THE COMPREHENSIVE

ANNUAL FINANCIAL REPORT

for the
Year Ended December 31, 1987

Issued by:
William S. McLaughlin, Executive Director
Richard E. Schumacher, Assistant Director, Comptroller

PERS

PUBLIC EMPLOYEES RETIREMENT SYSTEM
OF OHIO

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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, 1986

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to governmental units and public employee retirement systems whose comprehensive annual financial reports (CAFR's) are judged to substantially conform to program standards.

President

Executive Director

THE RETIREMENT BOARD

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Representing Municipal Employees

DUSTY RHODES

Representing Miscellaneous Employees

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Representing State Employees

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Assistant Directors

RICHARD D. MYERS
Benefits

ROBERT A. McLAUGHLIN
Investments

RICHARD E. SCHUMACHER
Comptroller

ORGANIZATIONAL STRUCTURE

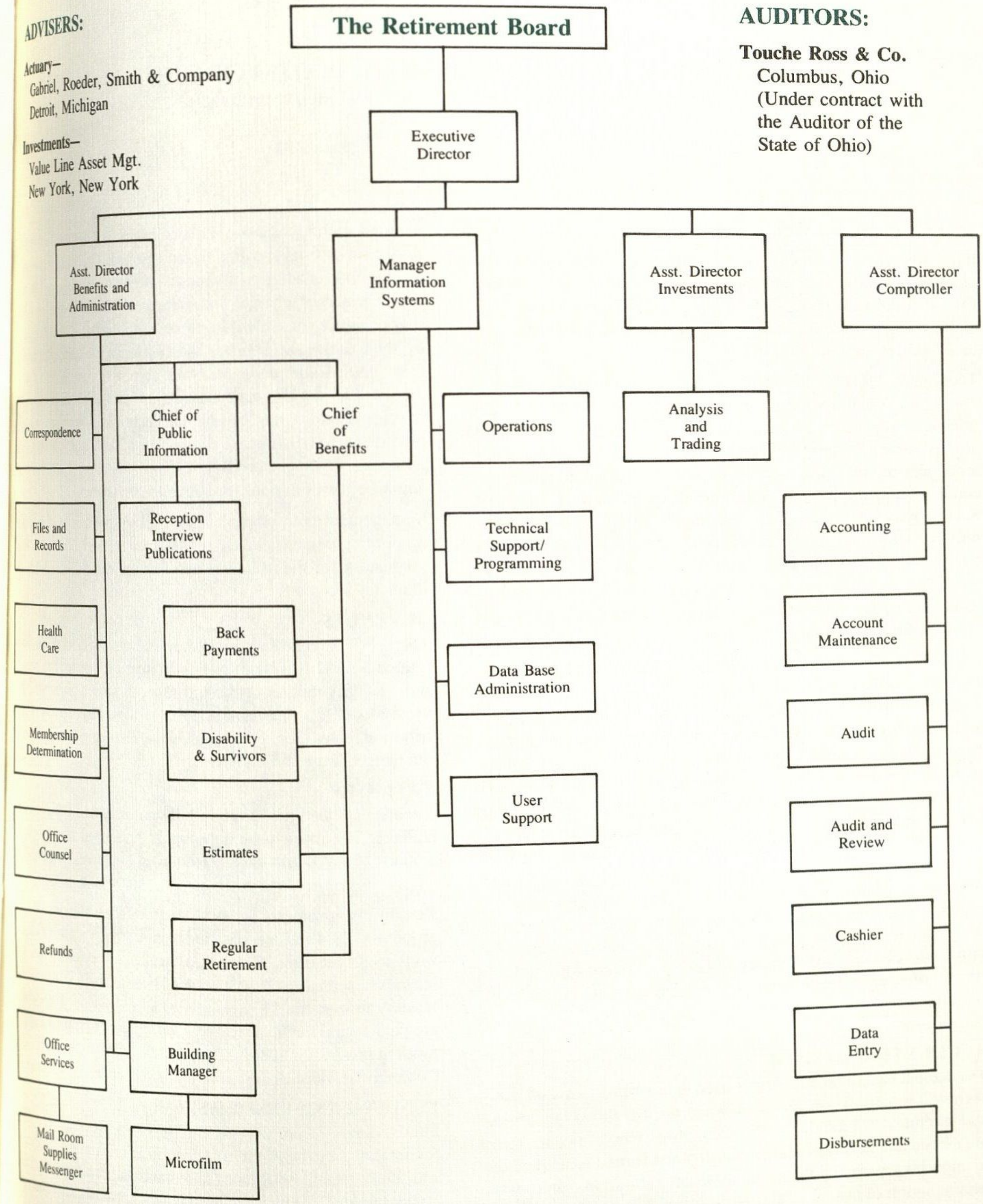
ADVISERS:

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

Investments—
Value Line Asset Mgt.
New York, New York

AUDITORS:

Touche Ross & Co.
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 a 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, 1987. We believe this report reflects a careful stewardship of assets and dedicated service to members and retirants.

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

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, 1986. 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 GFOA to determine its eligibility for another certificate.

ACCOUNTING SYSTEM

The accrual basis of accounting is used in recording financial transactions. Expenses are recorded when the liability is incurred, and revenues are recorded in the accounting period in which they are earned and become measurable. Interest earned is accrued on a monthly basis. Entries are amortization of premium, accumulation of discount, and write-off of deferred loss also are accrued monthly. 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. Through 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.

Management is responsible for maintaining systems of internal accounting controls which are designed to provide responsible assurances for the safeguarding of assets and the reliability of financial records.

REVENUES

The 1987 revenue from employee and employer contributions totaled $1,162.8 million. Net investment income for the period was $1,325.1 million. As a comparison, the same figures for 1986 were $1,018.7 million and $1,830.7 million, respectively. Contribution rates for both employees and employers remain unchanged from the prior year.

EXPENSES

Benefit payments are the primary disbursements of a Retirement System. Recurring benefit payments prescribed by the plan, refunds of the contributions to terminated employees, and the cost of administering the System comprise the total expense.

Benefit disbursements for 1987 totaled $805.2 million. Of this amount $723.4 million was paid to fulfill the System's obligations to its retirants. Refunds to members or beneficiaries for reasons of separation from service or death totaled $81.8 million. Health care costs in 1987 amounted to $166.0 million. These costs are paid by the Public Employees Retirement System on a split-funding program initiated in January 1981. The Aetna Insurance Company administers the claims processing under this agreement.

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 accumulation 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, 1987, funds established by the System totaled $14,836.0 million. The actuarial valuation dated December 31, 1986 reflects an unfunded accrued liability of $5,153.3 million. This is the difference between the employer accumulation fund balance and the actuarially calculated liability for the fund. This ''unfunded accrued liability'' is being amortized in an orderly fashion over future years. The state government and the local government liabilities are being funded over 35 years, and the law enforcement portion over 11 years.

INVESTMENTS

The investment portfolio provided net revenues of $1,325.1 million to the System in 1987. 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 loss on bonds sold. A detailed listing of the portfolio is presented on pages 39 to 51.

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 Value Line Asset Management, New York, New York. The financial records of the System were audited by Touche Ross & Co., Certified Public Accountants, Columbus, Ohio, under contract with the Auditor of the State of Ohio.

CHANGES ENACTED

Public Employees Retirement System law was amended effective June 24, 1987. The new amendment eliminated compulsory retirement for members who have obtained age 70. This change was necessary in order to bring state law in conformance with applicable federal regulations. Disclosure required by GASB Statements 5 are included in the Comprehensive Annual Financial Report.

ACKNOWLEDGEMENTS

The preparation of this report reflects the combined efforts of the System's staff under the direction of the Retirement Board. Its purpose 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.

William S. McLaughlin

WILLIAM S. McLAUGHLIN
Executive Director

RICHARD E. SCHUMACHER
Assistant Director—Comptroller

FINANCIAL SECTION

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Touche Ross & Co.
250 East Broad Street
Columbus, OH 43215-9948
Telephone: 614 224-1110

Touche Ross

May 5, 1988

Members of the Retirement Board
Public Employees Retirement System of Ohio
Columbus, Ohio

We have examined the balance sheet of the Public Employees Retirement System of Ohio as of December 31, 1987, and the related statements of revenues, expenses, and changes in fund balances and changes in financial position for the year then ended, and the additional information listed in the accompanying table of contents. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of the Public Employees Retirement System of Ohio as of December 31, 1987, and the results of its operations, changes in its fund balances and changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Further, it is our opinion that the additional information listed in the accompanying table of contents, presents fairly the information set forth therein.

We have previously examined the financial statements of the Public Employees Retirement System of Ohio for the year ended December 31, 1986, comparative financial information from which is presented herein. In our opinion, such comparative financial information has been properly extracted from the prior year's financial statements.

Touche Ross & Co.

Certified Public Accountants

BALANCE SHEET

As of December 31, 1987
With Comparative Figures for December 31, 1986

	1987	1986
ASSETS		
Cash and Short-Term Securities (Note 3):		
Cash	$ 13,232,659	$ 25,510,670
Short-Term Securities	197,741,481	2,889,715,616
	210,974,140	2,915,226,286
Receivables:		
Employer	88,151,508	85,756,328
Retirement Incentive Plan	46,617,568	
Investment Sale Proceeds	34,738,319	19,487,230
Accrued Interest and Dividends	159,321,311	136,313,487
	328,828,706	241,557,045
Investments (Notes 3 and 4):		
Bonds	4,866,257,694	2,708,949,679
Mortgages	5,134,807,150	4,938,099,185
Stocks	3,753,960,824	2,143,374,021
Real Estate	302,418,148	162,190,154
Venture Capital-Stocks and Notes	32,821,788	32,347,562
	14,090,265,604	9,984,960,601
Fixed Assets:		
Land	1,708,409	1,708,409
Buildings and Building Improvements	5,595,537	5,595,537
Furniture, Fixtures, and Equipment	4,730,812	3,967,932
	12,034,758	11,271,878
Accumulated Depreciation	(3,501,334)	(2,863,741)
	8,533,424	8,408,137
Other Assets:		
Deferred Cost on Bonds Sold (Note 4)	231,000,193	84,220,086
Prepaid Expenses	667,645	454,472
	231,667,838	84,674,558
TOTAL ASSETS	$ 14,870,269,712	$ 13,234,826,627
LIABILITIES AND FUND BALANCES		
Liabilities:		
Undistributed Deposits	$ 6,384,596	$ 30,160,963
Medical Benefits Payable	12,384,132	11,605,590
Investment Commitments Payable	12,971,294	27,644,891
Accrued Administrative Expenses	2,568,458	2,178,094
TOTAL LIABILITIES	34,308,480	71,589,538
Fund Balances:		
Employees' Savings Fund	2,615,236,360	2,387,872,105
Employer Accumulation Fund [Net of Unfunded Accrued Liabilities: 1987—$5,153,320,774; 1986—$6,088,586,425, (Note 5)]	6,253,397,564	5,348,451,619
Annuity and Pension Reserve Fund	5,330,085,576	4,832,023,432
Survivor Benefit Fund	626,078,746	575,428,841
Income Fund	10,986,330	19,427,896
Expense Fund	176,656	33,196
TOTAL FUND BALANCES	14,835,961,232	13,163,237,089
TOTAL LIABILITIES AND FUND BALANCES	$ 14,870,269,712	$ 13,234,826,627

