Pennsylvania Municipal Retirement System

Comprehensive Annual Financial Report
For the fiscal year ended December 31, 1992

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 Writer

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
4TH FLOOR CITY TOWERS, 301 CHESTNUT STREET
HARRISBURG, PENNSYLVANIA 17108-1165

717-787-2065 – 800-622-7968

May 19, 1993

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

It is with a sincere 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, 1992. 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 sharing one of the most complete reports ever prepared for the System. 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 Act 15, 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, 1992 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 plans have both a municipal contribution and an employee contribution or merely an employer charge. Municipal contributions typically range from 4 to 7 percent of projected payroll for municipal employees and 12 to 20 percent for police and firefighters. The employee contribution can be nonexistent or as high as 7 percent of earnings.

1992 CAFR

The 1992 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

During 1992, the American economy continued its struggle to escape a recession which began in June 1990. Although the economic outlook improved gradually, the annualized growth rate was a modest 1.9 percent through the first three quarters. In the fourth quarter of 1992, the U.S. economic recovery continued at the much sharper rate of 3.8 percent. However, this growth spurt was concentrated in only a few segments of the economy.

Although the unemployment level has been reduced from its 7.7 percent peak in mid-1992, it still remained high at 7.3 percent at year end. By year end, inflation appeared to be well under control. The Consumer Price Index (CPI) rose at an annualized rate of 2.9 percent during 1992.

The overall stock market performed moderately well with the stocks of smaller companies outperforming the more heavily capitalized ones. Consumer service, energy, and utility stocks posted the strongest returns. In the bond market, the Treasury yield curve remained extremely steep with long-term rates holding at high real levels while short-term rates dropped. The weakest sector continued to be real estate due to over-expansion in previous years and the lack of new demand for space in the slow growth economy.

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. 1 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 $359,275,806 as of December 31, 1992. During 1992, the System's assets increased by $49,325,203 which included contributions of $25,146,668. Investment related income increased the portfolio by $30,442,797.

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 Committee of the Pennsylvania General Assembly at least two months prior to the beginning of the fiscal year. The committee 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 1992, the adopted budget was $1,361,621 exclusive of investment fees; expenditures (exclusive of investment fees and depreciation) amounted to $1,281,501 allowing the System to end the year $80,120 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, 1992 and the amount and percentage of increases and decreases in relation to December 31, 1991 revenues.

Letter of Transmittal *(Continued)*

Revenues	Amount	Percent of Total	Increase (Decrease) from 1991	Percent of Increase (Decrease)
Member Contributions	$ 7,691,304	13.79%	$ 642,109	9.11%
Municipal Contributions	17,455,364	31.28	3,280,306	23.14
Assessments	205,900	.37	5,380	2.68
Investment Income	30,442,797	54.56	5,124,855	20.24
Total	**$55,795,365**	**100.00%**	**$9,052,650**	

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 ($19,984,974) and bonds ($8,781,400).

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, 1992 and the percentage of increases and decreases in relation to December 31, 1991 amounts.

Expenses	Amount	Percent of Total	Increase (Decrease) from 1991	Percent of Increase (Decrease)
Annuity benefits	$11,288,793	65.74%	$ 850,620	8.15 %
Disability benefits	658,263	3.83	65,531	11.06
Terminations	2,965,489	17.27	(3,460,082)	(53.88)
Administrative	2,259,275	13.16	$ 300,853	15.36
Total	**$17,171,820**	**100.00%**	**$(2,243,078)**	

The major expense-related items for 1992 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, 1992, investments provided 54.6 percent of the System's total revenues.

On December 31, 1992, the market value of the System's investments was $387,575,220. This represents an increase of $40,163,837 over the previous year. For the last five years, the System's annualized return was 10.9 percent. At December 31, 1992, the System's investment portfolio was distributed as follows: 48.6 percent in domestic equities, 4.6 percent in international equities, 32.4 percent in bonds, 11.1 percent in real estate, and 3.3 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 1992 fiscal year was $38,623,545. This represents an increase in the fund balance of 12.5 percent over the 1991 fund balance.

To comply with GASB Statement No. 5 disclosure requirements, a pension benefit obligation of $306.9 million was calculated during the most recent actuarial valuation dated January 1, 1992. The market value of the System's assets exceeds this amount by $43.4 million. This indicates that the contribution rates and the current assets of the System are adequate to fund the System's actuarial liabilities. The System does not have an unfunded pension benefit obligation. 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 plan 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 1992 financial year, the System completed a multiple-year automated technology plan which focused on replacing the current computer system with expanded capacity and significant growth potential. Staff designed sotfware for the new system was on-line by June 1992.

Another significant change in the System's operations resulted from a major contract negotiated between the Treasury Department and our master custodian, Provident National Bank. The System was placed under a new master custodian and had major cost-saving revisions in the processing of security transactions.

The Board revised the System's investment guidelines and revisited its South African divestiture policy to determine whether its stance should include both divestiture lists: Level I (direct involvement — facilities, capital investments, and/or direct employees) and Level II (indirect investments).

The Board also implemented a long-term asset allocation shift in accordance with a previous asset allocation study. Adopted asset changes include an increased commitment to equities (from 50 percent to 55 percent), a decreased commitment to fixed income (from 35 to 30 percent), a shift within the equity allocation to place a greater portion of the System's assets in stocks that represent smaller companies (10 percent of equity commitment), and an introduction of international securities (5 percent).

During the 1992 financial year, the System granted an excess investment award of 6.69 percent to be applied to accounts of record as of December 31, 1991. Added to the 6.5 percent regular interest, this produced a total credited interest of over 13.0 percent on each plan's 1991 asset balance for calendar year 1992.

The year was also extremely active from a plan membership perspective. Twenty-six new member plans were added, and there were no withdrawals. The System now administers to over 8,000 active employees and over 2,000 retirees and beneficiaries. Most membership activity during the year was associated with benefit consulting and

Letter of Transmittal *(Continued)*

redesigning plan structures. By year end 1992, 48 plans increased benefits and consequently costs by amending plan contracts.

The Board's major initiatives for 1993 include hiring outside legal counsel to supplement the commonwealth's Office of General Counsel in order to provide specialized legal services to the System. These services will relate mainly to taxes including qualification status vis-à-vis the Internal Revenue Service.

The Board also anticipates an extensive pre-retirement program to be implemented by fall of 1993. The purpose of the program is to provide prospective PMRS retirees with detailed retirement information that will help them plan for their retirement. The System's staff expects to offer four to six pre-retirement seminars each year for the System's members and their spouses at various locations throughout the commonwealth.

Professional Services

The financial information has been audited by the independent accounting firm of Ernst & Young which is completing year two of a two-year renewal option on a 1989 contract. The actuarial information was prepared with the help of E. Greenblum, consulting actuary from The Segal Company. The firm has completed its fourth 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 is in the third year of a three-year commitment. 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, 1991. 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 two consecutive years (fiscal years ended December 31, 1990 - December 31, 1991). 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 eleven Board members who faithfully serve the System without remuneration. Their leadership and support provide responsible management of the System's assets.

We also extend sincere 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 1992's growth and operational changes. We thank our staff for a job well done, and we thank our members for the opportunity to serve 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, 1991

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.

President

Executive Director

Administrative Organization

Pennsylvania Municipal Retirement Board as of December 31, 1992

Seated (left to right): Veronica Recker, Sonia Walwyn, Barbara Bigelow
Standing (left to right): Richard Bonneville, Douglas Bowen, John Brown, George Gift, David Hays
Not present: James Bonner, Paul McMillen, Brenda Mitchell

Barbara W. Bigelow (term expires November 5, 1995)
Allentown City, representing Pennsylvania League of Cities

James B. Bonner (term expires March 12, 1993)
Wilmerding Borough, representing Pennsylvania State Association of Boroughs

Richard G. Bonneville (term expires November 5, 1995)
Lower Windsor Township, representing Chiefs of Police Association

Douglas K. Bowen (term expires November 5, 1995)
Whitehall Township Authority, representing Pennsylvania Municipal Authorities Association

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

George E. Gift, Jr., Chairman (term expires September 9, 1993)
Harrisburg City, representing Pennsylvania State Fire Fighters Association

David W. Hays (term expires February 24, 1993)
Crescent Township, representing First Class Township Commissioners

Honorable Catherine Baker Knoll (appointed by statute)
State Treasurer (ex-officio)
represented by Sonia Walwyn, Associate General Counsel

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

Honorable Brenda K. Mitchell (appointed by statute)
Secretary of the Commonwealth.

