



Public Employees Retirement System of Ohio

THE COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Year Ended December 31, 1992



Richard E. Schumacher, Executive Director
Mark Snodgrass, Assistant Director - Controller

277 East Town Street, Columbus, Ohio 43215 - 4642

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Public Employees Retirement System of Ohio

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.



[Signature]
President

[Signature]
Jeffrey L. Esser
Executive Director

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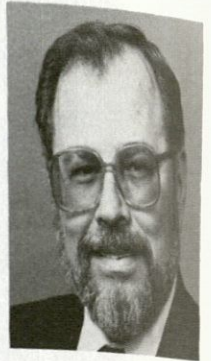
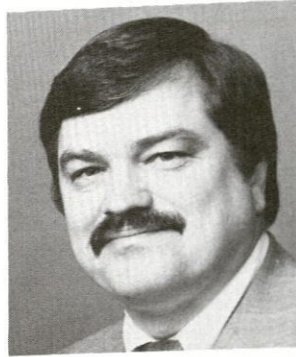
The Retirement Board

ELECTED MEMBERS

Charlie R. Adkins
Representing College and
University Employees

John M. Hurley
Representing Municipal Employees
(Retired March 31, 1993)

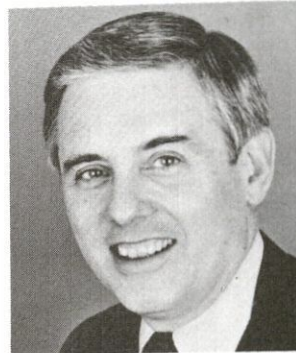
John W. Maurer
Representing State Employees



W. Emerson "Dusty" Rhodes
Representing Miscellaneous Employees

Barbara J. Thomas
Representing County Employees

William G. Wilcox
Representing Retirants



STATUTORY MEMBERS

James Conrad
Director of Administrative Services

Thomas E. Ferguson
Auditor of State

Lee Fisher
Attorney General



The Retirement Board is the governing body of PERS, with responsibility for administration and management. Six of the nine members are elected by the groups they represent: retirants; employees of the state; employees of counties; employees of municipalities; non-teaching employees of state colleges and universities; and miscellaneous employees. The Auditor of State, Attorney General, and the Director of Administrative Services are statutory members.

The Retirement Board appoints the Executive Director, an actuary, and other employees necessary for the transaction of business. The Board meets monthly and receives no compensation, but is reimbursed for necessary expenses. By law, the State Treasurer is custodian of the funds of PERS.

Organizational Structure

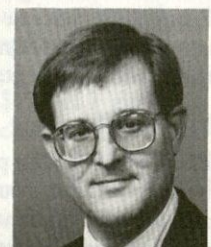
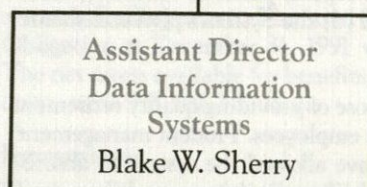
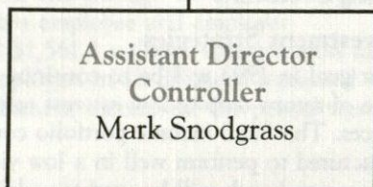
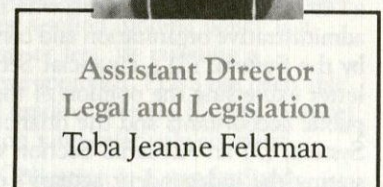
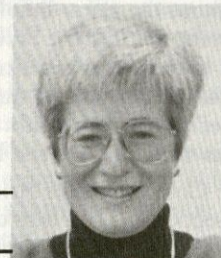
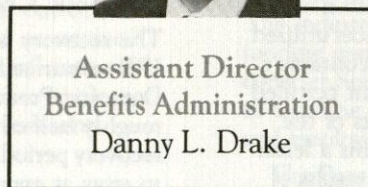
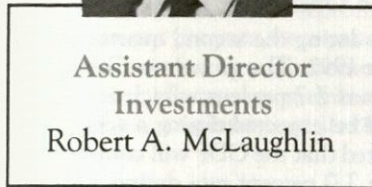
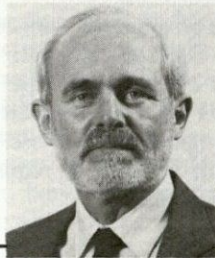
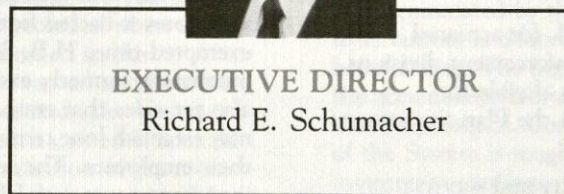
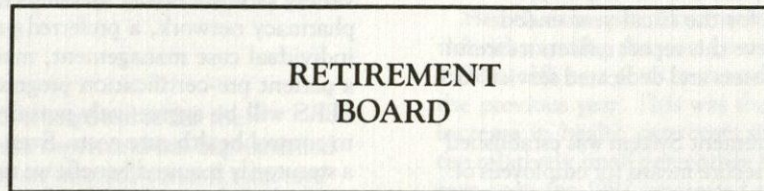
ADVISERS:

Actuary —
Gabriel, Roeder, Smith & Company
Detroit, Michigan

Investments —
Comstock Partners Inc.
New York, New York

AUDITORS:

Deloitte & Touche
Columbus, Ohio
(Under contract with the
Auditor of the state of Ohio)



Letter of Transmittal

PUBLIC EMPLOYEES RETIREMENT SYSTEM OF OHIO

277 EAST TOWN STREET

COLUMBUS, OHIO 43215

TELEPHONE (614) 466-2085

Dear Chairman and Members of the Board:

It is our privilege to submit to you the Comprehensive Annual Financial Report for the Public Employees Retirement System of Ohio for the fiscal year ended December 31, 1992. We believe this report reflects a careful stewardship of the System's assets and dedicated service to members and retirees.

The State Employees Retirement System was established January 1, 1935 to provide a secure means for employees of the state of Ohio to provide for their retirement. In 1938 the System expanded to include employees of counties, municipalities, health departments and park and conservancy districts. At that time the name was changed to the Public Employees Retirement System of Ohio. Membership was made optional for elected officials in 1941. Survivor benefits were made part of the PERS benefit structure in 1951. From 1935 to the present the System has experienced continuous growth and provided benefit enhancements.

Participating employers are divided, for actuarial purposes, into state, local and law enforcement divisions. A complete description of employees eligible for membership in PERS is contained in the Plan Statement on page 44.

PERS provides retirement, disability and survivor benefit protection for thousands of public employees throughout the state. Employees, along with their employers, pay into the System during their working years. PERS, in turn, pays benefits to these members throughout their retirement, and to qualified beneficiaries upon a member's or retiree's death. For additional information on benefits available, see the Plan Statement on page 44.

The Comprehensive Annual Financial Report consists of six sections: (1) an Introductory Section which contains a Letter of Transmittal, along with the identification of the administrative organization and consulting services utilized by the System; (2) a Financial Section which contains a letter expressing the opinion of the independent certified public accountants and the financial statements of the System; (3) an Actuarial Section which contains a letter stating the independent actuary's opinion and results of their annual actuarial valuation; (4) a Statistical Section which includes significant data pertaining to the Retirement System; (5) an Investment Section which contains the investment report, portfolio summary, and the portfolio listings; and (6) the System's plan statement.

Major Initiatives

PERS exists for the purpose of providing quality retirement benefits to Ohio's public employees. Prudent management and wise investments have allowed the system to absorb two decades of substantial benefit increases while constantly maintaining a sound level of funding. This will continue to be our focus.

A major concern over the past few years has been the rapidly escalating cost of providing health care to retirees. In response to this concern PERS has implemented a variety of cost cutting measures including: a preferred pharmacy network, a preferred provider organization, individual case management, mail order prescriptions and a patient pre-certification program. In the coming year PERS will be aggressively pursuing other innovative ways to control health care costs. Even though health care is not a statutorily required benefit we understand its importance to our benefit recipients and are dedicated to providing quality health care to the extent our resources will permit. The cooperation of all benefit recipients will be a key ingredient for continuing a high standard of health care coverage.

Changes Enacted

House Bill 383 included a number of provisions affecting PERS. Prior to H.B. 383 persons who had exempted themselves from membership in the Retirement System were forever barred from receiving service credit for that exempted time. H.B. 383 established the means for purchasing formerly exempted time. The new legislation also provides that state and local government employers may establish long term care (LTC) insurance programs for their employees. The legislation authorizes PERS to enter into agreements with LTC insurance companies to allow a member to continue LTC coverage after retirement.

Changes in our disability benefits program were enacted when the Governor signed Senate Bill 346. This bill provided PERS members as of July 29, 1992 with the option of selecting by April 7, 1993 a revised disability program or remaining under the original plan. Those who establish PERS membership after July 29, 1992 are required to receive coverage under the revised plan.

Economic Condition and Outlook

The recovery which began during the second quarter of 1991 continued throughout 1992. The growth in Gross Domestic Product (GDP) was 2.7 percent, which is roughly half of what would be expected during a typical recovery period. It is expected that the GDP will continue to grow at approximately a 3.0 percent rate during 1993. The Consumer Price Index is expected to continue at or near the 1992 rate of 2.9 percent. The unemployment rate at year end was 7.4 percent which is moderately high during a recovery.

Investment Strategies

Our goal in 1993 will be to continue to earn a sound real rate of return despite low interest rates and high stock prices. The fixed income portfolio continues to be structured to perform well in a low yield environment. Corporate bonds will be used for additional yield. Mortgage backed securities are not viable alternatives due to their prepayment risks. The stock market appears to be

over valued. A failure in either of the President's goals of 1) creating more jobs or 2) reducing the federal budget deficit could send stock prices sharply down. Accordingly our equity strategy will focus on the preservation of capital and positioning the portfolio for a sub-par stock market environment. Real estate is becoming an attractive option to stocks and bonds due to higher comparative yields and low prices. Consequently, we may increase our real estate holdings in 1993. Selective purchases from the portfolios of distressed lenders will likely comprise the majority of our new real estate investments.

Financial Information

The management of PERS is responsible for the information contained in this report and has implemented and continues to maintain an internal control structure which is designed to provide reasonable assurances for the safeguarding of assets and the reliability of financial records. We believe that the internal control structure currently in place is adequate to meet the purpose for which it was intended. We also believe the financial statements, supporting schedules and statistical tables to be fairly presented in all material respects.

Accounting System and Reports

The accrual basis of accounting is used in recording financial transactions. Expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable and investment purchases and sales are recorded as of their trade date. Interest earned is accrued on a monthly basis. Entries for amortization of premium and accumulation of discount are accrued on a monthly basis. Deferred gains and losses are also accrued monthly. Gains and losses on bond exchanges are accounted for under the deferral and amortization method. Accounts receivable at year end, in addition to accrued interest receivable, reflect accrued employer charges and investment proceeds due on sales that have not yet settled. Investments are recorded at cost; thus, on the balance sheet, bonds and mortgages are carried at amortized book value while stocks are carried at cost. Fixed assets are listed at cost less accumulated depreciation. Under our cash management program, receipts are deposited as received and are recorded as undistributed deposits until such time as they are allocated to member contributions, employer receivables, employer contributions, and investment income.

Revenues

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through investment income. The 1992 revenue from employee and employer contributions totaled \$1,561.3 million. Contribution rates for employees and employers in all divisions remained unchanged. Net investment income for the period was \$2,648.5 million.

Expenses

Benefit payments are the primary disbursements of the Retirement System. Recurring benefit payments prescribed

by the plan, refunds of the contributions to terminated employees, and the cost of administering the System comprise total expenses. Administrative expenses are funded wholly through investment income.

Benefit disbursements for 1992 totaled \$1,294.4 million. Of this amount \$1,191.6 million was paid to fulfill the System's obligation to its retirants. Refunds to members or beneficiaries for reasons of separation from service or death totaled \$102.8 million.

Health care costs have more than doubled since 1986 notwithstanding the cost control measures enacted. In 1992 health care costs increased by less than 8 percent from the previous year. This was the smallest percentage increase in health care costs since 1989. Even in light of the relatively small percentage increase for the year, health care costs for 1992 amounted to \$302.5 million and represented over 23 percent of the Retirement System's total costs for the year. Health care costs are paid by the Retirement System on a self-insured split-funding program initiated in January 1981. Claims processing is administered under this agreement by the Aetna Insurance Company.