See Notes to Financial Statements

STATEMENT OF CHANGES IN FINANCIAL POSITION

Year Ended December 31, 1987
With Comparative Figures for 1986

	1987	1986
FUNDS PROVIDED BY:		
Excess of Revenues over Expenses	$ 1,672,724,143	$ 2,106,184,923
Items Not Requiring or (Providing) Funds:		
Depreciation	673,955	595,598
Loss (Gain) on Disposal of Fixed Assets	1,114	(25,242)
Increase (Decrease) in Funds Due to Changes in:		
Employer Receivables	(2,395,180)	16,920,600
Retirement Incentive Plan Receivable	(46,617,568)	
Investment Sale Proceeds Receivable	(15,251,089)	15,669,081
Accrued Interest and Dividends Receivable	(23,007,824)	4,909,742
Other Assets		698,288
Deferred Costs on Bonds Sold	(146,780,107)	34,909,758
Prepaid Expenses	(213,173)	(341,373)
Undistributed Deposits	(23,776,367)	8,524,320
Medical Benefits Payable	778,542	3,220,857
Investment Commitments Payable	(14,673,597)	21,820,633
Accrued Adminstrative Expenses	390,364	525,202
Funds Provided From Operations	1,401,853,213	2,213,612,387
Sales and Maturities of Investments:		
Bonds	11,963,495,640	9,772,157,845
Mortgages	5,633,166,220	3,224,135,316
Stocks	1,083,974,679	575,244,691
Real Estate	32,037,666	15,126,688
Venture Capital—Stocks and Notes	1,942,691	465,649
Proceeds from Sale of Fixed Assets		34,363
Total Funds Provided	20,116,470,109	15,800,776,939
FUNDS USED FOR:		
Purchase of Investments:		
Bonds	14,120,803,655	7,515,536,944
Mortgages	5,829,874,185	5,997,976,340
Stocks	2,694,561,482	1,445,345,715
Real Estate	172,265,660	27,229,751
Venture Capital—Stocks and Notes	2,416,917	2,860,112
Additions to Fixed Assets	800,356	673,558
Total Funds Used	22,820,722,255	14,989,622,420
Net (Decrease) Increase in Funds	(2,704,252,146)	811,154,519
Cash and Short-Term Investments, Beginning of Year	2,915,226,286	2,104,071,767
Cash and Short-Term Investments, End of Year	$ 210,974,140	$ 2,915,226,286

See Notes to Financial Statements

STATEMENT OF REVENUES, EXPENSES

	MEMBER SAVINGS	EMPLOYER ACCUMULATION	ANNUITY AND PENSION RESERVE
Revenues:			
Member Contributions	$ 420,972,198		
Employer Contributions		$ 685,865,262	
Investment Income			
Other			$ 50,289
Total Revenues	420,972,198	685,865,262	50,289
Expenses:			
Benefit Payments			668,854,260
Refunds	81,799,751	1,976	
Administrative Expense			
Total Expenses	81,799,751	1,976	668,854,260
Excess of Revenues Over Expenses	339,172,447	685,863,286	(668,803,971)
Transfers—Increase (Decrease)			
Retirement Annuities	(139,922,616)	(412,582,702)	552,505,318
Disability Benefits	(15,142,328)	(99,566,981)	114,709,309
Survivor Annuities	(5,889,946)		
Retirement to (from) Other Systems	(2,116,645)	(998,745)	3,115,390
Statutory Interest	51,250,372	(51,250,372)	
Annual Interest		404,461,670	363,157,543
Other	12,971	379,019,789	133,378,555
Total Transfers	(111,808,192)	219,082,659	1,166,866,115
Balance, Beginning of Year	2,387,872,105	5,348,451,619	4,832,023,432
Balance, End of Year	$ 2,615,236,360	$ 6,253,397,564	$ 5,330,085,576

See Notes to Financial Statements

AND CHANGES IN FUND BALANCES

Year Ended December 31, 1987				Year Ended December 31, 1986
SURVIVOR ANNUITIES	*INCOME*	*ADMINISTRATIVE EXPENSE*	*TOTAL*	*TOTAL*
		$ 5,574	$ 420,977,772	$ 391,193,417
$ 55,975,151			741,840,413	627,520,315
	$ 1,325,054,638		1,325,054,638	1,830,721,267
5,882	306,814	1	362,986	209,457
55,981,033	1,325,361,452	5,575	2,488,235,809	2,849,644,456
54,583,765			723,438,025	653,440,281
	602	115	81,802,444	80,552,059
		10,271,197	10,271,197	9,467,193
54,583,765	602	10,271,312	815,511,666	743,459,533
1,397,268	1,325,360,850	(10,265,737)	1,672,724,143	2,106,184,923
5,889,946				
43,362,691	(810,981,904)			
	(522,820,512)	10,409,197		
49,252,637	(1,333,802,416)	10,409,197		
575,428,841	19,427,896	33,196	13,163,237,089	11,057,052,166
$ 626,078,746	$ 10,986,330	$ 176,656	$ 14,835,961,232	$ 13,163,237,089

NOTES TO FINANCIAL STATEMENTS

NOTE 1. Summary of Significant Accounting Policies:

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

(a) **Basics of Accounting**

The financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred and revenues are recorded in the accounting period in which they are earned and become measurable.

(b) **Investments**

Section 145.11 of the Ohio Revised Code authorizes PERS to invest in various instruments to 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 meeting various rating criteria. PERS did not engage in any repurchase or reverse repurchase transactions during either 1987 or 1986.

Short term investments consisting of commercial paper and U.S. Treasury obligations are carried at cost subject to adjustment for market declines judged to be other than temporary. Equity securities and investments in real estate are shown at cost. Fixed income investments are reflected in the balance sheet at amortized cost, using the effective interest rate method of amortization, subject to adjustment for market declines judged to be other than temporary. Income is recognized as earned. The cost of investments sold is determined using the average cost method for equity securities and specific cost for all others. Dividend income is recognized based on dividends declared.

(c) **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:

Buildings and building improvements	50 years
Furniture, fixtures, and equipment	3-10 years

(d) **Deferred Cost on Bonds Sold**

Losses on bond exchanges are accounted for under the deferral and amortization method of accounting whereby net losses on bonds exchanged are deferred and amortized over the shorter of the life of the bond sold or purchased. Gains are recognized as taken.

(e) **Undistributed Deposits**

Cash receipts are recorded as undistributed deposits until such time as they are allocated to employer receivables, employer contributions, member contributions, and investment income.

(f) **Funds**

Various funds are established to hold the reserves for future and current benefit payments.

(1) **The Employees' Savings Fund** holds members' contributions in trust prior to their refund or transfer to a benefit disbursement fund.

(2) **The Employer Accumulation Fund** is used to accumulate employer contributions to be used in providing the reserves required to transfer to the Annuity and Pension Reserve Fund as members retire or become eligible for disability benefits.

(3) **The Annuity and Pension Reserve Fund** is the fund from which annuity and disability pensions are paid. This reserve was fully funded according to the latest actuarial study dated December 31, 1986, and accordingly, there are sufficient assets in this fund to pay the vested benefits of all retirants and beneficiaries as of the valuation date.

(4) **The Survivor Benefit Fund** provides the reserves to pay benefits due dependents of deceased members of the retirement system. This fund is also fully funded as described above.

(5) **The Income Fund** is the fund which is credited with investment earnings and miscellaneous income. The balance in this fund is transferred to other funds to aid in the funding of future benefit payments.

(6) **The Expense Fund** provides for disbursement of administrative expenses with the necessary monies allocated to it from the Income Fund.

NOTE 2. Description of the System:

(a) **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 considered part of the State of Ohio financial reporting entity. Responsibility for the organization is vested in the Retirement Board; there is no financial interdependency with the State of Ohio nor does the State of Ohio exhibit any oversight responsibility for PERS.

Employer and employee membership data as of December 31 follows:

	1987	*1986*
Employer Units		
State group	240	239
Local government group	3,042	3,021
Law enforcement group	177	175

All public employees in Ohio, except for certain specified exclusions and exemptions are required to become contributing members of PERS.

	1987 (Estimated)	1986
Employee Members		
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	98,718	96,465
Current employees		
Vested	163,405	161,162
Nonvested	98,803	97,446

(b) **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 or more years of service credit or at any age with 30 or more years of service credit. The benefit is based on 2.1% of final average salary multiplied by the years of service credit. Persons retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit amounts. Retirement benefits vest after 5 years of credited service.

Law Enforcement Officers Benefits—Full-time sheriffs, deputy sheriffs, and full-time township constables or police officers are eligible for special retirement options. This option is available to those members of this class at age 52 or older. The benefit is calculated by multiplying 2.5% of final average salary by the first 20 years of service, 2% of final average salary for the next five years, and 1.5% of final average salary for each additional year of service. This option also permits early retirement under qualifying circumstances as early as age 48.

Early Retirement Incentive—Effective December 16, 1986, 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 benefits. Such plan, if adopted, must be offered to a minimum of 5% of covered employees and provide for the purchase of up to five years credit, limited to a maximum of 20% of qualified service credit.

Disability Benefits—A member who becomes permanently disabled for the performance of duty before age 60 and has completed 60 months of contributing service is eligible for a disability benefit.

Survivor Benefits—Dependents of deceased members may qualify for survivor benefits if the deceased employee had at least 18 months of service credit with 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.

Refunds—Upon termination of employment, a member may withdraw 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.

(c) **Contributions**

PERS' funding policy provides for periodic employer contributions at actuarilly determined rates that, expressed as percentage of annual covered payroll, 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 35 years for state, 35 years for local government, and 11 years for law enforcement divisions. Currently the rates based on gross payroll are:

	Employee Rate	*Employer Rate*
State Group	8.5%	13.71%
Local Government Group	8.5%	13.95%
Law Enforcement Group	9.5%	18.10%

These rates fall within the range set by the Ohio Revised Code.

(d) **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.

NOTE 3: Cash and Investments:

PERS' cash deposits at year end were entirely covered by federal deposit insurance coverage or by collateral held in the name of PERS' custodian, the Treasurer of the State of Ohio, as required by the Ohio Revised Code.

A summary of investments held at year end is as follows:

	DECEMBER 31, 1987 *BOOK VALUE*	*MARKET*
Short-Term Securities	$ 197,741,481	$ 198,345,888
Bonds—Par	$ 10,294,244,479	
Net Unamortized Discount	5,427,986,785	
Bonds—Net	4,866,257,694	$ 4,997,906,106
Mortgages—Par	6,026,059,786	
Net Unamortized Discount	891,252,636	
Mortgages—Net	5,134,807,150	5,122,413,206
Stocks—Common and Preferred	3,753,960,824	4,197,816,028
Real Estate	302,418,148	352,543,625
Venture Capital	32,821,788	32,823,033
Total Investments	$ 14,090,265,604	$ 14,703,501,998

	DECEMBER 31, 1986 BOOK VALUE	MARKET
Short-Term Securities	$ 2,889,715,616	$ 2,925,277,000
Bonds—Par	$ 2,903,460,232	
Net Unamortized Discount	194,510,553	
Bonds—Net	2,708,949,679	$ 2,714,576,979
Mortgages—Par	5,147,000,643	
Net Unamortized Discount	208,901,458	
Mortgages—Net	4,938,099,185	5,247,651,626
Stocks—Common and Preferred	2,143,374,021	3,096,822,649
Real Estate	162,190,154	196,578,712
Venture Capital	32,347,562	33,433,917
Total Investments	$ 9,984,960,601	$ 11,289,063,883

If available, quoted market prices have been used to value investments as of December 31, 1987 and 1986. Securities not having a quoted market price have been valued on yields currently available on comparable securities of issuers with similar credit ratings. Venture capital not having quoted market prices is shown at cost. The market value of real estate commingled funds is based upon appraisals of the properties held.

