927	12.7	4,672	8.0
1990	184	137	1,864	8,065,204	11.1	4,327	8.4
1989	137	59	1,817	7,255,404	9.0	3,993	4.3
1988	159	112	1,739	6,655,980	18.0	3,827	14.8
1987	133	54	1,692	5,639,460	7.8	3,333	2.8
1986[1]	158	78	1,613	5,229,240	70.4	3,242	27.6
1985[1]	468	23	1,533	3,068,138	21.4	2,540	9.3
Year Ended 12/31[2]							
1983	—	—	1,088	2,527,830	—	2,323	—

[1] Figures include costs of the System's administration which began December 1984 for the City of Harrisburg, Plan A retiree benefits. Harrisburg, Plan A had 323 pensioners in 1986 and 325 in 1985. It officially joined the System in 1987; therefore, these figures are not included in the actuarial valuations.

[2] In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.

Summary of Accrued and Unfunded Accrued Liabilities[1]

When a new employer joins the System and credits prior service or an employer adopts a higher level of benefit, unfunded actuarial liabilities are often created. Under the Pennsylvania statutes (Act 205 of 1984, Municipal Pension Plan Funding Standard and Recovery Act), these additional liabilities, determined under the Entry Age Normal Actuarial Cost Method, must be financed over a period of future years.

Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Assets as a percentage of actuarial accrued liabilities provide a clearer picture of a plan's financial soundness. The larger the ratio of assets to actuarial accrued liabilities, the stronger the plan is. For purposes of the table below, both the assets and the actuarial liability exclude amounts applicable to retirees. The System's plans are at various stages of funding their actuarial liabilities. As of January 1, 1993, 247 of the defined benefit plans have completely funded the liability. A distribution of the funding percentages is shown as of January 1, 1993.[2] This calculation will only be available every two years.

Distribution of Plans Based on Assets as a Percentage of Accrued Liabilities[3]

Assets as a % of Accrued Liability	Number of Municipalies with an Unfunded Accrued Liability (UAL)	Assets as a % of Accrued Liability	Number of Overfunded Municipalities
0 - 10%	10	100 - 110%	49
10 - 20	4	110 - 120	31
20 - 30	8	120 - 130	31
30 - 40	7	130 - 140	15
40 - 50	17	140 - 150	21
50 - 60	23	150 - 160	12
60 - 70	28	160 - 180	21
70 - 80	38	180 - 200	10
80 - 90	44	200 - 250	16
90 - 100	53	250 - 300	10
Total	232	300 - 400	7
		400 - 500	7
		500 - 600	3
		600 - 700	3
		700 - 800	2
		800 - 1,000	5
		1,000 or higher	4
		Total	247

(1) Due to the unique nature of the System and wide range of funding for member municipalities, it would be misleading to present the Summary of Accrued and Unfunded Accrued Liabilities for the System as a whole. The System's plans are at various stages of funding their individual actuarial liabilities. Therefore, to give a true picture of the System, the summary would need to include each individual municipality's aggregate accrued liabilities, valuation assets, unfunded accrued liabilities, etcetera. Grouping all plans together would create a skewed picture.

(2) Thirty-two municipalities are not included in the table because they (a) do not have an actuarial accrued liability, (b) are new plans and therefore have no assets, or (c) have a negative asset balance as a result of transfers to the Retired Members' Reserve Account.

(3) "Accrued liabilities" refers to actuarial accrued liabilities computed under the Entry Age Normal Actuarial Cost Method.

Solvency Test

A short term solvency test, which is one means of determining a system's progress under its funding program, compares the plan's present assets with

1. active member contributions on deposit,
2. the liabilities for future benefits to present retired lives[1], and
3. the pension benefit obligation for service already rendered by active members.

In a system that has been following the level percent of payroll financing discipline, the obligation for active member contributions on deposit (Item A) and the liabilities for future benefits to present retired lives[1] (Item B) will be fully covered by present assets with the exception of rare circumstances. The obligation for service already rendered by active members (Item C) will be partially covered by the remainder of present assets. If the system has been using level cost financing, the funded portion of Item C usually will increase over a period of time. Item C being fully funded is rare.

Valuation Date 1/1	Aggregate Pension Benefit Obligation				Portion of Pension Benefit Obligation Covered by Assets		
	(A) Active Member Contributions	(B) Retirees and Beneficiaries[1]	(C) Active Members (Employer Financed Portion)	Valuation Assets	(A)	(B)	(C)
1993	$84,581,000	$115,232,000	$153,279,100	$361,937,000[2]	100%	100%	100%
1992	73,417,500	101,258,300	132,215,600	328,344,000	100	100	100
1991	67,933,000	86,809,100	122,100,200	285,794,000	100	100	100
1990	56,830,900	77,511,000	108,618,000	261,602,000	100	100	100
1989	53,066,400	71,471,600	103,369,400	222,990,182	100	100	95
1988	50,170,000	64,173,400	112,858,400	199,861,934	100	100	76
1987[3]	45,417,700	54,469,200	108,262,700	172,797,162	100	100	67

[1] *Includes terminated employees not yet receiving benefits*

[2] *Includes allocated amount of approximately $1.7 million in excess investment monies which potentially could create an additional pension benefit obligation*

[3] *Information prior to 1987 is unavailable.*

Schedule of Contribution Requirements vs. Actual Contributions

The Pennsylvania Municipal Retirement System is an agent multiple-employer system with separate rates of contribution for each employer. Therefore, it is not practical to include a Schedule of Recommended vs. Actual Contributions. Because of the multitude of plans and required contributions ranging from 0 percent to 40 percent of covered payroll, we list the ranges of total employer contribution requirements upon which the defined benefit plans were billed for 1993, based on individual plan actuarial valuations conducted as of January 1, 1991.

Range of Total Employer Contribution Requirements

Percentage of Payroll	Number of Employers
0 - 5%	185
5 - 10	186
10 - 15	67
15 - 20	53
20 - 30	19
30 - 40	1
Total	511

Under Pennsylvania law (Act 205 of 1984 as amended) the required funding levels are jointly determined by the actuary of the System and the plan's governing board prior to the beginning of each plan year, based on the most recently completed actuarial valuation. The process involves the governing body applying the prior year's projected payroll times the actuarially determined normal cost percentage and adding the projected administrative costs and amortization payments toward the unfunded actuarial liability, required under a legislatively pre-established amortization schedule. Credit is given for 10 percent of the amount of any actuarial surplus. The aggregate employer funding required for defined benefit plans in 1993 was \$14,861,632. The actual funding received for 1993 was \$17,393,710. Differences between the municipalities' required and actual contributions are due to (1) the municipalities transferring state aid money to the System as required under the Municipal Pension Plan Funding Standard and Recovery Act of 1984 (Act 205) in amounts either more or less than anticipated, (2) the addition or deletion of new plans during the year, and/or (3) plan sponsors seeking to reduce their unfunded liabilities over a shorter period of time than required under the amortization schedule.

Analysis of Financial Experience

The System does not conduct an extensive experience study by individual plan because the magnitude of any change in plans of average size becomes misleading and irrelevant. A comprehensive experience study is performed once every five years on the overall assumptions used by the System, but this data is not relevant to individual plan experience.

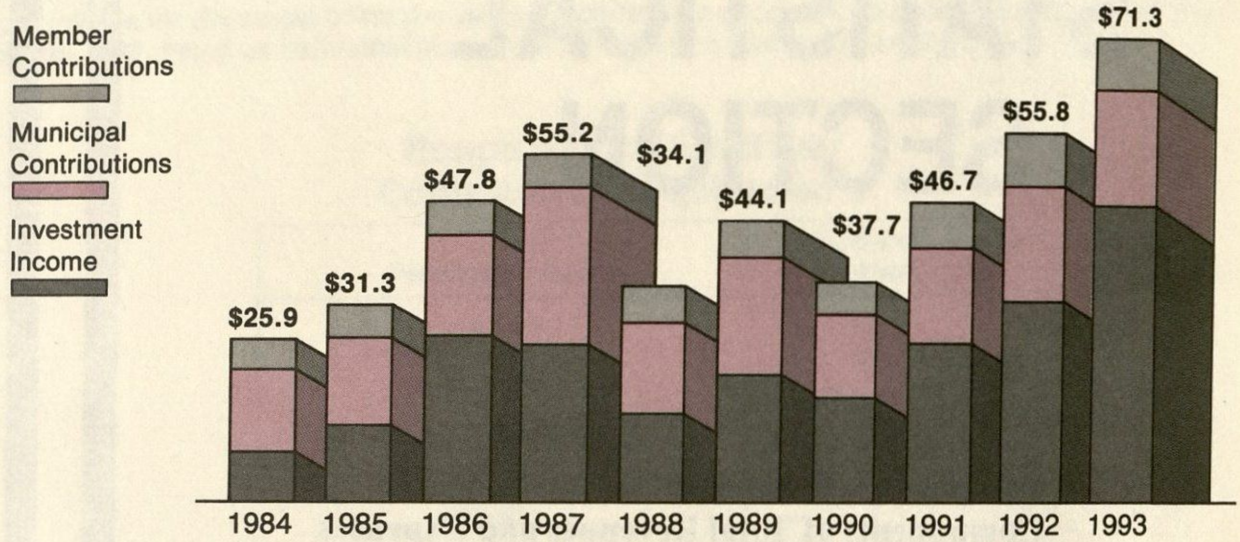
STATISTICAL SECTION

- **Financial**
  - **Revenues by Source**
  - **Expenses by Type**
  - **Revenues vs. Expenses**
  - **Components of Total Revenues and Expenses**
  - **Total Assets**

- **Membership**
  - **Active Members**
  - **Retired Members**
  - **Total Membership**
  - **Participating Employers**

