COMPREHENSIVE

ANNUAL FINANCIAL REPORT

POLICE AND FIREMEN'S DISABILITY AND PENSION FUND OF OHIO

FOR THE YEAR ENDED DECEMBER 31, 1988

PREPARED BY THE ACCOUNTING DEPARTMENT
JOHN N. BABEL, CONTROLLER

TABLE OF CONTENTS

ELECTED MEMBERS:

Virgil F. McDaniel, Jr.
Chairman
Dayton Police Department
Term expires June 7, 1993

Lawrence P. Miller
Stow Police Department
Term expires June 2, 1991

William R. Bennett
Cincinnati Police Department
Term expires June 2, 1991

Robert M. Shields
Columbus Fire Department
Term expires June 1, 1990

Elmer J. Khal
Cleveland Fire Department
Term expires June 1, 1992

Joseph S. Voss
Cincinnati Fire Department
(Retired)
Term expires June 2, 1991

STATUTORY MEMBERS:

Hugh J. Dorrian
Columbus City Auditor

Thomas E. Ferguson
Auditor of State

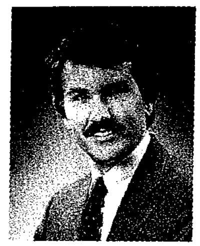
Anthony J. Celebrezze, Jr.
Attorney General

ADMINISTRATION

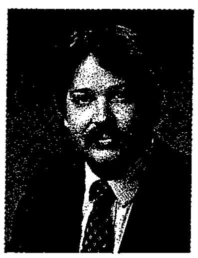
Henry E. Helling, III
Executive Director

John N. Babel
Controller

Ronald J. Corn
Deputy Director



Theodore G. Hall
Investment Manager



David J. Nesbitt
Assistant Director, Benefits

PROFESSIONAL CONSULTANTS

Actuary:
The Wyatt Company

Auditor:
Peat Marwick Main & Co.

Legal Counsel:
Attorney General Anthony J. Celebrezze, Jr.

Investments:
Atalanta/Sosnoff Capital Corporation (Equity)
Loomis, Sayles, and Company (Equity)
Oppenheimer Capital Corporation (Equity)
Travelers Investment Management Company (Equity)
Value Line Asset Management (Equity)
Duff and Phelps Asset Management (Ohio Equity)
Society National Bank—Cleveland (Ohio Equity)
Axe Core Investors (Index Fund)
Bankers Trust Company (Index Fund)
Copley Real Estate Advisors (Real Estate)
Schroder Real Estate Associates (Real Estate)
T.A. Associates Realty (Real Estate)
Trident/Meyer (Real Estate)
Townsend Group (Real Estate Consultants)
Cardinal Financial Management Corp. (Venture Capital)
Primus Venture Partners (Venture Capital)

ORGANIZATIONAL CHART

BOARD OF TRUSTEES

Virgil F. McDaniel, Jr., Dayton Police Department
Chairman

William R. Bennett, Cincinnati Police Department

Elmer J. Khal, Cleveland Fire Department

Lawrence P. Miller, Stow Police Department

Robert M. Shields, Columbus Fire Department

Joseph S. Voss, Cincinnati Fire Department (Retired)

Hugh J. Dorrian, Columbus City Auditor

Anthony J. Celebrezze, Jr., Attorney General

Thomas E. Ferguson, Auditor of State

ADMINISTRATIVE STAFF

EXECUTIVE DIRECTOR
Henry E. Helling, III

DEPUTY DIRECTOR
Ronald J. Corn

ASSISTANT DIRECTOR BENEFITS
David J. Nesbitt

INVESTMENT MANAGER
Theodore G. Hall

CONTROLLER
John N. Babel

LETTER OF TRANSMITTAL

The Police and Firemen's Disability and Pension Fund

230 East Town Street/Columbus, Ohio 43215-4650/(614) 228-3781

June 30, 1989

Dear Chairman and Members of the Board of Trustees:

We are pleased to submit to you the comprehensive annual financial report of the Police and Firemen's Disability and Pension Fund of Ohio (the Fund) for the year ended December 31, 1988.

The report is divided into 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 Fund; a Financial Section which includes the Independent Auditors' Report and the financial statements of the Fund; an Actuarial Section which includes the Actuary's Certification Letter and results of the annual actuarial valuation; a Statistical Section which includes significant data pertaining to the Fund: excluded is 10-year historical information pertaining to the additions and deletions of retirees and beneficiaries as this data is not available; an Investment Section which contains the investment report, portfolio summary, portfolio listings and the investment policy and guidelines; the last section is a summary of the Fund's provisions. The investment section is not required but has been included for purposes of added analysis.

Accounting System and Internal Controls

The financial statements were prepared in accordance with generally accepted accounting principles applicable to governmental units, including the pronouncements of the Governmental Accounting Standards Board.