Funding and Reserves

Funds, derived from the excess of revenues over expenses, are accumulated by the Retirement System in order to meet current and future benefit obligations to retirants and beneficiaries. The higher the level of funding, the larger the accumulations of assets and the greater the investment income potential. Continuous improvement in the funding of the System is sought through suitable reserves, higher investment earnings, and effective cost containment programs. As of December 31, 1992, funds established by the System totaled \$26,406.0 million. The actuarial valuation dated December 31, 1991 reflects an unfunded actuarial accrued liability of \$5,374.0 million. This is the difference between net assets available for benefits and the actuarially calculated liability for the fund. These "unfunded actuarial accrued liabilities" are being amortized over future years. The state government liability is being funded over 32 years, the local government portion over 36 years, and the law enforcement portion over 19 years. The industry standard for a sound funding policy is a funding period of 40 years or less. By pursuing a conscientious management approach, PERS has been able to meet the goals of level funding, thereby holding member and employer contribution rates relatively constant.

The Pension Benefit Obligation is a standardized disclosure measure of the present value of pension benefits. The measure is the actuarial present value of credited projected benefits, excluding health care benefits and is intended to help users assess a public employees retirement system's funding status. The total Pension Benefit Obligation at December 31, 1991 was \$19,801.1 million. The net assets available for benefits, excluding health care costs, were \$18,501.2 million.

Investments

The investment portfolio provided net revenues of \$2,648.5 million in 1992. Net revenues are comprised of bond interest, accumulation of discount, amortization of

premium, dividend income, recognized gains and losses on the sale of securities, and amortization of deferred gains and losses on bonds sold. Total purchase yield on all investments was 5.59 percent. A detailed listing of the portfolio is presented on pages 39 to 42.

Professional Services

Professional services are provided to the Public Employees Retirement System by consultants appointed by the Board to aid in efficient and effective management of the System. Actuarial services are provided by Gabriel, Roeder, Smith & Company, Detroit, Michigan. The investment adviser is Comstock Partners Inc., New York, New York. The financial records of the System were audited by Deloitte & Touche, Certified Public Accountants, Columbus, Ohio, under contract with the Auditor of the state of Ohio.

Certificate of Achievement for Excellence in Financial Reporting

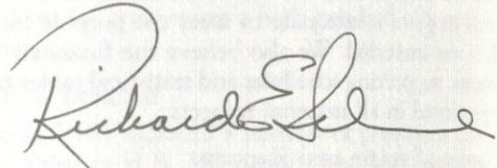
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Public Employees Retirement System of Ohio for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 1991. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized Comprehensive Annual Financial Report, whose contents conform to program standards. Such reports must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We

believe our current report continues to conform to Certificate of Achievement program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

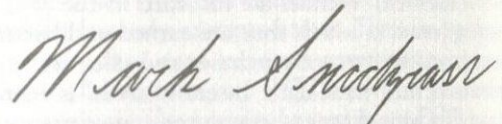
Acknowledgements

The preparation of this report reflects the combined efforts of the System's staff under the direction of the Retirement Board. The purpose of this report is to provide complete and reliable information as a basis for making management decisions, as a means for determining compliance with the legal provisions, and as a means for determining responsible stewardship over the assets contributed by the members and their employers.

This report is being mailed to all employer units of the System, each state legislator, and other interested parties. Respectfully submitted,



RICHARD E. SCHUMACHER, CPA
Executive Director



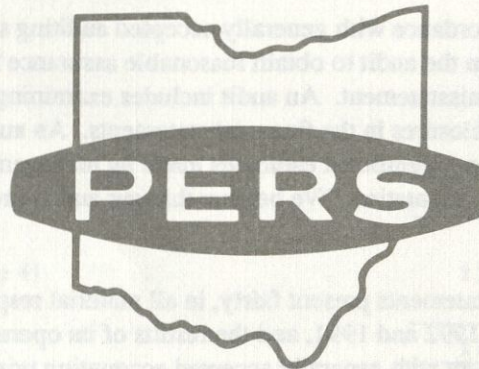
MARK SNODGRASS, CPA
Assistant Director - Controller
June 1, 1993, Columbus, Ohio

Public Employees Retirement System of Ohio

The Comprehensive
Annual Financial Report

For the Year Ended December 31, 1992

FINANCIAL
SECTION



**Deloitte &
Touche**



155 East Broad Street
Columbus, Ohio 43215-3650

Telephone: (614) 221-1000
Facsimile: (614) 229-4647

INDEPENDENT AUDITORS' REPORT

To the Retirement Board of the
Public Employees Retirement System of Ohio:

We have audited the accompanying balance sheets of the Public Employees Retirement System of Ohio as of December 31, 1992 and 1991, and the related statements of revenues, expenses, and changes in fund balances and of 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, such financial statements present fairly, in all material respects, the financial position of the System at December 31, 1992 and 1991, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The Additional Information listed in the table of contents is presented for the purpose of additional analysis and is not a required part of the basic financial statements. The Additional Information is the responsibility of the System's management. The Additional Information has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

Deloitte & Touche

May 7, 1992

**Deloitte Touche
Tohmatsu
International**

Balance Sheets

As of December 31, 1992 and 1991

	1992	1991
ASSETS		
Cash and Short-Term Securities (Note 3):		
Cash	\$ 12,462,796	\$ 12,368,774
Short-Term Securities	<u>1,916,329,870</u>	<u>3,272,296,892</u>
	<u>1,928,792,666</u>	<u>3,284,665,666</u>
Receivables:		
Employers	82,270,880	107,508,013
Retirement Incentive Plan	41,953,848	41,919,414
Investment Sales Proceeds	222,127,314	73,258,228
Accrued Interest and Dividends	<u>324,212,542</u>	<u>170,777,810</u>
	<u>670,564,584</u>	<u>393,463,465</u>
Investments (Notes 3 and 4):		
Bonds	17,976,851,554	9,512,500,214
Mortgages	254,386,268	4,459,244,905
Stocks	4,517,960,575	4,930,935,903
Real Estate	1,341,169,255	1,035,479,205
Venture Capital	<u>18,462,133</u>	<u>17,386,810</u>
	<u>24,108,829,785</u>	<u>19,955,547,037</u>
Fixed Assets:		
Land	1,708,409	1,708,409
Building and Building Improvements	16,894,666	16,611,544
Furniture, Fixtures, and Equipment	<u>10,974,590</u>	<u>9,269,252</u>
	29,577,665	27,589,205
Accumulated Depreciation	<u>(6,191,356)</u>	<u>(6,423,519)</u>
	<u>23,386,309</u>	<u>21,165,686</u>
Other Assets:		
Deferred Losses on Bonds Sold (Note 4)	112,942,022	37,684,023
Prepaid Expenses (Note 10)	<u>1,641,964</u>	<u>1,330,404</u>
	<u>114,583,986</u>	<u>39,014,427</u>
TOTAL ASSETS	<u><u>\$26,846,157,330</u></u>	<u><u>\$23,693,856,281</u></u>
LIABILITIES AND FUND BALANCES		
Liabilities:		
Undistributed Deposits	\$ 14,269,328	\$ 18,322,689
Medical Benefits Payable	50,433,075	50,879,332
Investment Commitments Payable	5,508,987	25,677,400
Accrued Administrative Expenses (Notes 9 and 10)	3,151,932	3,671,752
Deferred Gains on Bonds Sold (Note 4)	<u>366,812,111</u>	<u>88,366,413</u>
Total Liabilities	<u>440,175,433</u>	<u>186,917,586</u>
Fund Balances (Note 1):		
Employees' Savings Fund	4,062,437,463	3,719,799,330
Employers' Accumulation Fund	13,402,940,081	11,469,908,460
[Unfunded Actuarial Accrued Liability: 1991 — \$5,373,992,511 (Note 5)]		
Annuity and Pension Reserve Fund	8,350,397,078	7,752,550,821
Survivors' Benefit Fund	571,975,780	547,780,313
Income Fund	17,105,279	17,324,037
Expense Fund	<u>1,126,216</u>	<u>(424,266)</u>
Total Fund Balances	<u>26,405,981,897</u>	<u>23,506,938,695</u>
TOTAL LIABILITIES AND FUND BALANCES	<u><u>\$26,846,157,330</u></u>	<u><u>\$23,693,856,281</u></u>

Statements of Revenues, Expenses, and Changes in Fund Balances

For the Years Ended December 31, 1992 and 1991

	Employees' Savings	Employers' Accumulation	Annuity And Pension Reserve
Revenues:			
Members' Contributions	\$ 589,698,548		
Employers' Contributions		\$ 971,602,348	
Investment Income			
Other			\$ 65,240
Total Revenues	589,698,548	971,602,348	65,240
Expenses:			
Benefit Payments			1,116,799,375
Refunds	92,148,085	10,615,535	
Administrative Expenses			
Total Expenses	92,148,085	10,615,535	1,116,799,375
Excess (Deficit) of Revenues over Expenses	497,550,463	960,986,813	(1,116,734,135)
Transfers — Increase (Decrease):			
Retirement Benefits	(199,246,585)	(510,297,832)	709,544,417
Disability Benefits	(18,979,126)	(120,030,601)	139,009,727
Survivor Benefits	(6,915,754)	(30,249,764)	
Retirement To (From) Other Systems	(3,140,270)	(1,472,035)	4,612,305
Statutory Interest	76,731,962	(76,731,962)	
Annual Interest		887,276,253	599,732,154
Other	(3,362,557)	823,550,749	261,681,789
Total Transfers	(154,912,330)	972,044,808	1,714,580,392
Balance, Beginning of Year	3,719,799,330	11,469,908,460	7,752,550,821
Balance, End of Year	\$4,062,437,463	\$13,402,940,081	\$8,350,397,078

See Notes to Financial Statements

1992				1991
Survivors' Benefit	Income	Expense	Total	Total
		\$ 2,009	\$ 589,700,557	\$ 562,818,132
	\$2,648,454,472		971,602,348	925,097,737
			2,648,454,472	2,418,425,646
\$ 8,278	(262,660)		(189,142)	84,878
<u>8,278</u>	<u>2,648,191,812</u>	<u>2,009</u>	<u>4,209,568,235</u>	<u>3,906,426,393</u>
74,783,513			1,191,582,888	1,099,858,227
	447	66	102,764,133	96,957,455
		16,178,012	16,178,012	15,421,235
<u>74,783,513</u>	<u>447</u>	<u>16,178,078</u>	<u>1,310,525,033</u>	<u>1,212,236,917</u>
<u>(74,775,235)</u>	<u>2,648,191,365</u>	<u>(16,176,069)</u>	<u>2,899,043,202</u>	<u>2,694,189,476</u>
37,165,518				
41,687,001	(1,528,695,408)			
<u>20,118,183</u>	<u>(1,119,714,715)</u>	<u>17,726,551</u>		
<u>98,970,702</u>	<u>(2,648,410,123)</u>	<u>17,726,551</u>		
<u>547,780,313</u>	<u>17,324,037</u>	<u>(424,266)</u>	<u>23,506,938,695</u>	<u>20,812,749,219</u>
<u>\$571,975,780</u>	<u>\$ 17,105,279</u>	<u>\$ 1,126,216</u>	<u>\$26,405,981,897</u>	<u>\$23,506,938,695</u>

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

	1992	1991
Cash Flows from Operating Activities:		
Excess of Revenues Over Expenses	\$ 2,899,043,202	\$ 2,694,189,476
Adjustments to Reconcile Net Excess of Revenues Over Expenses to Net Cash Provided by Operating Activities:		
Net Gain on Sale of Investments	(560,221,595)	(823,421,503)
Depreciation	1,302,038	1,209,045
Loss (Gain) on Disposal of Fixed Assets	327,916	(2,291)
Amortization of Net Bond Premium	(53,162,073)	(442,696,616)
Amortization of Net Deferred (Gains) Losses	(42,692,998)	1,692,536
Net Deferred Gains Recognized on Sales Prior to Maturity	(520,715,939)	(25,728,982)
Increase (Decrease) in Cash due to Changes in:		
Employers' Receivables	25,237,133	8,298,056
Retirement Incentive Plan Receivables	(34,434)	14,091,548
Accrued Interest and Dividends Receivable	(153,434,732)	(25,335,477)
Prepaid Expenses	(311,560)	10,580
Undistributed Deposits	(4,053,361)	4,869,259
Medical Benefits Payable	(446,257)	13,149,596
Accrued Administrative Expenses	(519,820)	127,248
Net Cash Provided by Operating Activities	<u>1,590,317,520</u>	<u>1,420,452,475</u>
Cash Flows from Investing Activities:		
Purchase of Investments:		
Bonds	(41,511,839,248)	(19,292,372,567)
Stocks	(2,789,546,834)	(3,506,656,497)
Mortgages	(1,702,236,359)	(3,472,788,805)
Short-term Securities	(12,647,006,067)	(16,884,556,556)
Real Estate	(351,711,783)	(112,456,449)
Venture Capital	(2,271,911)	(1,933,320)
Proceeds from Sale of Investments:		
Bonds	33,642,863,897	17,645,190,579
Stocks	3,564,572,680	2,361,416,907
Mortgages	6,082,918,063	2,427,068,162
Short-term Securities	14,079,746,124	19,391,496,491
Real Estate	47,170,018	13,664,848
Venture Capital	968,499	589,031
Net Cash (Used) by Investing Activities	<u>(1,586,372,921)</u>	<u>(1,431,338,176)</u>
Cash Flows from Capital and Related Financing Activities	<u>(3,850,577)</u>	<u>(2,416,137)</u>
Net Increase (Decrease) in Cash	94,022	(13,301,838)
Cash at Beginning of Year	12,368,774	25,670,612
Cash at End of Year	<u>\$ 12,462,796</u>	<u>\$ 12,368,774</u>

See Notes to Financial Statements

Notes to Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following are the significant accounting policies followed by the Public Employees Retirement System of Ohio (PERS):

Basis of Accounting — The financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date.