Veronica T. Recker (term expires September 23, 1993)
Castle Shannon Borough Retired Member, representing Pennsylvania Municipal Retirement System Retired Members

Administrative Organization *(Continued)*

Administrative Staff as of December 31, 1992

James B. Allen
Secretary

Edward L. Bechtel
Assistant Secretary

Larry E. Barbour
Accounting Division Chief

Benjamin F. Mader
Member & Municipal Services Division Chief

Vacant
Operations Division Chief

Professional Consultants as of December 31, 1992

Actuary

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

Auditor

Ernst & Young
Harrisburg, PA
Independent Auditors
Robert T. Reilly

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, New York
Alan B. Bond, President

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

Connecticut General Life Insurance Co. (CIGNA)
Hartford, CT
Dallas W. Webb, Vice President

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

JMB Institutional Realty Corporation
Chicago, IL
Lynn D. Bednar, Vice President

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

The Prudential Asset Management Company, Inc. (PRISA)
Newark, NJ
Mark R. Clarke, Vice President

The Putnam Companies, Inc.
Boston, MA
Alexander A. Kondracki, Senior Vice President

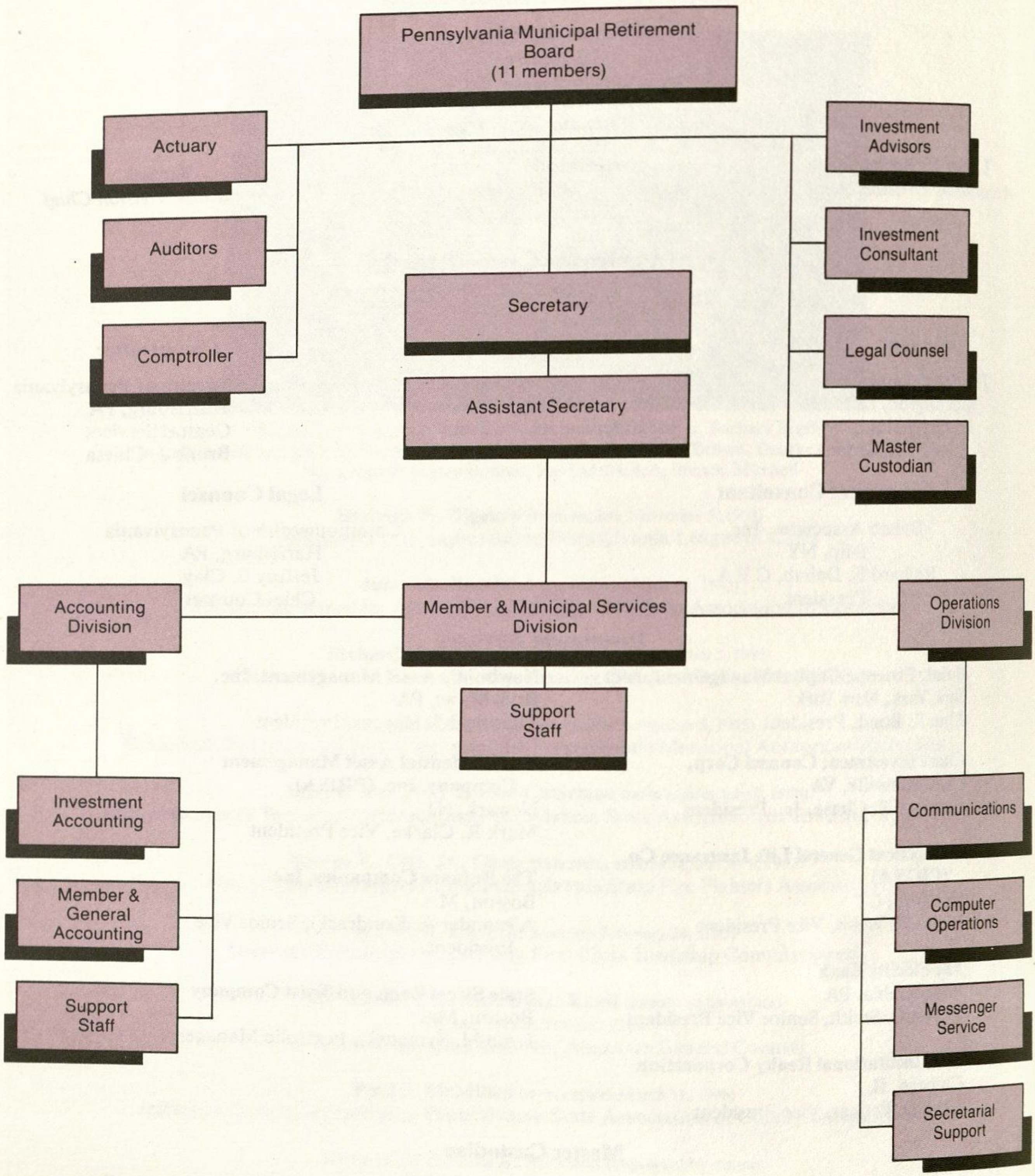
State Street Bank and Trust Company
Boston, MA
Lynn M. Symanski, Portfolio Manager

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
4TH FLOOR CITY TOWERS, 301 CHESTNUT STREET
HARRISBURG, PENNSYLVANIA 17108-1165

717-787-2065 – 800-622-7968

May 19, 1993

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 eighth Comprehensive Annual Financial Report of the Pennsylvania Municipal Retirement System. The report illustrates the System's strong commitment to consistency and strength as shown by the continued growth of assets, participating plans, and individual members.

During the 1992 fiscal year, the System's investments increased by $40 million at market for a total of over $387 million at market as of December 31, 1992. The System added 26 new member plans increasing the number of participating employers to 538. The System now administers to approximately 8,000 active employees and over 2,000 retirees and beneficiaries.

A major highlight of the year was granting a 6.69 percent excess investment award to accounts of record as of December 31, 1991. Added to the System's regular interest of 6.5 percent, this produced a total credited interest of over 13.00 percent on each plan's asset balance for calendar year 1992.

The eleven-member Board was restored to its full complement in March of this year when Paul S. McMillen filled a vacant position representing the Pennsylvania State Association of County Commissioners. Also, the Board welcomed a new vice-chairman during its annual January election. John G. Brown, III, who has served on the Board since July 1986, accepted the vice-chairman position made vacant when I became chairman in November 1991. John represents the Pennsylvania State Association of Township Supervisors on the Board.

The Board members take pride in having the opportunity to serve your financial future. We are sincerely appreciative of the System's staff and all plan participants for your continued support and enthusiasm. As the governing body with the fiduciary responsibility for the System's pension plans, we assure you that our ultimate goal is to continue providing financially secure retirement benefits for all of our plan members.

Sincerely,

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, 1992 and 1991, 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, 1992 and 1991 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 1982 through 1984 and 1988 through 1992 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, 1993

Comparative Balance Sheets
December 31, 1992 and 1991

	1992	1991
Assets:		
Cash	$ 3,519	$ 3,502
Short-term investments	12,870,000	18,773,000
Total cash and short-term investments	**12,873,519**	**18,776,502**
Contributions receivable	2,303,303	1,138,381
Accrued investment income	2,565,998	2,641,750
Investment sales receivable	5,035,609	851,094
Investments:		
Bonds, at cost (market value $125,445,080 in 1992 and $124,039,184 in 1991)	111,729,313	109,331,563
Common and preferred stocks, at cost (market value $206,072,120 in 1992 and $171,595,088 in 1991)	175,371,680	140,247,147
Real estate mutual funds, at cost (market value $43,188,020 in 1992 and $33,004,111 in 1991)	49,270,251	36,911,428
Total investments	**336,371,244**	**286,490,138**
Fixed assets	126,133	52,738
Total assets	**$359,275,806**	**$309,950,603**
Liabilities and Fund Balance:		
Liabilities:		
Accounts payable and accrued expenses	$ 595,207	$ 537,937
Investment purchases payable	11,868,867	1,224,479
Total liabilities	**12,464,074**	**1,762,416**
Fund Balance:		
Members' Reserve Account	91,249,013	79,014,742
Municipal Accounts	148,221,747	128,887,207
Retired Members' Reserve Account	118,587,367	98,451,721
Disability Reserve Account	1,032,422	781,647
Undistributed earnings (deficit)	(12,278,817)	1,052,870
Total fund balance	**346,811,732**	**308,188,187**
Total liabilities and fund balance	**$359,275,806**	**$309,950,603**

See notes to financial statements.

Statements of Revenues, Expenses, and Changes in Fund Balance

Years Ended December 31, 1992 and 1991

	1992	1991
Operating Revenues:		
Member contributions	$ 7,691,304	$ 7,049,195
Municipal contributions	17,455,364	14,175,058
Assessments	205,900	200,520
Investment income	30,442,797	25,317,942
Total operating revenues	**55,795,365**	**46,742,715**
Operating Expenses:		
Annuity benefits	11,288,793	10,438,173
Disability benefits	658,263	592,732
Terminations	2,965,489	6,425,571
Administrative	2,259,275	1,958,422
Total operating expenses	**17,171,820**	**19,414,898**
Net operating income	**38,623,545**	**27,327,817**
Fund balance, beginning of year	**308,188,187**	**280,860,370**
Fund balance, end of year	**$346,811,732**	**$308,188,187**

See notes to financial statements.