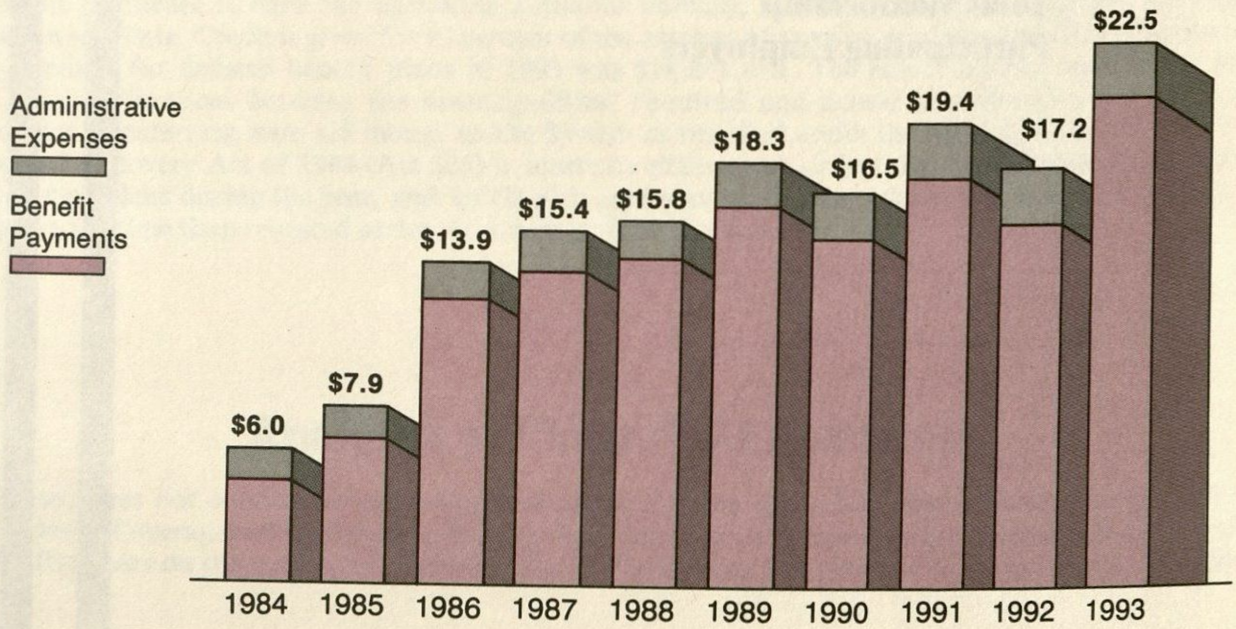
Part I — Financial

Revenues by Source — 10 Year Trend
(Amounts in Millions)



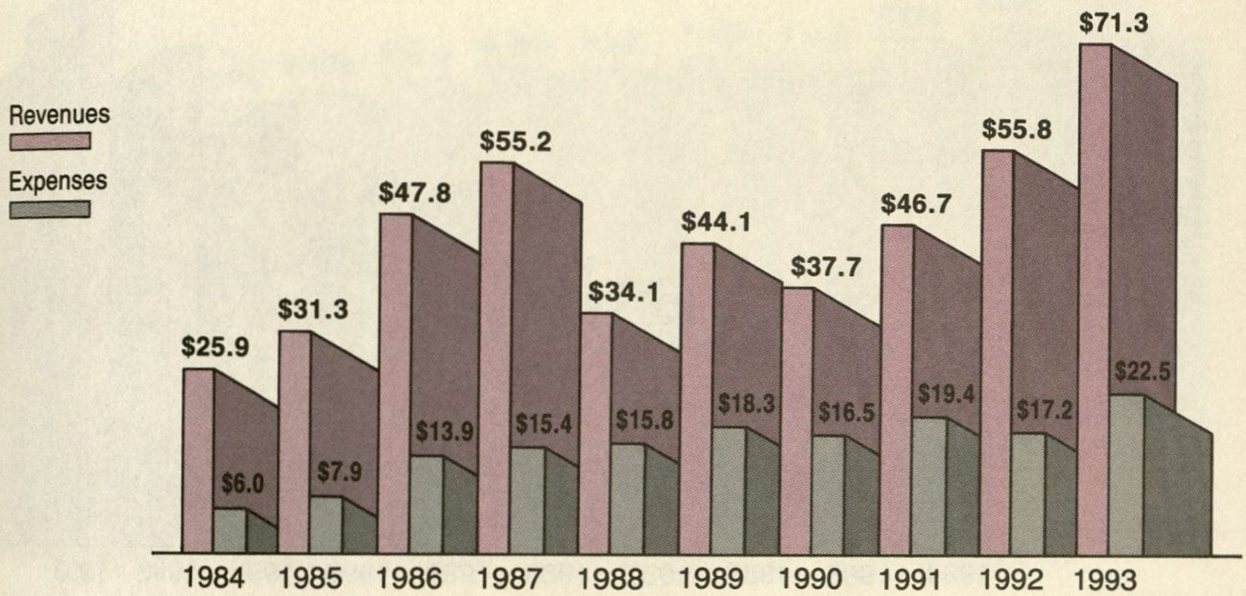
Data is from Revenues by Source, page 29.

Expenses by Type — 10 Year Trend
(Amounts in Millions)



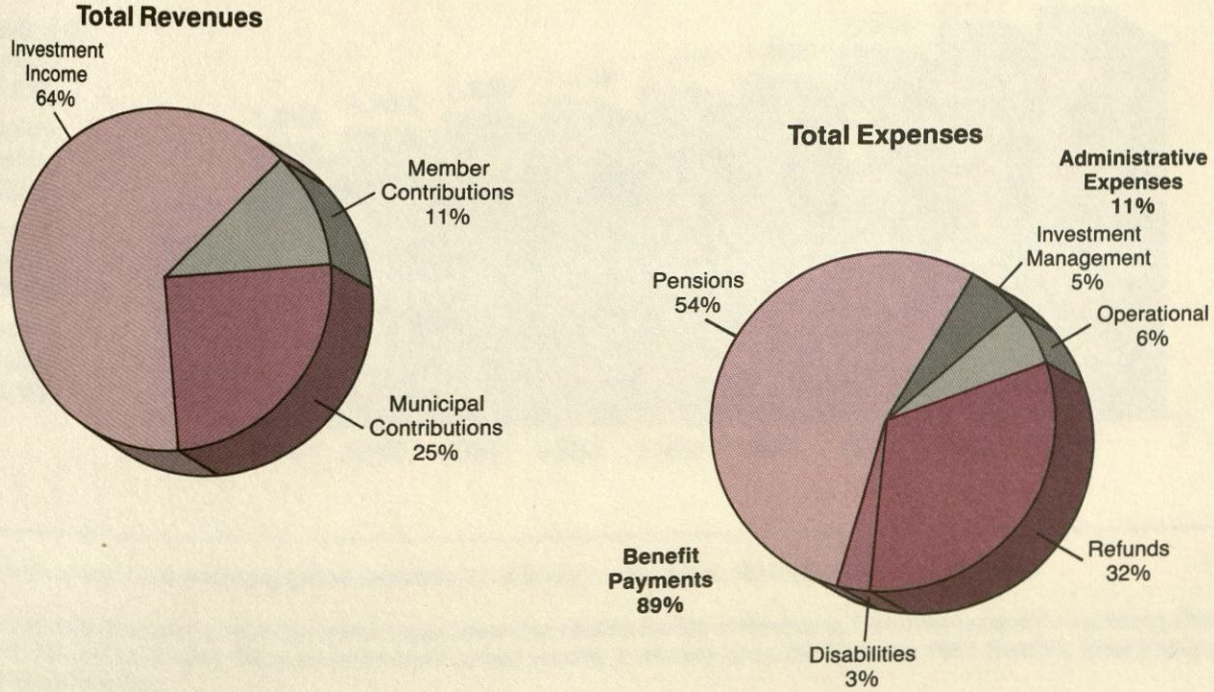
Data is from Expenses by Type, page 29.

Revenues vs. Expenses — 10 Year Trend
(Amounts in Millions)

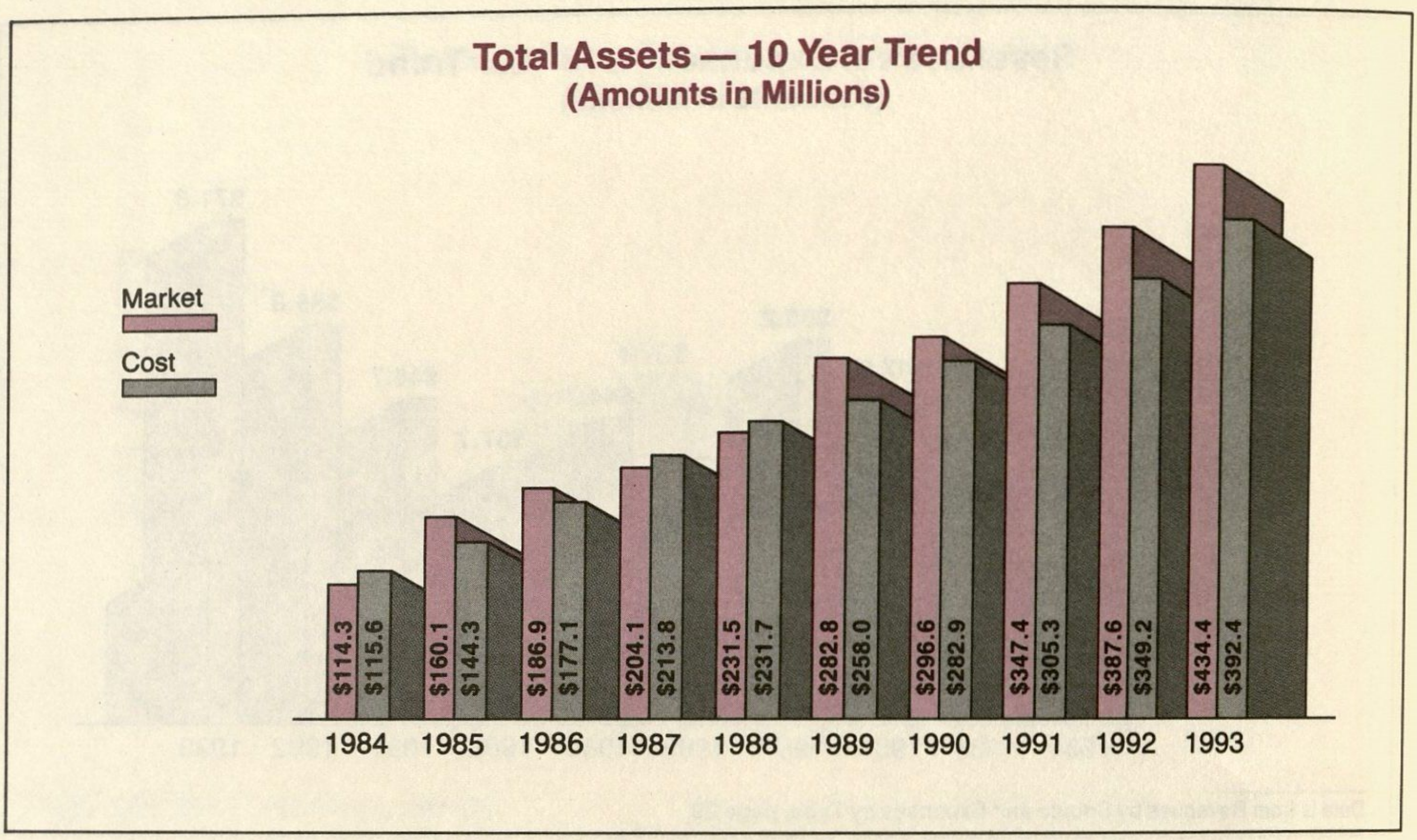


Data is from Revenues by Source and Expenses by Type, page 29.