Investments — Section 145.11 of the Ohio Revised Code authorizes PERS to invest in various instruments (meeting various rating criteria) which include obligations of the U.S. Treasury and U.S. agencies, state and local governments, various mortgage loans, corporate bonds, common and preferred stock, commercial paper, and real estate. PERS did not engage in any repurchase or reverse repurchase transactions during either 1992 or 1991.

Short-term securities consisting of commercial paper and U.S. Treasury obligations are carried at amortized cost. Equity securities and investments in real estate are carried at cost. Fixed income investments are carried at amortized cost, using the effective interest rate method of amortization. All investments are subject to adjustment for market declines judged to be other than temporary.

The gain or loss on investment transactions is determined using the average cost of securities sold for equity securities and the specific cost of securities sold for all other investments. Dividend income is recognized based on the ex-dividend date. Interest income is recognized as earned.

Deferred Gains and Losses on Bonds Sold — Gains and losses on bond exchanges are accounted for under the deferral and amortization method of accounting whereby gains and losses on bonds exchanged are deferred and amortized over the shorter of the life of the bond sold or purchased (see Note 4). Gains and losses are deferred on bond exchanges only if the exchange involves the sale and simultaneous purchase of another bond of equal or better rating and/or an improvement in net yield to maturity or the quality of the bond held. Gains and losses are deferred only on the first exchange of a security. On the subsequent sale of any bond purchased as part of a bond exchange on which a gain or loss was deferred, any unaccumulated gain or unamortized loss is immediately recognized.

Fixed Assets — Fixed assets are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets. The range of estimated useful lives is as follows:

	Years
Building and building improvements	50
Furniture, fixtures, and equipment	3 - 10

Undistributed Deposits — Cash receipts are recorded as undistributed deposits until such time as they are allocated to employers' receivables, members' contributions, or investment income.

Federal Income Tax Status — PERS is exempt from federal income taxes under Section 501(a) of the Internal Revenue Code.

Funds — Various funds are established to account for the reserves held for future and current benefit payments as follows:

- The Employees' Savings Fund represents members' contributions held in trust pending their refund or transfer to a benefit disbursement fund. Upon an employee's retirement, such employee account is credited with an amount of interest (statutory interest) on the employee's contributions based on a rate of 3 percent to 4 percent compounded annually as required by Chapter 145 of the Ohio Revised Code. Such statutory interest does not vest with the employee.
- The Employers' Accumulation Fund is used to accumulate employers' contributions to be used in providing the reserves required for transfer to the Annuity and Pension Reserve Fund as members retire or become eligible for disability benefits and to the Survivors' Benefit Fund for benefits due dependents of deceased members.
- The Annuity and Pension Reserve Fund is the fund from which annuity and disability benefits are paid. This reserve was fully funded according to the latest actuarial study dated December 31, 1991, and accordingly, there are sufficient assets available to this fund to pay the vested benefits of all retirants and beneficiaries as of that valuation date.
- The Survivors' Benefit Fund is the fund from which benefits due dependents of deceased members of the Retirement System are paid. This fund was also fully funded as of December 31, 1991.
- The Income Fund is the fund which is credited with all investment earnings and miscellaneous income. The balance in this fund is transferred to other funds to aid in the funding of future benefit payments and administrative expenses.
- The Expense Fund provides for the payment of administrative expenses with the necessary monies allocated to it from the Income Fund.

2. DESCRIPTION OF PERS

Organization — PERS is a cost-sharing multiple-employer public employee retirement system for all public employees in Ohio except those covered by one of the other state or local retirement systems in Ohio. PERS is administered in accordance with Chapter 145 of the Ohio Revised Code.

PERS is not part of the state of Ohio financial reporting entity. Responsibility for the organization is vested in the System's Retirement Board; there is no financial interdependency with the state of Ohio, nor does the state of Ohio provide oversight authority for the System. The Retirement Board is the governing body of PERS, with responsibility for administration and management. Six of the nine members are elected by the groups they represent: retirants; employees of the state; employees of counties; employees of municipalities; non-teaching employees of state colleges and universities; and miscellaneous employees. The Auditor of State, Attorney General, and the Director of Administrative Services are statutory members.

The Retirement Board appoints the Executive Director, an actuary, and other employees necessary for the transaction of business. The Board meets monthly and receives no compensation, but is reimbursed for necessary expenses.

Employer, employee and retirant data as of December 31, 1991 and 1990 (per latest available actuarial data) follows:

	1991	1990
Employer Units:		
State group	263	263
Local government group	3,081	3,085
Law enforcement group	212	206
Employee Members and Retirants:		
Retirants and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	126,487	129,371
Active employees:		
Vested	160,784	155,577
Nonvested	164,164	122,386

All public employees in Ohio, except for certain specific exclusions and exemptions, are required to become contributing members of PERS. For actuarial purposes, vested employees represent those employees who have earned sufficient service credit (5 years or 60 contributing months) to be entitled to a future benefit from PERS.

Benefits

- **Age and Service Benefits** — Benefits are calculated on the basis of age, final average salary, and service credit. Members are eligible for retirement benefits at age 60 with 5 years or 60 contributing months of service credit, age 55 with 25 or more years of service credit, or at any age with 30 or more years of service credit. The annual benefit is based on 2.1 percent of final average salary multiplied by the actual years of service for the first 30 years of service credit and 2.5 percent for years of service in excess of 30 years. Persons retiring before age 65 or with less than 30 years of service credit receive a percentage reduction in benefit amounts. Upon reaching minimum retirement age, benefits are vested at the time of eligibility for monthly benefits.
- **Law Enforcement Officers' Benefits** — Law enforcement officers, as defined in Chapter 145 of the Ohio Revised Code, are eligible for special retirement options. These options are available to such members at age 52 or older with 25 or more years of credited service. The annual benefit is calculated by multiplying 2.5 percent of final average salary by the actual years of service for the first 20 years of service credit and 2.1 percent of final average salary for each year of service over 20 years. These options also permit early retirement under qualifying circumstances as early as age 48.
- **Early Retirement Incentive** — Employers under PERS may establish an early retirement incentive plan utilizing the purchase of service credit. To be eligible, employees must be able to retire under existing plan provisions after the purchase of the additional credit. Electing employers must contribute all such additional costs as are actuarially determined to fund the benefit. Such plan, if adopted by an employer, must be offered to a minimum of 5 percent of covered employees and provide for the purchase of up to five years credit, limited to a maximum of 20 percent of total service credit.
- **Disability Benefits** — Senate Bill 346 revised the disability plan in order to comply with the federal Old Workers Benefit Protection Act. Members on the rolls as of July 29,

1992 could elect by April 7, 1993 coverage under either the original plan or the revised plan. All members who entered the system after July 29, 1992 are automatically covered under the revised plan.

A member who becomes disabled before age 60 and has completed 60 contributing months is eligible for a disability benefit under the original plan. The revised plan differs in that a member who becomes disabled at any age with 60 contributing months will be eligible for disability benefits until a determined age. After the disability benefit ends, the member has an opportunity to apply for a service retirement benefit, or a refund of contributions which are not reduced by the amount of disability benefits received.

Law enforcement officers are immediately eligible for disability benefits if disabled by an on-duty illness or injury.

- **Survivor Benefits** — Dependents of deceased members may qualify for survivor benefits if the deceased employee had at least 18 months of service credit with at least three months of credit within the two and one-half years immediately preceding death. Chapter 145 of the Ohio Revised Code specifies the dependents and the conditions under which they qualify for survivor benefits.
 - **Health Care Benefits** — The System provides comprehensive health care benefits to retirants with 10 or more years of qualifying service credit and offers coverage to their dependents on a deduction basis. Coverage includes hospitalization, medical expenses, prescription drugs and reimbursement of monthly Medicare premiums. The System determines the amount, if any, of the associated health care costs that will be absorbed by the System. The System has adopted cost containment measures that require annual deductible payments on claims by retirants, their covered spouses, and other dependents.
 - **Other Benefits** — Annually, after retirement, retirement benefits are increased 3 percent if the cost of living, as measured by the Consumer Price Index, has increased by at least 3 percent on a cumulative basis. A death benefit of \$500-\$2,500, determined by number of years of service credit of the retirant, is paid to the beneficiary of a deceased retirant.
 - **Money Purchase Annuity** — PERS age and service retirants who become re-employed in a PERS-covered position must contribute to the System. All re-employed PERS retirants must elect to either: 1) have their retirement allowance suspended for the re-employment period and contribute toward a formula benefit, or 2) continue to receive their retirement allowance and contribute toward a money purchase annuity (based on the calculation of employee contributions for the period of re-employment plus allowable interest, multiplied by two).
 - **Refunds** — Upon termination of employment, a member may withdraw accumulated contributions made to PERS. The law requires a three-month waiting period after service termination before the refund may be paid. The acceptance of a refund cancels the individual's rights and benefits in PERS. Employer contributions to PERS are not refundable.
- Contributions** — PERS' funding policy provides for periodic employer contributions at actuarially determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to

accumulate adequate assets to pay benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial funding method. This formula determines the amount of contributions necessary to fund: (1) the current service cost, which represents the estimated amount necessary to pay for benefits earned by the employees during the current service year; and (2) the prior service cost for service earned prior to plan inception and subsequent benefit increases, which represents the amount necessary to pay for unfunded accrued liabilities over a period of 32 and 26 years for state, 36 and 43 years for local government, and 19 and 49 years for law enforcement divisions for retirement allowances and survivor benefits and for health care benefits, respectively. As of December 31, 1992 the rates based on covered payroll were:

	Employee Rate	Employer Rate
State group	8.5%	13.31%
Local government group	8.5%	13.55%
Law enforcement group	9.0%	16.00%

The rates above fall within the ranges set by the Ohio Revised Code.

Litigation — PERS is a party in various litigation relating to plan benefits. While the final outcome cannot be determined at this time, management is of the opinion that the liability, if any, for these legal actions will not have a material adverse effect on PERS' financial position.

3. CASH AND INVESTMENTS

At December 31, 1992, the carrying amount of PERS' cash deposits was \$12,462,796 and the bank balance was \$17,380,614. Of the bank balance, \$100,000 was insured by Federal Deposit Insurance Corporation (Category 1). The remaining bank balance cash deposits were uninsured and uncollateralized and were held in the name of PERS' pledging financial institution, as required by the Ohio Revised Code (Category 3).

A summary of short-term securities and investments held at December 31, 1992 and 1991 is as follows:

	Book Value	Market Value
	December 31, 1992	
Short-term Securities:		
Commercial Paper	\$ 230,524,621	\$ 230,524,621
U.S. Treasury Obligations	1,685,805,249	1,685,805,249
Total Short-term Securities	<u>\$ 1,916,329,870</u>	<u>\$ 1,916,329,870</u>
Investments:		
Bonds — par value	\$17,873,813,400	
Net unamortized premium	103,038,154	
Bonds — net	<u>17,976,851,554</u>	<u>\$18,169,023,098</u>
Mortgages — par value	262,662,119	
Net unamortized discount	(8,275,851)	
Mortgages — net	<u>254,386,268</u>	<u>254,815,555</u>
Stocks	4,517,960,575	5,017,273,915
Real estate	1,341,169,255	1,190,307,366
Venture capital	18,462,133	19,462,133
Total investments	<u>\$24,108,829,785</u>	<u>\$24,650,882,067</u>
	December 31, 1991	
Short-term Securities:		
Commercial Paper	\$ 198,687,422	\$ 198,687,422
U.S. Treasury Obligations	3,073,609,470	3,073,609,470
Total Short-term Securities	<u>\$ 3,272,296,892</u>	<u>\$ 3,272,296,892</u>
Investments:		
Bonds — par value	\$15,739,045,400	
Net unamortized discount	(6,226,545,186)	
Bonds — net	<u>9,512,500,214</u>	<u>\$10,205,358,079</u>
Mortgages — par value	4,542,025,813	
Net unamortized discount	(82,780,908)	
Mortgages — net	<u>4,459,244,905</u>	<u>4,720,657,219</u>
Stocks	4,930,935,903	6,068,652,125
Real estate	1,035,479,205	942,608,481
Venture capital	17,386,810	18,386,810
Total investments	<u>\$19,955,547,037</u>	<u>\$21,955,662,714</u>

Market Value — If available, quoted market prices have been used to value investments as of December 31, 1992 and 1991. Securities not having a quoted market price have been valued based on yields currently available on comparable securities of issuers with similar credit ratings. Venture capital not having quoted market prices are valued at cost. The market value of real estate is based upon appraisals of the properties held.