Statements of Cash Flows
Years Ended December 31, 1992 and 1991

	1992	1991
Operating Activities:		
Net operating income	$ 38,623,545	$ 27,327,817
Adjustments to reconcile net operating income to net cash provided by (used in) operating activities:		
Depreciation/amortization	18,672	13,033
Investment income	(30,442,797)	(25,317,942)
Gain on sale of investments	(20,615,744)	(15,289,997)
Loss on sale of investments	2,357,690	2,373,572
Changes in operating assets and liabilities:		
(Increase) decrease in contributions receivable	(1,164,922)	179,144
(Increase) decrease in accrued investment income	75,752	372,141
(Increase) decrease in investment sales receivable	(4,184,515)	(432,105)
Increase (decrease) in accounts payable and other liabilities	10,701,658	(5,134,201)
Net cash used in operating activities	**(4,630,661)**	**(15,908,538)**
Investing Activities:		
Purchases of investments	(182,105,581)	(128,888,027)
Proceeds from sale of investments	150,482,529	124,540,992
Investment income	30,442,797	25,317,942
Net cash provided by (used in) investing activities	**(1,180,255)**	**20,970,907**
Capital and Related Financing Activities:		
Acquisition of Capital Assets	(92,067)	(8,089)
Net cash used in capital and related financing activities	**(92,067)**	**(8,089)**
Increase (decrease) in cash and cash equivalents	**(5,902,983)**	**5,054,280**
Cash and cash equivalents at beginning of year	**18,776,502**	**13,722,222**
Cash and cash equivalents at end of year	**$ 12,873,519**	**$ 18,776,502**

See notes to financial statements.

Notes to Financial Statements
Years Ended December 31, 1992 and 1991

(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, 1992, the date of the most recent actuarial valuation, there were 487 municipalities with defined benefits* and 44 with defined contributions. Membership consisted of:

Participating Local Government Employers

	Defined Benefits	Defined Contributions
Counties	4	0
Cities	20	0
Boroughs	123	6
Townships of the First Class	19	0
Townships of the Second Class	69	20
Authorities and Other Units	118	16
Police	125	2
Firefighters	9	0
Total	**487**	**44**

* *This includes 13 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	6,432
Police	756
Firefighters	149
Total	**7,337**
Defined Contribution Plans	
Municipal	270
Police	3
Firefighters	0
Total	**273**
Total active members	**7,610**
Retirees and Beneficiaries	
Retirees	1,800
Beneficiaries	271
Inactive participants with rights to deferred pension	128
Total	**2,199**
Inactive participants with rights to return of contributions	**88**
Total individual memberships	**9,897**

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 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, 1992 consisted of the following:

Notes to Financial Statements *(Continued)*

Municipality normal cost	$10,447,587
Amortization of unfunded actuarial accrued liability	4,412,958
Total*	**$14,860,545**

Total contributions to the System during 1992 amounted to $25,146,668 of which $7,691,304 and $17,455,364 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 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." Short term investments as described under "Methods Used to Value Investments" are considered cash equivalents for purposes of the Statements of Cash Flows.

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

Notes to Financial Statements *(Continued)*

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, 1992. Such information as of January 1, 1992 and 1991 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 with maturities of three months or less 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 are recorded at cost. Depreciation is provided on the straight-line method over the estimated useful lives of the assets.

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, 1992 and 1991, 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. No such distribution occurred during 1991.

(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, 1992. 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 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

Notes to Financial Statements *(Continued)*

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 $92,394,666)	$ 81,576,545	$ 0	$ 81,576,545
Corporate bonds and notes (market value $33,050,414)	30,152,768	0	30,152,768
Common and preferred stocks (market value $206,072,120)	175,371,680	0	175,371,680
Real estate mutual funds (market value $43,188,020)	0	49,270,251	49,270,251
State Treasury short-term investment fund (market value $12,870,000)	0	12,870,000	12,870,000
Total (market value $387,575,220)	**$287,100,993**	**$62,140,251**	**$349,241,244**

Investments that represented 5 percent or more of the plan's net assets at December 31, 1992 and 1991 were:

Security	Rate	Due Date	Book Value	Market Value
1992				
State Street Index Fund	Variable	Variable	$76,822,956	$89,705,000
1991				
State Street Index Fund	Variable	Variable	$75,352,091	$90,812,256

(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, 1992, 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) 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.

Notes to Financial Statements *(Continued)*

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

	Benefit Information Date January 1, 1992	January 1, 1991
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 101,258,300	$ 86,809,100
Current employees		
Accumulated employee contributions including allocated investment income	73,417,500	67,933,000
Employer-financed vested	108,818,100	98,479,200
Employer-financed nonvested	23,397,500	23,621,000
Total pension benefit obligation	**306,891,400**	**276,842,300**
Net assets available for benefits, at cost (market value is $350,336,432 in 1992 and $294,508,900 in 1991)	**308,188,187**	**280,860,370**
Assets in excess of pension benefit obligation	**$ (1,296,787)**	**$ (4,018,070)**

(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 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.

Notes to Financial Statements *(Continued)*

(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 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 6 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)
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
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
1983	4,204,281	8,784,857	156,780	8,459,165	21,605,083

[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	
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
1983	3,374,237	830,281	132,210	4,336,728

Schedule 2 *(Continued)*

Expenses by Type (Continued)

Benefit Expenses

Fiscal Year	Annuity Benefits	Disability Benefits	Terminations	Total Benefit Expenses
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
1983	2,214,020	313,810	846,407	3,374,237

Schedule 3
Administrative Expenses
Comparative Two-Year Schedule
Years Ended December 31, 1992 and 1991

	1992	1991
Personnel costs:		
Salaries and wages	$ 533,816	$ 506,314
Social Security contributions	40,343	38,494
Retirement contributions	39,938	55,265
Insurance contributions	148,108	97,873
Other employee benefits	2,626	3,259
Total personnel costs	**764,831**	**701,205**
Professional costs:		
Performance evaluation	32,000	32,000
Actuarial	158,130	158,420
Data processing	27,686	2,533
Audit	20,000	21,000
Legal	24,171	25,171
Security movement & control	10,759	13,688
Investment advisors	959,102	788,983
Miscellaneous professional	75,707	53,014
Total professional costs	**1,307,555**	**1,094,809**
Communication costs:		
Printing	18,870	15,155
Telephone	8,735	9,439
Postage	25,306	21,081
Travel	12,099	11,522
Advertising	125	25
Total communication costs	**65,135**	**57,222**
Other services and charges:		
Office space rental	50,749	57,000
Equipment leasing	16,934	7,094
Supplies	9,054	8,804
Maintenance	24,214	17,444
Bonding & insurance	534	88
Dues & subscriptions	1,597	1,724
Total other services and charges	**103,082**	**92,154**
Depreciation	18,672	13,032
Total administrative expenses	**$2,259,275**	**$1,958,422**

Schedule 4
Investment Summary
Year Ended December 31, 1992

Type of Investment	Book Value	Market Value	Purchases
	January 1, 1992		
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**

Investment Summary (Continued)
Year Ended December 31, 1991

Type of Investment	Book Value	Market Value	Purchases
	January 1, 1991		
Corporate and government bonds:			
U.S. Government bonds	$ 66,361,105	$ 68,731,273	$ 17,283,228
Corporate bonds	35,510,416	37,621,823	8,492,993
Total bonds	**101,871,521**	**106,353,096**	**25,776,221**
Common stock	131,077,744	138,099,776	102,477,791
Real estate equity	36,277,413	38,422,336	634,015
Cash equivalents	13,719,000	13,719,000	72,238,000
Total investments	**$282,945,678**	**$296,594,208**	**$201,126,027**

Schedule 4
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%**

Investment Summary (Continued)
Year Ended December 31, 1991

December 31, 1991

Sales and Redemptions	Book Value	Market Value	% of Total Market Value
$ 9,390,439	$ 74,253,894	$ 84,748,207	24%
8,925,740	35,077,669	39,290,977	11
18,316,179	**109,331,563**	**124,039,184**	**35%**
93,308,388	140,247,147	171,595,088	50%
0	36,911,428	33,004,111	10%
67,184,000	18,773,000	18,773,000	5%
$178,808,567	**$305,263,138**	**$347,411,383**	**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

April 22, 1993

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, 1992, 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, 1992, have been provided separately for 19 plans sponsored by distressed municipalities and 4 plans sponsored by counties, which are required to redetermine contribution levels as of January 1, 1992 under applicable Commonwealth statutes (Act 205 and Act 293.) 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 not redetermined; contribution requirements for such municipalities are determined on a biannual basis, most recently as of January 1, 1991.

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, 1992 and, for comparative purposes, as of January 1, 1991.