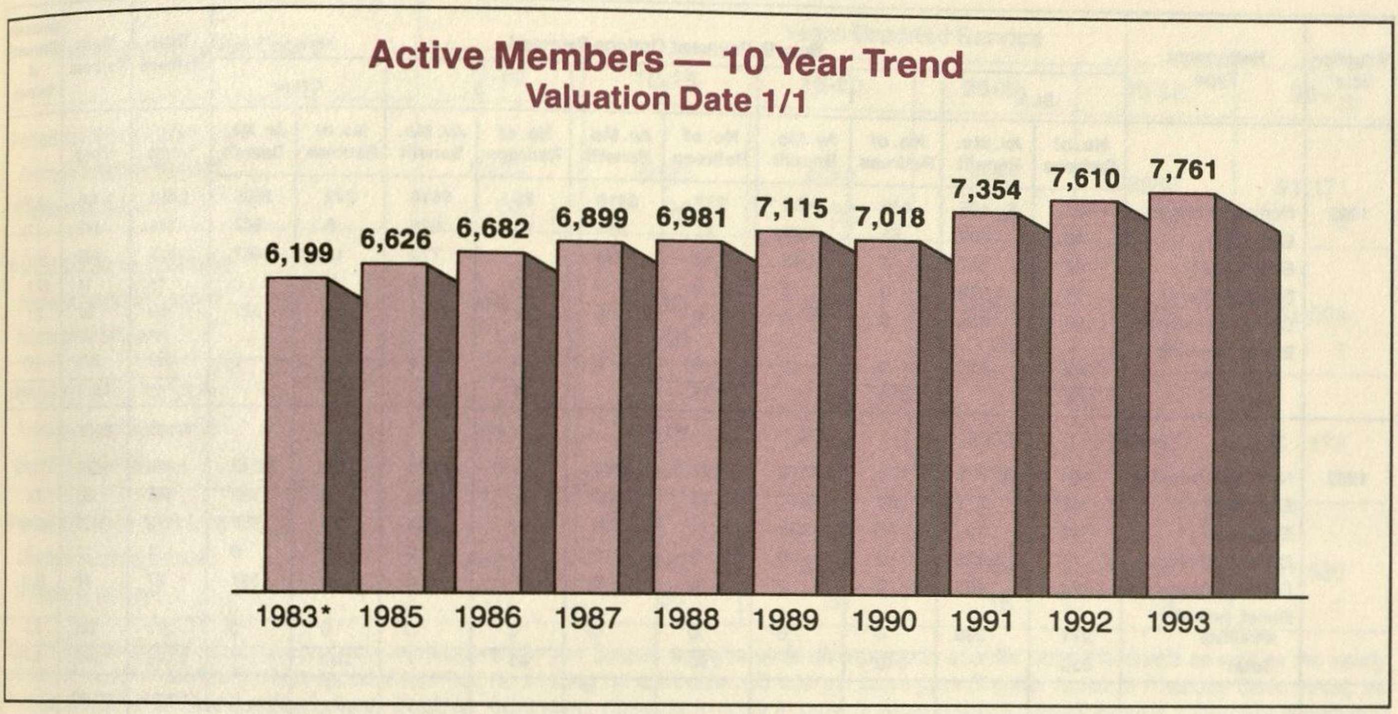
Components of Total Revenues and Expenses — 1993



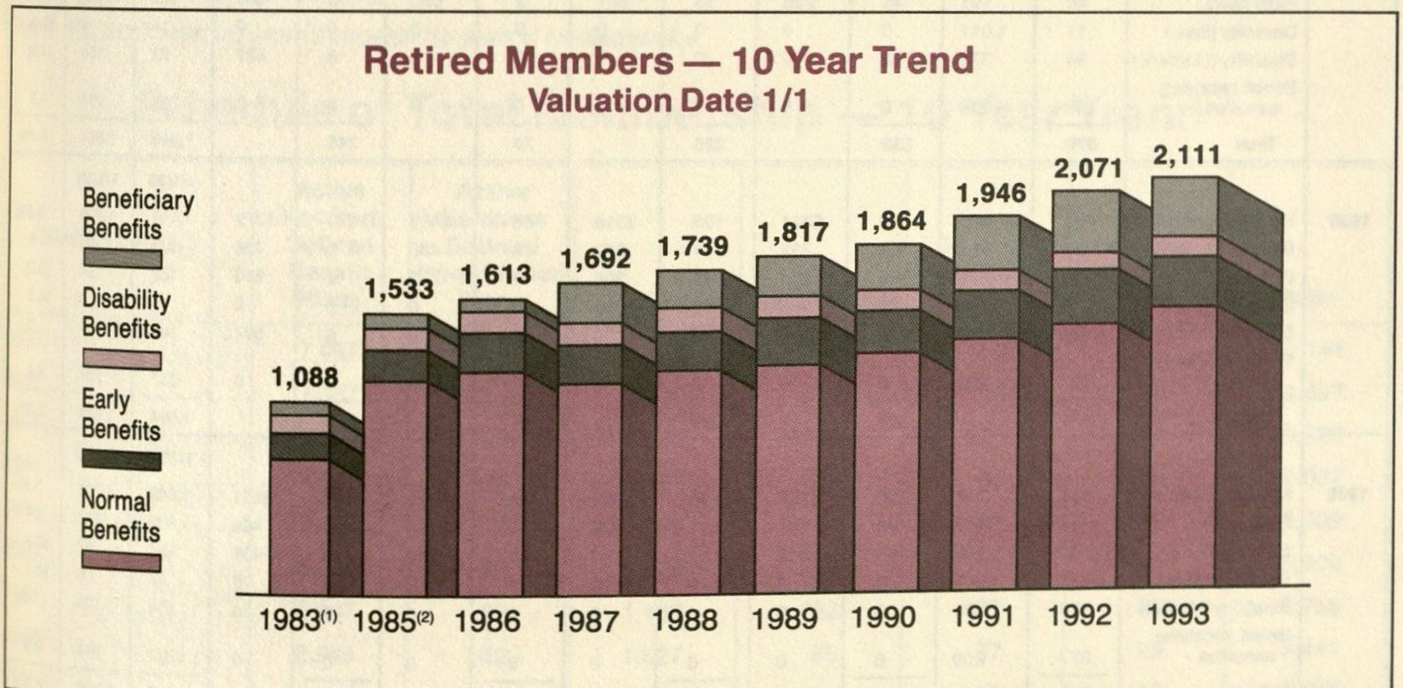
Data is from Revenues by Source and Expenses by Type, pages 29-30.


Total Assets — 10 Year Trend
(Amounts in Millions)
Market
Cost
$114.3
$115.6
$160.1
$144.3
$186.9
$177.1
$204.1
$213.8
$231.5
$231.7
$282.8
$258.0
$296.6
$282.9
$347.4
$305.3
$387.6
$349.2
$434.4
$392.4
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993

Part II — Membership



* In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.



(1) In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.

(2) Figures include costs of the System's administration which began December 1984 for the City of Harrisburg, Plan A retiree benefits. Harrisburg, Plan A had 323 pensioners in 1986 and 325 in 1985. These are listed under normal benefits. It officially joined the System in 1987; therefore, these figures are not included in the actuarial valuations.