Weighted average purchase yields are as follows:

	1987	1986
Short-term investments	7.49%	5.69%
Long-term investments	8.38%	8.34%
Total yield	8.38%	7.76%
Total yield adjusted for amortization of deferred cost on bonds sold	8.31%	7.70%

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 securities are held by PERS or its agent in the name of PERS. Category 2 includes uninsured and unregistered investments for which securities are held by the broker's or dealer'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 broker or dealer, or by its trust department or agent but not in PERS' name.

All investments of PERS meet the criteria of Category 1 except the real estate commingled funds which by their nature are not required to be so categorized. Investments are held in the name of PERS by the Treasurer of the State of Ohio as custodian.

NOTE 4. Deferred Cost on Bonds Sold:

PERS defers 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 policy for deferred cost is to amortize these costs over the remaining term of the bonds sold or the term of the bond purchased, whichever is shorter. On the subsequent sale of any bond purchased as part of a bond exchange on which a loss was deferred, any unamortized loss is immediately recognized.

	1987	1986
Beginning Balance	$ 84,220,086	$ 119,129,844
Losses Realized on Bonds Exchanged	342,149,646	48,868,053
Losses Amortized	(14,140,579)	(8,247,355)
Losses Written off on Sales Prior to Maturity	(181,228,960)	(75,530,456)
Ending Balance	$ 231,000,193	$ 84,220,086

NOTE 5. Actuarial Assumptions and Methods:

The actuarial assumptions employed by the actuary for funding purposes as of December 31, 1986, the date of the lastest actuarial study, include:

Investment Return—7.5%

Salary Scale—The active member payroll is assumed to increase 5.5% annually, which is the portion of the individual pay increase assumptions attributable to inflation.

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.

There were no changes in actuarial assumptions during either year. For actuarial purposes beginning with the 1986 valuation, assets are valued at book value plus an adjustment for 20% of unrealized market appreciation on investment assets that resulted in a decrease of the unfunded accrued liability of $261,117,000.

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 assets set aside in the Annuity and Pension Reserve Fund and the Survivor Benefit Fund together with interest credited thereon are compared to the allowances for the remaining lifetimes of the retirants and beneficiaries, and any deficiency is then funded by a transfer from the Employer Accumulation Fund. Consequently, all determined benefits are fully funded.

The 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, Employer Accumulation Fund, and the market value adjustment are subtracted from this present value to arrive at the unfunded accrued liability.

The unfunded liability based upon the last two annual actuarial valuations is as follows:

	DECEMBER 31, 1986				DECEMBER 31, 1985
	State Group	Local Government Group	Law Enforcement Group	Total	Total
Present value of actuarial accrued liability for active and inactive accounts	$ 5,057,779,330	$ 7,714,575,804	$ 245,027,809	$ 13,017,382,943	$ 12,106,890,360
Less:					
Employer Accumulation Fund*	2,067,770,204	2,994,372,548	152,930,312	5,215,073,064	3,828,082,969
Employees' Savings Fund	906,381,559	1,437,713,338	43,777,208	2,387,872,105	2,190,220,966
Market Value Adjustment	102,330,000	152,032,000	6,755,000	261,117,000	
Unfunded Accured Liability	$ 1,981,297,567	$ 3,130,457,918	$ 41,565,289	$ 5,153,320,774	$ 6,088,586,425

*Amounts shown reflect adjustments for transfers out of the Employer Accumulation Fund to fully fund the Annuity and Pension Reserve Fund and Survivor Benefit Fund.

NOTE 6. Disclosures Required by Government Accounting Standards Board Statement No. 5:

The GASB Statement No. 5 established standard disclosure of pension information by public employee retirement systems. The statement, effective for fiscal years beginning after December 15, 1986, pertains to pension obligations only, and did not address health care benefits.

The amounts shown below as "pension benefit obligation" is 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 obligation was determined as part of an actuarial valuation at December 31, 1986. Significant actuarial assumptions used include: (a) a rate of return on investment of present and future assets of 7.5% per year compounded annually, (b) projected salary increases of 5.5% compounded annually, attributable to inflation, (c) additional projected salary increases ranging from 0% to 4% per year, depending on age, attributable to seniority/merit, and (d) the assumption that benefits will increase 3% per year after retirement. At December 31, 1986, the unfunded pension benefit obligation was $2,442.8 million determined as follows (in millions):

Pension benefit obligation:	
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 5,528.2
Current employees—	
Accumulated employee contributions including allocated investment income	2,357.5
Employer-financed vested	5,247.6
Employer-financed nonvested	150.7
Total pension benefit obligation	$ 13,284.0
Net assets available for benefits, at cost (market value of $11,313.0)	10,841.2
Unfunded pension benefit obligation	$ 2,442.8

The Ohio Revised Code provides statutory authority for employee and employer contributions. The employee contribution rates are 8.5% for employees other than law enforcement. Law enforcement employees contribute 9.5% of covered salary. The total 1987 employer contribution rate for state employers is 13.71% of covered payroll; 10.04% is the portion that is used to fund pension obligations. For local government employer units the rate is 13.95% of which 9.76% is used to fund pension obligations. The law enforcement employer rate is 18.10% and 13.96% is used to fund pension obligations. The difference between the total employer rate and the portion used to fund pension obligations is the amount used to fund the health care program for retirants.

Contributions for 1987 totaling $965,605,015 ($544,632,817 employers and $420,972,198 employees) were made in accordance with the actuarially determined contribution requirements determined through an actuarial valuation performed at December 31, 1986. These contributions represented 9.9% and 8.5% of active member payroll for employers and employees, respectively. These contributions consisted of: a) $327,824,770 normal cost, and b) $216,808,047 amortization and unfunded actuarial accrued liability.

Significant actuarial assumptions used to compute contribution requirements are the same as those used to compute the standardized measure of the pension obligation discussed above.

Ten-year historical trend information is unavailable for years prior to 1986. The information for 1986 is presented below:

(1) Fiscal Year	(2) Net Assets Available for Benefits	(3) Pension Benefit Obligation (PBO)	(4) Percent Funded (1)÷(2)	(5) Unfunded PBO (2)−(1)	(6) Annual Covered Payroll	Unfunded PBO as a Percentage of Covered Payroll (4)÷(5)
1986	$ 10,841.2	$ 13,284.0	81.6%	$ 2,442.8	$ 4,543	53.8%

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.

NOTE 7. Leases:

PERS leases equipment with lease terms of one year or less. Total rent expense was $610,476 and $727,981 for the years ended December 31, 1987 and 1986, respectively.

NOTE 8. Vacation and Sick Leave Policy:

As of December 31, 1987 and 1986, $1,746,245 and $1,556,913, 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.

NOTE 9. 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 $496,352 and $360,000, at market value, and the related liability to PERS employees are included in the accompanying financial statements as of December 31, 1987 and 1986, respectively.

NOTE 10. Defined Benefit Pension Plan:

All PERS' full-time employees participate in the Plan. The payroll for employees covered under the Plan for the year ended December 31, 1987 was $5,153,514. PERS' total payroll was $5,153,514. PERS' and employees' contributions for the year ended December 31, 1987 were $704,904 and $438,049, respectively; these contributions represented 13.71% and 8.5% of covered payroll, respectively.

Information relating to eligibility, benefits and the PERS' valuation assets, unfunded actuarial accrued liability, and pension benefit obligation can be found elsewhere in the notes to financial statements.

NOTE 11. 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. The conflicting opinions and views of these various standard setting bodies within the accounting profession, have created a dilemma for PERS as to which standard to follow.

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

In a release dated August 1, 1980, the National Council on Governmental Accounting (NCGA) expressed its concern "that acceptance of FASB #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 Employees Retirement Systems and State and Local Government as Employees". The accounting procedures promulgated in NCGA Statement 6 regarding the reporting of fixed income securities states that a gain or loss arising from an exchange may be accounted for under either the completed transaction method or the deferral and amortization method (swap method). If the deferral and amortization method is used, it must be used consistently for gains and losses. Transactions should not be timed deliberately to avoid immediate recognition of losses while recognizing gains. As PERS presently defers only losses on exchanged securities, the adoption and enactment of NCGA Statement 6 which requires the deferral of both gains and losses would entail substantial changes in the reporting and accounting of exchanged securities.

In September of 1983, NCGA Statement 6 was deferred indefinitely. In November 1983, the FASB issued Statement #75 which deferred indefinitely the application of FASB #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 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.

ADDITIONAL INFORMATION

SCHEDULE OF
CASH RECEIPTS AND DISBURSEMENTS

Year Ended December 31, 1987
With Comparative Figures for 1986

	1987	1986
CASH BALANCE AT BEGINNING OF YEAR	$ 25,510,670	$ 12,028,195
Receipts:		
Member Contributions	403,127,862	376,718,522
Employer Contributions	688,723,621	623,257,494
Purchases of Back Service	12,081,727	10,580,620
State Subsidies	3,547,655	4,231,484
Short-Term Securities Matured and Sold	14,310,005,535	13,042,845,961
Investments:		
Matured and Sold	18,424,567,464	13,586,690,061
Interest and Dividends	1,406,150,447	1,386,562,983
Undistributed Deposits	6,384,596	30,160,963
Miscellaneous	362,894	1,106,470
TOTAL CASH RECEIPTS	$ 35,254,951,801	$ 29,062,154,558
Disbursements:		
Refunds:		
Separation	$ 78,500,260	$ 77,308,964
Beneficiaries	3,302,041	3,243,057
Annuity Payments:		
Retirement Annuities	570,220,223	513,496,849
Disability Benefits	94,541,068	82,747,597
Survivor Annuities	54,677,279	51,078,623
Retirement to Other Systems	3,231,189	2,903,406
Short-Term Securities Purchased	11,618,031,400	13,319,592,274
Investment Purchases	22,834,511,449	14,988,948,862
Administrative Expenses	10,214,903	9,352,451
TOTAL CASH DISBURSEMENTS	$ 35,267,229,812	$ 29,048,672,083
CASH BALANCE AT END OF YEAR	$ 13,232,659	$ 25,510,670

INVESTMENT

Year Ended

	JANUARY 1, 1987 BOOK VALUE	MARKET VALUE	PURCHASES
Bonds and Notes			
U.S. Government and Agencies	$ 1,108,356,266	$ 1,129,457,859	$ 11,480,345,639
Corporate			
Industrial	1,176,915,412		715,793,458
Utilities	290,472,445		937,069,200
Finance	84,445,569		472,700,189
Total Corporate	1,551,833,426	1,531,949,925	2,125,562,847
Canadian Obligations	48,759,987	53,169,195	514,895,169
Mortgages	4,938,099,185	5,247,651,626	5,829,874,185
Venture Capital—Stocks	32,347,562	33,433,917	2,416,917
Stocks—Common	2,143,374,021	3,096,822,649	2,694,561,482
Real Estate	162,190,154	196,578,712	172,265,660
Total	$ 9,984,960,601	$ 11,289,063,883	$ 22,819,921,899