	Benefit Information Date	
Pension benefit obligation:	**January 1, 1992**	**January 1, 1991**
Participants currently receiving benefits and terminated employees not yet receiving benefits	$101,258,300	$ 86,809,100
Current employees		
Accumulated employee contributions including allocated investment income	73,417,500	67,933,000
Employer-financed vested	108,818,100	98,479,200
Employer-financed nonvested	23,397,500	23,621,000
Total pension benefit obligation	**$306,891,400**	**$276,842,300**

The actuarial assumptions are shown in Exhibit III. The above information was derived from the following membership data, as provided by PMRS, regarding 487 defined benefit plans and 44 defined contribution-only plans as of January 1, 1992:

a. Retirees currently receiving benefits		1,800
b. Beneficiaries currently receiving benefits		271
c. Terminated vested employees entitled to future benefits		128
d. Terminated nonvested employees entitled to contribution refunds		88
e. Active employees in defined benefit plans with aggregate salary of $177,713,900		7,337
i. vested	3,147	
ii. nonvested	4,190	
f. Active employees in defined contribution-only plans		273

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, 1992 and, for comparative purposes, as of January 1, 1991.

	Benefit Information Date	
	January 1, 1992	**January 1, 1991**
Actuarial present value of accrued vested benefits:		
Participants currently receiving benefits	$ 95,885,600	$ 83,160,300
Other vested benefits	133,884,800	120,446,300
Total vested benefits	**229,770,400**	**203,606,600**
Actuarial present value of nonvested accumulated plan benefits	17,533,300	18,647,700
Total actuarial present value of accumulated plan benefits	**$247,303,700**	**$222,254,300**

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:

Factors	**Change in Actuarial Present Value of Accumulated Plan Benefits**
Withdrawn municipalities	$ (3,261,100)
Newly entered municipalities	6,808,100
Benefits accumulated, net experience gain or loss, changes in data, upgrades	20,595,400
Benefits paid (including contribution refunds)	(14,195,400)
Interest	15,102,400
Total	**$ 25,049,400**

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	Non-Uniformed 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
64	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		Non-Uniformed 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, 1991)[1]

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[2] 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, 1991, the portion of new surplus allocated to excess interest was 60.17 percent, resulting in an excess interest allocation of 6.69 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[3] 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] This method of valuing assets is identical to the method adopted January 1, 1985, with the exception of a minor technical adjustment to substitute audited reserve accounts for the sum of prior actuarial value, non-investment cash flow, and regular interest. This change reduced the actuarial asset value by $1.1 million measured as of January 1, 1990.

[2] 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.

[3] 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 9 Years[1]

Defined Benefit Plans

Valuation Date 1/1	Number of Active Members	Percentage Change in Membership	Number of Participating Employers[2]	Percentage Increase in Number of Participating Employers	Total Annual Payroll	Percentage Increase in Payroll	Average Annual Salary	Percentage Increase in Average Annual Salary
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[3]								
1983	6,199	—	—	—	101,654,900	—	16,399	—

[1] Information prior to 1983 is incomplete.

[2] Information prior to 1986 is incomplete.

[3] 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
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 9 Years[1]

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
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[2]	158	78	1,613	5,229,240	70.4	3,242	27.6
1985[2]	468	23	1,533	3,068,138	21.4	2,540	9.3
Year Ended 12/31[3]							
1983	—	—	1,088	2,527,830	—	2,323	—

[1] Information prior to 1983 is incomplete.

[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.

[3] 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, 1991, 248 of the defined benefit plans have completely funded the liability. A distribution of the funding percentages is shown as of January 1, 1991.[2] This calculation will only be available every two years.[3] Therefore, the table below was presented in the System's 1991 report. Figures will change on January 1, 1993 and will appear in the 1993 Comprehensive Annual Financial Report.

Distribution of Plans Based on Assets as a Percentage of Accrued Liabilities[4]

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%	1	100 - 110%	42
10 - 20	5	110 - 120	34
20 - 30	5	120 - 130	28
30 - 40	15	130 - 140	24
40 - 50	15	140 - 150	17
50 - 60	15	150 - 160	14
60 - 70	23	160 - 180	20
70 - 80	25	180 - 200	14
80 - 90	41	200 - 250	13
90 - 100	52	250 - 300	12
Total	197	300 - 400	3
		400 - 500	3
		500 - 600	6
		600 - 700	1
		700 - 800	10
		800 - 1,000	2
		1,000 or higher	5
		Total	248

[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] Twenty-five 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] Detailed information for this schedule was not calculated prior to 1991, and the analysis would now be impractical to determine.

[4] "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			Valuation Assets	Portion of Pension Benefit Obligation Covered by Assets		
	(A) Active Member Contributions	(B) Retirees and Beneficiaries[1]	(C) Active Members (Employer Financed Portion)		(A)	(B)	(C)
1992	$73,417,500	$101,258,300	$132,215,600	$328,344,000[2]	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 $20 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 plan changes and required contributions ranging from 0 percent to 59 percent of covered payroll, we list the ranges of total employer contribution requirements upon which the defined benefit plans were billed for 1992.

Range of Total Employer Contribution Requirements

Range of Rates	Number of Employers
0 - 5%	111
5 - 10	186
10 - 15	123
15 - 20	47
20 - 30	11
30 - 40	4
above 40	5
Total	487

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. 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 1992 was \$14,860,545. The actual funding received for 1992 was \$17,455,364. 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

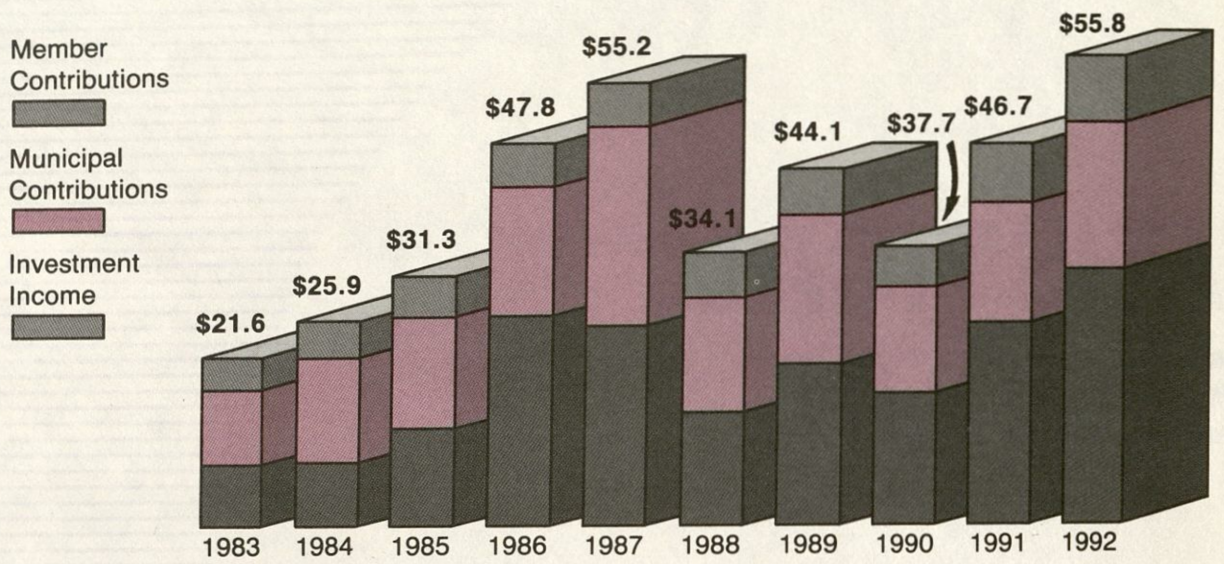
The System does not conduct an extensive experience study by individual plan because the magnitude of any change in plans of average size becomes misleading and irrelevant. A comprehensive experience study is performed once every five years on the overall assumptions used by the System, but this data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