Schedule of Average Benefit Payments by Retirement Type

Valuation Date* 1/1	Retirement Type	Benefit Payment Options Selected										Total Retirees	Total Retirees	%Increase (Decrease) of Retirees
		SLA		1		2		3		Other				
		No. of Retirees	Av. Mo. Benefit	No. of Retirees	Av. Mo. Benefit	No. of Retirees	Av. Mo. Benefit	No. of Retirees	Av. Mo. Benefit	No. of Retirees	Av. Mo. Benefit	1/1/93	1/1/92	
1993	Normal (Superann.)	463	$ 405	445	$424	237	$418	80	$516	243	$905	1,468	1,425	3.0%
	Early (Vol.)	46	400	61	329	21	361	10	628	6	887	144	145	(.7)
	Early (Invol.)	47	211	44	242	13	293	1	773	12	657	117	122	(4.1)
	Disability (Serv.)	14	1,029	0	0	0	0	0	0	0	0	14	11	27.3
	Disability (Nonserv.)	96	454	0	0	0	0	0	0	3	627	99	97	2.1
	Benef. receiving annuities	269	312	0	0	0	0	0	0	0	0	269	271	(.7)
	Total	**935**		**550**		**271**		**91**		**264**		**2,111**	**2,071**	**1.9%**
												1/1/92	1/1/91	
1992	Normal (Superann.)	462	$ 372	434	$370	221	$354	73	$483	235	$843	1,425	1,328	7.3%
	Early (Vol.)	45	371	64	314	18	309	10	620	8	780	145	135	7.4
	Early (Invol.)	48	190	48	239	11	304	2	695	13	598	122	125	(2.4)
	Disability (Serv.)	11	1,026	0	0	0	0	0	0	0	0	11	11	0
	Disability (Nonserv.)	93	403	0	0	0	0	0	0	0	624	97	99	(2.0)
	Benef. receiving annuities	271	298	0	0	0	0	0	0	0	0	271	248	9.3
	Total	**930**		**546**		**250**		**85**		**260**		**2,071**	**1,946**	**6.4%**
												1/1/91	1/1/90	
1991	Normal (Superann.)	428	$ 343	420	$334	197	$325	69	$494	214	$798	1,328	1,286	3.3%
	Early (Vol.)	41	316	63	298	15	296	8	595	8	780	135	108	25.0
	Early (Invol.)	48	191	49	228	13	301	2	695	13	585	125	123	1.6
	Disability (Serv.)	11	1,011	0	0	0	0	0	0	0	0	11	6	83.3
	Disability (Nonserv.)	94	372	0	0	0	0	0	0	5	597	99	104	(4.8)
	Benef. receiving annuities	248	289	0	0	0	0	0	0	0	0	248	237	4.6
	Total	**870**		**532**		**225**		**79**		**240**		**1,946**	**1,864**	**4.4%**
												1/1/90	1/1/89	
1990	Normal (Superann.)	403	$ 325	410	$321	193	$319	68	$463	212	$779	1,286	1,249	3.0%
	Early (Vol.)	35	288	51	236	11	249	6	480	5	468	108	103	4.8
	Early (Invol.)	45	188	49	231	12	306	2	677	15	610	123	127	(3.2)
	Disability (Serv.)	6	1,066	0	0	0	0	0	0	0	0	6	7	14.3
	Disability (Nonserv.)	99	367	0	0	0	0	0	0	5	597	104	104	0
	Benef. receiving annuities	236	289	0	0	0	0	1	369	0	0	237	227	4.4
	Total	**824**		**510**		**216**		**77**		**237**		**1,864**	**1,817**	**2.6%**
												1/1/89	1/1/88	
1989	Normal (Superann.)	334	$ 246	390	$227	194	$284	62	$373	269	$651	1,249	1,206	3.5%
	Early (Vol.)	34	247	48	191	11	409	5	402	5	496	103	113	9.7
	Early (Invol.)	47	160	51	212	12	253	1	715	16	459	127	97	30.9
	Disability (Serv.)	7	947	0	0	0	0	0	0	0	0	7	6	16.7
	Disability (Nonserv.)	104	331	0	0	0	0	0	0	0	0	104	104	0
	Benef. receiving annuities	227	260	0	0	0	0	0	0	0	0	227	214	6.6
	Total	**753**		**489**		**217**		**68**		**290**		**1,817**	**1,739**	**4.5%**

LEGEND

Benefit Payment Options:

SLA - Single Life Annuity: Continual income throughout annuitant's lifetime with no beneficiary benefit

1 - Option 1: Reduced lifetime benefit with remaining lump sum value of account to beneficiary

2 - Option 2: Joint and 100 percent survivorship annuity

3 - Option 3: Joint and 50 percent survivorship annuity

Other - Other Option: Other alternative from municipality's contractual agreement (These include spouse's pension option chosen by the municipality.)

* *Annualized data was not calculated prior to 1989.*

Schedule of Average Benefit Payments[1]

Retirement Effective Dates[2]	Years Credited Service					
	5-10	10-15	15-20	20-25	25-30	30+
Period 1/1/93 to 12/31/93						
Average monthly benefit	$933	$630	$619	$703	$956	$1,171
Number of retirees	33	34	30	30	10	6
Period 1/1/92 to 12/31/92						
Average monthly benefit	$661	$590	$623	$672	$824	$1,024
Number of retirees	34	33	34	35	28	7
Period 1/1/91 to 12/31/91						
Average monthly benefit	$687	$578	$489	$502	$946	$ 178
Number of retirees	11	35	21	24	21	1
Period 1/1/90 to 12/31/90						
Average monthly benefit	$401	$450	$379	$539	$674	$1,626
Number of retirees	17	33	28	18	23	1

[1] Due to the numerous individual pension plans administered by the System and the wide divergence in specific benefit accruals as well as the yearly crediting of excess investment monies option which has no bearing on a time/benefit accrual basis (See B under Notes to Financial Statements), an historical schedule of average benefit payments would be misleading. However, in order to provide some insight to benefit awards, a four-year schedule is presented to show the range of average benefit payments by years of credited service. This schedule will dilute some but not all of the distortions which could be caused by the granting of excess investment bonus to retired and active members. Because of over 250 different plan structures, it is not meaningful to calculate an average final salary.

[2] Prior to 1990, benefit payments were not calculated by years of credited service.

Schedule of Total Membership — 10 Year Trend

Valuation Date 1/1	Active Members Defined Benefit Plans	Active Members Defined Contribution Plans	Retirees	Beneficiaries	Deferred Pensions [1]	Inactive Members [2]	Total
1993	7,487	274	1,842	269	150	122	10,144
1992	7,337	273	1,800	271	128	88	9,897
1991	7,165	189	1,698	248	102	118	9,520
1990	6,850	168	1,627	237	95	110	9,087
1989	6,979	136	1,590	227	91	86	9,109
1988	6,887	94	1,526	213	91	91	8,902
1987	6,847	52	1,469	223	77	88	8,756
1986[3]	6,640	42	1,527	86	57	89	8,441
1985[3]	6,612	14	1,453	80	37	42	8,238
1983[4]	6,199	0	1,018	70	29	57	7,373

[1] Inactive participants with rights to deferred pension (vested)

[2] Inactive participants with rights to return of contributions (nonvested)

[3] Figures include costs of the System's administration which began December 1984 for the City of Harrisburg, Plan A retiree benefits. Harrisburg, Plan A had 323 pensioners in 1986 and 325 in 1985. It officially joined the System in 1987; therefore, these figures are not included in the actuarial valuations.

[4] In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.

(1) In 1984, the System's valuation date was changed from December 31 to January 1. Therefore, 1984 information is under 1/1/85.

(2) Figures include costs of the System's administration which began December 1984 for the City of Harrisburg, Plan A retiree benefits. Harrisburg, Plan A had 323 pensioners in 1986 and 325 in 1985. It officially joined the System in 1987; therefore, these figures are not included in the actuarial valuations.

Schedule of Participating Employers*
as of December 31, 1993

Counties

Adams
Forest
Jefferson

Cities

Allentown (Lehigh)
Bethlehem (Northampton)
Clairton (Allegheny)
Connellsville (Fayette)
DuBois (Clearfield)
Easton (Northampton)
Franklin (Venango)
Greensburg (Westmoreland)
Harrisburg, Plan A (Dauphin)
Harrisburg, Plan B (Dauphin)
Hazleton (Luzerne)
Hermitage (Mercer)
Jeannette (Westmoreland)
Lebanon (Lebanon)
Lower Burrell (Westmoreland)
New Kensington (Westmoreland)
New Kensington, Plan B (Westmoreland)
Sharon (Mercer)
Sunbury Northumberland)
Uniontown (Fayette)

Boroughs

Ashland (Schuylkill)
Bally (Berks)
Bangor (Northampton)
Bedford (Bedford)
Bellefonte (Centre)
Bellwood (Blair)
Bentleyville (Washington)
Berlin (Somerset)
Big Beaver (Beaver)
Bloomfield (Perry)
Brackenridge (Allegheny)
Bridgeville (Allegheny)
Brockway (Jefferson)
Brookville (Jefferson)
California (Washington)
Cambridge Springs (Crawford)
Camp Hill (Cumberland)
Carnegie (Allegheny)
Castle Shannon (Allegheny)
Central City (Somerset)
Charleroi (Washington)
Cheswick (Allegheny)
Clymer (Indiana)
Collegeville (Montgomery)
Collingdale (Delaware)
Conneautville (Crawford)
Conshohocken (Montgomery)
Conway (Beaver)
Coopersburg (Lehigh)
Cressona (Schuylkill)
Delmont (Westmoreland)
Doylestown (Bucks)
Duboistown (Lycoming)
Duncannon (Perry)
East Stroudsburg (Monroe)
East Washington (Washington)
Emporium (Cameron)
Etna (Allegheny)
Everett (Bedford)
Falls Creek (Jefferson)
Ferndale (Cambria)
Fountain Hill (Lehigh)
Franklin (Cambria)
Freeburg (Snyder)
Freeland (Luzerne)
Greenville (Mercer)
Hatfield (Montgomery)
Hollidaysburg (Blair)
Homer City (Indiana)
Hummelstown (Dauphin)
Huntingdon (Huntingdon)
Hyndman (Bedford)
Jim Thorpe (Carbon)
Johnsonburg (Elk)
Kenhorst (Berks)
Kittanning (Armstrong)
Kulpmont (Northumberland)
Kutztown (Berks)
Latrobe (Westmoreland)
Lehighton (Carbon)
Lewistown (Mifflin)
Lykens (Dauphin)
Marcus Hook (Delaware)
Matamoras (Pike)
Mercer (Mercer)
Meyersdale (Somerset)
Middleburg (Snyder)
Middletown (Dauphin)
Millersburg (Dauphin)
Millerstown (Perry)
Minersville (Schuylkill)
Monaca (Beaver)
Monroeville Municipality (Allegheny)
Moosic (Lackawanna)
Morrisville (Bucks)
Mount Gretna (Lebanon)
Mount Jewett (McKean)
Mount Pleasant (Westmoreland)
Mount Union (Huntingdon)
Nanty Glo (Cambria)
Narberth (Montgomery)
Nesquehoning (Carbon)
New Eagle (Washington)
New Stanton (Westmoreland)
Newport (Perry)
Norristown (Montgomery)
North East (Erie)
Northumberland (Northumberland)
Orwigsburg (Schuylkill)
Palmerton (Carbon)
Pennsburg (Montgomery)
Perkasie (Bucks)
Pine Grove (Schuylkill)
Pottstown (Montgomery)
Prospect Park (Delaware)
Richland (Lebanon)
Ridley Park (Delaware)
Roaring Spring (Blair)
Royersford (Montgomery)
Rural Valley (Armstrong)
Salisbury (Somerset)
Saxton (Bedford)
Schuylkill Haven (Schuylkill)
Selinsgrove (Snyder)
Sellersville (Bucks)

* County names are in parentheses.