The principles promulgated by Statement No. 6 of the National Council On Governmental Accounting are used in the Fund's accounting and subsequent reporting of financial activities. The accrual basis of accounting is used to record all financial transactions. Gains and losses on sales and exchanges of investments are recognized on the transaction date. Interest, dividends, net realized gains and other investment income is recognized on the accrual basis and included in investment income, net of investment related expenses. Investments in corporate and government bonds and obligations are reported at amortized cost with discounts or premiums amortized using the interest method. All other investments are carried at cost, subject to adjustment for market declines determined to be other than temporary. Income on venture capital is recognized once distributions received are in excess of the Fund's capital contributions. Depreciation on buildings is provided using the straight-line method over 40 years, the estimated useful life of the property. All other assets are carried at cost.

Management is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the Fund are protected from loss, theft or misuse and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept or reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits requires estimates and judgments by management. Management believes its internal control structure meets these objectives.

Financial Overview

Revenues:

Revenues for the year ended December 31, 1988, from employee and employer contributions were approximately $70.7 million and $149.6 million, respectively. Net investment income for the period was approximately $207.5 million. As a comparison, for the year ended December 31, 1987, employee and employer contributions were approximately $63.4 million and $139.5 million, respectively, and net investment income was approximately $174.8 million. Effective October 1, 1988, the employee contribution rate increased from 9.5% of active member payroll to 10.0%. The increase in revenues resulted from a rise in average member salary, improved investment yield and the increase in member contribution rates. Throughout the year, contribution rates as a percentage of active member payroll for employers remained at 19.5% for Police and 24.0% for Fire.

Expenses:

Benefit payments are the primary disbursements of the Fund. Included in the total expenses for the year ended December 31, 1988, was approximately $231.1 million for benefits, $3.5 million for refunds of employee contributions, and $5.9 million for administrative and other expenses. Total expenses for the year ended December 31, 1988, increased 10% over 1987 expenses and were approximately $240.6 million. Increases in the number of benefit recipients, the average benefit paid, and health care expense resulted in an approximate $20.5 million increase in total benefit expense. This accounted for nearly all of the increase in total Fund expenses.

Funding Practices and Actuarial Overview

Funds are derived from the excess of revenues over expenses, and are accumulated by the Fund in order to meet current and future benefit obligations to retirees and beneficiaries. Net income for the year ended December 31, 1988, increased the fund balance by approximately $221.9 million. This increase is approximately $30.7 million greater than the total fund balance increase recognized in the prior year.

The actuarial valuation for funding purposes dated January 1, 1988, date of the most recent actuarial valuation, reported an unfunded actuarial accrued liability of $2,372 million. This balance represents the difference between the actuarial accrued liability for benefits to be paid members and retirees ($4,808 million) and total valuation assets ($2,436 million). The unfunded actuarial accrued liability is being amortized in an orderly fashion over future years.

Investments Authority

The Fund invests all available funds in order to maximize both current income yield and long-term appreciation. For the year ended December 31, 1988, the investment portfolio provided 44.9% of the Fund's total revenues while employee and employer contributions provided 15.2% and 32.3%, respectively. All other sources provided the remaining 7.6%.

The primary objective of the Fund's investment policy is to assure that the Fund meets its responsibilities for providing retirement and other benefits. The portfolio is diversified to provide adequate cash flow, and to provide the highest possible total return on the Fund's assets with the least exposure to risk. Details of portfolio composition, rates of return, analysis of significant economic conditions, and additional information concerning the Fund's investment policy is provided on pages 44 to 62 of the comprehensive annual financial report.

Material Plan Amendments

The Fund was amended effective September 9, 1988. The amendment changed certain benefit provisions which included providing normal retirement benefits to members who retired at age 48 through 51 with 25 years of service credit. Prior to 1988, reduced benefits were paid to these members. Other changes which became effective under the plan amendment included establishing a cost-of-living increase for certain former members of the Fund who retired before July 24, 1986, increasing benefits for surviving dependents of retired members, and increasing the minimum benefit for retirees receiving benefits based on service or permanent and total disability.

Certificate of Achievement Program

A Certificate of Achievement awarded by the Government Finance Officers Association of the United States and Canada (GFOA) to a governmental entity that indicates its comprehensive annual financial report is easily readable, efficiently organized and the contents conform to program standards.

A Certificate of Achievement is valid for a period of one year only. Management believes the current report conforms to the Certificate of Achievement Program requirements and is submitting it to the GFOA to determine its eligibility for a Certificate.

Acknowledgements

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

This report is being mailed to all employer members of the Fund and other interested parties.