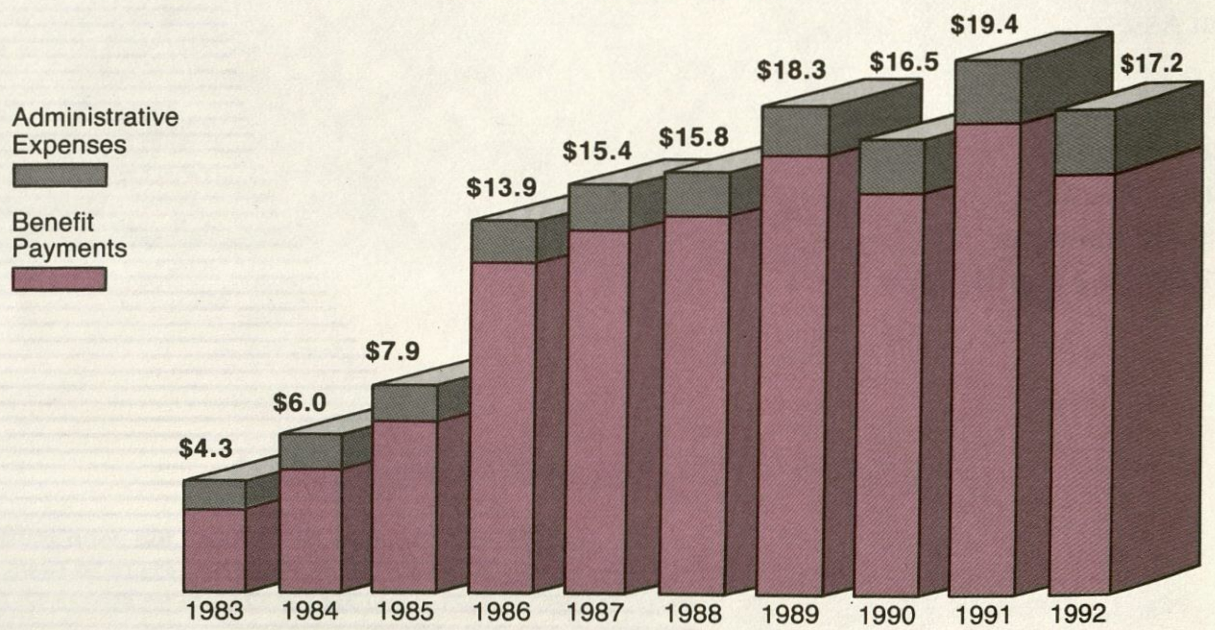
Part I — Financial

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



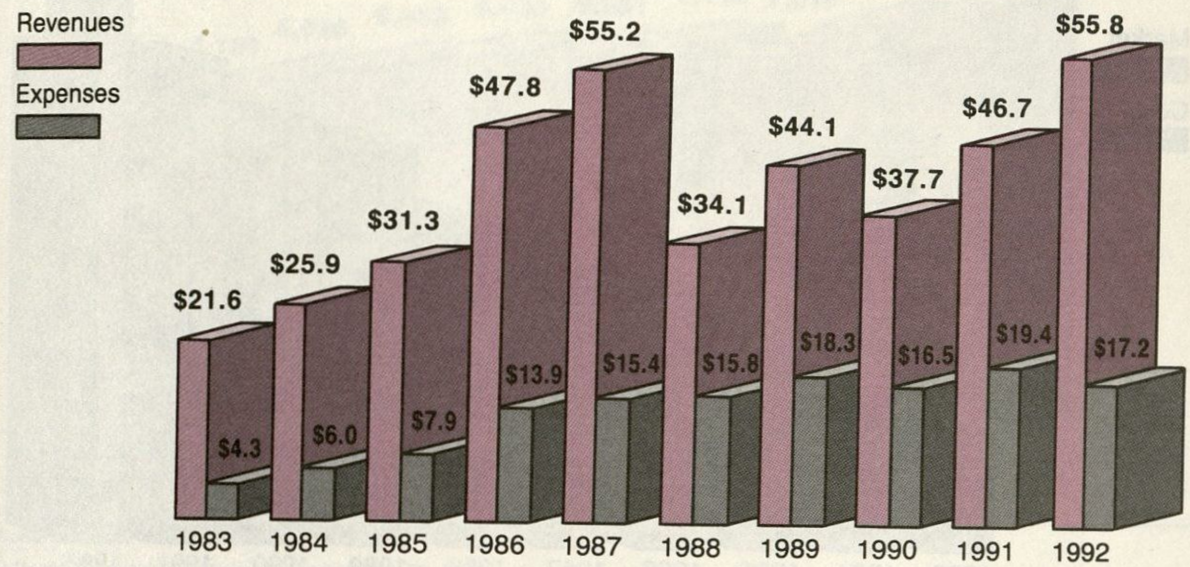
Data is from Revenues by Source, page 29.

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



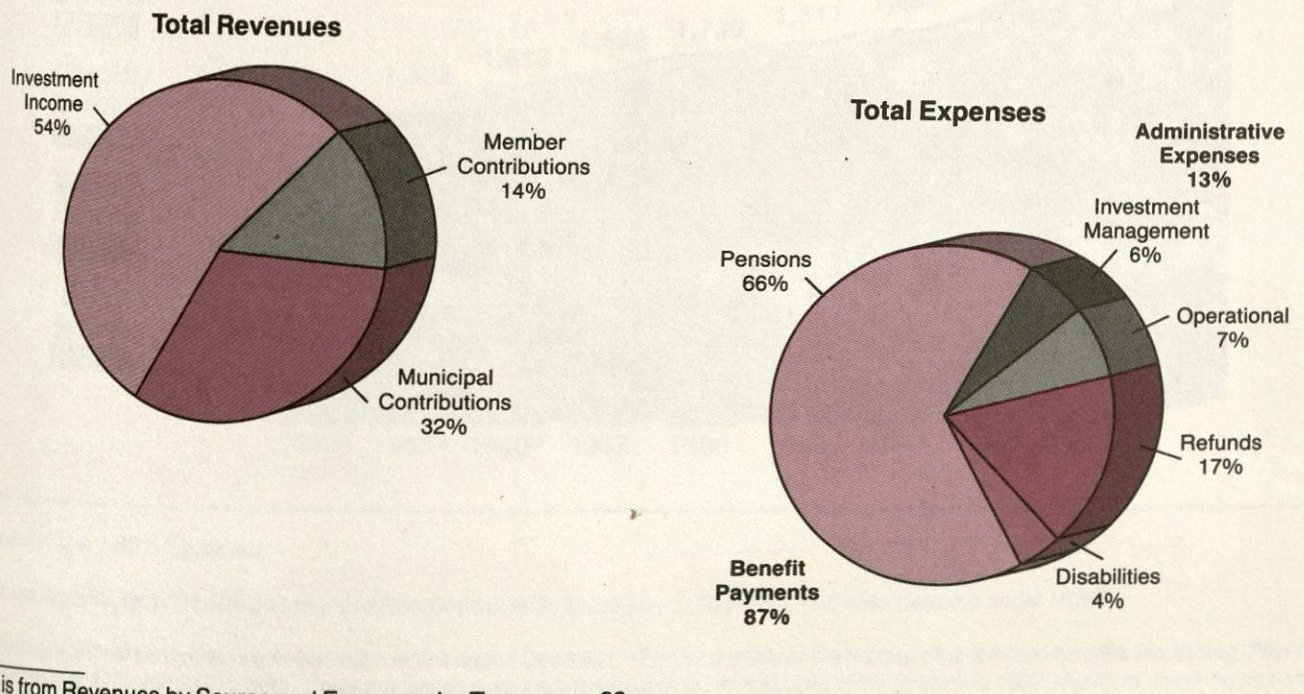
Data is from Expenses by Type, page 29.

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



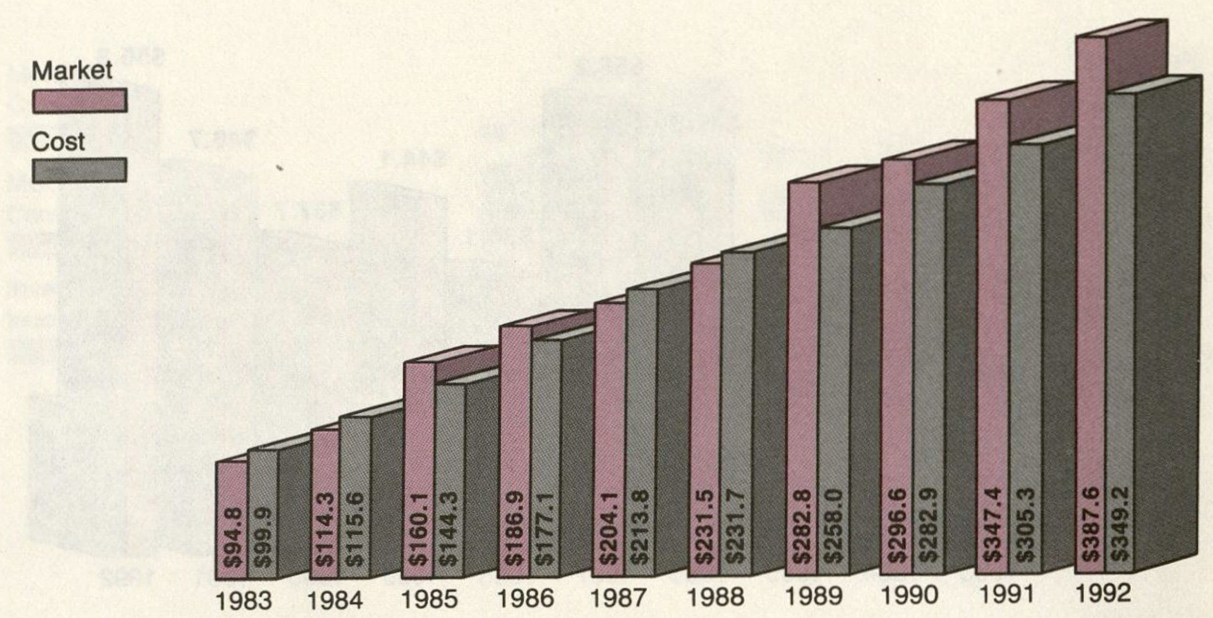
Data is from Revenues by Source and Expenses by Type, page 29.