SUMMARY

December 31, 1987

	DECEMBER 31, 1987			
MATURITIES, SALES, AND ACCRUALS	*BOOK VALUE*	*MARKET VALUE*	*PERCENT OF TOTAL PORTFOLIO (Book Value)*	*PURCHASE YIELD*
$ 9,379,665,333	$ 3,209,036,572	$ 3,393,062,027	22.78	9.40%
1,383,955,558	508,753,312			
789,807,784	437,733,861			
336,497,669	220,648,089			
2,510,261,011	1,167,135,262	1,120,019,408	8.28	10.74%
73,569,296	490,085,860	484,824,671	3.48	9.84%
5,633,166,220	5,134,807,150	5,122,413,206	36.44	9.78%
1,942,691	32,821,788	32,823,033	.23	1.22%
1,083,974,679	3,753,960,824	4,197,816,028	26.64	3.55%
32,037,666	302,418,148	352,543,625	2.15	
$ 18,714,616,896	$ 14,090,265,604	$ 14,703,501,998	100.00	8.38%

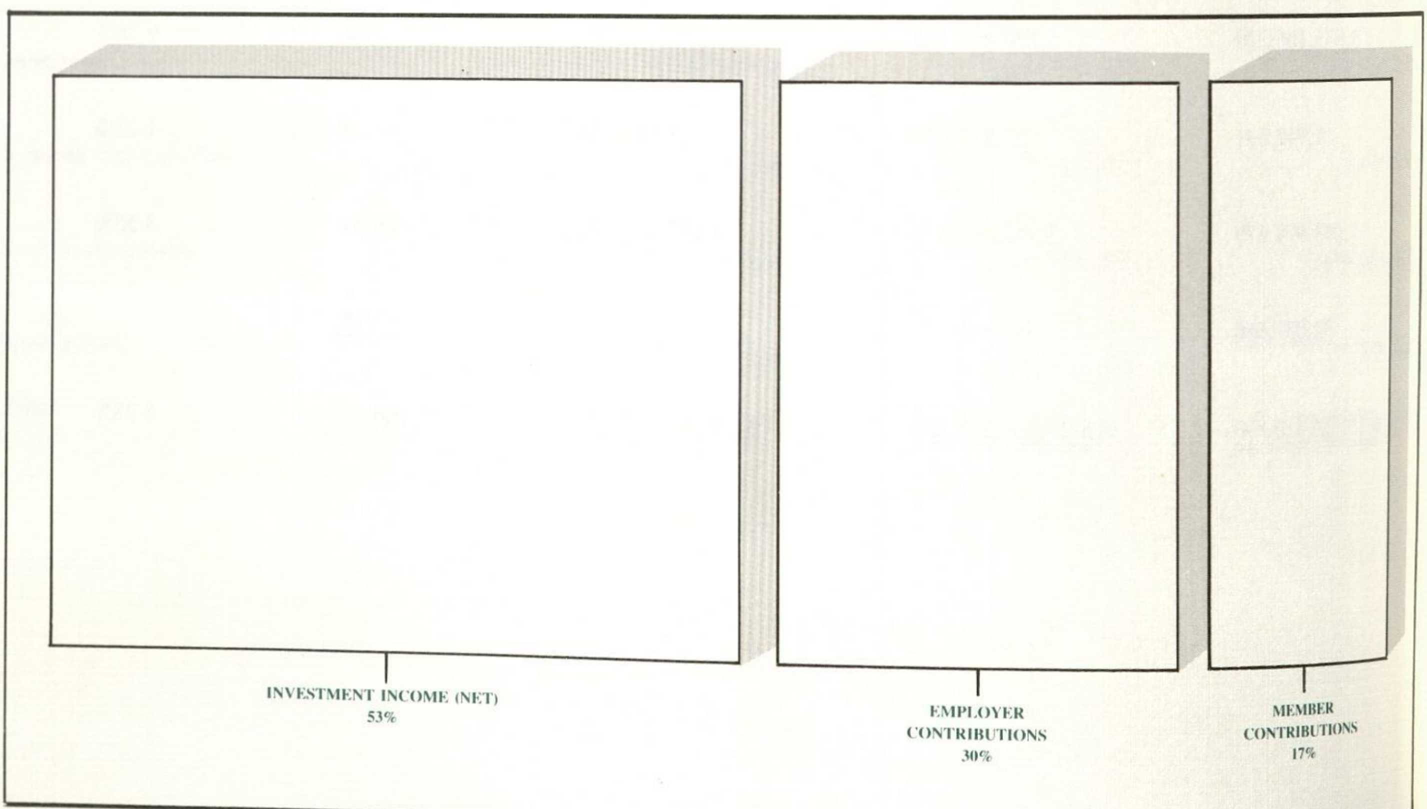
REVENUES BY SOURCE

Last 10 Years

	MEMBER CONTRIBUTIONS	*EMPLOYER CONTRIBUTIONS*	*INVESTMENT INCOME (NET)*	*OTHER*	*TOTAL*
1978	$ 234,747,412	$ 378,228,720	$ 208,163,680	$ 60,423	**$ 821,200,235**
1979	248,550,285	394,820,271	218,710,495	204,640	**862,285,691**
1980	269,246,190	439,006,229	329,014,384	184,250	**1,037,451,053**
1981	284,930,608	469,535,130	457,387,532	230,852	**1,212,084,122**
1982	311,779,921	505,809,912	686,420,515*	192,959	**1,504,203,307**
1983	330,125,897	544,109,013	666,680,588	56,228	**1,540,971,726**
1984	345,368,439	557,498,416	713,857,919	187,347	**1,616,912,121**
1985	370,005,032	597,079,409	1,601,928,648	251,641	**2,569,264,730**
1986	391,193,417	627,520,315	1,830,721,267	209,457	**2,849,644,456**
1987	420,977,772	741,840,413	1,325,054,638	362,986	**2,488,235,809**

**Reflects an increase of $137,685,082 in net investment income resulting from a change to the accrual basis of accounting as of December 31, 1982.*

The 1987 PERS Dollar Came From—

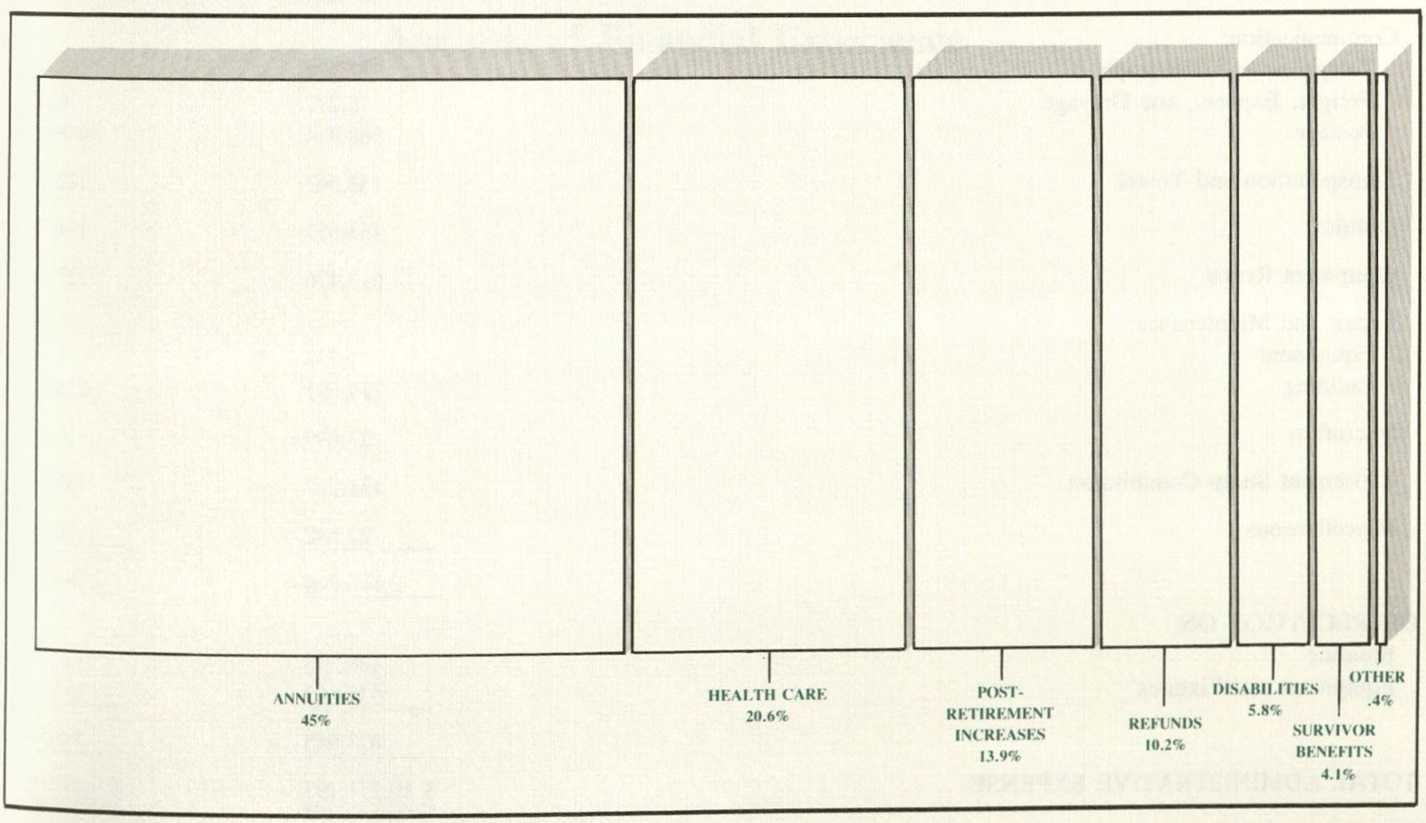


EXPENSES BY TYPE

Last 10 Years

	BENEFIT PAYMENTS	REFUNDS	ADMINISTRATIVE EXPENSE	TOTAL
1978	$ 234,238,430	$ 60,132,020	$ 4,683,030	**$ 299,053,480**
1979	268,433,588	95,946,284	5,205,476	**369,585,348**
1980	299,609,180	64,514,399	5,798,912	**369,922,491**
1981	345,857,579	76,238,930	6,620,678	**428,717,187**
1982	406,828,497	66,978,882	7,223,272	**481,030,651**
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**

The 1987 PERS Benefit Dollar Was Spent For—



SCHEDULE OF
ADMINISTRATIVE EXPENSE

Year Ended December 31, 1987
With Comparative Figures for 1986

	1987	1986
PERSONAL SERVICES:		
Salaries and Wages	$ 5,153,514	$ 4,736,947
Retirement Contributions	704,904	628,313
Insurance	600,739	499,111
Bureau of Employment Services	424	
	6,459,581	5,864,371
SUPPLIES:		
Office Supplies	178,087	134,065
Printing and Publications	68,249	66,152
Dues and Subscriptions	13,061	13,131
	259,397	213,348
OTHER SERVICES AND CHARGES:		
Professional Services:		
Auditing	76,115	78,800
Actuarial	84,570	82,500
Investment	385,848	346,249
Medical	177,007	170,131
Pension Review	28,395	5,596
Employee Training	20,976	25,845
Data Processing Contract	39,561	29,208
Disaster Recovery	17,667	20,000
Communication:		
Telephone and Telegraph	137,521	105,610
Freight, Express, and Drayage	6,277	6,480
Postage	568,874	478,434
Transportation and Travel	133,562	122,674
Utilities	163,687	174,796
Equipment Rental	610,476	727,981
Repair and Maintenance:		
Equipment	1,733	1,840
Building	249,091	238,171
Microfilm	23,095	16,096
Retirement Study Commission	131,267	133,447
Miscellaneous	22,542	30,018
	2,878,264	2,793,876
DEPRECIATION ON:		
Building	138,873	138,334
Equipment and Fixtures	535,082	457,264
	673,955	595,598
TOTAL ADMINISTRATIVE EXPENSE	$ 10,271,197	$ 9,467,193

ACTUARIAL SECTION

Report of the Actuary

Summary of Assumptions

Summary of Unfunded Accrued Liabilities

Short-Term Solvency Test

Analysis of Financial Experience

REPORT OF THE ACTUARY

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants
200 Globe Building • 407 East Fort • Detroit, Michigan 48226 • 313-961-3346

May 4, 1988

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

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 has annual actuarial valuations to (i) measure present financial position, and (ii) test the adequacy of established contribution rates. The latest completed actuarial valuations were based upon data and assumptions as of December 31, 1986. Conditions and results are shown in our reports. 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 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 for each major risk area. During the last two years, actual overall experience was more favorable than assumed. The primary source of favorable experience was substantial gains from investment income. These large gains were partially offset by larger than assumed health care cost increases. The high rate of health care inflation in recent years continues to be a cause for concern. Overall, however, we continue to believe the assumptions used in the regular valuations produce results which are reasonable.