Respectfully submitted,

HENRY E. HELLING, III
Executive Director

John N. Babel

JOHN N. BABEL
Controller

INDEPENDENT AUDITOR'S REPORT

KPMG Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.
Two Nationwide Plaza
Columbus, OH 43215

Telephone 614 249 2300

Telecopier 614 249 2348

Members of the Board
The Police and Firemen's Disability
and Pension Fund of Ohio:

We have audited the accompanying balance sheets of The Police and Firemen's Disability and Pension Fund of Ohio (the Fund) as of December 31, 1988 and 1987 and the related statements of revenues, expenses and changes in fund balance and changes in financial position for the years then ended. These financial statements are the responsibility of the Fund's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Fund at December 31, 1988 and 1987, and the results of its operations and the changes in its financial position for the year then ended in conformity with generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules listed in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the Fund's basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly presented in all material respects in relation to the basic financial statements taken as a whole.

June 30, 1989

Peat Marwick Main & Co.

DECEMBER 31, 1988 AND 1987

	1988	1987
Assets:		
Cash (note 5)	$ 12,243,520	16,781,945
Receivables:		
Employers' contributions	44,656,623	40,374,863
Employees' contributions	6,069,066	5,711,894
Accrued investment income	26,132,289	26,761,590
Investment sale proceeds	3,086,067	354,917
Total receivables	79,944,045	73,203,264
Investments, at cost (market value $2,677,964,296 and $2,405,557,102) (notes 5 and 6)	2,587,336,295	2,363,227,637
Local funds' receivable (note 7)	414,400,057	415,053,258
Property and equipment, net of accumulated depreciation of $663,761 and $487,949 in 1988 and 1987, respectively)	1,682,260	1,369,672
Other assets (note 9)	727,887	551,135
Total assets	3,096,334,064	2,870,186,911
Liabilities:		
Health care benefits payable	10,879,619	9,097,864
Investment commitments payable	6,753,932	4,616,671
Accounts payable and accrued expenses	1,399,815	1,259,192
Note payable (note 8)	2,200,000	2,200,000
Other liabilities (note 9)	885,774	711,864
Total liabilities	22,119,140	17,885,591
Commitments and contingencies (note 11)		
Net assets available for benefits	**$ 3,074,214,924**	**2,852,301,320**
Fund balance (note 3):		
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 1,496,900,000	1,366,200,000
Current employees:		
Accumulated employee contributions	436,478,801	399,254,840
Employer financed portion	1,447,821,199	1,164,945,160
Total pension benefit obligation	3,381,200,000	2,930,400,000
Unfunded pension benefit obligation	(306,985,076)	(78,098,680)
Total fund balance	**$ 3,074,214,924**	**2,852,301,320**

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE

YEARS ENDED DECEMBER 31, 1988 AND 1987

	1988	1987
Operating revenues:		
Contributions:		
Employers (note 4)	$ 149,640,020	139,543,550
Employees (note 4)	70,671,103	63,363,415
State of Ohio—subsidies (note 4)	6,470,000	6,635,000
State of Ohio—Death Benefit Fund	6,796,504	6,720,685
	233,577,627	216,262,650
Net investment income (note 5)	207,473,616	174,772,550
Interest on local funds' receivable	19,902,971	17,508,079
Other income	1,435,015	643,607
Total operating revenues	462,389,229	409,186,886
Operating expenses:		
Benefits (note 3):		
Retirement	113,022,120	105,307,595
Disability	43,739,268	38,247,807
Health care	43,703,422	39,465,273
Survivor	23,814,341	20,811,701
Death Benefit Fund	6,796,504	6,720,685
	231,075,655	210,553,061
Administrative expenses	5,165,653	3,903,646
Refund of employee contributions (note 4)	3,528,968	2,915,311
Other expenses	705,349	592,220
Total operating expenses	240,475,625	217,964,238
Net operating income	221,913,604	191,222,648
Fund balance, beginning of year	2,852,301,320	2,661,078,672
Fund balance, end of year	$ 3,074,214,924	2,852,301,320

See accompanying notes to financial statements.