Components of Total Revenues and Expenses — 1992

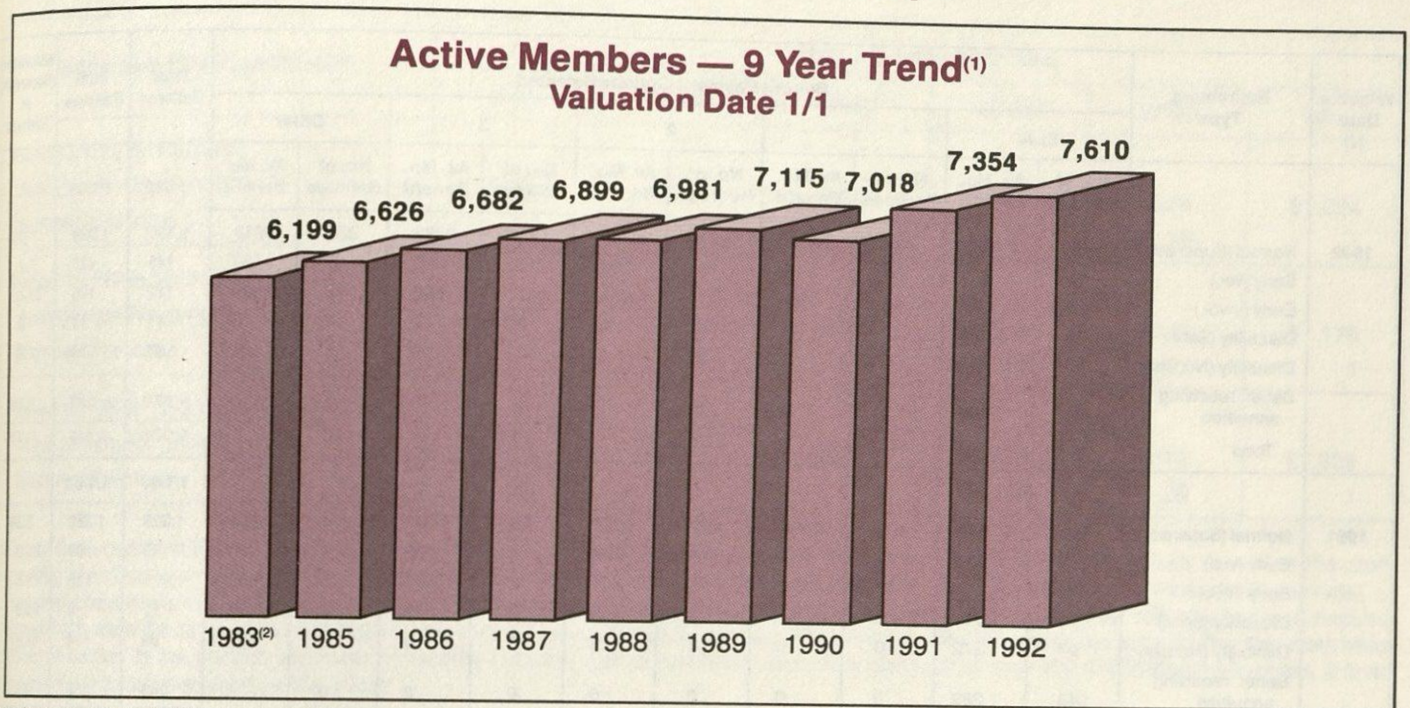


Data is from Revenues by Source and Expenses by Type, page 29.

Total Assets — 10 Year Trend
(Amounts in Millions)

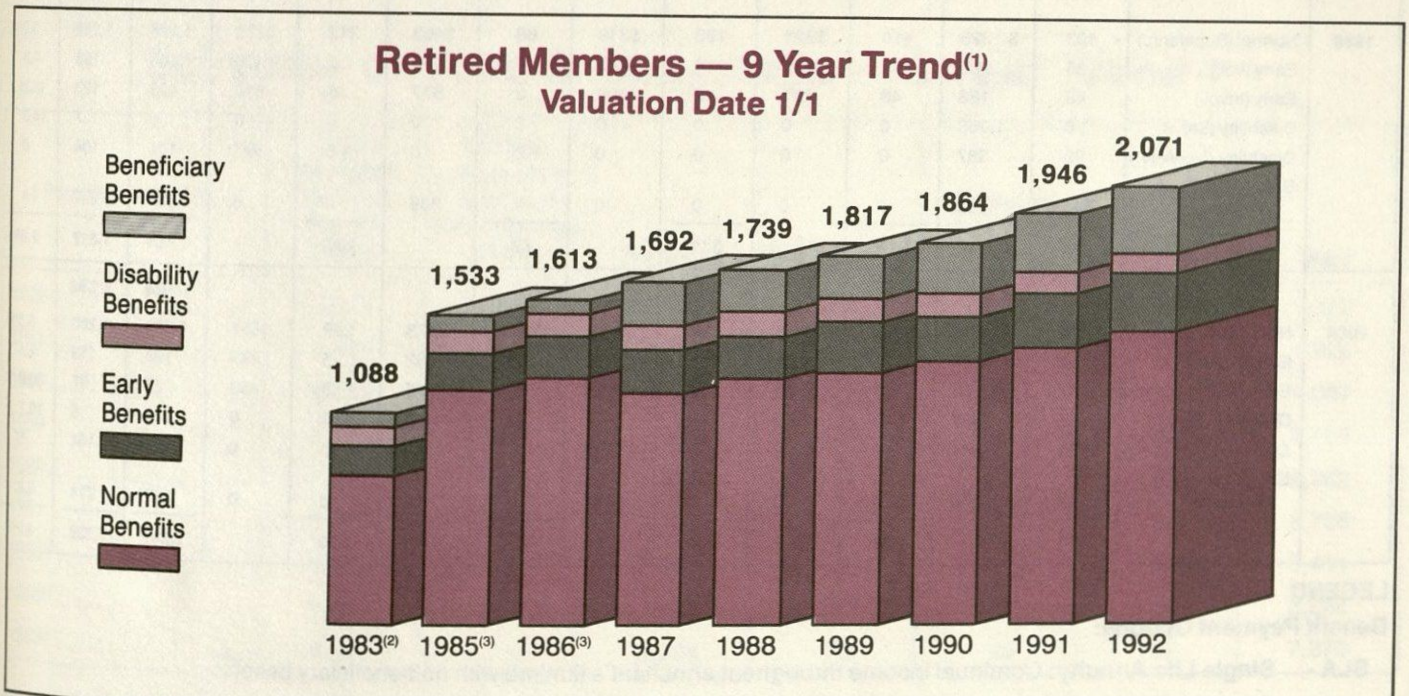


Part II — Membership



(1) Information prior to 1983 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.



(1) Information prior to 1983 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.

(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. 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: SLA		1		2		3		Other		Total Retirees	Total Retirees	%Increase (Decrease) of Retirees
		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	1/1/92	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	123	(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 1/1/92 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 three-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 — 9 Year Trend[1]

Valuation Date 1/1	Active Members Defined Benefit Plans	Active Members Defined Contribution Plans	Retirees	Beneficiaries	Deferred Pensions (2)	Inactive Members (3)	Total
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(4)	6,640	42	1,527	86	57	89	8,441
1985(4)	6,612	14	1,453	80	37	42	8,238
1983(5)	6,199	0	1,018	70	29	57	7,373

(1) Information prior to 1983 is incomplete.

(2) Inactive participants with rights to deferred pension (vested)

(3) Inactive participants with rights to return of contributions (nonvested)

(4) 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.

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

[1] *Information prior to 1983 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.*

[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.*

Schedule of Participating Employers*

as of December 31, 1992

Counties

Adams
Forest
Greene
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)
Bloomfield (Perry)
Brackenridge (Allegheny)
Bridgeville (Allegheny)
Brockway (Jefferson)
Brookville (Jefferson)
California (Washington)
Cambridge Springs (Crawford)
Camp Hill (Cumberland)
Carnegie (Allegheny)
Castle Shannon (Allegheny)
Cheswick (Allegheny)
Collegeville (Montgomery)
Collingdale (Delaware)
Conneautville (Crawford)
Conway (Beaver)
Coopersburg (Lehigh)
Cressona (Schuylkill)
Delmont (Westmoreland)
Doylestown (Bucks)
Duncannon (Perry)
East Stroudsburg (Monroe)
East Washington (Washington)
Emporium (Cameron)
Etna (Allegheny)
Everett (Bedford)
Falls Creek (Jefferson)
Ferndale (Cambria)
Fountain Hill (Lehigh)
Franklin (Cambria)
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 - Nonunion (Mifflin)
Lewistown - Union (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)
Philipsburg (Centre)
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)
Shamokin Dam (Snyder)
Sharpsburg (Allegheny)

* County names are in parentheses.