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 cost financing.

Respectfully submitted,

Norman L. Jones, F.S.A. Brian B. Murphy, F.S.A.

NLJ:ct

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. Present assets were valued at amortized cost plus 20 percent of the system's unrealized appreciation as of Dec. 31, 1986.

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, adopted in 1982, are used by the Actuary.

Investment Return. 7.5 percent annually, compounded annually. Considering other financial assumptions, the 7.5 percent rate translates to an assumed real rate of return of 2 percent; the real rate of return is the rate of investment return over the inflation rate.

Active Employee Total Payroll. Increasing 5.5% 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.

AGE	MERIT & SENIORITY		BASE (ECONOMY)	INCREASE NEXT YEAR	
	STATE	LOCAL		STATE	LOCAL
30	3.2%	2.8%	5.5%	8.7%	8.3%
40	2.2	1.8	5.5	7.7	7.3
50	1.4	1.2	5.5	6.9	6.7
60	0.6	0.6	5.5	6.1	6.1

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 are:

RETIREMENT AGES	% RETIRING NEXT YEAR STATE & LOCAL MEN	WOMEN	LAW ENFORCEMENT
50-61	12%	15%	15%
62	15	18	15
63	15	20	15
64	20	22	15
65	35	35	15
66	30	30	15
67	30	30	15
68	30	30	15
69	40	40	15
70	100	100	15

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: STATE		WITHDRAWAL: LAW ENFORCEMENT	WITHDRAWAL: LOCAL		DISABILITY	
		MEN	WOMEN	MEN	WOMEN		MEN	WOMEN	MEN	WOMEN
	0	%	%	30.00%	30.00%	15.00%	25.00%		%	%
	1			25.00	25.00	10.00	20.00	20.00		
	2			20.00	20.00	8.00	14.00	14.00		
	3			15.00	15.00	7.00	9.00	12.00		
	4			12.00	12.00	6.00	8.00	10.00		
30	5 & Over	.12	.10	9.60	11.40	4.90	9.60	11.40	0.08	0.06
40		.25	.15	6.20	7.40	3.60	6.20	7.40	0.39	0.23
50		.71	.43	2.30	3.10	2.00	2.30	3.10	1.12	0.72
60		1.80	1.16	1.00	1.50	1.00	1.00	1.50		

Actuarial Valuation Data

	ACTIVE MEMBERS			RETIRED LIVES		
VALUATION YEAR	NUMBER	ANNUAL PAYROLL ($ MILLIONS)	AVERAGE PAY	NUMBER	ANNUAL ALLOWANCE ($ MILLIONS)	AVERAGE ALLOWANCE
1977	271,388	$ 2,694	$ 9,928	60,393	$ 170	$ 2,816
1978	274,700	3,056	11,124	64,386	191	2,964
1979	261,513	3,217	12,302	69,858	231	3,312
1980	256,688	3,441	13,405	73,620	257	3,497
1981	252,623	3,308	13,092	77,718	302	3,880
1982	248,855	3,654	14,683	81,166	331	4,076
1983	248,307	3,814	15,361	85,594	369	4,285
1984	248,483	4,044	16,278	90,302	424	4,691
1985	251,748	4,282	17,007	93,867	471	5,021
1986	254,619	4,543	17,842	97,906	519	5,298

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 and retirement benefits 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 dollars divided by active employee payroll dollars 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 Liabilites
($ Amounts in Millions)

VALUATION YEAR	ACTUARIAL ACCRUED LIABILITIES (AAL)	VALUATION ASSETS	UNFUNDED ACTUARIAL ACCRUED LIABILITES (UAAL)	RATIO OF ASSETS TO AAL	ACTIVE MEMBER PAYROLL	UAAL AS A % OF ACTIVE MEMBER PAYROLL
1977	$ 6,448	$ 3,480	$ 2,968	54%	$ 2,694	110%
1978	7,576	4,015	3,561	53	3,056	117
1979	8,965	4,667	4,298	52	3,217	134
1980	10,388	5,235	5,153	50	3,441	150
1981	11,055	6,106	4,949	55	3,308	150
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

*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 (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 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 liability 3 will increase over time. Liability 3 being fully funded is very rare.

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

Computed Accrued Liabilites
($ 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)
1977	$ 1,002	$ 1,683	$ 3,763	$ 3,480	100	100	21
1978	1,126	1,923	4,527	4,015	100	100	21
1979	1,216	2,414	5,334	4,667	100	100	19
1980	1,363	2,710	6,316	5,235	100	100	18
1981	1,491	3,296	6,268	6,106	100	100	21
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

*Includes market adjustment.

Actual vs. Recommended Contributions 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* 1986	1985	1984
Age & Service Retirements. If members retire at older ages than assumed, there is a gain. If younger ages, a loss.	($ 1.5)	$ 0.9	$ 2.1
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	15.9	20.2	24.1
Death-In-Service Annuities. If survivor claims are less than assumed, there is a gain. If more claims a loss.	9.2	9.7	9.9
Other Separations. If more liabilities are released by other separations than assumed, there is a gain. If smaller releases, a loss.	(126.9)	(159.9)	(97.7)
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	109.0	171.0	15.5
Investment Return. If there is greater investment return than assumed, there is a gain. If less return, a loss.	980.8	901.0	98.4
Health Insurance & Medicare Premiums. If there are smaller increases than assumed, there is a gain. If greater increases, a loss.	(199.4)	(245.0)	(278.0)
Gain (or Loss) During Year From Financial Experience	$ 787.1	$ 697.9	($ 225.7)

STATISTICAL SECTION

Disbursements by Category

Member Count

Member Contribution Rates

Number of Employer Units

Number of Net Benefit Payments by Category

Number of New Benefit and Refund Payments by Year

Employer Contribution Rates

Schedule of Average Benefit Payments

DISBURSEMENTS B

Last 10 Ye

BENEFITS

	ANNUITIES	DISABILITIES	OTHER SYSTEMS	SURVIVORS	CPI	POST RETIREMENT LEGISLATIVE INCR.
1978	$ 137,607,458	$ 15,699,450	$ 1,225,617	$ 18,295,016	$ 9,185,292	$ 17,231,971
1979	153,958,033	18,801,479	2,038,904	19,808,511	13,212,604	18,170,820
1980	170,755,615	21,862,642	1,849,714	21,521,104	19,101,857	18,956,041
1981	192,045,068	24,970,899	1,967,683	22,974,505	24,942,579	23,399,149
1982	214,286,038	27,372,888	2,023,006	24,535,836	31,468,090	27,594,317
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

MEMBER COUNT

Last 10 Years

	ACTIVE CONTRIBUTING	INACTIVE	TOTAL
1978	279,088	39,378	**318,466**
1979	263,614	46,404	**310,018**
1980	258,559	52,782	**311,341**
1981	255,097	53,005	**308,102**
1982	251,169	52,454	**303,623**
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**

MEMBER CONTRIBUTION RATES

Last 10 Years

CALENDAR YEAR	CONTRIBUTION RATE
1978	8.5%
1979	8.5
1980	8.5
1981	8.5
1982	8.5*
1983	8.5*
1984	8.5*
1985	8.5*
1986	8.5*
1987	8.5*

***Effective November 1982. Law Enforcement Contribution Rate is 9.5%.**

BY CATEGORY

Years

HEALTH CARE	DEATH BENEFITS	REFUNDS: SEPARATION	REFUNDS: BENEFICIARIES	REFUNDS: OTHER	TOTAL ALL PAYMENTS
$ 33,719,070	$ 1,274,556	$ 57,696,936	$ 2,220,385	$ 214,699	**$ 294,370,450**
41,112,677	1,330,560	76,573,982	2,524,667	16,847,635	**364,379,872**
44,182,218	1,379,989	61,560,229	2,515,380	438,790	**364,123,579**
54,033,205	1,524,491	73,182,786	2,617,655	438,489	**422,096,509**
78,112,241	1,436,081	63,954,454	2,722,037	302,391	**473,807,379**
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**

NUMBER OF EMPLOYER UNITS

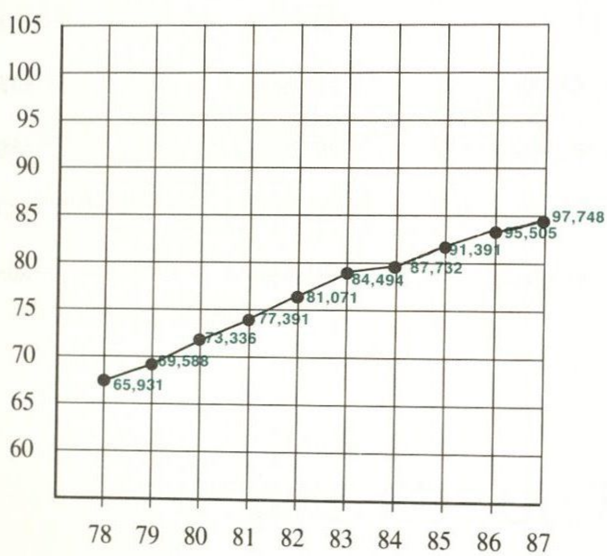
Last 10 Years

CALENDAR YEAR	STATE	COUNTY	LAW ENFORCEMENT	MUNICIPALITIES	VILLAGES	MISCELLANEOUS	LIBRARIES	TOWNSHIPS	TOTALS
1978	270	205	88	281	578	332	251	1,281	**3,286**
1979	262	198	88	281	569	323	248	1,283	**3,252**
1980	253	193	88	284	560	327	248	1,275	**3,228**
1981	252	200	146	291	569	328	249	1,286	**3,321**
1982	248	207	151	294	576	348	249	1,267	**3,340**
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**