STATEMENTS OF CHANGES IN FINANCIAL POSITION

YEARS ENDED DECEMBER 31, 1988 AND 1987

	1988	1987
Resources provided:		
From operations:		
Net operating income	$ 221,913,604	191,222,648
Items which do not use working capital:		
Net gain due to accretion of discount and investment sales	(70,881,535)	(42,745,422)
Unrealized loss on investments	3,643,482	—
Depreciation on investment in real estate	2,205,067	1,731,131
Depreciation on property and equipment	175,812	104,116
Total resources provided from operations	157,056,430	150,312,473
Proceeds from investment sales and maturities	8,756,651,081	9,559,604,024
Local funds' receivable principal payments	2,386,352	2,913,212
Additions to local funds' receivable	(1,733,151)	—
Additions to notes payable	—	2,200,000
Total resources provided	**$ 8,914,360,712**	**9,715,029,709**
Resources used:		
Investment purchases	8,915,726,751	9,707,875,573
Additions to property and equipment	488,400	583,992
Increase in other assets	176,752	339,867
Decrease (increase) in other liabilities	(173,910)	1,443,595
Increase (decrease) in working capital	(1,857,283)	4,786,682
Total resources used	**$ 8,914,360,712**	**9,715,029,709**
Changes in components of working capital:		
Increase (decrease) in current assets:		
Cash	(4,538,425)	4,979,191
Receivables	6,740,781	(141,119)
	2,202,356	4,838,072
Increase (decrease) in current liabilities:		
Health care benefits payable	1,781,755	1,258,535
Investment commitments payable	2,137,261	(1,895,516)
Accounts payable and accrued expenses	140,623	688,371
	4,059,639	51,390
Increase (decrease) in working capital	**$ (1,857,283)**	**4,786,682**

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1988 AND 1987

1. DESCRIPTION OF THE SYSTEM

(a) Organization

The Police and Firemen's Disability and Pension Fund of Ohio (the Fund) is a cost-sharing multiple-employer public employee retirement system established by Chapter 742 of the Ohio Revised Code (ORC) in 1967 to consolidate the various local police and firemen's relief and pension funds into one statewide plan. The Fund provides pension, disability, and health care to qualified participants, and survivor and death benefits and health care to qualified spouses, children and dependent parents.

Employee and employer membership data as of January 1, 1988, date of the most recent actuarial valuation, as follows:

Employee Members	Police	Firemen	Total
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	8,458	7,376	15,834
Current employees:			
Vested	5,009	3,542	8,551
Nonvested	7,853	5,750	13,603
	12,862	9,292	22,154

Employer Members	Police	Firemen
Municipalities	239	183
Townships	—	71
Villages	284	24
Total	523	278

(b) Benefits

Members are eligible for normal retirement benefits at age 48 with 25 years of service credit or at age 62 with 15 years of service credit. The normal retirement benefit is equal to 2.5% of annual earnings for each of the first 20 years of service, 2.0% for each of the next 5 years of service, and 1.5% for each year of service thereafter. However, this normal retirement benefit is not to exceed 72% of the member's average annual earnings for the three years during which the total earnings were greatest. Retirement with reduced benefits is available upon reaching age 48 with 15 years of service credit or 25 years from the date the member became a qualified employee.

The Fund was amended during 1988 to change certain benefit provisions. Changes included providing normal retirement benefits to members who retired at age 48 through 51 with 25 years of service credit. Prior to 1988, reduced benefits were paid to these members. The effect of 1988 benefit provision changes on the funding status of the Fund has not been actuarially determined.

In addition to retirement benefits, the Fund also provides disability, survivor and health care benefits. Disability benefits are available to all members and vary by length of service and type of disability. Survivor benefits are specified dollar amounts paid to eligible survivors upon the death of an active member or retiree. All benefit recipients are eligible to receive health care benefits. Health care coverage includes 100% of qualifying hospital expenses and 80% of other qualifying medical expenses, such as doctor fees and medical prescriptions.

A spouse or dependent of a member whose death resulted from injury or illness sustained while on active duty as a policeman or fireman is entitled to a death benefit. The death benefit payment is equal to the member's full monthly salary and will terminate at the earlier of the member's retirement eligibility date, the spouse's remarriage or the dependent's attainment of age 18. The death benefit payments are in addition to any optional payment plan benefits elected by the member. Funding for death benefits is received from the State of Ohio, as the ORC requires the State to finance 100% of death benefit payments.

(c) The Reporting Entity

The accompanying financial statements include all the organizations, activities and functions over which the Fund exercises oversight responsibility. Determination of oversight responsibility includes consideration of such factors as financial interdependency, selection of governing authority, designation of management, ability to significantly influence operations and accountability for fiscal matters.

Responsibility for the organization and administration of the Fund is invested in the Board of Trustees. The Fund, therefore, operates independently and the State of Ohio does not exercise oversight responsibility. Accordingly the Fund is not considered part of the State of Ohio financial reporting entity.

The OP & F Trust (Ohio Police and Firemen's) and the OP & F Schroder Trust (the Trusts) were created to provide the Fund with a medium for the acquisition of real estate investments. Management of the Fund is responsible for the operations of the Trusts. Additionally, the Fund is the beneficiary and sole participant in the Trusts. The Fund, therefore, exercises oversight responsibility of the Trusts and the Trusts' financial transactions have been included in the Fund's financial statements.

The Death Benefit Fund was created to finance all death benefit payments. Although the State of Ohio is responsible for financing the cost of death benefits, the Fund is responsible for the organization and administration of the Death Benefit Fund. The Fund, therefore, exercises oversight responsibility and all activity of the Death Benefit Fund has been included in the Fund's financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting

The Fund's financial statements have been prepared using the accrual basis of accounting. The following are the significant accounting policies followed by the Fund.