Weighted average purchase yields are as follows:

	1992	1991
Short-term securities	3.15%	4.89%
Long-term investments	5.59%	7.34%
Total yield	5.41%	7.06%
Total yield adjusted for amortization of deferred gains and losses on bonds sold	5.58%	7.06%

Statement No. 3 of the Government Accounting Standards Board requires governmental entities to categorize investments to give an indication of the level of risk assumed by the entity at year-end. Category 1 includes investments that are insured or registered or for which the securities are held by PERS or by its agent in the name of PERS. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the name of PERS. Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty or by its trust department or agent but not in PERS' name.

All investments of PERS meet the criteria of Category 1 except real estate, which by its nature is not required to be so categorized. Investments are held in the name of PERS or its nominee by the Treasurer of the state of Ohio as custodian.

4. DEFERRED GAINS AND LOSSES ON BONDS SOLD

PERS defers gains and losses on the sale of bonds under a program to reinvest the proceeds in similar bonds. These exchanges are made to increase annual income, to shorten or lengthen maturity as market conditions change, or to improve the quality of the bond portfolio. The following presents the activity in these accounts for the years ended December 31, 1992 and 1991.

	1992	1991
Deferred Gains on Bonds Sold:		
Beginning balance	\$ 88,366,413	\$40,860,306
Gains deferred on bonds exchanged	949,017,171	98,736,995
Gains accumulated	(49,820,637)	(1,710,404)
Gains recognized on sales prior to maturity	(620,750,836)	(49,520,484)
Ending balance	<u>\$366,812,111</u>	<u>\$88,366,413</u>
Deferred Losses on Bonds Sold:		
Beginning balance	\$37,684,023	\$59,840,131
Losses deferred on bonds exchanged	182,420,535	5,038,334
Losses amortized	(7,127,639)	(3,402,940)
Losses recognized on sales prior to maturity	(100,034,897)	(23,791,502)
Ending balance	<u>\$112,942,022</u>	<u>\$37,684,023</u>

5. ACTUARIAL ASSUMPTIONS AND METHODS

Significant actuarial assumptions employed by the actuary for funding purposes as of December 31, 1991, the date of the latest actuarial study, and 1990 include:

- Investment Return — 7.75 percent, compounded annually, for all members, retirants, and beneficiaries.
- Salary Scale — As of December 31, 1991 and 1990, respectively, the active member payroll is assumed to increase 5.25 percent and 5.5 percent annually, which is the portion of the individual pay increase assumption attributable to inflation. Also assumed are additional projected salary increases ranging from 0 percent to 5.1 percent per year at December 31, 1991 and from 0 percent to 4 percent per year at December 31, 1990, depending on age, attributable to seniority/merit. Benefit payments are assumed to increase 3 percent per year after retirement.

● Multiple Decrement Tables

Death — For determination of active and inactive members' mortality, the 1960 Basic Group Mortality Table was used. For retirants' mortality, the 1971 Group Annuity Mortality Male and Female Tables, projected to 1984 were used.

Disability — Based upon PERS' experience.

Withdrawal — Based upon PERS' experience.

- Health Care Benefits — Assumed liabilities are based on PERS' experience adjusted for a 5.25 percent and a 5.5 percent annual increase in costs at December 31, 1991 and 1990, respectively. All benefit recipients were assumed to be eligible for Medicare on attainment of age 65, or immediately if receiving a disability benefit. The System is experiencing significant increases in health care costs. If these increases continue in excess of the actuarial assumed rate, the System may need to make additional modifications to its health care program.

For actuarial purposes, assets are valued utilizing a method which recognizes book value plus or minus a percentage of realized and unrealized investment gains and losses.

PERS' actuarial valuation is calculated separately for retirants and beneficiaries and for active and inactive members.

The actuarial present value of benefits to be paid retirants and beneficiaries currently receiving benefits and deferred survivor beneficiaries, whose benefits have been determined, is calculated using the assumptions noted above. The reserves in the Annuity and Pension Reserve Fund and the Survivors' Benefit Fund together with interest credited thereon from the Income Fund are compared to the actuarial accrued liability for the remaining lifetimes of the retirants and beneficiaries, and any deficiency is then funded by a transfer from the Employers' Accumulation Fund. Consequently, all such determined benefits are fully funded.

The actuarial accrued liability for active and inactive members is calculated on the projected benefit basis using the entry age normal actuarial cost method under which the present value of each member's expected benefit payable at retirement or death is determined. The assets of the Employees' Savings Fund, Employers' Accumulation Fund,

and the market value adjustment are subtracted from this present value to arrive at the unfunded actuarial accrued liability.

The unfunded actuarial accrued liability (includes unfunded health care costs for members and retirants) based upon the two most recent annual actuarial valuations is as follows:

	December 31, 1991			December 31, 1990	
	State Group	Local Government Group	Law Enforcement Group	Total	Total
Present value of actuarial accrued liability for active and inactive accounts	\$7,838,660,363	\$11,461,844,045	\$588,642,799	\$19,889,147,207	\$18,211,933,868
Less:					
Employers' Accumulation Fund*	4,455,046,623	6,326,624,057	406,437,808	11,188,108,488	9,431,002,192
Employees' Savings Fund	1,489,241,843	2,118,272,405	112,285,082	3,719,799,330	3,386,651,914
Market value adjustment	<u>(156,231,643)</u>	<u>(225,856,014)</u>	<u>(10,665,465)</u>	<u>(392,753,122)</u>	<u>(144,059,422)</u>
Unfunded actuarial accrued liability	<u>\$2,050,603,540</u>	<u>\$3,242,803,597</u>	<u>\$ 80,585,374</u>	<u>\$ 5,373,992,511</u>	<u>\$ 5,538,339,184</u>

* Amounts shown reflect transfers out of the Employers' Accumulation Fund to fully fund the Annuity and Pension Reserve Fund and Survivors' Benefit Fund.

6. DISCLOSURES REQUIRED BY GOVERNMENT ACCOUNTING STANDARDS BOARD (GASB) STATEMENT NO. 5

GASB Statement No. 5 established standard disclosure of pension information by public employee retirement systems. The Statement pertains to pension obligations only, and does not address health care benefits.

The amounts shown below as "pension benefit obligation" are a standardized disclosure measure of the present value of pension benefits, adjusted for the effect of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits, excluding health care benefits, and is intended to help users assess a public employees retirement system's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among such systems. The measure is independent of the actuarial funding method used to determine contributions to PERS discussed below.

The pension benefit obligations were determined as part of actuarial valuations at December 31, 1991 and 1990. The significant actuarial assumptions used to compute the pension benefit obligations are the same as those used for funding purposes and to compute contribution requirements. At December 31, 1991 and 1990, the unfunded pension benefit obligation was \$1,300 million and \$1,629 million determined as follows (in millions):

	1991	1990
Pension benefit obligation:		
Retirants and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$ 8,916	\$ 8,338

	1991	1990
Current employees:		
Accumulated employee contributions including allocated investment income	3,622	3,290
Employer-financed vested	7,031	6,188
Employer-financed nonvested	232	201
Total pension benefit obligation	<u>19,801</u>	<u>18,017</u>
Net assets available for benefits (excluding amounts allocated to health care costs), at cost (market value: 1991 — \$20,076; 1990 — \$17,230)	<u>18,501</u>	<u>16,388</u>
Unfunded pension benefit obligation	<u>\$ 1,300</u>	<u>\$ 1,629</u>

The Ohio Revised Code provides statutory authority for employee and employer contributions. The employee contribution rate is 8.5 percent for employees other than law enforcement. Law enforcement employees contribute 9.0 percent of covered salary. The total 1992 employer contribution rate for state employers was 13.31 percent of covered payroll; 9.02 percent was the portion used to fund pension obligations. For local government employer units the rate was 13.55 percent of covered payroll; 8.44 percent was the portion used to fund pension obligations. The law enforcement employer rate was 16.00 percent of covered payroll and 10.81 percent was the portion used to fund pension obligations for the year 1992. The difference between the total employer rate and the portion used to fund pension obligations (4.29 percent, 5.11 percent, and 5.19 percent for the year 1992 for state, local, and law enforcement employers, respectively) was the amount used to fund the health care program for retirants.

Contributions for 1992 totaling \$1,158,557,046 (employers — \$586,193,782; employees — \$572,363,264)

were made in accordance with the actuarially determined contribution requirements at December 31, 1991. All other actuarially determined contributions to the System were used for the purpose of funding health care.

The contributions used to fund the pension obligations represented 8.7 percent and 8.5 percent of active member payroll for employers and employees, respectively. Employers' contributions consisted of: a) \$349,388,984 normal cost, b) \$160,357,519 amortization of unfunded actuarial accrued liability, and c) \$76,447,279 to fund survivor benefits. Employees contributions were devoted 100 percent to funding normal cost.

Historical trend information is unavailable for years prior to 1986. The information for 1986 through 1991 is presented below (dollar amounts in millions):

Fiscal Year	(1) Net Assets Available For Benefits	(2) Pension Benefit Obligation (PBO)	(3) Percent Funded (1) ÷ (2)	(4) Unfunded PBO (2) - (1)	(5) Annual Covered Payroll	(6) Unfunded PBO as a Percentage of Covered Payroll (4) ÷ (5)
1986	\$10,841	\$13,284	81.6%	\$2,443	\$4,543	53.8%
1987	11,900	14,469	82.2%	2,569	4,864	52.8%
1988	13,290	15,658	84.9%	2,368	5,307	44.6%
1989	14,730	16,699	88.2%	1,969	5,597	35.2%
1990	16,388	18,017	91.0%	1,629	6,036	27.0%
1991	18,501	19,801	93.4%	1,300	6,651	19.5%

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

7. POST-EMPLOYMENT BENEFITS OTHER THAN PENSION

PERS of Ohio provides post-retirement health care coverage to age and service retirants with 10 or more years of qualifying Ohio service credit and to disability recipients. Health care coverage for primary survivor benefit recipients is available. A portion of each employer's contribution to PERS is set aside for the funding of post-retirement health care. See Note 6 for disclosure of employer contribution rates.

The post-retirement benefit obligations are advance-financed and were determined as part of the actuarial valuation at December 31, 1991. The significant actuarial assumptions used to compute the post-employment benefit obligations are described in Note 5 and are the same as those used for funding and to compute contribution requirements. At December 31, 1991 the actuarially accrued liability and unfunded actuarial accrued liability based on the actuarial cost method used were \$6,444.1 million and \$1,455.2

million, respectively. At December 31, 1992 the number of active contributing participants was 349,674.

Historical trend information is unavailable for years prior to 1987. The information for 1987 through 1991 is presented below (dollar amounts in millions).

Fiscal Year	(1) Net Assets Available for Other Postemployment Benefits	(2) Other Postemployment Benefit Obligation (OPEB)	(3) Percent Funded (1) ÷ (2)	(4) Unfunded OPEB (2) - (1)	(5) Annual Covered Payroll	(6) Unfunded OPEB as a Percentage of Covered Payroll (4) ÷ (5)
1987	\$2,924.4	\$4,051.1	72.2%	\$1,126.7	\$4,864	23.2%
1988	3,266.2	5,132.0	63.6%	1,865.8	5,307	35.2%
1989	3,921.1	5,485.6	71.5%	1,564.5	5,597	28.0%
1990	4,409.9	6,067.6	72.7%	1,657.7	6,036	27.5%
1991	4,988.9	6,444.1	77.4%	1,455.2	6,651	21.9%

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

8. LEASES

PERS leases equipment with lease terms of one year or less. Total lease expense was \$406,047 and \$394,687 for the years ended December 31, 1992 and 1991, respectively.

9. VACATION AND SICK LEAVE

As of December 31, 1992 and 1991, \$1,287,505 and \$2,222,594, respectively, was accrued for unused vacation and sick leave for PERS' employees. Employees who resign or retire are entitled to full compensation for all earned unused vacation. Unused sick leave pay is lost upon termination. However, employees who retire are entitled to receive payment for a percentage of unused sick leave.

In November 1992, the Governmental Accounting Standards Board issued Statement No. 16 "Accounting for Compensated Absences." The Statement requires recognition of a liability for compensated absences that are attributable to services already rendered and are not contingent on a specific event which is outside of the control of the employer and employee. PERS adopted Statement No. 16 effective January 1, 1992, which had an insignificant effect on the statement of revenues, expenses, and changes in fund balances. Therefore, no restatement of prior year financial statements was made.