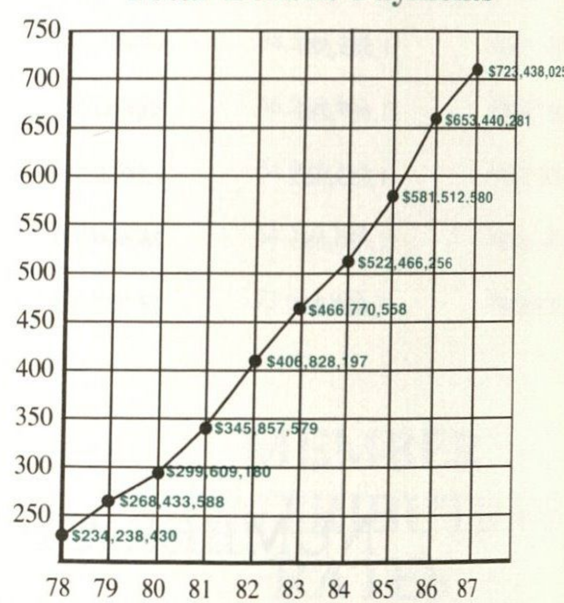
NUMBER OF NET BENEFIT PAYMENTS BY CATEGORY

AS OF YEAR-END	*ANNUITIES*	*DISABILITIES*	*SURVIVORS*	*TOTAL*
1978	52,986	4,334	8,611	65,931
1979	55,866	4,770	8,952	69,588
1980	58,798	5,184	9,354	73,336
1981	62,212	5,565	9,614	77,391
1982	65,363	5,807	9,901	81,071
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

Total Benefit Recipients



Total Benefit Payments



NUMBER OF NEW BENEFIT AND REFUND PAYMENTS BY YEAR

YEAR ENDING DEC. 31	*ANNUITIES*	*DISABILITIES*	*S1 & S2 SURVIVORS*	*REFUND*
1978	5,067	706	675	46,632
1979	4,851	701	666	53,727
1980	5,068	715	727	36,831
1981	5,772	693	667	35,108
1982	5,445	563	631	28,283
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

EMPLOYER CONTRIBUTION RATES

STATE—Last 10 Years

Calendar Year	Normal (Current)	Health (Current)	Survivor Benefits (Current)	Past Service (Unfunded Liability)	Health (Unfunded Liability)	Total
1978	6.93%	1.12%	1.38%	3.54%	0.74%	**13.71%**
1979	6.62	1.25	1.32	3.60	0.92	**13.71**
1980	6.41	1.31	1.34	3.92	0.73	**13.71**
1981	6.40	1.27	1.04	4.09	0.91	**13.71**
1982	5.77	1.10	0.99	4.93	0.92	**13.71**
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**

LOCAL—Last 10 Years

Calendar Year	Normal (Current)	Health (Current)	Survivor Benefits (Current)	Past Service (Unfunded Liability)	Health (Unfunded Liability)	Total
1978	7.09%	1.66%	1.37%	3.06%	0.77%	**13.95%**
1979	6.96	1.68	1.30	3.16	0.85	**13.95**
1980	6.79	1.75	1.38	3.33	0.70	**13.95**
1981	6.67	1.65	1.06	3.65	0.92	**13.95**
1982	6.03	1.27	1.07	4.66	0.92	**13.95**
1983	4.86	1.97	0.92	4.83	1.37	**13.95**
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**

LAW ENFORCEMENT—Last 10 Years

Calendar Year	Normal (Current)	Health (Current)	Survivor Benefits (Current)	Past Service (Unfunded Liability)	Health (Unfunded Liability)	Total
1978	10.86%	1.66%	0.85%	4.45%	0.28%	**18.10%**
1979	11.69	1.68	0.83	3.62	0.28	**18.10**
1980	11.82	1.75	0.94	2.89	0.70	**18.10**
1981	11.35	1.65	1.28	3.46	0.36	**18.10**
1982	10.38	1.27	1.58	4.47	0.40	**18.10**
1983	8.66	2.00	1.42	5.27	0.75	**18.10**
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**

SCHEDULE OF AVERAGE BENEFIT PAYMENTS*

	YEARS CREDITED SERVICE					
	5-9	10-14	15-19	20-24	25-30	30+
Period 1/1/83-12/31/83						
Average Monthly Benefit*	$ 172.02	$ 320.61	$ 460.66	$ 649.80	$ 843.03	$ 1,288.35
Average Final Average Salary	$ 922.97	$ 1,200.20	$ 1,293.32	$ 1,451.26	$ 1,592.10	$ 1,836.02
Number of Active Recipients	918	1,218	1,048	762	681	1,048
Period 1/1/84-12/31/84						
Average Monthly Benefit*	$ 160.39	$ 311.43	$ 454.94	$ 630.41	$ 863.32	$ 1,303.36
Average Final Average Salary	$ 918.98	$ 1,212.24	$ 1,324.65	$ 1,476.12	$ 1,671.54	$ 1,901.38
Number of Active Recipients	1,028	1,290	1,182	854	692	1,142
Period 1/1/85-12/31/85						
Average Monthly Benefit*	$ 175.90	$ 326.19	$ 485.82	$ 679.87	$ 911.15	$ 1,354.97
Average Final Average Salary	$ 1,022.67	$ 1,307.72	$ 1,461.99	$ 1,608.95	$ 1,797.71	$ 2,059.74
Number of Active Recipients	1,078	1,189	1,157	898	751	1,193
Period 1/1/86-12/31/86						
Average Monthly Benefit*	$ 161.53	$ 321.53	$ 493.59	$ 677.96	$ 901.80	$ 1,306.34
Average Final Average Salary	$ 1,012,60	$ 1,311.99	$ 1,516.46	$ 1,652.93	$ 1,828.68	$ 2,040.15
Number of Active Recipients	1,420	1,254	1,180	910	707	1,186
Period 1/1/87-12/31/87						
Average Monthly Benefit*	$ 213.55	$ 345.59	$ 511.40	$ 705.38	$ 942.72	$ 1,417.93
Average Final Average Salary	$ 1,100.50	$ 1,417.29	$ 1,611.95	$ 1,744.24	$ 1,929.38	$ 2,199.96
Number of Active Recipients	330	911	897	841	699	1,582
Period 1/1/83-12/31/87						
Average Monthly Benefit*	$ 176.68	$ 325.07	$ 481.28	$ 668.68	$ 892.40	$ 1,334.19
Average Final Average Salary	$ 995.54	$ 1,289.89	$ 1,441.67	$ 1,586.70	$ 1,763.88	$ 2,007.45
Number of Active Recipients	4,774	5,862	5,464	4,265	3,530	6,151

*"Average Monthly Benefit" includes post retirement and cost-of-living increases.

INVESTMENT SECTION

Investment Report

Investment Portfolio Summary

Detailed Listing of Investment Portfolio

INVESTMENT REPORT

Nineteen eighty-seven will be a year long remembered by anyone associated with financial markets. It will be a year forever paired with 1929 - a year of spectacular stock market boom and bust. For the first eight months of 1987, the Dow Jones Industrial Average climbed 825 points (+44%). This was followed with a 985 point decline (−36%) through October 19, with a 508 point decline on the 19th alone.

The effect of the stock market crash on the economy has yet to materialize and probably will not show its effect, if any, until well into 1988. However, economic activity in 1987 was similar to that witnessed in 1986, characterized by slow growth and low inflation. The domestic economy grew at 2.9% in 1987 as measured by the Gross National Product (GNP). This was equal to 2.9% growth in 1986. Inflation, while higher in 1987 than in 1986, continued at a low level relative to prior years. As measured by the annual percentage change in the Consumer Price Index, inflation was 3.7% in 1987 compared to 1.1% in 1986. The increase in inflation was due to higher commodity and oil prices.

While the economy continued on its slow growth path, there were sectors within the economy that showed substantial strength and those that showed substantial weakness. At the open of 1987, the consumer sectors of the economy continued to show rapid growth, while the industrial sectors of the economy continued to show weakness. The consumer continued to buy goods through increased use of credit and installment loans. The industrial sector weakness was fueled by increased competition from imported goods due to the high level of the dollar. By the end of 1987, however, the stock market crash increased recessionary fears and reduced the consumers' desire to spend. In addition, the dollar fell substantially during 1987 increasing the attractiveness of U.S. goods abroad and reversing the situation that existed at the beginning of the year. The result was strength in the industrial sector and weakness in the consumer sector.

Nineteen eighty-seven was a difficult year for stock and bond market performance. As mentioned, the stock market was a year of dramatic moves upward and downward in prices, ending with only modest gains for the year. In addition, rising interest rates through the first 10 months of 1987 resulted in only modest gains for bonds, despite a powerful surge in performance the last two months of the year. (Interest rates fell rapidly the last two months of the year due to the stock market crash.) Most of the gains in the stock and bond markets were a result of dividend and coupon payments with very little return generated from capital appreciation. As a result, PERS witnessed modest gains in total fund performance as did most pension and investment funds with similar asset allocations.

The substantial savings in stock and bond prices in 1987 were exacerbated by several factors. First, increased globalization of markets had a substantial impact. Globalization was enhanced by reduced barriers to international capital flows. No longer are U.S. financial markets isolated from international investors, nor are foreign markets isolated from U.S. investors. Second, derivative instruments (portolio insurance, hedging strategies, program trading, etc.) had a substantial impact on stock and bond price fluctuations. Large amount of capital can be traded quickly with these products. These large flows of capital have a large impact on prices. Finally, liquidity in the equity market has declined since October 19, 1987. Many investors are cautious fearing the repercussions of the stock market crash. This situation requires large price swings to motivate buyers and sellers to trade.

Real estate, despite the negative press, provided the best returns for PERS. Many investors were hurt by unwise real estate investment made in the early 1980s. During 1987, many savings and loans, banks, insurance companies, and commingled funds took sizeable writedowns in their real estate portfolios. The vast majority of writedowns occured on properties located in the Southwest (Houston, Dallas, Tulsa, Denver, etc.) because of persistent economic weakness in that region of the country. PERS has little real estate investments in these areas and benefited by investing directly in only a select number of properties through our network of real estate advisors.

Our real estate approach puts more emphasis on creating value rather than purchasing an existing income stream. This approach led us to invest in a few properties in the developmental stage. The risk associated with these investments is controlled by such factors as the uniqueness of the property locations and design, strong pre-leasing requirements, performance guarantees from strong developers, and restrictive zoning laws that discourage competitors from entering our target markets. The result is that PERS purchases properties on a wholesale rather than retail basis, thereby, capturing a significant amount of appreciation without the benefit of inflation.

In 1988, economic outlook is clouded at best by the stock market crash. Most economists believe that the crash will have a dampening effect on the economy. Therefore, GNP forecasts have dropped for 1988 and many anticipate a recession. However, at year end 1987, the pace of current business activity remains strong, suggesting continuation of economic growth at least for several months into 1988.

While the timing of a slowdown or recession is difficult to predict, the probability of the development of one or the other by late 1988 or early 1989 has increased. The major factors influencing the 1988 economy will be the dollar, the trade and budget deficits and their influence on interest rates. The real and perceived status of these factors will dictate the timing and severity of any possible slowdown.