(b) Investments

Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date. Interest, dividends, net realized gains and other investment income is included in investment income, net of investment related expenses, realized and unrealized losses.

Investments in corporate and government bonds and obligations are reported at amortized cost with discounts or premiums amortized using the interest method.

Investments in common and preferred stocks are carried at cost, subject to adjustment for market declines determined to be other than temporary. Eight nondiscretionary advisers manage the Fund's stock portfolio. Gains and losses on sale of stocks are recognized on the transaction date based upon the average cost of the shares managed by each adviser.

Investments in commercial paper are carried at cost which approximates market value.

Investments in venture capital limited partnerships and real estate are accounted for at cost, subject to adjustment for market declines determined to be other than the temporary. Income on venture capital is recognized once distributions received are in excess of the Fund's capital contributions.

Depreciation on buildings is provided using the straight-line method over 40 years, the estimated useful life of the property.

(c) Federal Income Tax Status

The Fund was determined to be exempt from Federal income taxes under Section 501(a) of the Internal Revenue Code.

(d) Health Care Benefits Payable

The health care program is self-insured and is administered by an insurance carrier. Amounts accrued for health care claims payable and for incurred but not reported health care claims are based upon estimates furnished by the insurance carrier. Such estimates have been developed from prior claims experience.

(e) Property and Equipment

Property and equipment 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	40 years
Furniture, fixtures and equipment	5 to 10 years

(f) Reclassifications

Certain 1987 balances have been reclassified to conform with 1988 presentation.

3. FUNDING STATUS AND PROGRESS

The amount shown as "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is called the "actuarial present value of credited projected benefits" and is intended to help users assess the funding status of the Fund on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and allow for comparisons among public employee retirement systems. The measure is independent of the actuarial funding method used to determine contributions to the Fund.

The pension benefit obligation was determined as part of the January 1, 1988 actuarial valuation, the date of the most recent actuarial valuation. The calculation excludes the present value of credited projected benefits for death benefits, a 1972 statutory benefit increase and health care benefits.

The cost of death benefits and the 1972 statutory benefit increase are fully funded by State of Ohio appropriations. Health care benefits are funded on a pay-as-you-go basis. Significant actuarial assumptions used in the valuation are as follows:

(a) 7.75% rate of return on investments, compounded annually.

(b) 5.5% projected salary increase, compounded annually. Increase is attributable to inflation and promotional raises.

(c) Pre-retirement mortality is based on the 1951 Group Annuity Table as projected to 1965. To reflect actual fund experience, these rates have been decreased by 33% for Firemen.

(d) Benefit recipient mortality is based upon the following:
- The 1951 Group Annuity Table as projected to 1965 for service retirees and survivor benefit recipients.
- The 1956 Railroad Retirement Board Disability Annuitants Ultimate Mortality Table for members receiving disability benefits. These rates have been actuarially adjusted to reflect actual fund experience.

(e) Rates of retirement are based upon the experience during the period of 1982 to 1986. The rates are applicable after the member has satisfied the conditions for retirement.

(f) Rates of withdrawal from active service for reasons other than death, and rates of disability have been developed based on actual fund experience.

At January 1, 1988, the unfunded pension benefit obligation was computed to be approximately $528,899,000 as follows (in thousands):

	Police	Firemen	Total
Pension benefit obligation:			
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 777,900	719,000	1,496,900
Current employees:			
Accumulated employee contributions	252,584	183,895	436,479
Employer-financed vested	549,400	433,600	983,000
Employer-financed nonvested	258,016	206,805	464,821
Total pension benefit obligation	**$ 1,837,900**	**1,543,300**	3,381,200
Net assets available for benefits, at cost (market value $2,877,849)			2,852,301
Unfunded pension benefit obligation at January 1, 1988			**$ 528,899**

The actuarial effect of 1988 membership changes and plan amendments on the pension benefit obligation have not been determined and are therefore not reflected in the December 31, 1988 balance sheet value for the unfunded pension benefit obligation.

At January 1, 1987, the unfunded pension benefit obligation was computed to be approximately $269,321,000 as follows (in thousands):

	Police	Firemen	Total
Pension benefit obligation:			
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$ 704,500	661,700	1,366,200
Current employees:			
Accumulated employee contributions	231,270	167,985	399,255
Employer-financed vested	490,230	397,615	887,845
Employer-financed nonvested	149,400	127,700	277,100
Total pension benefit obligation	$ 1,575,400	1,355,000	2,930,400
Net assets available for benefits, at cost (market value $2,845,226)			2,661,079
Unfunded pension benefit obligation at January 1, 1987			$ 269,321

The actuarial effect of 1987 membership changes on the pension benefit obligation had been determined and are therefore not reflected in the December 31, 1987 balance sheet value for the unfunded pension benefit obligation.

4. CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The ORC requires contributions by active members and their employers. The contribution requirement was not actuarially determined but rather established by law under the ORC. Contribution rates are, however, subject to annual review by the Ohio Retirement Study Commission. Additionally, an actuary is used to determine the actuarial implications of the requirement. The adequacy of contribution rates is determined annually using the entry age normal with frozen initial liability actuarial cost method. Contribution rates as required by the ORC and as calculated by the Fund's actuary are as follows:

	Police	Firemen
	(% of active member payroll)	
Rates established by the ORC at December 31, 1988:		
Employer	19.50	24.00
Member	10.00	10.00
Total actual rate	29.50	34.00
Actuarially determined rate as of January 1, 1988	32.38	34.02

The Fund's actuary allocated 5.99% of the current actuarial contribution rate to health care and the remaining to basic retirement benefits. Funding for health care benefits is on a pay-as-you-go basis. Significant actuarial assumptions used to determine the adequacy of contribution rates were the same as those used to compute the standardized measure of the pension benefit obligation. There were no material changes in the current year in actuarial assumptions, actuarial funding method, or benefit provisions.

Contributions as a percentage of active member payroll required and made represented 29.13% for Police and 33.13% for Fire. Contributions were approximately $119,500,000 for Police and $100,811,000 for Fire for the year ended December 31, 1988. These amounts differ from the actual rate stated above due to an increase in the member contribution rate from 9.50% to 10.00%, effective October 1, 1988.

Employee contributions may be refunded, without interest, to a member who withdraws from the Fund. Accumulated employer contributions for the withdrawn member remain in the Fund and are used to finance current and future benefit payments of remaining members.

In accordance with the ORC, the State of Ohio is required to contribute $1,200,000 annually to the Fund. The State also contributes additional amounts to finance the cost of State-legislated benefit improvements. Total amounts contributed by the State for the year ended December 31, 1988 was $6,470,000, exclusive of the death benefit contributions.

5. DEPOSITS AND INVESTMENTS

(a) Deposits

The Fund's deposits are categorized in the table based on the following criteria: Category 1 includes deposits insured or collateralized with securities held by the Fund or by its agent in the Fund's name. Category 2 includes deposits collateralized with securities held by the pledging financial institution's trust department or agents in the Fund's name. Category 3 includes uncollateralized deposits. This category also includes any bank balance that is collateralized with securities held by the pledging financial institution, or by its trust department or agent but not in the Fund's name. Category 2 is omitted from the following table since there were no deposits which met the criteria of Category 2 at December 31, 1988 or 1987. The deposits with the Ohio Public Employees Deferred Compensation Program are not required to be categorized due to its nature.

A summary of deposits as of each December 31 follows:

	1988			1987		
	CATEGORY		CARRYING VALUE	CATEGORY		CARRYING VALUE
	1	3		1	3	
Deposits:						
Cash	$ 329,209	11,264,530	11,593,739	402,773	10,525,982	10,928,755
Reconciling items (net)			649,781			5,853,190
Financial statement balance			12,243,520			16,781,945
Deposits with the Ohio Public Employees Deferred Compensation Program (note 9)			$ 247,166			$ 211,268

(b) Investments

The Fund is authorized to invest in bonds, notes, certificates of indebtedness, mortgage notes, real estate, stock shares, debentures, and other obligations or securities as set forth in the ORC.

The Fund's investments are categorized to give an indication of the level of risk assumed by the Fund as of December 31, 1988. Category 1 includes investments that are insured or registered or for which the securities are held by the Fund or its agent in the Fund's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in the Fund's name. 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 the Fund's name.

All investments of the Fund meet the criteria of Category 1, except for the investments in real estate, mortgage notes receivable and venture capital which, by their nature, are not required to be categorized.

A summary of investments as of each December 31 follows:

	1988		1987	
	CARRYING VALUE	MARKET VALUE	CARRYING VALUE	MARKET VALUE
Corporate and government bonds and obligations	$ 1,504,846,871	1,485,446,122	1,235,978,912	1,221,572,487
Common and preferred stock	597,751,632	690,048,262	735,643,091	779,855,705
Commercial paper	339,520,148	339,520,148	262,071,028	262,071,028
Real estate, net of accumulated depreciation	122,490,886	140,223,006	100,799,509	112,341,075
Mortgage notes receivable	11,058,077	11,058,077	17,358,443	17,358,443
Venture capital	11,668,681	11,668,681	11,376,654	11,376,654
	$ 2,587,336,295	2,677,964,296	2,363,227,637	2,404,575,392

Market values of bonds and stocks are based primarily on quotations from national security exchanges. Real estate market values are based upon external appraisals. Mortgage notes receivable and venture capital do not have quoted market prices and are therefore shown at cost. In addition the carrying and market values of venture capital as of December 31, 1988 reflect writedowns for unrealized loss of $1,711,312, and the carrying value of real estate reflects writedowns for unrealized loss of $1,932,170, representing market declines determined to be other than temporary.