10. DEFERRED COMPENSATION PLAN

PERS offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, available to all PERS employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

All amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts, property, or rights are (until paid or made available to the employee or other beneficiary) solely the property and rights of PERS (without being restricted to the provisions of benefits under the plan), subject only to the claims of PERS' general creditors. Participants' rights under the plan are equal to those of general creditors of PERS in an amount equal to the fair market value of the deferred account for each participant.

PERS has no liability for losses under the plan and believes that it is unlikely that it will use the assets to satisfy the claims of general creditors in the future.

The deferred compensation assets of \$1,480,366 and \$1,172,014, at market value, and the related liability to PERS employees are included in the accompanying financial statements as of December 31, 1992 and 1991, respectively.

11. DEFINED BENEFIT PENSION PLAN

GASB Statement Nos. 5 and 12 established standards for disclosure of information on pension benefits and other postemployment benefits (OPEB), respectively, by all state and local government employers. PERS of Ohio is required to make such disclosures.

All employees of the System are eligible for membership in PERS. The payroll for such employees for the year ended December 31, 1992 was \$7,033,300. Covered payroll paid to System employees participating in PERS was \$7,980,343 for the year ended December 31, 1992. The System's contributions and its employees' contributions for the year ended December 31, 1992 were \$1,081,336 and \$678,329, respectively. These contributions represented employer contributions of 13.55% of covered payroll and employee contributions of 8.5% of covered payroll. Of the \$1,081,336 in employer contributions for 1992, \$673,541 was the portion used to fund the pension benefit obligation and \$407,795 was the portion used to fund the OPEB obligation.

Information relating to eligibility, benefits and the System's asset valuations, unfunded actuarial accrued liabilities, pension benefit obligation and OPEB obligation can be found elsewhere in the Notes to the Financial Statements.

12. PROFESSIONAL TRENDS

The Financial Accounting Standards Board (FASB) and the Governmental Accounting Standards Board (GASB), previously the National Council on Governmental Accounting (NCGA), have both issued financial reporting standards for state and local government pension plans.

In March 1980, the Financial Accounting Standards Board issued Statement No. 35 (FASB No. 35) titled "Accounting and Reporting by Defined Benefit Pension Plans." The principal impact of this Statement on financial statements is to require that all of the investments be stated at fair market value, and the elimination of deferred gains and losses on bond investment exchanges.

In a release dated August 1, 1980, the National Council on Governmental Accounting (NCGA) expressed its concern "that acceptance of FASB No. 35 as generally accepted accounting principles for governmental pension plans could create a situation resulting in the preparation of financial statements for public pension plans that may be subject to misinterpretations, especially in determining the proper level of funding for the plan." Accordingly, the NCGA statement urged government accountants to continue preparing financial statements in accordance with the principles stated in NCGA Statement 1.

In April 1983, the NCGA adopted Statement 6 "Pension Accounting and Financial Reporting: Public Employee Retirement Systems and State and Local Government Employers." In September of 1983, NCGA Statement 6 was deferred indefinitely. In November 1983, the FASB issued Statement No. 75 which deferred indefinitely the application of FASB No. 35 to pension plans of state and local governmental units.

In July 1984, GASB Statement 1 "Authoritative Status of NCGA Pronouncements and AICPA Industry Audit Guide" was issued stating that NCGA Statement 1, NCGA Statement 6, or FASB Statement No. 35 were acceptable accounting and reporting principles pending issuance of a new GASB Statement(s).

Accordingly, PERS has elected not to change its present accounting principles until such time as consensus is reached among the various standard setting authorities.

Investment Summary

For the Year Ended December 31, 1992

December 31, 1991

	Book Value	Market Value	Purchases
Bonds			
U.S. Gov't. & Agencies	\$ 7,951,281,983	\$ 8,469,277,077	\$39,353,349,995
Corporate			1,424,150,652
Canadian	1,561,218,231	1,736,081,002	734,338,601
Mortgages	4,459,244,905	4,720,657,219	1,702,236,359
Stocks	4,930,935,903	6,068,652,125	2,769,378,421
Real Estate	1,035,479,205	942,608,481	351,711,783
Venture Capital	17,386,810	18,386,810	2,271,911
Total	<u>\$19,955,547,037</u>	<u>\$21,955,662,714</u>	<u>\$46,337,437,722</u>

Revenues by Source

Year	Members' Contributions	Employers' Contributions	Employers' Contributions as a Percentage of Covered Payroll	Investment Income (Net)	Other	Total
1983	\$330,125,897	\$544,109,013	13.94%	\$ 666,680,588	\$ 56,228	\$1,540,971,726
1984	345,368,439	557,498,416	13.94	713,857,919	187,347	1,616,912,121
1985	370,005,032	597,079,409	13.94	1,601,928,648	251,641	2,569,264,730
1986	391,193,417	627,520,315	13.94	1,830,721,267	209,457	2,849,644,456
1987	420,977,772	741,840,413	13.92	1,325,054,638	362,986	2,488,235,809
1988	446,091,129	769,144,695	13.93	1,441,226,325	10,160,620	2,666,622,769
1989	476,415,655	804,745,875	13.95	1,823,780,073	2,535,968	3,107,477,571
1990	517,629,799	858,207,902	13.96	1,876,319,720	159,017	3,252,316,438
1991	562,818,132	925,097,737	13.75	2,418,425,646	84,878	3,906,426,393
1992	589,700,557	971,602,348	13.51	2,648,454,472	(189,142)	4,209,568,235

December 31, 1992

Maturities, Sales & Accruals	Book Value	Market Value	% of Portfolio (Book Value)	Purchase Yield
\$30,103,501,430	\$17,201,130,548	\$17,397,677,383	71.35%	6.29%
659,259,671	764,890,981	760,616,615	3.17	5.89%
2,284,726,807	10,830,025	10,729,100	.04	4.59%
5,907,094,996	254,386,268	254,815,555	1.06	7.16%
3,182,353,749	4,517,960,575	5,017,273,915	18.74	4.50%
46,021,733	1,341,169,255	1,190,307,366	5.56	
1,196,588	18,462,133	19,462,133	.08	2.17%
<u>\$42,184,154,974</u>	<u>\$24,108,829,785</u>	<u>\$24,650,882,067</u>	<u>100.00%</u>	5.59%

Expenses by Type

Year	Benefit Payments	Refunds	Administrative Expenses	Total
1983	\$ 466,770,558	\$ 63,144,826	\$ 8,774,539	\$ 538,689,923
1984	522,466,256	85,108,060	9,137,846	616,712,162
1985	581,512,580	76,636,067	9,144,206	667,292,853
1986	653,440,281	80,552,059	9,467,193	743,459,533
1987	723,438,025	81,802,444	10,271,197	815,511,666
1988	841,373,200	81,220,133	11,256,093	933,849,426
1989	914,787,338	85,276,351	12,040,343	1,012,104,032
1990	984,711,577	105,565,487	13,398,269	1,103,675,333
1991	1,099,858,227	96,957,455	15,421,235	1,212,236,917
1992	1,191,582,888	102,764,133	16,178,012	1,310,525,033

Administrative Expenses

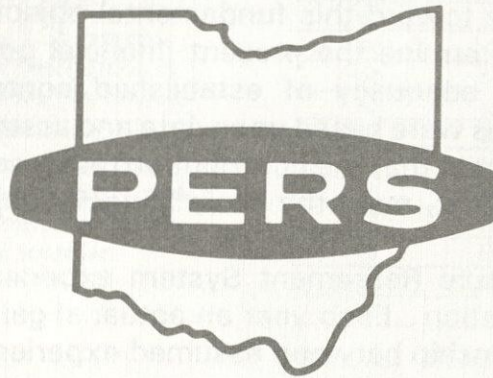
For the Years Ended December 31, 1992 and 1991

	1992	1991
Personal Services:		
Salaries and Wages	\$ 7,033,300	\$ 7,406,564
Retirement Contributions	1,307,652	1,141,448
Insurance	1,370,856	1,298,589
Bureau of Employment Services	<u>247</u>	<u>544</u>
	<u>9,712,055</u>	<u>9,847,145</u>
Supplies:		
Office Supplies	246,670	204,114
Printing and Publications	242,089	110,878
Dues and Subscriptions	<u>35,298</u>	<u>20,066</u>
	<u>524,057</u>	<u>335,058</u>
Other Services and Charges:		
Professional Services:		
Auditing	56,196	67,650
Actuarial and Technical	375,444	143,000
Investment	249,209	237,287
Treasurer of State Charges	256,093	154,634
Medical	278,418	290,416
Pension Review	28,121	4,138
Employee Training	56,413	27,013
Data Processing Contract	25,751	38,829
Disaster Recovery	14,400	14,400
Communication:		
Telephone and Telegraph	127,607	139,455
Freight, Express, and Drayage	9,081	9,906
Postage	1,188,486	830,833
Transportation and Travel	186,723	167,879
Utilities	236,883	234,421
Rental and Maintenance:		
Equipment	856,658	865,629
Building	432,234	299,110
Microfilm	52,151	59,103
Retirement Study Commission	188,452	221,605
Miscellaneous	<u>21,542</u>	<u>224,679</u>
	<u>4,639,862</u>	<u>4,029,987</u>
Depreciation On:		
Building	356,553	356,158
Equipment and Fixtures	<u>945,485</u>	<u>852,887</u>
	<u>1,302,038</u>	<u>1,209,045</u>
TOTAL ADMINISTRATIVE EXPENSES	<u><u>\$16,178,012</u></u>	<u><u>\$15,421,235</u></u>

*The Comprehensive
Annual Financial Report*

For the Year Ended December 31, 1992

**ACTUARIAL
SECTION**



Report of the Actuary

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants

1000 Town Center • Suite 1000 • Southfield, Michigan 48075 • 313-799-9000

March 30, 1993

The Retirement Board
Public Employees Retirement System of Ohio
277 East Town Street
Columbus, Ohio 43215

Ladies and Gentlemen:

The basic financial objective of PERS is to establish and receive contributions which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Ohio citizens.

In order to measure progress toward this fundamental objective, PERS conducts annual actuarial valuations to (i) determine the present financial position, (ii) measure funding progress, and (iii) test the adequacy of established contribution rates. The latest completed actuarial valuations were based upon data and assumptions as of December 31, 1991. These valuations indicate that the contribution rates, established by the Retirement Board for benefits then in effect, meet the basic financial objective.

Assumptions concerning future Retirement System experience in major risk areas are needed for an actuarial valuation. Each year an actuarial gain/loss analysis is performed which determines the relationship between assumed experience and actual experience in each such risk area. Cumulative actual experience over the last five years has been consistent with assumed experience. The primary source of favorable experience has been gains from investment income. These gains have been offset by larger than assumed health care cost increases and by turnover at lower rates than assumed. The high rate of health care inflation in recent years continues to be a cause for concern. Additional restructuring will probably be necessary to maintain a balance between allocated contributions and retiree health benefits.

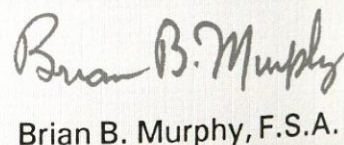
Based upon the valuation results it is our opinion that the Public Employees Retirement System of Ohio continues in sound condition in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY



Norman L. Jones, F.S.A.



Brian B. Murphy, F.S.A.

NLJ:kds

Summary of Assumptions

Adopted by Retirement Board After Consulting with Actuary.

Funding Method. An entry age normal actuarial cost method of valuation is used in determining benefit liabilities and normal cost. Differences between assumed and actual experience (actuarial gains and losses) become part of unfunded actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments which are level percents of payroll contributions. Adopted 1975.

Assets Valuation Method. For actuarial purposes, assets are valued utilizing a method which recognizes book value plus or minus a percentage of realized and unrealized investment gains and losses. Adopted 1988.

Valuation Data. The data about persons now covered and about present assets was furnished by the System's administrative staff. Data is examined for general reasonableness and year-to-year consistency, but is not audited by the Actuary.

Economic Assumptions. The following economic assumptions are used by the Actuary.

Investment Return. 7.75 percent, compounded annually, for all members and beneficiaries. Adopted 1989.

Active Employee Total Payroll. Increasing 5.25 percent annually, compounded annually, which is the base portion of the individual pay increase assumption. In effect, this assumes no change in the number of active employees.

Individual Employee Pay Increases. An employee's pay is assumed to increase each year, in accordance with a table consisting of a percent increase for each age. For sample ages, the following table describes annual increase percents. Adopted 1991.

Age	Merit & Seniority		Base (Economy)	Increase Next Year	
	State	Local		State	Local
30	3.2%	3.2%	5.25%	8.45%	8.45%
40	2.2	2.1	5.25	7.45	7.35
50	1.4	1.3	5.25	6.65	6.55
60	0.7	0.7	5.25	5.95	5.95

Decrement Assumptions. The following tables of probabilities, adopted in 1981, for the indicated risk areas are used by the Actuary.