Schedule of Participating Employers *(Continued)*

Boroughs (Continued)

Shamokin Dam (Snyder)
Sharpsburg (Allegheny)
Sharpsville (Mercer)
Shenandoah (Schuylkill)
Slippery Rock (Butler)
Souderton (Montgomery)
Southmont (Cambria)
Springdale (Allegheny)
Stroudsburg (Monroe)
Summit Hill (Carbon)
Tarentum (Allegheny)
Telford (Montgomery)
Topton (Berks)
Trainer (Delaware)
Turbotville (Northumberland)
Turtle Creek (Allegheny)
Verona (Allegheny)
Versailles (Allegheny)
Waynesburg (Greene)
West Conshohocken (Montgomery)
West Grove (Chester)
West Newton (Westmoreland)
Wheatland (Mercer)
White Haven (Luzerne)
Williamstown (Dauphin)
Wilmerding (Allegheny)
Wilson (Northampton)
Windsor (York)
York Springs (Adams)
Youngwood (Westmoreland)

Townships of the First Class

Butler (Butler)
Caln (Chester)
Collier (Allegheny)
Crescent (Allegheny)
East Deer (Allegheny)
Elizabeth (Allegheny)
Hanover (Luzerne)
Harrison (Allegheny)
Hopewell (Beaver)
Leet (Allegheny)
North Huntingdon (Westmoreland)
North Versailles (Allegheny)
Ridley (Delaware)
Rochester (Beaver)
Salisbury (Lehigh)
Springdale (Allegheny)
Swatara (Dauphin)
Upper Moreland (Montgomery)
Whitehall (Lehigh)
Wilkins (Allegheny)
York (York)

Townships of the Second Class

Allegheny (Westmoreland)
Antrim (Franklin)
Bald Eagle (Clinton)
Bedminster (Bucks)
Bell (Westmoreland)
Black Creek (Luzerne)
Bloomfield (Crawford)
Brecknock (Lancaster)
Brighton (Beaver)
Brown (Mifflin)
Buckingham (Bucks)
Burrell (Indiana)
Caernarvon (Lancaster)
Cambria (Cambria)
Center (Greene)
Center (Indiana)
Concord (Delaware)
Corydon (McKean)
Derry (Westmoreland)
Donegal (Westmoreland)
Douglass (Montgomery)
East Allen (Northampton)
East Coventry (Chester)
East Fallowfield (Chester)
East Hanover (Dauphin)
East Huntingdon (Westmoreland)
East Manchester (York)
East Marlborough (Chester)
Elk Creek (Erie)
Fairview (Erie)
Farmington (Clarion)
Forks (Northampton)
Forward (Allegheny)
Franklin (Carbon)
Franklin (Greene)
Glade (Warren)
Greene (Beaver)
Greenfield (Blair)
Greenfield (Erie)
Hamilton (Monroe)
Hemlock (Columbia)
Hilltown (Bucks)
Hopewell (Cumberland)
Horsham (Montgomery)
Huntington (Luzerne)
Jackson (Lebanon)
Jenner (Somerset)
Keating (McKean)
Kennett (Chester)
Lancaster (Lancaster)
Leboeuf (Erie)
Lehman (Philadelphia)
Liberty (McKean)
Mahoning (Montour)
Manchester (York)
Mead (Warren)
Middlesex (Cumberland)
Milford (Bucks)
Millcreek (Lebanon)
Monongahela (Greene)
Mount Pleasant (Westmoreland)
New Garden (Chester)
North Coventry (Chester)
North Strabane (Washington)
Nottingham (Washington)
Ohio (Allegheny)
Oil Creek (Crawford)
Old Lycoming (Lycoming)
Paradise (Monroe)
Pennsbury (Chester)
Pike (Berks)
Pine Grove (Schuylkill)
Pleasant (Warren)
Plum Creek (Armstrong)
Plumstead (Bucks)
Point (Northumberland)
Pymatuning (Mercer)
Raccoon (Beaver)
Ridgway (Elk)
Sewickley (Westmoreland)
South Abington (Lackawanna)
South Huntingdon (Westmoreland)
Tinicum (Bucks)
Tredyffrin (Chester)
Unity (Westmoreland)
Warwick (Lancaster)
Washington (Berks)

Schedule of Participating Employers *(Continued)*

Townships of the Second Class (Continued)

Washington (Dauphin)
West Bradford (Chester)
West Caln (Chester)
West Carroll (Cambria)
West Rockhill (Bucks)
Whiteley (Greene)
Wiconisco (Dauphin)
Windsor (York)
Wright (Luzerne)

Authorities and Other Units

Allegheny Valley Joint Sewer Authority (Allegheny)
Ambridge Borough Municipal Authority (Beaver)
Avonmore Borough Municipal Authority (Westmoreland)
BARTA (Berks)
Bedford Borough Water Authority (Bedford)
Bedford Municipal Authority (Bedford)
Bensalem Township Authority (Bucks)
Bethlehem Authority (Northampton)
Bethlehem City Redevelopment Authority (Northampton)
Bloomfield Township Sewer Authority (Crawford)
Bradford City Water Authority (McKean)
Bradford Regional Airport Authority (McKean)
Brighton Township Municipal Authority (Beaver)
Brighton Township Sewer Authority (Beaver)
Bristol Township Authority (Bucks)
Brockway Borough Municipal Authority (Jefferson)
Bucks County Water & Sewer Authority (Bucks)
Bucks County Redevelopment Authority (Bucks)
Butler Area Public Library (Butler)
Cambria Township Sewer Authority (Cambria)
Cambria Township Water Authority (Cambria)
Carbon County Conservation District (Carbon)
Carlisle Suburban Authority (Cumberland)
Carmichaels-Cumberland Joint Sewer Authority (Greene)
Carroll Township Authority (Washington)
Carroll Valley Borough Municipal Employees (Adams)
Centerville Borough Sanitary Authority (Washington)
Centre County Library & Historical Museum (Centre)
Columbia County Conservation District (Columbia)
Conneaut Lake Borough Municipal Authority (Crawford)
Connellsville Municipal Authority (Fayette)
Conshohocken Borough Authority (Montgomery)
Coplay-Whitehall Sewer Authority (Lehigh)
Crescent South Heights Municipal Authority (Allegheny)
Creswell Heights Joint Authority (Beaver)
Derry Township Municipal (Westmoreland)
DuBois City Redevelopment Authority (Clearfield)
East Norriton-Plymouth Joint Sewer Authority (Montgomery)
Easton Area Joint Sewer Authority (Northampton)
Elizabeth Borough Municipal Authority (Allegheny)
Erie County Housing Authority (Erie)
Falls Township Authority (Bucks)
Fawn-Frazer Joint Water Authority (Allegheny)
Findlay Township Water Authority (Allegheny)
Forward Township Municipal Authority (Allegheny)
Franklin City Housing Authority (Venango)
Franklin Township Sewer Authority (Greene)
Freeland Borough Municipal Authority (Luzerne)
Greater Lebanon Refuse Authority (Lebanon)
Guilford Township Authority (Franklin)
Guilford Water Authority (Franklin)
Harrison Township Water Authority (Allegheny)
Hazleton Transit Authority (Luzerne)
Hellertown Borough Authority (Northampton)
Horsham Township Sewer Authority (Montgomery)
Jeannette Municipal Authority (Westmoreland)
Johnsonburg Municipal Authority (Elk)
Juniata County Conservation District (Juniata)
Kiskiminetas Township Municipal Authority (Armstrong)
Kulpmont-Marion Heights Joint Municipal Authority (Northumberland)
Lancaster City Parking Authority (Lancaster)
Lansford Coaldale Joint Water Authority (Carbon)
Lebanon Community Library (Lebanon)
Leetsdale Borough Municipal Authority (Allegheny)
Lehigh County Authority (Lehigh)
Lehighton Water Authority (Carbon)
Lower Bucks County Joint Municipal Authority (Bucks)
Lower Bucks County Joint Municipal Authority Supervisors (Bucks)
Lykens Borough Authority (Dauphin)
Mahanoy Township Authority (Schuylkill)
Manor Township Joint Municipal Authority (Armstrong)
Mary Meuser Memorial Library (Monroe)
Matamoras Borough Municipal Authority (Pike)
McKean County Solid Waste Authority (McKean)
Mercer County Regional Planning Commission (Mercer)
Mid Mon Valley Water Authority (Washington)
Mifflintown Municipal Authority (Juniata)
Millersburg Area Authority (Dauphin)
Mon Valley Sewer Authority (Washington)
Monroe County Control Center (Monroe)
Montgomery County Sewer Authority (Montgomery)
Montour County Conservation District (Montour)
Moon Township Municipal Authority (Allegheny)
Morrisville Borough Municipal Authority (Bucks)
Mount Jewett Borough Authority (McKean)
Mount Lebanon Parking Authority (Allegheny)

Schedule of Participating Employers *(Continued)*

Authorities and Other Units (Continued)