6. INVESTMENT IN REAL ESTATE

The Fund's investment in real estate as of each December 31 consists of:

	1988	1987
Land	$ 20,787,564	19,667,564
Buildings	84,500,662	80,142,220
Capital improvements	6,240,689	3,350,489
	111,528,915	103,160,273
Less accumulated depreciation	(4,565,436)	(2,360,764)
	106,963,479	100,799,509
Real estate limited partnerships	15,527,407	—
	$ 122,490,886	100,799,509

Real estate rental income was approximately $5,020,000 and $4,717,000 in 1988 and 1987, respectively net of depreciation of approximately $2,205,000 and $1,731,000. Real estate income is included in net investment income.

The following is a schedule by years of minimum future rentals on noncancelable operating leases related to the Fund's investment in real estate as of December 31, 1988:

Year ending December 31,	
1989	$ 10,451,752
1990	7,756,678
1991	5,629,216
1992	2,887,313
1993	1,848,895
Later years	7,383,645
Total minimum future rentals	**$ 35,957,499**

7. LOCAL FUNDS' RECEIVABLE

Local governments are required by state statute to pay the unfunded portion of the actuarially determined liability of the local police and firemen's relief and pension funds that were merged to form the Fund in 1967. The ORC names this obligation of local governments the "Employers' Accrued Liability." Interest on the outstanding balance is being accrued at a rate of 4.5%, compounded semiannually. Local governments began repayment in 1969 and payments are required to be made until 2035. Between 1969 and 1973, payments of principal and interest were received at incremental semiannual rates ranging from 1 to 2% of the original receivable balance. Between 1973 and 2035, semiannual payments of principal and interest are required to be made by the local governments at a rate of 2.5% of the original receivable balance. The balance due at December 31, 1988 includes $1,733,151 due from local governments which had previously underpaid their semiannual payment and from local governments which joined the Fund subsequent to 1967 according to a 20-year payment plan.

The following is a summary of the amounts due on the local funds' receivable:

Year ending December 31,	
1989	$ 20,609,967
1990	20,601,785
1991	20,590,372
1992	20,504,821
1993	20,456,907
Later years	839,775,913
Total projected payments	942,539,765
Less interest portion	(528,139,708)
Balance due at December 31, 1988	**$414,400,057**

8. NOTE PAYABLE

The $2,200,000 note payable, secured by a real estate office building held for investment with a net book value of approximately $5,838,000, bears interest at the fixed rate of 9.13% per annum and is payable in monthly installments of $16,738 for interest only. The outstanding principal and any accrued interest are due October 1, 1991. The Fund assumed the note during 1987 in connection with the acquisition of the real estate building which secures the note.

9. DEFERRED COMPENSATION

Employees of the Fund may elect to participate in the Ohio Public Employees Deferred Compensation Program (Program). Under the Program, employees may elect to defer a portion of their pay until a later date, usually after retirement. The deferred pay and any income earned thereon is not subject to income taxes until actually received by the employee.

As of December 31, 1988, the market value of investments in the Program was approximately $247,000. Under the terms of the Program agreement, these monies are subject to the claims of the Fund's general creditors. Accordingly, this amount is reflected as an asset in "other assets" along with a corresponding liability in "other liabilities" to the employees participating in the Program. Participating employees' rights under the Plan are equal to those of general creditors of the Fund in an amount equal to the fair market value of the deferred account for each participant.

It is the opinion of the Fund's legal counsel that the Fund has no liability for losses under the plan but does have the duty of due care that would be required of an ordinary prudent adviser. The Fund believes that it is unlikely that it will use the assets to satisfy the claims of general creditors in the future.

10. DEFINED BENEFIT PENSION PLAN

All full-time employees of the Fund are eligible to participate in the Public Employees Retirement System of Ohio (PERS), a cost-sharing multiple-employer public employee retirement system. The payroll for employees covered by PERS for the year ended December 31, 1988 was approximately $1,066,000; the Fund's total payroll was approximately $1,119,000.

Employees 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. 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. PERS also provides disability and survivor benefits.

The Fund and covered employees are required by State statute to contribute 13.95% and 8.5%, respectively, of covered employee payroll to PERS. These rates are the actuarially determined contribution requirement for PERS. The Fund's and employees' contributions for the year ended December 31, 1988 were approximately $149,000 and $91,000, respectively; these contributions represented 13.95% and 8.5% of covered employee payroll, respectively.