Mortality. The tables used in evaluating allowances to be paid were the 1971 Group Annuity Mortality Male and Female tables, projected to 1984.

Retirement. Probabilities of age and service retirement applicable to members eligible to retire (adopted 1991) are:

Retirement Age	% Retiring Within Next Year				
	State		Local		Law Enforcement
	Men	Women	Men	Women	
50-54	17%	15%	20%	15%	20%
55-58	12	15	15	15	20
59	15	15	15	15	20
60	15	17	15	17	20
61	15	17	15	17	20
62	15	17	16	17	20
63	15	17	16	17	20
64	20	20	20	20	25
65	25	25	25	25	30
66	25	25	25	25	25
67	25	25	25	25	25
68	25	25	25	25	25
69	30	30	30	30	40
70	100	100	100	100	100

Turnover. Probabilities of separation from employment before age and service retirement because of death, withdrawal or disability are:

Sample Ages	Years of Service	% Separating Within Next Year								
		Death		Withdrawal			Disability			
		Men	Women	State Men	State Women	Law Enforcement	Local Men	Local Women	Men	Women
	0			30.00%	30.00%	16.00%	36.00%	34.50%		
	1			19.00	19.00	13.00	23.75	25.00		
	2			16.00	16.00	11.00	16.00	17.00		
	3			11.00	13.00	9.00	11.00	14.00		
	4			9.00	11.00	7.00	9.00	11.00		
30	5 & Over	.12%	.11%	7.20	8.90	4.80	7.20	10.00	.05%	.03%
40		.25	.15	4.40	5.40	3.60	5.00	6.40	.17	.11
50		.71	.43	2.50	3.40	2.40	3.20	4.20	.49	.35
60		1.80	1.16	0.60	0.80	0.60	0.80	1.00	1.21	.77

Actuarial Valuation Data

Valuation Year	Active Members				Retired Lives		
	Number	Annual Payroll (\$ Millions)	Average Pay	% Increase in Average Pay	Number	Annual Allowance (\$ Millions)	Average Allowance
1982	248,855	\$3,654	\$14,683	12.15%	81,166	\$331	\$4,076
1983	248,307	3,814	15,361	4.62	85,594	369	4,285
1984	248,483	4,044	16,278	5.97	90,302	424	4,691
1985	251,748	4,282	17,007	4.48	93,867	471	5,021
1986	254,619	4,543	17,842	4.91	97,906	519	5,298
1987	258,981	4,864	18,782	5.27	100,010	565	5,652
1988	264,868	5,307	20,036	6.68	103,150	630	6,108
1989	270,683	5,597	20,677	3.20	105,643	715	6,768
1990	277,963	6,036	21,715	5.02	107,177	762	7,109
1991	324,948	6,651	20,468	-5.74	108,971	820	7,525

Summary of Unfunded Accrued Liabilities

Each time a new benefit is added which applies to service already rendered, an "unfunded accrued liability" is created. Laws governing PERS require that these additional liabilities be financed systematically over a period of future years. Also, if actual financial experiences are less favorable than assumed financial experiences, the difference is added to unfunded accrued liabilities.

In an inflationary economy, the value of the dollar is decreasing. This environment results in employee pay increasing in dollar amounts resulting in unfunded accrued

liabilities increasing in dollar amounts, all at a time when the actual substance of these items may be decreasing. Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. Unfunded accrued liabilities divided by active employee payroll provides an index which clarifies understanding. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the system. Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

Summary of Assets and Actuarial Accrued Liabilities (\$ Amounts in Millions)

Valuation Year	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as a % of Active Member Payroll
1982	\$12,399	\$ 7,145	\$5,254	58%	\$3,654	144%
1983	13,976	8,156	5,820	58	3,814	153
1984	15,473	9,156	6,317	59	4,044	156
1985	17,138	11,049	6,089	64	4,282	142
1986	18,558	13,403*	5,155	72	4,543	113
1987	20,282	14,899*	5,383	73	4,864	111
1988	22,378	16,515*	5,863	74	5,307	110
1989	23,794	18,550*	5,244	78	5,597	94
1990	26,193	20,655*	5,538	79	6,036	92
1991	28,471	23,097*	5,374	81	6,651	81

*Includes market adjustment.

Short-Term Solvency Test

The PERS financing objective is to pay for the benefits through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the system are level in concept and soundly executed, the system will *pay all promised benefits when due — the ultimate test of financial soundness.*

A short-term solvency test is one means of checking a

system's progress under its funding program. In a short-term solvency test, the plan's present assets (cash and investments) are compared with: 1) Active member contributions on deposit; 2) The liabilities for future benefits to present retired lives; 3) The liabilities for service already rendered by active members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active

member contributions on deposit (1) and the liabilities for future benefits to present retired lives (2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (3) will be partially covered by the remainder of present

assets. Generally, if the system has been using level cost financing, the funded portion of column 3 will increase over time. Column 3 being fully funded is very rare.

It is wise to pay attention to both fundamental and short-term solvency tests.

Accrued Liabilities (\$ Amounts in Millions)

Valuation Year	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered By Reported Assets		
					(1)	(2)	(3)
1982	\$1,664	\$3,588	\$ 7,146	\$ 7,145	100	100	26
1983	1,843	4,011	8,123	8,156	100	100	28
1984	2,011	4,486	8,976	9,156	100	100	30
1985	2,190	5,031	9,917	11,049	100	100	40
1986	2,358	5,540	10,660	13,403*	100	100	52
1987	2,615	6,111	11,556	14,899*	100	100	53
1988	2,843	6,884	12,651	16,515*	100	100	54
1989	3,076	7,510	13,208	18,550*	100	100	60
1990	3,386	7,981	14,826	20,655*	100	100	63
1991	3,720	8,582	16,169	23,097*	100	100	67

*Includes market adjustment.

Actual vs. Recommended Contribution Rates

The Board adopted all contribution rates as recommended by the Actuary.

Analysis of Financial Experience

Gains & Losses in Accrued Liabilities

Resulting From Differences Between Assumed Experience & Actual Experience

Type of Activity	Gain (or Loss) For Year \$ in Millions				
	1991	1990	1989	1988	1987
Age & Service Retirements. If members retire at older ages than assumed, there is a gain. If younger ages, a loss.	\$ 12.5	\$ 38.0	\$ 16.7	\$ 22.0	\$ 4.2
Disability Benefits. If disability claims are less than assumed, there is a gain. If more claims, a loss.	18.9	23.4	35.6	14.5	5.6
Death-In-Service Annuities. If survivor claims are less than assumed, there is a gain. If more claims, a loss.	38.2	35.6	21.4	19.9	27.9
Other Separations. If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.	(183.0)	(256.8)	(117.7)	(243.3)	(150.9)
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	198.7	165.4	352.7	(244.9)	66.9
Investment Return. If there is greater investment return than assumed, there is a gain. If less return, a loss.	382.9	382.1	492.9	233.1	133.6
Health Insurance & Medicare Premiums. If there are smaller increases than assumed, there is a gain. If greater increases, a loss.	(554.1)	(188.5)	40.5	(390.8)	(244.8)
Gain (or Loss) During Year from Financial Experience	<u>(\$85.9)</u>	<u>\$199.2</u>	<u>\$842.1</u>	<u>(\$589.5)</u>	<u>(\$157.5)</u>

*The Comprehensive
Annual Financial Report*

For the Year Ended December 31, 1992

**STATISTICAL
SECTION**



Employer Contribution Rates

	Year	Current			Unfunded Liability		Total
		Normal	Health	Survivor Benefits	Past Service	Health	
State	1983	4.55%	1.65%	0.86%	5.25%	1.40%	13.71%
	1984	4.61	1.70	0.80	5.13	1.47	13.71
	1985	4.73	2.17	0.84	4.47	1.50	13.71
	1986	4.84	2.23	0.75	4.35	1.54	13.71
	1987	4.98	2.19	0.84	4.22	1.48	13.71
	1988	5.43	2.78	1.06	3.36	1.08	13.71
	1989	5.63	2.91	1.07	3.21	0.89	13.71
	1990	5.15	3.16	1.01	3.07	1.32	13.71
	1991*	5.48	3.34	1.01	2.40	1.08	13.31
	1992	5.49	3.34	1.02	2.51	0.95	13.31
	Local	1983	4.86	1.97	0.92	4.83	1.37
1984		4.83	2.20	0.88	4.56	1.48	13.95
1985		4.99	2.53	0.91	4.02	1.50	13.95
1986		4.95	2.76	0.80	3.87	1.57	13.95
1987		5.11	2.69	0.90	3.75	1.50	13.95
1988		5.00	3.18	1.05	3.49	1.23	13.95
1989		5.08	3.49	1.06	3.26	1.06	13.95
1990		4.65	3.92	0.99	2.89	1.50	13.95
1991*		4.99	4.13	0.99	2.31	1.13	13.55
1992		5.02	4.17	1.00	2.42	0.94	13.55
Law Enforcement		1983	8.66	2.00	1.42	5.27	0.75
	1984	8.15	2.32	1.57	5.14	0.92	18.10
	1985	8.19	2.90	1.56	4.35	1.10	18.10
	1986	8.07	3.12	1.53	4.30	1.08	18.10
	1987	7.99	3.05	1.52	4.45	1.09	18.10
	1988	8.58	3.45	1.55	3.52	1.00	18.10
	1989	8.64	3.90	1.55	2.89	1.12	18.10
	1990	7.73	4.33	1.45	3.34	1.25	18.10
	1991	8.23	4.37	1.45	1.13	0.82	16.00
	1992	8.08	4.46	1.44	1.29	0.73	16.00

*Rate effective July 1, 1991

Disbursements by Category

Year	Benefits					Post-Retirement Legislative Incr.
	Annuities	Disabilities	Other Systems	Survivors	CPI	
1983	\$239,346,014	\$29,678,413	\$2,615,346	\$25,977,513	\$38,569,453	\$25,841,902
1984	266,061,642	32,411,456	3,227,849	27,608,949	46,263,861	40,967,243
1985	297,771,528	36,811,337	3,818,776	29,136,086	54,905,210	40,238,117
1986	330,641,045	41,693,306	2,902,443	31,076,948	64,319,209	38,034,762
1987	363,424,328	46,658,177	3,231,189	33,044,661	73,612,942	35,800,025
1988	416,758,803	51,625,775	3,223,604	34,735,329	80,357,076	33,742,346
1989	463,455,461	57,151,688	4,061,810	36,392,135	92,146,600	53,475,739
1990	493,081,656	63,546,647	3,229,381	37,764,185	106,013,735	50,389,589
1991	531,188,927	70,423,067	3,484,009	39,601,327	120,558,352	47,510,253
1992	577,820,133	78,697,614	4,550,956	41,737,122	135,927,483	44,686,312

MEMBER COUNT

Year-End	Active Contributing	Inactive	Total
1983	250,566	53,560	304,126
1984	250,796	53,931	304,727
1985	254,797	54,746	309,543
1986	258,608	56,710	315,318
1987	262,208	60,291	322,499
1988	268,460	63,642	332,102
1989	266,866	80,630	347,496
1990	278,969	73,882	352,851
1991	328,981	71,216	400,197
1992	349,674	73,660	423,334

MEMBER CONTRIBUTION RATES

Year	Regular Rate	Law Enforcement Rate
1983	8.5%	9.5%
1984	8.5	9.5
1985	8.5	9.5
1986	8.5	9.5
1987	8.5	9.5
1988	8.5	9.5
1989	8.5	9.5
1990	8.5	9.5
1991	8.5	9.0
1992	8.5	9.0

Health Care	Death Benefits	Refunds			Total All Payments
		Separation	Beneficiaries	Other	
\$103,156,330	\$1,585,587	\$59,871,357	\$2,673,207	\$ 600,262	\$ 529,915,384
104,257,965	1,667,291	80,620,354	3,154,663	1,333,043	607,574,316
117,178,501	1,653,025	72,916,583	3,135,948	583,536	658,148,647
143,141,885	1,630,683	76,349,378	3,243,057	959,624	733,992,340
166,021,858	1,644,845	78,282,220	3,302,041	218,183	805,240,469
219,010,835	1,919,432	76,778,952	4,099,350	341,831	922,593,333
203,624,998	4,478,907	80,927,621	3,751,617	597,113	1,000,063,689
225,610,040	5,076,344	78,847,373	4,080,822	22,637,292	1,090,277,064
281,799,972	5,292,320	74,682,948	4,434,088	17,840,419	1,196,815,682
302,486,109	5,677,159	81,001,038	4,130,148	17,632,947	1,294,347,021