In 1988 our goal is to achieve a total return for the fund in excess of our actuarially assumed rate of return of 7.5% plus administrative expenses. We believe this goal can be achieved through selectively buying and selling common stocks and positioning our bond portfolio to take advantage of arbitrage opportunities and interest rate movements. In addition, selective real estate purchases will play an increasing role in achieving our goal in 1988.

INVESTMENT PORTFOLIO SUMMARY

Year Ended December 31, 1987

	PAR VALUE	BOOK VALUE	MARKET VALUE	% OF PORTFOLIO (BOOK VALUE)	PURCHASE YIELD
U.S. Gov't & Agencies	$ 8,467,378,868	$ 3,209,036,572	$ 3,393,062,027	22.78	9.40%
Corporate	1,329,986,611	1,167,135,262	1,120,019,408	8.28	10.74%
Canadian	496,879,000	490,085,860	484,824,671	3.48	9.84%
Mortgages	6,026,059,786	5,134,807,150	5,122,413,206	36.44	9.78%
Venture Capital	32,821,788	32,821,788	32,823,033	.23	1.22%
Stocks (at cost)	3,753,960,824	3,753,960,824	4,197,816,028	26.64	3.55%
Real Estate	302,418,148	302,418,148	352,543,625	2.15	
Total Portfolio	$ 20,409,505,025	$ 14,090,265,604	$ 14,703,501,998	100.00	8.38%

DETAILED LISTING OF INVESTMENT PORTFOLIO

December 31, 1987

U.S. GOVERNMENT & AGENCIES

BOND NAME	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
United States Treasury Receipts	0.000%	02/15/1991	$ 3,180,000	$ 2,134,565	$ 2,448,822
United States Treasury Receipts	0.000%	08/15/1991	600,000	390,451	441,468
United States Treasury Receipts	0.000%	02/15/1991	7,231,250	4,929,699	5,568,568
United States Treasury Receipts	0.000%	08/15/1991	7,231,250	4,621,219	5,320,609
United States Treasury Receipts	0.000%	05/15/1991	22,326,250	15,448,305	16,807,647
United States Treasury Receipts	0.000%	02/15/1990	9,281,250	7,176,784	7,822,330
United States Treasury Receipts	0.000%	08/15/1990	9,831,250	7,136,505	7,925,953
United States Treasury Receipts	0.000%	11/15/2011	25,000,000	2,461,870	2,923,250
United States Treasury Receipts	0.000%	05/15/2014	101,348,000	8,733,557	10,054,735
United States Treasury Receipts	0.000%	11/15/2014	15,000,000	1,235,762	1,424,400
United States Treasury Receipts	0.000%	11/15/2015	17,300,000	1,460,456	1,517,037
United States Treasury Receipts	0.000%	05/15/2015	17,375,000	1,533,232	1,612,400
United States Treasury Receipts	0.000%	02/15/1997	31,473,000	14,228,023	13,840,881
United States Treasury Receipts	0.000%	02/15/1999	30,000,000	10,025,339	10,912,200
United States Treasury Receipts	0.000%	08/15/1999	45,000,000	14,577,123	15,640,200
United States Treasury Receipts	0.000%	02/15/2000	50,000,000	15,098,290	16,471,000
United States Treasury Receipts	0.000%	08/15/2001	100,000,000	26,649,444	28,711,000
United States Treasury Receipts	0.000%	02/15/2004	50,000,000	10,874,771	11,415,500
United States Treasury Receipts	0.000%	08/15/2005	25,000,000	4,541,063	4,999,750
United States Treasury Receipts	0.000%	08/15/2011	72,935,000	8,514,243	8,721,567
United States Treasury Receipts	0.000%	02/15/2014	101,000,000	9,163,763	10,241,400
United States Treasury Receipts	0.000%	08/15/2014	140,107,000	11,746,229	13,597,384
United States Treasury Receipts	0.000%	05/15/1996	61,135,000	27,132,659	28,977,378
United States Treasury Receipts	0.000%	05/15/1997	13,400,000	5,913,381	5,757,176
United States Treasury Receipts	0.000%	05/15/1999	57,300,000	18,699,704	20,376,453
United States Treasury Receipts	0.000%	11/15/1999	297,800,000	93,180,346	101,189,462
United States Treasury Receipts	0.000%	05/15/2000	132,500,000	39,802,568	42,665,000
United States Treasury Receipts	0.000%	11/15/2000	42,300,000	12,607,897	13,010,634
United States Treasury Receipts	0.000%	05/15/2001	17,300,000	4,901,790	5,082,740
United States Treasury Receipts	0.000%	11/15/2001	37,300,000	9,782,994	10,467,872
United States Treasury Receipts	0.000%	05/15/2002	17,300,000	4,460,481	4,637,611
United States Treasury Receipts	0.000%	11/15/2002	42,300,000	10,404,086	10,831,338
United States Treasury Receipts	0.000%	05/15/2003	37,300,000	8,452,065	9,123,207

NOTE: Cents omitted. Columns will not add.

BOND NAME	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
United States Treasury Receipts	0.000%	11/15/2003	$ 17,300,000	$ 3,872,010	$ 4,041,972
United States Treasury Receipts	0.000%	05/15/2004	27,300,000	5,615,322	6,092,541
United States Treasury Receipts	0.000%	11/15/2004	17,300,000	3,523,345	3,687,841
United States Treasury Receipts	0.000%	05/15/2005	17,300,000	3,361,039	3,540,272
United States Treasury Receipts	0.000%	11/15/2005	47,300,000	8,355,800	9,247,150
United States Treasury Receipts	0.000%	05/15/2008	89,810,000	12,043,932	14,054,366
United States Treasury Receipts	0.000%	11/15/2008	89,810,000	11,464,243	13,429,289
United States Treasury Receipts	0.000%	05/15/2011	25,000,000	2,584,388	3,057,750
United States Treasury Receipts	0.000%	02/15/2015	109,740,000	11,320,477	11,471,122
United States Treasury Receipts	0.000%	11/15/2004	519,550,000	111,920,389	112,820,282
United States Treasury Receipts	0.000%	11/15/2015	1,318,975,000	112,688,670	129,938,993
United States Treasury Receipts	0.000%	02/15/2016	404,800,000	33,862,413	38,516,720
United States Treasury Receipts	0.000%	05/15/2016	300,000,000	23,145,774	24,567,000
United States Treasury Receipts	0.000%	11/15/2016	836,600,000	56,711,112	74,357,008
United States Treasury Receipts	0.000%	05/15/2017	465,000,000	32,462,748	41,217,600
United States Treasury	10.750%	08/15/2005	15,200,000	17,313,710	17,299,424
United States Treasury	9.875%	11/15/2015	23,750,000	24,390,535	25,694,412
United States Treasury	9.375%	02/15/2006	46,770,000	48,819,326	48,056,175
United States Treasury	7.250%	05/15/2016	98,700,000	81,627,881	80,625,069
United States Treasury	7.500%	11/15/2016	398,500,000	344,143,429	336,234,375
United States Treasury	8.750%	05/15/2017	434,968,000	378,576,243	423,006,380
United States Treasury	8.875%	08/15/2017	1,350,573,000	1,289,785,036	1,346,629,053
United States Treasury	10.750%	07/15/1990	25,000,000	24,593,228	26,546,750
United States Treasury	8.125%	01/31/1988	30,000,000	30,048,300	30,070,200
United States Treasury	6.625%	04/30/1988	20,000,000	20,019,736	20,003,200
United States Treasury	6.750%	03/31/1991	3,755,000	3,638,655	3,608,329
United States Treasury	7.000%	04/15/1994	29,150,000	26,557,498	26,863,474
United States Treasury	7.375%	06/30/1989	1,445,000	1,440,011	1,440,029
United States Treasury	8.500%	09/30/1989	51,325,000	51,829,842	51,918,317
Falcon One Sea Transport Company	12.100%	12/31/2006	10,462,417	10,462,417	10,298,471
FHA—Series MM	4.625%	12/01/1992	41,200	40,369	40,824
Patriot III Shipping Corp. Title XI	8.000%	08/07/2004	4,800,000	4,800,000	4,150,656
Total			$ 8,467,378,868	$ 3,209,036,572	$ 3,393,062,027

CORPORATE

BOND NAME	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
ACF Industries	11.000%	10/01/1989	$ 267,000	$ 267,000	$ 274,257
Acceleration Corporation	10.500%	09/01/1994	4,600,000	4,600,000	4,726,500
Aetna Life and Casualty Company	8.000%	01/15/2017	14,945,000	11,866,813	12,511,655
American Telephone and Telegraph	8.625%	04/01/2026	38,705,000	33,112,281	33,770,112
Amoco Corporation	8.625%	12/15/2016	74,000,000	63,797,623	66,125,660
Atlantic Richfield Company	10.875%	07/15/2005	29,940,000	31,341,717	32,372,026
Atlantic Richfield Company	9.875%	03/01/2016	68,615,000	68,608,234	68,435,914
Atlantic Richfield Company	9.125%	03/01/2011	47,950,000	42,836,940	44,585,828
Baltimore and Ohio Railroad	9.000%	06/01/1991	800,000	798,389	802,168
Baltimore and Ohio Railroad	9.000%	06/01/1992	800,000	797,994	799,864
Baltimore and Ohio Railroad	9.000%	06/01/1993	800,000	797,626	798,184
Bell Telephone Company of Pennsylvania	8.125%	05/15/2017	4,635,000	3,649,674	3,796,157
Bell Telephone Company of Pennsylvania	8.750%	04/01/2026	21,765,000	17,552,621	19,343,643
Brush Wellman Incorporated	12.500%	02/01/2001	13,000,000	13,000,000	14,162,200
Burlington Northern Incorporated	15.500%	01/02/1999	8,851,591	8,851,591	11,974,433
Capital Holding Corporation	8.750%	01/15/2017	27,900,000	23,678,705	23,839,713
Carlisle Corporation	11.000%	06/15/2000	800,000	800,000	680,872
Carnation Company	7.500%	03/01/1996	654,000	624,363	609,129
Chesapeake and Potomac Telephone Company of Maryland	8.500%	09/01/2026	6,500,000	5,646,875	5,655,000
Chevron Corporation	9.375%	06/01/2016	27,980,000	26,032,610	26,335,615
Dow Chemical Company	9.750%	01/02/2000	2,382,641	2,382,641	2,325,315
Dow Chemical Company	9.750%	07/02/1999	2,438,375	2,438,375	2,381,025
Dupont De Nemours Chemical Company	6.000%	12/01/2001	63,460,000	44,729,617	45,917,752
First Banc Group of Ohio, Incorporated	9.000%	11/01/1996	5,625,000	5,625,000	5,330,362
Ford Motor Credit Company	7.875%	01/15/1997	8,400,000	7,819,172	7,468,860
Fruit Growers Express	9.250%	05/15/1989	266,668	266,668	269,638
GTE Corporation	8.500%	04/01/2017	41,250,000	34,027,731	35,106,225
General Electric Credit	5.500%	11/01/2001	23,890,000	15,673,093	16,568,909
General Motors Acceptance Corporation	6.000%	04/01/2011	20,780,000	13,177,396	13,503,467
General Motors Acceptance Corporation	5.500%	12/15/2001	5,000,000	3,242,482	3,388,700
General Motors Acceptance Corporation	8.250%	04/01/2016	104,053,000	89,379,080	86,147,559
General Motors Corporation	8.125%	04/15/2016	25,000,000	19,519,957	20,406,750

NOTE: Cents omitted. Columns will not add.