Myerstown Borough Water Authority (Lebanon)
Myerstown Community Library (Lebanon)
Nanty Glo Water Authority (Cambria)
Nesquehoning Borough Authority (Carbon)
New Kensington Municipal Sanitary Authority (Westmoreland)
Newport Borough Water Authority (Perry)
North & South Shenango Joint Municipal Authority (Crawford)
North Coventry Municipal Authority (Chester)
North Huntingdon Township Municipal Authority (Westmoreland)
North Strabane Township Municipal Authority (Washington)
Northern Lancaster County Authority (Lancaster)
Oil City Housing Authority (Venango)
PA League of Cities (Dauphin)
Parks Township Municipal Authority (Armstrong)
Pennridge Waste Treatment Authority (Bucks)
Perkasie Borough Authority (Bucks)
Peters Creek Sanitary Authority (Washington)
Portage Area Sewer Authority (Cambria)
Portage Borough Municipal Authority (Cambria)
Robesonia-Wernersville Municipal Authority (Berks)
Robinson Township Municipal Authority (Allegheny)
Rochester Area Joint Sewer Authority (Beaver)
Rostraver Township Sewer Authority (Westmoreland)
St. Marys Area Joint Water Authority (Elk)
Selinsgrove Municipal Authority (Snyder)
Shamokin City Redevelopment Authority (Northumberland)
Sheffield Township Municipal Authority (Warren)
Slippery Rock Municipal Authority (Butler)
South Fayette Township Municipal Authority (Allegheny)
Southwestern PA Water Authority (Greene)
Susquehanna Township Authority (Dauphin)
Tower City Borough Authority (Schuylkill)
Tri-County Joint Municipal Authority (Washington)
Upper Allegheny Joint Sanitation Authority (Allegheny)
Upper Montgomery Joint Authority (Montgomery)
Upper Southampton Municipal Authority (Bucks)
Upper Southampton Sewer Authority (Bucks)
Vanport Township Municipal Authority (Beaver)
Warren County Housing Authority (Warren)
Warren County Solid Waste Authority (Warren)
Warrington Township Municipal Authority (Bucks)
Warwick Township Municipal Authority (Lancaster)
Washington Township Municipal Authority (Fayette)
Waterford Borough Municipal Authority (Erie)
Wayne County Redevelopment Authority (Wayne)
Wernersville Municipal Authority (Berks)
West Mead Township Authority (Crawford)
Western Butler County Authority (Butler)
Western Clinton County Municipal Authority (Clinton)
Western Westmoreland Municipal Authority (Westmoreland)
Westmoreland-Fayette Municipal Sewer Authority (Westmoreland)
White Haven Municipal Authority (Luzerne)
White Run Regional Municipal Authority (Adams)
Whitehall Township Authority (Lehigh)
Williamstown Borough Authority (Dauphin)
Womelsdorf-Robesonia Joint Authority (Berks)
York County Planning Commission (York)

Police

Ashley Borough (Luzerne)
Bally Borough (Berks)
Barrett Township (Monroe)
Bedminster Township (Bucks)
Bellwood Borough (Blair)
Bensalem Township (Bucks)
Bentleyville Borough (Washington)
Birmingham Township (Chester)
Blair Township (Blair)
Brockway Borough (Jefferson)
Buckingham Township (Bucks)
Caernarvon Township (Lancaster)
Cambria Township (Cambria)
Cambridge Springs Borough (Crawford)
Camp Hill Borough (Cumberland)
Carroll Valley Borough (Adams)
Central City Borough (Somerset)
Clairton City (Allegheny)
Colebrookdale Township (Berks)
Conneaut Lake (Crawford)
Coopersburg Borough (Lehigh)
Crescent Township (Allegheny)
Danville Borough (Montour)
Delmont Borough (Westmoreland)
Douglass Township (Berks)
Douglass Township (Montgomery)
Dravosburg Borough (Allegheny)
Dublin Borough (Bucks)
Duboistown Borough (Lycoming)
Dunbar Borough (Fayette)
Duncannon Borough (Perry)
East Bangor Borough (Northampton)
East Coventry Township (Chester)
East Deer Township (Allegheny)
East Earl Township (Lancaster)
East Fallowfield Township (Chester)
East Pennsboro Township (Cumberland)
East Washington Borough (Washington)
Easton City (Northampton)
Elizabeth Township (Allegheny)
Everett Borough (Bedford)
Factoryville Borough (Wyoming)
Fairview Borough (Erie)
Falls Creek Borough (Jefferson)
Forward Township (Allegheny)

Schedule of Participating Employers *(Continued)*

Police (Continued)

Franklin Borough (Cambria)
Freedom-Greenfield Township (Blair)
Gilpin Township (Armstrong)
Greenville Borough (Mercer)
Harrisburg, Plan A (Dauphin)
Harrisburg, Plan B (Dauphin)
Harveys Lake Borough (Luzerne)
Hemlock Township (Columbia)
Hilltown Township (Bucks)
Hummelstown Borough (Dauphin)
Hyndman Borough (Bedford)
Independence Township (Beaver)
Jenner Township (Somerset)
Larksville Borough (Luzerne)
Leet Township (Allegheny)
Locust Township (Columbia)
Lower Windsor Township (York)
Lower Yoder Township (Cambria)
Lykens Borough (Dauphin)
Mahoning Township (Montour)
Manor Borough (Westmoreland)
Marcus Hook Borough (Delaware)
Mercer Borough (Mercer)
Middleburg Borough (Snyder)
Middlesex Township (Cumberland)
Millersburg Borough (Dauphin)
Montour Township (Columbia)
Moore Township (Northampton)
Moosic Borough (Lackawanna)
Morrisville Borough (Bucks)
Moscow Borough (Lackawanna)
Mount Jewett Borough (McKean)
Mount Pleasant Borough (Westmoreland)
Mount Union Borough (Huntingdon)
New Garden Township (Chester)
New Wilmington Borough (Lawrence)
Newport Borough (Perry)
North Coventry Township (Chester)
North Huntingdon Township (Westmoreland)
North Middleton Township (Cumberland)
Northeastern Berks Regional (Berks)
Northeastern Regional (York)
Northern York County Regional Non-uniformed (York)
Northumberland Borough (Northumberland)
Ohio Township (Allegheny)
Old Lycoming Township (Lycoming)
Orangeville Borough (Columbia)
Orwigsburg Borough (Schuylkill)
Paxtang Borough (Dauphin)
Penbrook Borough (Dauphin)
Pennridge Regional (Bucks)
Pennridge Regional Non-uniformed (Bucks)
Perkasie Borough (Bucks)
Pine Grove Borough (Schuylkill)
Plumstead Township (Bucks)
Point Township (Northumberland)
Pulaski Township (Lawrence)
Pymatuning Township (Mercer)
Red Lion (York)
Richland Borough (Lebanon)
Roaring Spring Borough (Blair)
Rochester Township (Beaver)
Rye Township (Perry)
Saxton Borough (Bedford)
Schuylkill Township (Schuylkill)
Schwenksville Borough (Montgomery)
Scottdale Borough (Westmoreland)
Selinsgrove Borough (Snyder)
Sellersville Borough (Bucks)
Shade Township (Somerset)
Shamokin Dam Borough (Snyder)
Shippingport Borough (Beaver)
Shiremanstown Borough (Cumberland)
South Waverly Borough (Bradford)
Summit Hill Borough (Carbon)
Telford Borough (Montgomery)
Tinicum Township (Bucks)
Topton Borough (Berks)
Trainer Borough (Delaware)
Tunkhannock Township (Wyoming)
Upper Uwchlan Township (Chester)
Versailles Borough (Allegheny)
West Conshohocken Borough (Montgomery)
West Grove Borough (Chester)
West Lampeter Township (Lancaster)
West Middlesex Borough (Mercer)
West Pottsgrove Township (Montgomery)
White Haven Borough (Luzerne)
Williamstown Borough (Dauphin)
Windsor Borough (York)
Windsor Township (York)
Wormleysburg Borough (Cumberland)
Youngwood Borough (Westmoreland)

Firefighters

Clairton City (Allegheny)
Easton City (Northampton)
Greenville Borough (Mercer)
Harrisburg, Plan A (Dauphin)
Harrisburg, Plan B (Dauphin)
Larksville Borough (Luzerne)
Manchester Township (York)
Upper Moreland Township (Montgomery)
Wilson Borough (Northampton)

INVESTMENT SECTION

- **Investment Performance**
  Portfolio Distribution

- **Asset Allocation**

- **Investment Summary**
  Portfolio Summary
  Portfolio Quality
  Portfolio Rates of Return
  Ten Largest Common Stock Holdings
  Summary of Commissions and Payments to Investment Advisors and Consultants
  Brokers

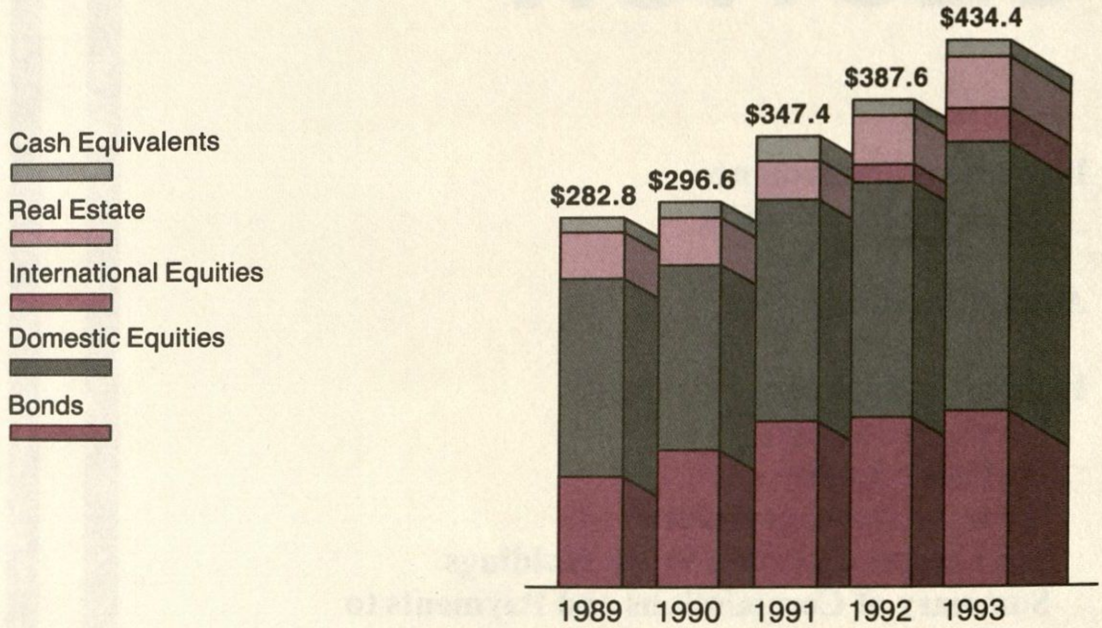
- **Investment Guidelines**

Investment Performance

On December 31, 1993, the System's investment assets were valued at $434,441,140, an increase in value of $46,865,920 over the December 31, 1992 valuation of $387,575,220.