NUMBER OF EMPLOYER UNITS

Year	State	County	Law Enforcement	Municipalities	Villages	Miscellaneous	Libraries	Townships	Totals
1983	259	170	162	300	584	353	249	1,342	3,419
1984	270	184	148	330	561	371	254	1,296	3,414
1985	239	197	174	296	599	355	249	1,302	3,411
1986	239	235	175	338	603	288	251	1,306	3,435
1987	240	236	177	342	607	299	252	1,306	3,459
1988	240	239	186	341	601	298	251	1,309	3,465
1989	260	241	197	341	605	309	254	1,310	3,517
1990	263	239	206	341	613	327	255	1,310	3,554
1991	263	237	212	339	611	327	256	1,311	3,556
1992	265	234	211	336	613	320	256	1,310	3,545

Schedule of Average Benefit Payments*

	Years Credited Service					
	5-9	10-14	15-19	20-24	25-30	30+
Period 1/1/88-12/31/88						
Average Monthly Benefit*	\$235.77	\$360.15	\$596.62	\$804.78	\$1,091.75	\$1,749.89
Average Final Average Salary	\$13,499.98	\$16,122.46	\$20,231.81	\$21,322.51	\$24,335.87	\$29,001.48
Number of Active Recipients	452	1,028	1,025	1,002	813	2,016
Period 1/1/89-12/31/89						
Average Monthly Benefit*	\$252.46	\$395.04	\$613.59	\$844.36	\$1,093.13	\$1,757.49
Average Final Average Salary	\$15,464.95	\$17,837.84	\$21,376.76	\$23,374.33	\$24,770.99	\$29,113.02
Number of Active Recipients	450	1,027	959	866	794	1,557
Period 1/1/90-12/31/90						
Average Monthly Benefit*	\$242.59	\$370.53	\$596.33	\$819.97	\$1,068.07	\$1,656.68
Average Final Average Salary	\$14,776.48	\$17,425.66	\$20,951.96	\$22,772.56	\$25,129.62	\$29,040.33
Number of Active Recipients	415	1,098	950	881	709	1,144
Period 1/1/91-12/31/91						
Average Monthly Benefit*	\$285.71	\$421.20	\$645.36	\$874.97	\$1,177.05	\$1,838.02
Average Final Average Salary	\$17,295.38	\$19,853.11	\$23,225.45	\$25,023.57	\$28,258.32	\$32,752.96
Number of Active Recipients	412	1,054	917	809	802	1,372
Period 1/1/92-12/31/92						
Average Monthly Benefit*	\$281.97	\$400.54	\$632.60	\$893.61	\$1,137.76	\$1,839.23
Average Final Average Salary	\$17,843.27	\$19,789.50	\$23,413.72	\$26,092.27	\$28,182.02	\$33,791.63
Number of Active Recipients	373	1,097	922	887	810	1,446
Period 1/1/88-12/31/92						
Average Monthly Benefit*	\$259.70	\$389.49	\$616.90	\$847.54	\$1,113.55	\$1,768.26
Average Final Average Salary	\$15,776.01	\$18,205.71	\$21,839.94	\$23,717.05	\$26,135.36	\$30,739.88
Number of Active Recipients	2,102	5,304	4,773	4,445	3,928	7,535

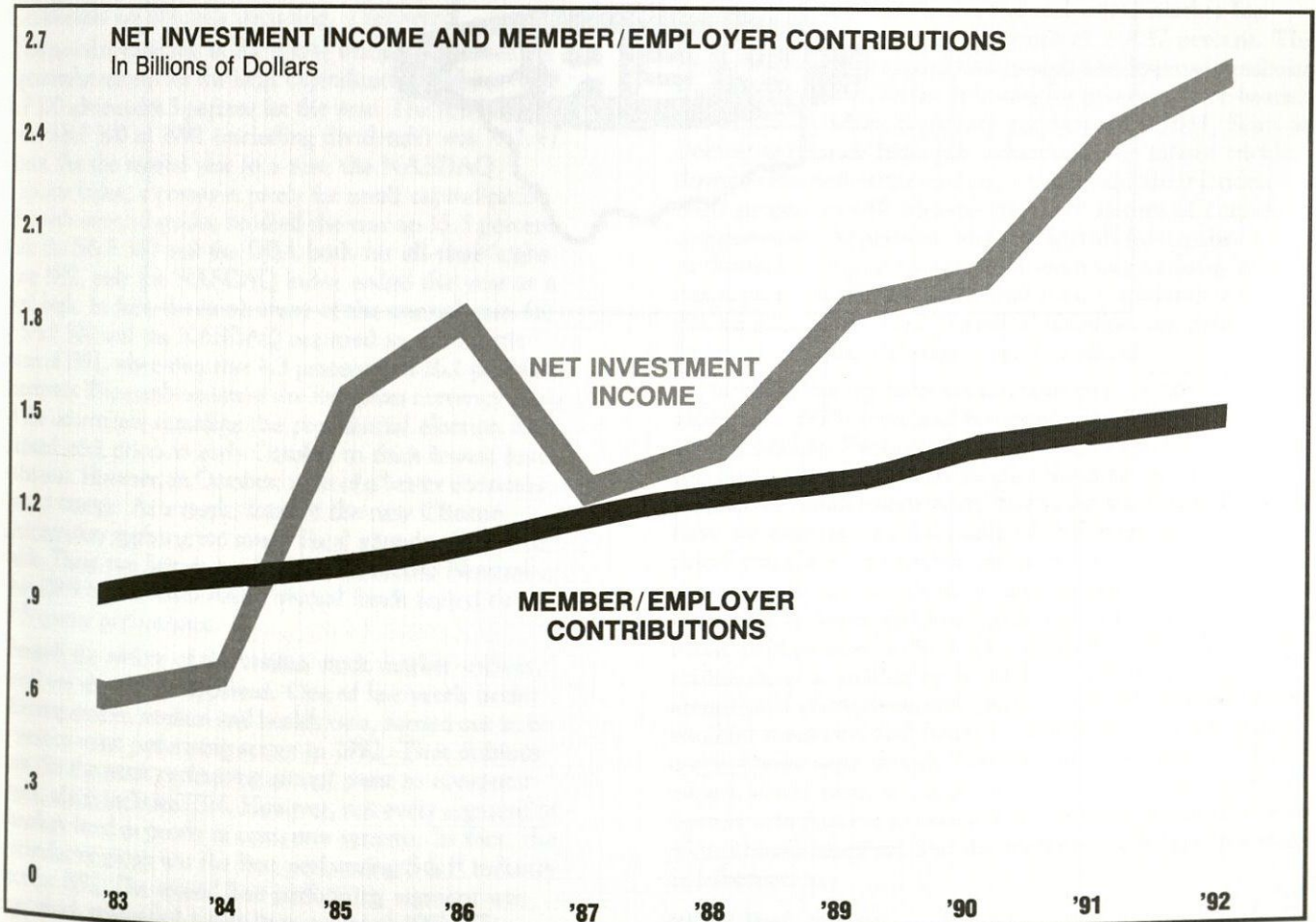
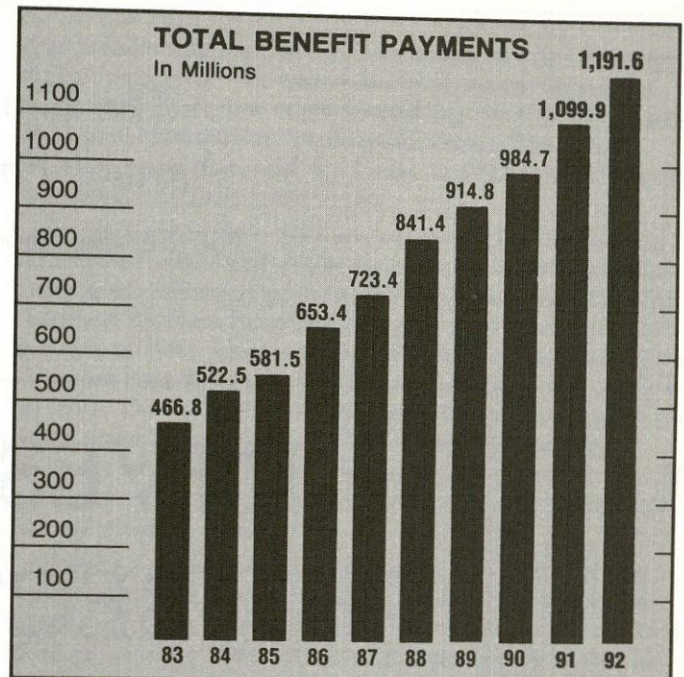
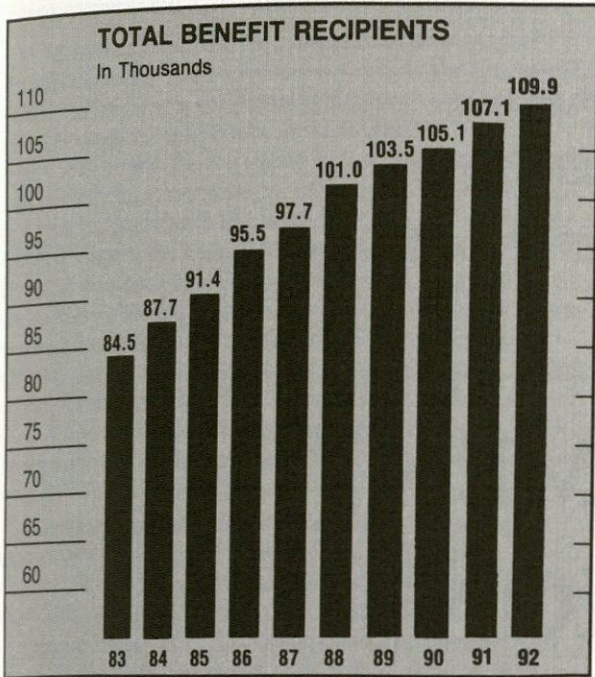
*"Average Monthly Benefit" included post-retirement and yearly 3% cost-of-living increases.

Number of Benefit Recipients by Category

Year-End	Annuities	Disabilities	Survivors	Total
1983	68,345	6,017	10,132	84,494
1984	71,228	6,189	10,315	87,732
1985	74,407	6,517	10,467	91,391
1986	77,960	6,864	10,681	95,505
1987	79,648	7,272	10,828	97,748
1988	82,462	7,560	10,940	100,962
1989	84,676	7,916	10,957	103,549
1990	85,916	8,294	10,981	105,191
1991	87,364	8,670	11,068	107,102
1992	89,736	9,079	11,158	109,973

Number of New Benefit Recipients and Refund Payments

Year	Annuities	Disabilities	Survivors	Refund
1983	5,143	509	596	23,665
1984	5,475	562	568	28,988
1985	5,516	683	535	21,766
1986	6,196	730	620	22,976
1987	4,567	775	560	22,246
1988	5,731	703	513	23,547
1989	5,026	728	500	23,008
1990	4,140	745	451	24,878
1991	4,406	802	534	27,165
1992	5,330	793	505	38,894



*The Comprehensive
Annual Financial Report*

For the Year Ended December 31, 1992

**INVESTMENT
SECTION**



Investment Report

On the surface, 1992 will be remembered as a year of remarkable calmness. Exchange rate turmoil in the European currency markets and a presidential election year with three candidates running, could have been reasons enough to trigger a volatile year in the equity markets. However, 1992 turned out to be the most tranquil year in the 65-year history of the Standard and Poor's 500 Stock Index (S&P 500). The difference between the high and the low reached by the S&P 500 during the year was only 12.0 percent. The average annual range for the last 65 years has been 35.0 percent. Even the Dow Jones Industrial Average (DJIA) set a record for tranquility during 1992. This period of calmness also spilled over into the bond market. The 30-year Treasury Bond closed at a 7.39 percent yield, the same yield it closed at in 1991. The annual deviation between the high and low yield reached during 1992 was the smallest range since 1978.

Real economic growth measured by Gross Domestic Product (GDP) was up +2.7 percent in 1992 versus +0.1 percent in 1991. Inflation, as measured by the Consumer Price Index (CPI), was +2.9 percent, essentially flat with the +3.1 percent rate in 1991. The unemployment rate for all of 1992 was 7.4 percent compared with 6.7 percent in 1991. According to the National Bureau of Economic Research (the designated arbiter on the timing of economic cycles) the latest recession, which began in third quarter 1990, officially ended in March 1991. Given the equity results of 1991 and 1992, it would appear that the stock market has already known what the economists are officially declaring, a recovery.

This period of calmness in the equity market did not result in spectacular returns for the large capitalization indices. The S&P 500 advanced 4.5 percent for the year. The total return for the S&P 500 in 1992 (including dividends) was +7.47 percent. For the second year in a row, the NASDAQ Composite Index, a common proxy for small capitalization and growth-oriented stocks, finished the year up 15.5 percent. While the S&P 500 and the DJIA both hit all-time highs during 1992, only the NASDAQ index ended the year at a record high. In fact, the lion's share of the annual gain for the S&P 500 and the NASDAQ occurred in the fourth quarter of 1992, when they rose 4.3 percent and 16.1 percent, respectively. The combination of the European currency crisis and the uncertainty regarding the presidential election had depressed stock prices in early October to their lowest levels for the year. However, in October, signs of a better economy began to emerge. As a result, fears of the new Clinton Administration applying too much fiscal stimulus began to subside. These two factors combined with record November inflow (\$9.9 billion) into equity mutual funds fueled the fourth quarter performance.