Schedule of Participating Employers *(Continued)*

Boroughs (Continued)

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)
Wheatland (Mercer)
White Haven (Luzerne)
Williamstown (Dauphin)
Wilmerding (Allegheny)
Wilson (Northampton)
Wormleysburg (Cumberland)
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)
Fairview (Erie)
Farmington (Clarion)
Forks (Northampton)
Forward (Allegheny)
Franklin (Carbon)
Franklin (Greene)
Glade (Warren)
Greene (Beaver)
Greenfield (Blair)
Hamilton (Monroe)
Hemlock (Columbia)
Hilltown (Bucks)
Hopewell (Cumberland)
Horsham (Montgomery)
Huntington (Luzerne)
Jackson (Lebanon)
Jenner (Somerset)
Keating (McKean)
Kennett (Chester)
Lancaster (Lancaster)
Lehman (Philadelphia)
Mahoning (Montour)
Manchester (York)
Mead (Warren)
Middlesex (Cumberland)
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)
Pymatuning (Mercer)
Raccoon (Beaver)
Ridgway (Elk)
Sewickley (Westmoreland)
South Abington (Lackawanna)
South Huntingdon (Westmoreland)
Tinicum (Bucks)
Tredyffrin (Chester)
Unity (Westmoreland)
Warwick (Lancaster)
Washington (Berks)
Washington (Dauphin)
West Bradford (Chester)
West Caln (Chester)
West Carroll (Cambria)
Wiconisco (Dauphin)
Windsor (York)
Wright (Luzerne)

Schedule of Participating Employers *(Continued)*

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)
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)
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)
Kiskiminetas Township Municipal Authority (Armstrong)
Kulpmont-Marion Heights Joint Municipal Authority (Northumberland)
Lake Heritage Municipal Authority (Adams)
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)
Myerstown Borough Water Authority (Lebanon)
Myerstown Community Library (Lebanon)
Nanty Glo Water Authority (Cambria)
Nesquehoning Borough Authority (Carbon)
New Kensington Municipal Sanitary Authority (Westmoreland)
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)

Schedule of Participating Employers *(Continued)*

Authorities and Other Units (Continued)

Oil City Housing Authority (Venango)
PA League of Cities (Dauphin)
Parks Township Municipal Authority (Armstrong)
Pennridge Waste Treatment Authority (Bucks)
Perkasie Borough Authority (Bucks)
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)
Smith Township Municipal Authority (Washington)
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 Clinton County Municipal Authority (Clinton)
Western Westmoreland Municipal Authority (Westmoreland)
Westmoreland-Fayette Municipal Sewer Authority (Westmoreland)
White Haven Municipal Authority (Luzerne)
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)
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 Lansdowne Borough (Delaware)
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)
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)

Schedule of Participating Employers *(Continued)*

Police (Continued)

Moosic Borough (Lackawanna)
Morrisville Borough (Bucks)
Moscow Borough (Lackawanna)
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)
Orwigsburg Borough (Schuylkill)
Paxtang Borough (Dauphin)
Penbrook Borough (Dauphin)
Pennridge Regional (Bucks)
Pennridge Regional Non-uniformed (Bucks)
Perkasie Borough (Bucks)
Pine Grove Borough (Schuylkill)
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)
Shamokin Dam Borough (Snyder)
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

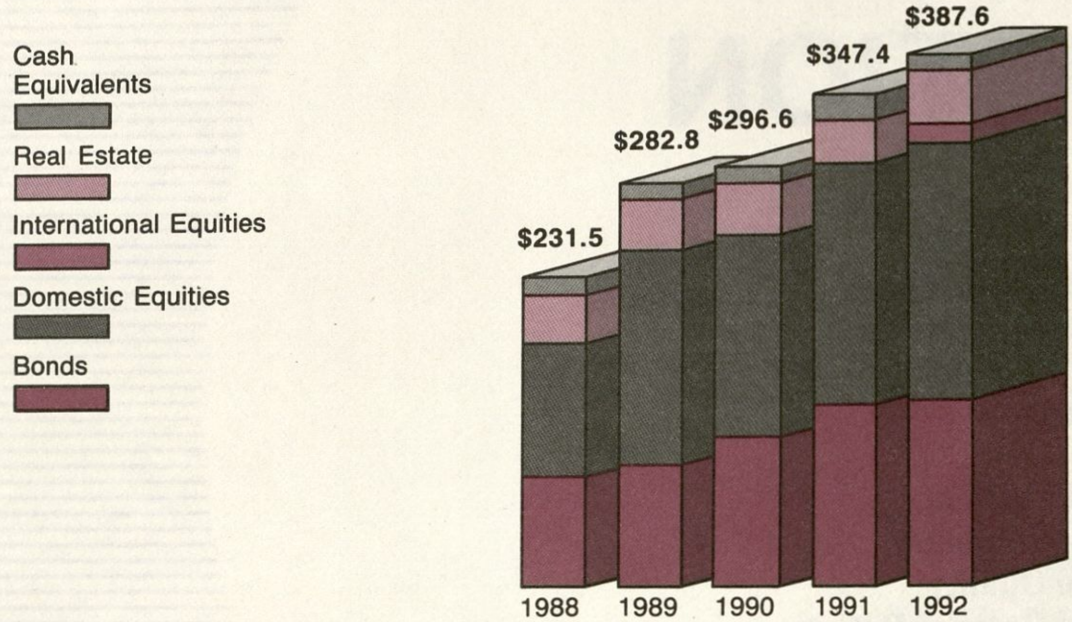
- **Investment Performance**
  Portfolio Distribution
- **Asset Allocation**
- **Investment Summary**
  Portfolio Summary
  Portfolio Quality
  Portfolio Rates of Return
  Ten Largest Common Stock Holdings
  Summary of Commissions and Payments to
  Investment Advisors and Consultants
  Brokers
- **Investment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

Investment Performance

On December 31, 1992, the System's investment assets were valued at $387,575,220, an increase in value of $40,163,837 over the December 31, 1991 valuation of $347,411,383.

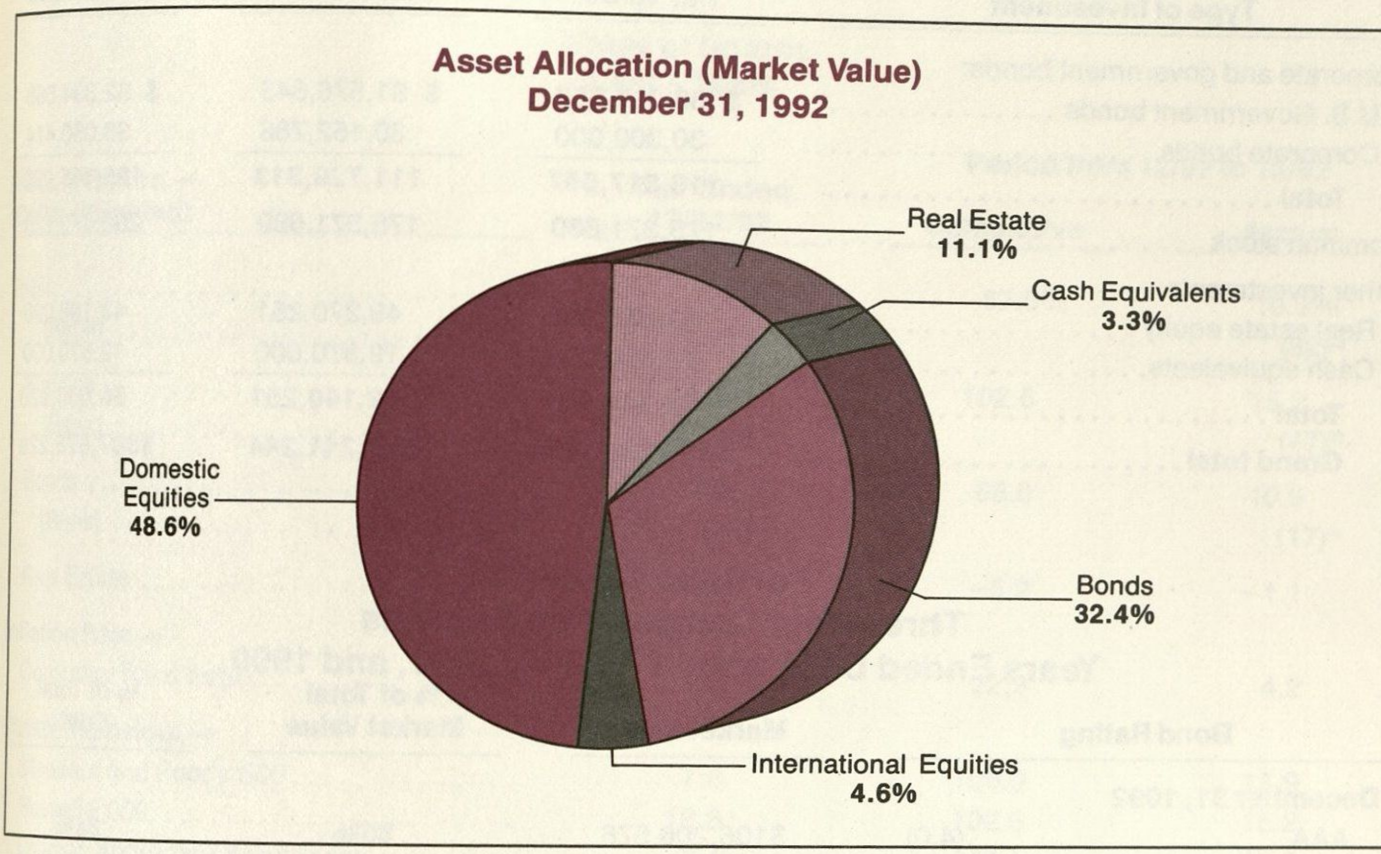
During the last five years, the System has grown from $231.5 million to $387.6 million. Net contributions added $22.2 million, and net investment returns added $143.7 million. The following graph shows the System's five year trend of investment assets at market value.