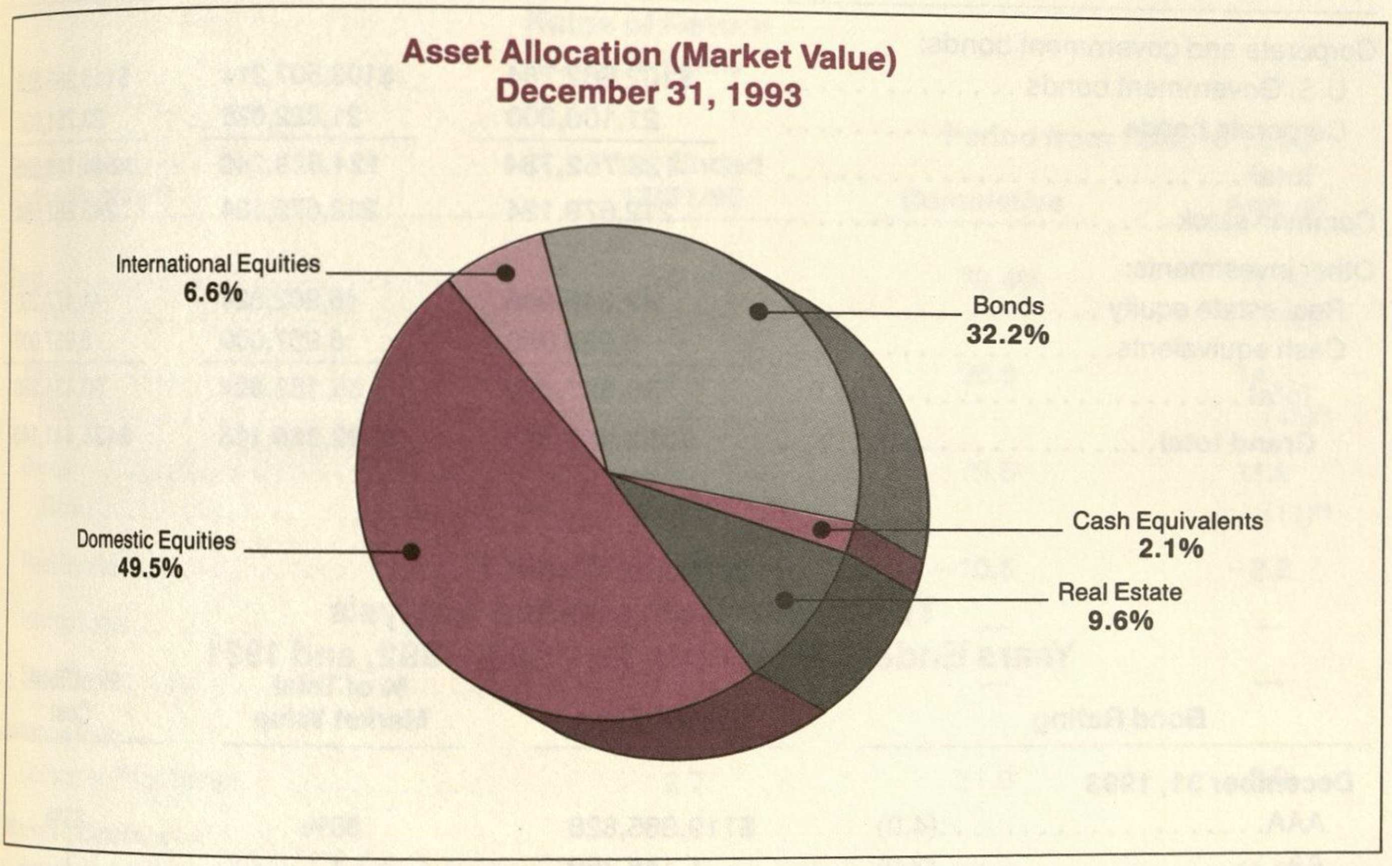
During the last five years, the System has grown from $282.8 million to $434.4 million. Net contributions added $31.6 million, and net investment returns added $120.0 million. The following graph shows the System's five year trend of investment assets at market value.

Portfolio Distribution — 5 Year Trend (Market Value — Amounts in Millions)



Asset Allocation

The System's asset allocation as of December 31, 1993 was $215.1 million committed to domestic equities, $28.7 million to international equities, $140.1 million to bonds, $41.5 million to real estate, and $9.0 million to cash equivalents. The percentage distribution is illustrated below.



The time-weighted rate of return for the System's investments during the fiscal year ended December 31, 1993 was 13.4 percent with a ranking in the 27th percentile of all balanced funds as measured by the CDA universe. This performance level was 2.3 percent above the median balanced fund's return of 11.1percent. The cumulative five year return for December 1988 through December 1993 of 70.4 percent (11.1 percent per year) ranked in the 72nd percentile.

For the year ended December 31, 1993, equities gained 12.7 percent. That return ranked above the median in the 46th percentile and 2.6 percent higher than the Standard and Poor's return of 10.1 percent. For the last five years, the System's stock return of 96.3 percent (14.4 percent per year) ranked in the 45th percentile, 0.2 percent per year below the S&P 500 for the same period.

Bonds returned 12.4 percent, ranking in the 23rd percentile, 2.6 percent above the Lehman Aggregate bond index. For the five year period, the cumulative return of 75.1 percent (11.9 percent per year) ranked well above the median in the 13th percentile, 0.6 percent per year above the market index for the same period.

The real estate segment of the portfolio had a negative 2.2 percent rate of return for the fiscal year, and for the last five years negative 10.5 percent or negative 2.2 percent per annum.

Investment Summary

Portfolio Summary
As of December 31, 1993

Type of Investment	Par Value	Book Value	Market Value
Corporate and government bonds:			
U.S. Government bonds	$102,662,784	$103,507,214	$116,383,328
Corporate bonds	21,100,000	21,022,026	23,761,968
Total	**123,762,784**	**124,529,240**	**140,145,296**
Common stock	212,679,124	212,679,124	243,861,584
Other investments:			
Real estate equity	47,940,946	46,202,824	41,477,260
Cash equivalents	8,957,000	8,957,000	8,957,000
Total	**56,897,946**	**55,159,824**	**50,434,260**
Grand total	**$393,339,854**	**$392,368,188**	**$434,441,140**

Portfolio Quality
Three-Year Comparative Analysis
Years Ended December 31, 1993, 1992, and 1991

Bond Rating	Market Value	% of Total Market Value	% of Total Cost
December 31, 1993			
AAA (4.0)	$119,885,828	85%	85%
AA (3.0)	1,148,760	1	1
A1 (2.5)	18,032,928	13	13
A (2.0)	1,077,780	1	1
Total bonds	**$140,145,296**	**100%**	**100%**
December 31, 1992			
AAA (4.0)	$106,206,576	85%	84%
AA (3.0)	1,872,677	1	2
A1 (2.5)	16,334,937	13	14
A (2.0)	1,030,890	1	0
Total bonds	**$125,445,080**	**100%**	**100%**
December 31, 1991			
AAA (4.0)	$ 96,299,506	78%	77%
AA (3.0)	6,745,879	5	5
A1 (2.5)	17,011,000	14	14
A (2.0)	3,982,799	3	4
Total bonds	**$124,039,184**	**100%**	**100%**

Investment Summary *(Continued)*

Portfolio Rates of Return[1]

The following table compares rates of return for the System's total investment portfolio with standard indexes. The System's returns have been competitive with other professionally managed funds.

Rates of Return Last 5 Years

Rates of Return — (Dollar-Weighted)	Year Ended 12/31/93	Period from 12/88 to 12/93 Cumulative	Period from 12/88 to 12/93 Annual
Total	13.4%	70.4%	11.2%
(Rank)	(27)		(72)[2]
Equities	12.6	96.6	14.5
(Rank)	(46)		(45)[3]
Bonds	12.4	75.5	11.9
(Rank)	(23)		(11)[4]
Real Estate	−2.2	−10.5	−2.2
International	46.7	—	—
Small Cap	22.4	—	—
Inflation Rate —			
Consumer Price Index	2.7	21.0	3.9
Market Indicators —			
Standard and Poor's 500	10.1	97.5	14.6
Russell 2,000	18.9	92.8	14.0
Lehman Aggregate Bond Index	9.8	71.0	11.3
EAFE (international)	32.9	12.2	2.3
90-Day Treasury Bills	2.8	33.3	5.9
Dow Jones Industrial Average	17.0	104.6	15.4
CDA Universe[5] Median Rate of Return — (Time-Weighted)	11.1	79.1	12.2

[1] Rate of return is a mathematical measure of the rate of change in the asset value of a fund. All rates of return are based on the market value of the assets. Rates of return reflect both realized and unrealized capital gains and losses as well as total earnings from interest and dividends received.
[2] Ranked against balanced funds
[3] Ranked against equity oriented funds
[4] Ranked against fixed income oriented funds
[5] The CDA universe contains the returns of over 1,516 portfolios with an aggregate asset value in excess of $842 billion. This universe provides as accurate a standard for evaluating a manager's performance as any available through any service in the country.