BOND NAME	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
General Telephone Company of Indiana	6.250%	07/01/1997	$ 2,000,000	$ 1,803,118	$ 1,626,520
Huntington Bancshares, Incorporated	8.875%	09/15/1997	6,562,500	6,525,851	5,849,221
ITT Financial Corporation	8.750%	03/01/2006	11,695,000	10,526,178	10,390,422
Illinois Bell Telephone Company	8.250%	08/18/2016	5,000,000	4,021,815	4,206,350
Illinois Bell Telephone Company	8.500%	04/22/2026	9,550,000	7,640,845	8,308,500
K-Mart Corporation	13.500%	01/01/2009	5,850,000	5,850,000	6,630,916
Louisville and Nashville Railroad	10.000%	11/01/1990	290,855	290,855	288,337
Louisville and Nashville Railroad	9.250%	10/30/1991	1,142,428	1,142,428	1,094,754
Michigan Bell Telephone Company	7.750%	06/01/2011	20,500,000	16,437,697	16,868,220
Michigan Bell Telephone Company	8.125%	06/01/2015	5,900,000	4,372,892	4,876,527
Mountain States Telephone and Telegraph Company	7.875%	11/15/2016	10,950,000	8,762,111	8,774,344
Mountain States Telephone and Telegraph Company	8.000%	09/15/2017	15,350,000	12,478,261	12,691,687
New Jersey Bell Telephone Company	8.250%	02/15/2016	5,000,000	4,051,950	4,206,850
New York Telephone Company	7.375%	12/15/2011	10,000,000	7,382,162	7,774,800
New York Telephone Company	8.250%	10/15/2015	16,015,000	13,025,783	13,414,804
New York Telephone Company	7.875%	06/15/2017	5,000,000	3,851,854	4,041,700
Northwestern Bell Telephone	8.125%	03/15/2017	5,265,000	4,309,091	4,304,453
Ohio Bell Telephone Company	8.750%	04/15/2026	7,700,000	6,931,857	6,833,750
Pacific Bell	8.750%	08/15/2025	10,810,000	9,118,436	9,458,750
Pacific Gas and Electric	12.750%	06/01/1995	14,250,000	17,419,876	16,814,430
Pacific Gas and Electric	8.625%	05/01/2019	25,000,000	21,242,712	20,809,750
Pacific Gas and Electric	9.125%	10/01/2019	5,420,000	4,687,031	4,692,419
Pacific Gas and Electric	8.500%	02/01/2020	20,000,000	16,774,762	16,641,200
Pacific Gas and Electric	10.000%	08/01/2020	27,000,000	26,284,840	25,946,460
Pacific Northwest Bell Telephone	8.625%	04/01/2026	62,225,000	52,169,214	54,446,875
Pennsylvania Mart Properties	10.250%	04/01/2000	2,127,967	2,127,967	2,142,011
Petroleum Facilities Incorporated (Series P)	4.700%	06/01/1989	12,000	11,831	11,470
Petroleum Facilities Incorporated (Series R)	4.700%	12/01/1989	47,000	46,174	44,237
Petroleum Facilities Incorporated (Series T)	4.700%	06/01/1989	46,000	45,002	44,081
St. Louis Southwestern Railway	9.750%	10/01/1990	600,000	600,000	609,078
Second Swansea Properties, Incorporated	6.250%	02/01/1992	693,077	627,096	600,649
Society Bank	9.750%	10/01/1996	4,079,139	4,079,139	3,916,912
Southern Bell Telephone & Telegraph	7.625%	03/15/2013	8,600,000	6,639,533	6,860,736
Southern Bell Telephone & Telegraph	8.000%	02/15/2014	7,930,000	6,393,707	6,476,193
Southern Bell Telephone & Telegraph	8.125%	05/01/2017	19,335,000	16,110,817	16,014,213
Southern California Edison	8.625%	03/15/2018	22,970,000	18,451,763	19,983,900
Southern California Edison	8.625%	04/15/2019	17,030,000	14,246,912	14,866,508
Southwestern Bell Telephone	5.375%	06/01/2006	5,770,000	3,689,712	3,629,156
Southwestern Bell Telephone	7.625%	10/01/2013	7,100,000	5,304,573	5,633,708
Southwestern Bell Telephone	8.250%	03/01/2014	5,000,000	4,234,003	4,142,300
Southwestern Bell Telephone	8.250%	04/01/2017	10,050,000	7,911,829	8,338,083
Southwestern Bell Telephone	8.625%	04/15/2020	4,920,000	4,182,951	4,274,250
Sun Company	9.375%	06/01/2016	45,300,000	41,440,980	43,044,060
Union Carbide Company	8.625%	01/15/1999	1,518,830	1,518,830	1,362,588
Valley National Corporation	9.875%	03/01/2016	25,000,000	24,455,174	23,826,750
Warren Property Corporation	0.000%	10/01/2007	110,588,534	110,588,534	44,947,603
Worthington Industries	9.250%	12/01/1998	15,000,000	15,000,000	14,119,200
Xerox Corporation	13.250%	09/01/2014	11,740,000	15,384,809	13,726,173
Total			$ 1,329,986,611	$ 1,167,135,262	$ 1,120,019,408

CANADIAN

BOND NAME	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
British Columbia Hydro & Power	15.000%	04/15/2011	$ 34,470,000	$ 46,536,385	$ 44,847,193
British Columbia Hydro & Power	15.500%	07/15/2011	1,425,000	1,997,834	1,911,238
British Columbia Hydro & Power	15.500%	11/15/2011	25,825,000	36,284,084	35,036,519
Hydro Quebec	13.250%	10/15/2010	2,500,000	3,099,992	3,017,175
Hydro Quebec	16.625%	01/15/1992	9,800,000	12,391,874	12,276,362
Hydro Quebec	11.750%	02/01/2012	7,500,000	8,687,967	8,739,975
Hydro Quebec	8.875%	03/01/2026	76,900,000	69,978,000	69,953,623
Hydro Quebec	8.250%	04/15/2026	126,290,000	106,024,107	107,013,094
Hydro Quebec	8.250%	01/15/2027	76,250,000	66,394,518	64,605,862
New Brunswick Electric Power Commission	9.000%	02/15/1997	3,439,000	3,231,319	3,103,491
Province of Ontario	17.000%	11/05/2011	7,000,000	10,465,883	9,864,120
Province of Ontario	15.750%	03/15/2012	13,330,000	18,871,064	17,907,522
Province of Ontario	15.250%	08/31/2012	16,700,000	23,358,062	22,112,470
Province of Quebec	8.625%	12/01/2026	95,450,000	82,764,765	84,436,024
Total			$ 496,879,000	$ 490,085,861	$ 484,824,671

NOTE: Cents omitted. Columns will not add.

MORTGAGES

BOND NAME	*COUPON*	*MATURITY*
Fort Lewis	4.500%	09/01/1988
Fort Lewis	4.500%	12/01/1988
Fort Riley	4.500%	03/01/1988
Fort Riley	4.500%	05/01/1988
Fort Riley	4.500%	06/01/1988
Fort Riley	4.500%	07/01/1988
Fort Riley	4.500%	09/01/1988
Fort Riley	4.500%	10/01/1988
Malmstrom AFB	4.500%	05/01/1988
Mayport Quarters	4.500%	01/01/1988
Mayport Quarters	4.500%	03/01/1988
Mayport Quarters	4.500%	04/01/1988
FHA—Aspen-Stratford Apartments	7.440%	05/01/2019
FHA—Carlton-Green Estates	9.440%	11/01/2019
FHA—Fernwood Court	7.440%	01/01/2008
FHA—Huntington Towers	7.440%	10/01/2019
FHA—Irving Oaks	7.480%	08/01/1998
FHA—Nottingham Towers	6.950%	04/01/2016
FHA—Thomaston Gardens	7.440%	06/01/2008
Federal Home Loan Mortgage Corporation	11.000%	03/01/2014
Federal Home Loan Mortgage Corporation	8.000%	07/01/2008
Federal Home Loan Mortgage Corporation	11.000%	10/01/2013
Federal Home Loan Mortgage Corporation	10.000%	10/01/2010
Federal Home Loan Mortgage Corporation	9.000%	12/01/2009
Federal Home Loan Mortgage Corporation	6.500%	01/01/2008
Federal Home Loan Mortgage Corporation	6.000%	10/01/2002
Federal Home Loan Mortgage Corporation	7.500%	05/01/2017
Federal Home Loan Mortgage Corporation	8.000%	06/01/2017
Federal Home Loan Mortgage Corporation	8.500%	02/01/2008
Federal Home Loan Mortgage Corporation	8.500%	12/01/2009
Federal Home Loan Mortgage Corporation	8.500%	04/01/2010
Federal Home Loan Mortgage Corporation	8.500%	06/01/2009
Federal Home Loan Mortgage Corporation	8.500%	10/01/2008
Federal Home Loan Mortgage Corporation	7.500%	11/01/2008
Federal Home Loan Mortgage Corporation	6.750%	07/01/2003
Federal Home Loan Mortgage Corporation	8.250%	12/01/2009
Federal Home Loan Mortgage Corporation	8.500%	12/01/2008
Federal Home Loan Mortgage Corporation	12.250%	08/01/2013
Federal Home Loan Mortgage Corporation	13.000%	11/01/2013
Federal Home Loan Mortgage Corporation	9.000%	03/01/2007
Federal Home Loan Mortgage Corporation	9.250%	05/01/2009
Federal Home Loan Mortgage Corporation	9.000%	01/01/2009
Federal Home Loan Mortgage Corporation	7.000%	12/01/2006
Federal Home Loan Mortgage Corporation	8.000%	09/01/2007
Federal Home Loan Mortgage Corporation	8.250%	10/01/2007
Federal Home Loan Mortgage Corporation	8.250%	11/01/2007
Federal Home Loan Mortgage Corporation	13.000%	09/01/2010
Federal Home Loan Mortgage Corporation	9.500%	05/01/2016
Federal Home Loan Mortgage Corporation	9.500%	08/01/2016
Federal Home Loan Mortgage Corporation	9.500%	09/01/2016
Federal Home Loan Mortgage Corporation	9.500%	09/01/2016
Federal Home Loan Mortgage Corporation	9.000%	12/01/2016
Federal Home Loan Mortgage Corporation	8.500%	01/01/2017
Federal Home Loan Mortgage Corporation	8.500%	02/01/2017
Federal Home Loan Mortgage Corporation	7.500%	03/01/2002
Federal Home Loan Mortgage Corporation	8.000%	03/01/2017
Federal Home Loan Mortgage Corporation	8.000%	04/01/2017
Federal Home Loan Mortgage Corporation	8.000%	05/01/2017
Federal Home Loan Mortgage Corporation	8.000%	06/01/2017
Federal Home Loan Mortgage Corporation	8.500%	10/01/2006
Federal Home Loan Mortgage Corporation	9.000%	02/01/2010
Federal Home Loan Mortgage Corporation	13.000%	12/01/2014
Federal Home Loan Mortgage Corporation	13.000%	12/01/2014
Federal Home Loan Mortgage Corporation	8.000%	06/01/2009
Federal Home Loan Mortgage Corporation	8.500%	01/01/2008
Federal Home Loan Mortgage Corporation	9.000%	06/01/2009
Federal Home Loan Mortgage Corporation	11.250%	06/01/2015