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



Asset Allocation

The System's asset allocation as of December 31, 1992 was $188.3 million committed to domestic equities, $17.8 million to international equities, $125.4 million to bonds, $43.2 million to real estate, and $12.9 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, 1992 was 6.2 percent with a ranking in the 66th percentile of all balanced funds as measured by the CDA universe. This performance level was 1.0 percent below the median balanced return of 7.2 percent. The cumulative five year return for December 1987 through December 1992 of 67.5 percent (10.9 percent per year) ranked in the 82nd percentile.

For the year ended December 31, 1992, equities gained 8.5 percent. That return ranked just above the median in the 45th percentile and 0.9 percent higher than the Standard and Poor's return of 7.6 percent. For the last five years, the System's stock return of 102.6 percent (15.2 percent per year) ranked in the 47th percentile, 0.7 percent per year below the S&P 500 for the same period.

Bonds returned 7.9 percent, ranking in the 25th percentile, 0.5 percent above the Lehman Aggregate bond index. For the five year period, the cumulative return of 68.0 percent (10.9 percent per year) ranked well above the median in the 17th percentile equalling the market index for the same period.

The real estate segment of the portfolio had a negative 8.3 percent rate of return for the fiscal year, and for the last five years negative 5.2 percent or negative 1.1 percent per annum.

Investment Summary

Portfolio Summary
As of December 31, 1992

Type of Investment	Par Value	Book Value	Market Value
Corporate and government bonds:			
U.S. Government bonds	$ 88,217,557	$ 81,576,545	$ 92,394,666
Corporate bonds	30,300,000	30,152,768	33,050,414
Total	**118,517,557**	**111,729,313**	**125,445,080**
Common stock	175,371,680	175,371,680	206,072,120
Other investments:			
Real estate equity	49,270,251	49,270,251	43,188,020
Cash equivalents	12,870,000	12,870,000	12,870,000
Total	**62,140,251**	**62,140,251**	**56,058,020**
Grand total	**$356,029,488**	**$349,241,244**	**$387,575,220**

Portfolio Quality
Three-Year Comparative Analysis
Years Ended December 31, 1992, 1991, and 1990

Bond Rating		Market Value	% of Total Market Value	% of Total Cost
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%**
December 31, 1990				
AAA	(4.0)	$ 84,922,920	80%	78%
AA	(3.0)	7,929,120	7	8
A1	(2.5)	13,501,056	13	14
A	(2.0)	0	0	0
Total bonds		**$106,353,096**	**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 12/31/92**	**Period from 12/87 to 12/92 Cumulative**	**Annual**
Total	6.2%	67.5%	10.9%
(Rank)	(66)		(82)[2]
Equities	8.5	102.6	15.2
(Rank)	(45)		(47)[3]
Bonds	7.9	68.0	10.9
(Rank)	(25)		(17)[4]
Real Estate	−8.3	−5.2	−1.1
Inflation Rate —			
Consumer Price Index	2.9	22.9	4.2
Market Indicators —			
Standard and Poor's 500	7.6	109.0	15.9
Russell 2,000	18.6	102.5	15.2
Lehman Aggregate Bond Index	7.4	68.1	10.9
90-Day Treasury Bills	3.1	38.7	6.8
Dow Jones Industrial Average	7.4	102.6	15.2
CDA Universe[5] Median Rate of Return —			
(Time-Weighted)	7.2	79.2	12.4

[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 1,513 portfolios with an aggregate asset value in excess of $664 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, 1992

Stock	Shares	Market Value	% of Stock Portfolio
General Electric Co	51,200	$4,377,600	3.22%
Atlantic Richfield Co.	34,500	3,958,875	2.91
American Brands Inc	84,000	3,402,000	2.50
Exxon Corp	48,700	2,976,788	2.19
American Home Products Corp	40,000	2,700,000	1.99
Seagram Ltd	103,200	2,618,700	1.93
U S West Inc.	63,600	2,440,650	1.80
Royal Dutch Petroleum Co NY Registry Sh Par	28,200	2,284,200	1.68
Nynex Corp	26,900	2,256,238	1.66
Hanson PLC Sponsored ADR	122,300	2,231,975	1.64

Summary of Commissions and Payments to Investment Advisors and Consultants Comparative Two-Year Schedule Years Ended December 31, 1992 and 1991

Firm Name	Fees and Commissions Paid (Accrued) 1992	1991
Bond, Procope Capital Management, Inc	$ 35,283	$ 0
Chase Investment Counsel Corp	183,178	21,554
Connecticut General Life Insurance Co (CIGNA)	93,094	82,812
Dahab Associates, Inc	32,000	32,000
Ernst & Young	20,000	21,000
Fidelity Bank	249,796	222,884
Merrill Lynch Asset Management, Inc	0	75,734
Newbold's Asset Management, Inc	228,163	225,218
Prudential Asset Management Co, Inc (PRISA)	17,770	17,498
The Putnam Companies, Inc	207,490	179,242
The Segal Co	158,130	158,420
State Street Bank & Trust Co	55,192	64,351
Treasury Dept — Security Movement & Control Program	10,759	13,688
Total	**$1,290,855**	**$1,114,401**

Investment Summary *(Continued)*

Summary of Commissions Paid to Brokers
Comparative Two-Year Schedule
Years Ended December 31, 1992 and 1991

Broker Name	Commissions Paid (Cash Basis) 1992	1991
Adams Harkness & Hill Inc	$ 1,890	$ 77
Adler Coleman & Co Inc.	78	0
Advest Inc	56	0
Alex Brown & Sons Inc.	2,030	1,725
Baird Robert W & Co Inc	161	56
Bear Stearns & Co	2,715	6,926
Blair William & Co	1,077	872
Bernstein Sanford C & Co Inc	10	0
Blunt Ellis & Loewi Inc	126	371
Brimberg & Co	515	0
Broadcort Capital Corp	10,777	1,153
Cantor Fitzgerald & Co Inc.	1,292	1,740
Cleary Gull & Reiland.	847	0
Correspondent Services Corp	1,253	0
Cowen & Co.	315	1,738
Credit Lyonnais Securities Inc.	0	112
Dain Bosworth Inc	0	63
Davis Mendel & Regenstein Inc.	0	1,500
Dean Witter Reynolds Inc	602	0
Dillon Read & Co	0	132
Direct Access Brokerage Services	21	0
Dominion Securities Corp	0	140
Donaldson Lufkin & Jenrette Inc.	1,264	327
Duggan & Co Investment Securities	560	0
Dunlevy & Co Inc	0	126
Edwards A G & Sons Inc	42	287
Ernst & Co.	0	1,183
Ewing Capital Inc	11,355	960
Fahnestock & Co Inc	352	0
Financial Network Investment	56	0
First Boston Corp	2,568	431
Gerard Klauer Mattison & Co.	140	119
Goldman Sachs & Co.	2,238	138
Gordon Haskett & Co	1,680	3,666
Hambrecht & Quist Inc.	534	0
Herzog Heine Geduld Inc	350	0
Instinet Inc	522	390
Interstate/Johnson Lane Corp	3,853	4,794
ISI Group Inc	1,770	0
Jefferies & Co Inc.	7,961	7,587
Jessup Josenthal Securities	0	198
Jones Edward D & Co	820	1,092
Kankaku Securities Inc	273	0
Kemper Capital Markets	756	0
Kemper Clearing Corp.	245	35
Kidder Peabody & Co Inc.	2,330	427
Lazard W R Securities	0	750
Legg Mason Wood Walker Inc	616	203

Investment Guidelines *(Continued)*

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

Prohibited Transactions

The Board prohibits (1) purchasing commodities, mineral rights, and warrants except those previously authorized, (2) short selling and the purchasing of securities on margin, (3) selling or buying options on either fixed income or equity instruments, and (4) investing in companies that have either a direct investment in the Republic of South Africa or more than 25 employees working in the Republic of South Africa.

Execution and Operation

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

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

The Board may enter into an agreement with certain brokerage houses in order to participate in a recapture program whereby a designated percentage of the System's trades handled by these brokerage firms will be returned as cash to the System and be treated as new income for the benefit of the membership. Active equity managers of the securities of medium and large capitalized companies will be informed of such agreements and have been asked when not in conflict with the best execution rule to attempt to place 50 percent of their trades with the designated firms.

The Board assumes full responsibility for exercising the voting privilege contained in proxy solicitations and has adopted specific guidelines for staff guidance. These guidelines as adopted and hereafter amended shall be an integral part of the System's investment guidelines.

Communications

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

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

Monitoring

The System will monitor the performance of its investment advisors through direct involvement of the Board, the System's staff, and any consultant hired for this purpose by the Board.