Beneath the surface of the various stock market indices, turmoil was abundantly apparent. One of last year's better performing sectors, medical and health care, turned out to be the next-to-worst performing sector in 1992. That dubious honor (for the worst performing group) went to computer systems, which included IBM. However, not every segment of technology fared as poorly as computer systems. In fact, the semiconductor group was the best performing S&P industry sector for 1992. The second best performing segment was autos, which rebounded nicely from a dismal 1991. The financial stocks turned in another banner year of superior returns. Besides the medical sector, the worst performing

groups relative to the S&P 500 were concentrated in energy, airlines and gold. The common denominator among the money managers that outperformed the S&P 500 was their 1992 concentration in "smaller-cap" issues. The record amount of equity mutual fund sales in 1992 primarily flowed into small company stock funds.

In the bond market, 1992 was a year of "clipping coupons." The bond market had single digit returns in 1992 as yields were nearly identical at the year's beginning and end. The Salomon Brothers Broad Index had a total return of 7.59 percent in 1992. Compared to 1991, when they lowered the Discount Rate five times, the Federal Reserve Board was quiet in 1992. During 1992, the Discount Rate was cut only once. With inflation seemingly under control, despite some evidence of a strengthening economy, long interest rates fell to end the year at 7.39 percent after reaching 7.75 percent around election time.

For the second consecutive year the real estate market failed to register a positive return. Real estate returns as measured by the NCREIF-Russell Index came in at a negative 5.80 percent for 1992. Much of the year's decline can be attributed to poor performing properties in the western United States. The once vibrant Southern California market collapsed under the combined weight of severe cutbacks in defense-related industries, social unrest, and a huge state deficit.

Over the past three years the real estate market has generated an average annual return of -4.17 percent. This unimpressive track record has created a widespread pessimism toward real estate. Today, it is easy for investors to be bearish. For example, when corporate giants such as IBM, Sears and Boeing announce large job reductions, the fallout trickles down to the real estate market. Owners and their lenders fear their properties will become the next victims of corporate compression. Appraisers, already skittish from poor performance in prior years, have even more reason to write down property. When values fall then confidence erodes and the aspirations of many potential investors are grounded by forecasts of more inclement weather ahead.

Nevertheless, we have several reasons to be optimistic as we move into 1993. First and foremost, prices have taken a serious tumble. Depending on the location and property type, top quality properties can be purchased for as little as 30 percent of replacement cost. Not since the Great Depression have we experienced discounts of this magnitude. Lower prices translate into higher yields for investors. Current returns of 10 percent or more are not uncommon, and when compared to lower yielding stock and bond investments, real estate is beginning to look like a bargain. The number of transactions is picking up as well. Last year significant amounts of entrepreneurial capital supplied by Wall Street, wealthy investors, and finance subsidiaries of a few major corporations were quietly funneled into real estate. These events would seem to suggest that some form of a market bottom is beginning to take shape. The support for it is by no means broad based yet, but the market is no longer in a state of hibernation.

PERS Performance

PERS' total fund performance in 1992 was 5.7 percent. This return was below the investment staff's goal of 9 to 10

percent, but it was still over our annual average return for the last 10 years (1983-1992) which was 11.8 percent, well above our actuarial rate of 7.75 percent.

The PERS bond portfolio had a total return of 7.26 percent in 1992. The portfolio did very well in the middle two quarters of 1992 but struggled in the first and fourth quarters. We entered 1992 riding a bull market which gave us a return of over 4 percent in December 1991 alone. Unfortunately, the bull market ended when 1991 did. The portfolio had too long of a duration to withstand the rise in interest rates during the first three months of 1992. The 30-year Treasury Bond yield rose from 7.40 percent to over 8.00 percent. We continued to believe that interest rates would fall. In late March, we lengthened our duration further with trades and cash purchases. As the interest rate decline occurred, we enjoyed solid performance from April through September. In June, for a couple of reasons, we structured the portfolio in a two- to 10-year ladder. First of all, we wanted to lower the duration of the portfolio from 7.74 years to a level similar to that of the Salomon Broad Index's 4.75 years. To do this, we had to sell our long-term, greater than 10 years to maturity, bonds. Our holdings in long-term bonds were Canadians and U.S. Treasuries. The second reason we chose to change the portfolio was to own securities which would roll down the steep yield curve. The steepest portion of the curve was inside of 10 years. Our mortgage backed securities were sold at this time. Because of their indefinite maturity, mortgage backed securities do not tend to roll down the yield curve. We began to add some high quality corporate debt. The portfolio remains mostly U.S. Treasuries.

The total return for the PERS equity portfolio in 1992 was +2.95 percent. This performance lagged the +7.47 percent total return for the S&P 500.

The question has come up, "Why does PERS equity performance lag the S&P 500?" The answer is because our current equity strategy is one of minimizing downside risk. Preservation of capital is the principal objective at the moment. This cautious stance will result in underperforming the S&P 500 in an "up" market. Both 1991 and 1992 have been "up" markets. The timing and implementation of our equity strategy has been premature. However, the macroeconomic factors and the financial valuation levels that led us to our original conclusions have not changed. The current equity strategy was formulated during late 1990 and early 1991. The implementation of this strategy has occurred during 1991 and 1992.

Given the fundamental realities of the macroenvironment combined with the expensive valuation levels of the stock market, two potential scenarios were arrived at:

1. Should the macroenvironment and the economy improve from its current condition, these future results were already discounted by the stock market. If the economy were to accelerate from its current conditions, short term interest rates may reverse trend and thus remove one of the stock market's primary drivers.
2. Should the macroenvironment continue to deteriorate, then future results would fall short of the stock market's lofty expectations.

In both scenarios, it was felt that the stock market would generate potential returns below its historical average of approximately 10.0 percent. And depending upon the severity of the market's reaction to either scenario, it was determined that the stock market could enter a period (at least six months) of substantial decline (at least 20.0 percent).

After bottoming in 1991, the PERS real estate portfolio provided a total return of 1.68 percent for 1992. On a relative basis PERS did extremely well versus the NCREIF-Russell Index which posted a -5.80 percent over the same period. PERS has now outperformed the NCREIF-Russell Index in nine out of 10 years that the Retirement System has been investing in real estate. On a cumulative basis PERS has outperformed this major index by a relatively wide margin.

Generally speaking, cash flows improved throughout the entire portfolio in 1992. Once again strong yields were provided by mortgages, hotels and outlet malls. In addition, cash flows on our apartment portfolio increased by 6 percent over the previous year. We expect this trend to continue due to improved leasing in our commercial properties. We also are making progress in selling our land holdings. In recent years, our land investments have been a hindrance on total performance. However, the burden is becoming lighter with each additional sale. We also continue to bring in new investments at relatively high yields, thus, the yield on the total portfolio can be expected to improve this year.

1993 Outlook

The economy did recover in 1992. In fact, the recession officially ended in March 1991. However, most Americans believed that the recession continued into 1992. It was probably this belief that led to the failure of President Bush to get re-elected. This belief was reinforced by the fact that 22 months into this "recovery," the current unemployment rate is half a percentage point higher than the 6.8 percent that prevailed in March 1991. For most people, employment is a more meaningful indicator regarding the economy than some official pronouncement.

The consensus opinion among the economists is for the economy, as measured by real GDP, to grow at a 3.0 percent rate in 1993. This subdued recovery should also continue the current disinflationary environment according to a survey of leading economists. They expect the CPI will rise only 3.0 percent this year. But this level of economic growth has not created enough jobs to absorb the growth in the labor force. And Main Street, or middle class America, wants the new Clinton Administration to make good on its campaign pledge to reinvigorate the economy and create new jobs. However, Wall Street wants the new administration to focus on its campaign pledge of reducing the federal budget deficit.

The present stock market valuation levels expect President Clinton to satisfy both Wall Street and Main Street. In 1993, if Mr. Clinton is only successful in satisfying one constituency then the current disinflationary environment could be significantly altered. We could see an outright slide into a *deflationary* environment if Wall Street gets its wish. Or a successful attempt at *reflating* the economy could be the outcome of granting Main Street's wish. Unfortunately, neither of these scenarios provide a backdrop for a robust stock market outlook.

Investment Portfolio Summary

As of December 31, 1992

	Par Value	Book Value	Market Value	% of Portfolio (Book Value)	Yield
Bonds					
U.S. Gov't. & Agencies	\$17,102,023,400	\$17,201,130,548	\$17,397,677,383	71.35%	6.29%
Corporate	761,790,000	764,890,981	760,616,615	3.17	5.89%
Canadian Obligations	10,000,000	10,830,025	10,729,100	.04	4.59%
Mortgages	262,662,119	254,386,268	254,815,555	1.06	7.16%
Stocks — Common		4,517,960,575	5,017,273,915	18.74	4.50%
Real Estate		1,341,169,255	1,190,307,366	5.56	
Venture Capital		18,462,133	19,462,133	.08	2.17%
TOTAL PORTFOLIO		<u>\$24,108,829,785</u>	<u>\$24,650,882,067</u>	<u>100.00%</u>	5.59%

Detailed Listing of Investment Portfolio

As of December 31, 1992

U.S. GOVERNMENT & AGENCIES BONDS

Name	Coupon	Maturity	Par Value	Book Value	Market Value
FHA — Series MM	4.625%	12/01/1992	\$ 3,400	\$ 2,787	\$ 3,400
Government Trust Certificates Class 2-F	0.000%	11/15/1995	24,860,000	19,254,143	21,461,389
Government Trust Certificates Class 2-F	0.000%	05/15/1996	29,000,000	21,431,157	24,082,180
U.S. Treasury Receipts	0.000%	02/15/2000	325,000,000	207,112,777	203,362,250
U.S. Treasury Receipts	0.000%	05/15/2000	275,000,000	172,274,728	168,687,750
U.S. Treasury Receipts	0.000%	05/15/2020	122,455,000	14,341,684	14,972,572
U.S. Treasury Receipts	0.000%	08/15/2020	108,000,000	12,272,223	12,988,080
U.S. Treasury Receipts	0.000%	02/15/2021	78,075,000	8,702,523	9,083,245
U.S. Treasury Receipts	0.000%	05/15/2021	401,400,000	43,690,913	45,948,258
United States Treasury	5.000%	06/30/1994	211,960,000	214,163,469	214,378,463
United States Treasury	4.250%	07/31/1994	559,405,000	561,915,386	559,052,574
United States Treasury	6.875%	08/15/1994	603,975,000	621,135,133	627,662,899
United States Treasury	4.250%	08/31/1994	434,365,000	433,514,845	433,752,545
United States Treasury	4.250%	10/31/1994	489,210,000	485,369,872	487,527,117
United States Treasury	8.625%	01/15/1995	56,595,000	59,376,560	60,945,457
United States Treasury	8.500%	08/15/1995	652,185,000	703,917,982	708,129,429
United States Treasury	8.500%	11/15/1995	136,815,000	148,693,479	149,042,156
United States Treasury	9.250%	01/15/1996	272,925,000	305,862,703	303,115,963
United States Treasury	7.875%	02/15/1996	161,930,000	173,533,718	173,720,123
United States Treasury	8.875%	02/15/1996	50,000,000	55,180,067	55,062,500
United States Treasury	7.750%	03/31/1996	188,460,000	202,041,021	201,593,777
United States Treasury	7.625%	05/31/1996	579,375,000	577,594,018	617,578,987
United States Treasury	7.875%	07/31/1996	122,955,000	131,550,183	132,118,836
United States Treasury	7.250%	08/31/1996	99,645,000	105,808,323	105,062,698
United States Treasury	6.875%	10/31/1996	489,755,000	512,745,581	509,879,032
United States Treasury	7.250%	11/15/1996	854,070,000	881,561,123	899,574,849
United States Treasury	6.500%	11/30/1996	123,735,000	127,322,711	127,214,428
United States Treasury	8.000%	01/15/1997	126,845,000	136,745,586	136,834,043
United States Treasury	8.500%	04/15/1997	452,245,000	473,114,908	496,338,887
United States Treasury	6.750%	05/31/1997	116,050,000	120,940,612	119,657,994
United States Treasury	8.500%	07/15/1997	277,785,000	295,577,794	305,260,714
United States Treasury	5.625%	08/31/1997	403,635,000	406,487,649	397,326,184
United States Treasury	8.750%	10/15/1997	207,815,000	230,331,803	230,707,900
United States Treasury	8.875%	11/15/1997	182,765,000	195,593,743	204,124,745
United States Treasury	7.875%	01/15/1998	25,490,000	27,936,251	27,409,651

NOTE: Cents omitted. Columns will not add.