Investment Summary *(Continued)*

Ten Largest Common Stock Holdings (by Market Value) As of December 31, 1993

Stock	Shares	Market Value	% of Stock Portfolio
American Home Products Corp	53,600	$3,470,600	1.42%
General Electric Co	31,200	3,272,100	1.34
American Express Co	105,500	3,257,313	1.33
Exxon Corp	48,700	3,074,188	1.26
Eastman Kodak Co	49,000	2,756,250	1.13
Atlantic Richfield Co	25,300	2,662,825	1.09
Royal Dutch Petroleum Co NY Registry Sh Par	23,700	2,473,688	1.01
Hanson PLC Sponsored ADR	122,300	2,446,000	1.00
Nynex Corp	59,200	2,375,400	.97
Goodyear Tire & Rubber Co	51,200	2,342,400	.96

Summary of Commissions and Payments to Investment Advisors and Consultants Comparative Two-Year Schedule Years Ended December 31, 1993 and 1992

Firm Name	Fees and Commissions Paid (Accrued) 1993	1992
Bond, Procope Capital Management	$ 39,901	$ 35,283
Chase Investment Counsel Corp	220,576	183,178
Connecticut General Life Insurance Co (CIGNA)	101,309	93,094
Dahab Associates, Inc	33,250	32,000
Ernst & Young	20,000	20,000
First Fidelity Bank	272,411	249,796
Newbold's Asset Management, Inc	229,728	228,163
Prudential Asset Management Co, Inc (PRISA)	20,029	17,770
The Putnam Companies, Inc	256,933	207,490
The Segal Company	201,481	158,130
State Street Global Advisors	94,092	55,192
Treasury Dept — Security Movement & Control Program	9,735	10,759
Total	**$1,499,445**	**$1,290,855**

Investment Summary *(Continued)*

Summary of Commissions Paid to Brokers*
Comparative Two-Year Schedule
Years Ended December 31, 1993 and 1992

Broker Name	Commissions Paid (Cash Basis) 1993	1992
Adams Cohen Secs	$ 980	$ 0
Adams Harkness & Hill Inc	1,960	1,890
Adler Coleman & Co Inc.	0	78
Advest Inc	0	56
Alex Brown & Sons Inc.	3,186	2,030
Autranet	320	0
Baird Robert W & Co Inc	588	161
Bear Stearns & Co	1,253	2,715
Blair William & Co	502	1,077
Bernstein Sanford C & Co Inc	0	10
Blunt Ellis & Loewi	903	126
Bradford J C & Co	1,050	0
Bridge Trading	1,008	0
Brimberg & Co	0	515
Broadcort Capital Corp	2,011	10,777
Cantor Fitzgerald & Co Inc	305	1,292
Capital Institutional Servs Inc	308	0
Cleary Gull & Reiland	231	847
Correspondent Services Corp	3,661	1,253
County Natwest Sec Corp USA	390	0
Cowen & Co.	210	315
CS First Boston Corp	6,378	0
Dain Bosworth Inc	175	0
Davis Mendel & Regenstein Inc.	475	0
Dean Witter Reynolds Inc	1,561	602
Direct Access Brokerage Svc Corp	1,050	21
Donaldson Lufkin & Jenrette Inc.	371	1,264
Duggan & Co Investment Securities	0	560
Edwards A G & Sons Inc	2,220	42
Eppler Guerin and Turner Inc.	180	0
Ewing Capital Inc.	25,662	11,355
Factset Data Systems Inc	1,266	0
Fahnestock & Co Inc	315	352
Financial Network Investment	0	56
First Albany Corp	1,120	0
First Boston Corp.	0	2,568
Fox-Pitt Kelton Inc	140	0
Gerard Klauer Mattison & Co.	1,008	140
Goldman Sachs & Co.	9,562	2,238
Gordon Haskett	1,717	1,680
Hambrecht & Quist	1,140	534
Herzog Heine Geduld Inc	0	350
Instinet Inc	2,732	522
Interstate/Johnson Lane Corp	3,102	3,853
Investment Performance Svc.	1,359	0
ISI Group Inc	1,067	1,770
Jefferies & Co.	11,129	7,961
Jones & Assoc Calf	10	0
Jones Edward D & Co	0	820
Josephthal Lyon & Ross	1,850	0
Kankaku Securities Inc	0	273
Kemper Capital Markets	0	756

* *Summary of Commissions is continued on the next page.*

Investment Summary *(Continued)*

Summary of Commissions Paid to Brokers (Continued)
Comparative Two-Year Schedule
Years Ended December 31, 1993 and 1992

Broker Name	Commissions Paid (Cash Basis) 1993	1992
Kemper Clearing Corp	0	245
Kemper Secs Group	686	0
Kidder Peabody & Co Inc	2,600	2,330
Legg Mason Wood Walker Inc	0	616
Lehman Brothers Inc	1,498	0
Lewco Securities Corp	0	42
Lynch Jones & Ryan	29,311	10,582
Merrill Lynch Pierce Fenner & Smith	7,859	3,549
Mesirow & Co	0	112
Moness Crespi	2,109	724
Montgomery Securities	467	2,467
Moors & Cabot Inc	0	112
Morgan J P Securities Corp	1,242	0
Morgan Keegan & Company Inc	448	0
Morgan Stanley & Co Inc	6,318	2,560
National Financial Services Corp	210	231
Neuberger & Berman	21,547	23,163
Newbridge Securities Inc	1,388	210
Oppenheimer & Co Inc	6,187	2,706
Pacific Crest	0	714
Paine Webber Jackson & Curtis	4,146	3,460
Paine Webber Mitchell Hutchins Inc	0	1,555
Pershing Div of DLJ	4,358	3,850
Piper Jaffray & Hopwood Inc	105	350
Private Ledger of Linsco Financial Serv	798	1,428
Prudential Securities Inc	2,069	742
Raymond James & Associates Inc	0	140
Regional Clearing Corp	266	0
Repex & Co	126	0
Robertson Stephens & Co	630	630
Robinson-Humphrey Co Inc	1,125	1,850
Rochdale Securities Corp	0	330
Salomon Brothers Inc	8,565	3,316
Sanford C Bernstein & Co	1,052	1,860
S E I Financial Services Co	910	0
S E I Funds Evaluation	238	0
Shearson Lehman Hutton Inc	0	2,874
Smith Barney Harris Upham	4,690	2,278
Smith Barney/Shearson Inc	18,124	0
Standard & Poors Securities	700	3,588
State Street Bank & Trust	42	0
Stephens Inc	0	126
Tucker Anthony & R L Day Inc	785	322
W & D Securities Inc	0	42
Warburg (SG) & Company Inc	738	0
Weeden & Co	26,837	21,396
Wessels Arnold & Henderson	105	0
Wheat First Securities Inc	0	841
Wood Gundy Corp	77	0
Yaeger Securities	420	0
Total Brokerage Commissions Paid	**$253,231**	**$162,200**

Investment Guidelines

Introduction

The following represents highlights from the Board's investment guidelines revised on November 18, 1993. These guidelines, which set forth the Board's expectations, restrictions, and policy decisions, were developed to assist the System's staff and consultants in the day-to-day management of the System's assets.

Background

The System is currently experiencing a positive cash flow and expects no change in this posture for the foreseeable future. The System assumes that all benefit payouts can be made from incoming revenue as opposed to any depletion of invested assets.

Philosophy

The Board considers itself a conservative fiduciary, placing greatest emphasis on quality of investments and consistency in return. Despite this conservative posture, the Board still believes that the five-year rate of return on investments should exceed the recognized market indices for the various asset vehicles.

Objective

The Board's investment objective is to benefit our member municipalities by adding value to their assets. Recognizing that inflation can erode value, the Board's goal is to have the fund earn at least 2 percent more annually than the average annual inflation rate over a long period of time. While this is the System-wide goal, individual investment advisors' performance measurements rely on other characteristics which are specifically spelled out in the individual investment guidelines for the investment advisor.

Portfolio Construction

Short term considerations — It is the Board's desire to remain as fully invested as possible. Therefore, any advisor in a cash or cash equivalent position must either invest in vehicles authorized by the System or utilize the System's depository relationship with the State Treasurer who will in turn invest all cash on a daily basis. No management fee will be paid by the System for any portion of a manager's average assets in excess of 5 percent remaining in cash equivalents at Treasury after end of any given quarter.

Fixed income considerations — The Board seeks to bring income and stability to the overall portfolio through fixed income vehicles. The bond portfolio must be invested in quality vehicles, and it is expected to be diversified from a geographic and industrial standpoint. No single holding of an investment advisor other than a U.S. government bond is to account for more than 5 percent of the market value of an investment advisor's bond portfolio. The System shall not hold as assets more than 10 percent of any one bond issue nor more than 5 percent of the bonds of any one issuing agent. Corporate bonds of any given industry are not to account for more than 25 percent of the market value of the bond portfolio.

Equity investment policy — The System's equity portfolio reflects the Board's desire to include growth through market appreciation. The Board requires an equity portfolio with diversification, quality issuance, growth potential, and underlying value. No single equity holding may account for more than 7.5 percent of the market value of the System's equity portfolio, nor are the securities of any single industry to account for more than 20 percent of the value of an individual manager's portfolio. No more than 1 percent of the capitalization of any company is to be held by the System. The cumulative holdings of a manager for all of that manager's clients shall account for no more than 5 percent of the outstanding voting common stock of the corporation.

Guidelines *(Continued)*

te policy — The Board believes that diversification in investment vehicles should enhance the potential
vestments without significantly altering the risk of the portfolio. Real estate vehicles shall be commingled
volve equity participation with consideration given to types of properties and geographic location. The
process and specific limitations shall be detailed in individual real estate advisor's contracts.

d Transactions

rd prohibits (1) purchasing commodities, mineral rights, and warrants except those previously
(2) short selling and the purchasing of securities on margin, and (3) selling or buying options on either
e or equity instruments.

and Operation

em utilizes Provident National Bank as a master custodian and the Pennsylvania State Treasurer as the
Provident National Bank is authorized to engage in security lending. It is not expected that this operation
impact on the discretion of the investment advisors.

nt advisors are directed to execute orders on the best net price basis, utilizing a universe of brokers that
e organizations whose research input is considered important to the achievement of a favorable
result. Transactional costs and the rate of turnover will be monitored. The Board's expectation is that the
on rule will be observed by all advisors.

rd may enter into an agreement with certain brokerage houses in order to participate in a recapture
ereby a designated percentage of the System's trades handled by these brokerage firms will be returned
e System and be treated as new income for the benefit of the membership. Active equity managers of the
medium and large capitalized companies will be informed of such agreements and have been asked when
ict with the best execution rule to attempt to place 50 percent of their trades with the designated firms.

d assumes full responsibility for exercising the voting privilege contained in proxy solicitations and has
ecific guidelines for staff guidance. These guidelines as adopted and hereafter amended shall be an
t of the System's investment guidelines.

cations

d expects an open and constant line of communication between the System's staff and investment
eports required of investment advisors to the Board and staff include a timely confirmation of all
, a monthly summary of transactions, and a quarterly statement of asset values at cost and market, any
of contemplated major shifts in investment strategy or manager style before implementation, and an
of major changes in organization or the personnel associated with the System's account. In addition to
rts, the investment advisors are obligated to make periodic personal appearances before the Board as
spelled out in the investment advisor's contract.

nt advisors' fees will be paid in hard dollars. The cost for each investment advisor will be based on the
e of the firm's assets in the System's portfolio at the end of each quarter.

g

m will monitor the performance of its investment advisors through direct involvement of the Board, the
ff, and any consultant hired for this purpose by the Board.

DATE DUE

GAYLORD			PRINTED IN U.S.A.