PERS does not make separate measurements of assets and pension benefit obligations for individual employers. The pension benefit obligation at December 31, 1988 for PERS as a whole, determined through an actuarial valuation performed as of December 31, 1987, was $14.5 billion. PERS' net assets available for benefits on that date, at market value were $11.9 billion. The Fund's 1988 actuarially determined contribution requirement represented .027% of total contributions required of all participating entities.

Historical trend information showing PERS' progress in accumulating sufficient assets to pay benefits when due is presented in PERS' December 31, 1988 comprehensive annual financial report for only two years.

11. COMMITMENTS AND CONTINGENCIES

The property securing a mortgage note receivable is first encumbered by a mortgage senior to the Fund's investment. The balance of the first mortgage was approximately $4,519,000 at December 31, 1988. In event of default on the first mortgage, management of the Fund intends to guarantee payment. The appraised value of the security was approximately $17,000,000 and the outstanding balance of the Fund's mortgage note receivable was $11,058,000 at December 31, 1988. Management of the Fund is of the opinion that ultimate payment of the first mortgage will be made by the debtor.

The Fund is a defendant in a number of lawsuits pertaining to matters which are incidental to performing routine business functions. Fund Management is of the opinion that ultimate settlement of such claims will not result in a material adverse effect on the Fund's financial position as of December 31, 1988.

12. SUBSEQUENT EVENTS

In January 1989, the Fund purchased 100% interest in two office buildings for a purchase price of $19,610,000.

13. HISTORICAL TREND INFORMATION

Historical trend information designed to provide information about the Funds progress made in accumulating sufficient assets to pay benefits when due, is presented in the supplementary schedules which immediately follow the notes to financial statements.

SUPPLEMENTAL SCHEDULES

ANALYSIS OF FUNDING PROGRESS (IN THOUSANDS)

SCHEDULE 1

As of January 1,	Net assets available for benefits (2)	Pension benefit obligation	Percentage funded (3)	Unfunded pension benefit obligation (3)	Valuation payroll (1)	Unfunded pension benefit obligation as a percentage of covered payroll (3)
1987	$ 2,661,079	$ 2,930,400	90.8	$ 269,321	$ 622,187	43.3
1988	2,852,301	3,381,200	84.4	528,899	651,435	81.2

Note: Historical trend information is not available for years prior to 1987. Analysis of funding progress is presented for 1987 and 1988 in the accompanying schedule.

(1) Equal to annual average salary multiplied by the number of members at the valuation date.

(2) The local funds' receivable is included in this amount. This receivable is considered an asset for financial reporting purposes, but not considered available for actuarially determined funding status.

(3) Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation for active and inactive accounts, 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 for active and inactive accounts provides one indication of the Fund's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the Fund is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the Fund is. Trends in unfunded pension benefit obligation and valuation payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of valuation payroll approximately adjusts for the effects of inflation and aids analysis of the Fund's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the Fund is. The actuarial assumptions for investment return, and post-retirement mortality are revised periodically based on the Fund's experience.

See accompanying independent auditors' report.

FUND BALANCE ACCOUNTS

YEAR ENDED DECEMBER 31, 1988

SCHEDULE 2

Description of Accounts (Funds)

Chapter 742 of the Ohio Revised Code requires the establishment and maintenance of specific funds. These funds are classified as accounts for financial reporting purposes and are noted as follows:

(A) Contribution Funds

The Police and Firemen's Contribution Funds accumulate the contributions deducted from the salaries of members. Upon retirement, a member's accumulated contribution are transferred to the Policemen's or Firemen's Pension Reserve Fund.

(B) Employers' Contribution Funds

The Policemen and Firemen Employers' Contribution Funds are the depositories for employer contributions. Based on actuarial valuations, amounts are transferred from this fund to the Policemen's and Firemen's Pension Reserve Fund.

(C) Pension Reserve Funds

The Policemen's and Firemen's Pension Reserve Funds are the funds from which all retirement, disability, health care and survivor benefits are paid. Amounts are transferred into the Pension Reserve Funds from the Contribution Funds and the Employers' Contribution Funds.

	Contribution Fund		Employer's Contribution Fund	
	Police	Firemen	Police	Firemen
Fund balance at beginning of year	$ 252,583,691	183,895,110	621,115,346	428,507,173
Changes for the year:				
Contributions:				
Employers	—	—	78,678,487	70,961,533
Employees	40,821,036	29,850,067	—	—
State of Ohio subsidies	—	—	—	—
Death benefit fund	—	—	—	—
Investment income	—	—	—	—
Interest on local funds' receivable	—	—	10,276,411	9,626,560
Other income	—	—	—	—
Benefits:				
Retirement	—	—	—	—
Disability	—	—	—	—
Health care	—	—	—	—
Survivor	—	—	—	—
Death benefit fund	—	—	—	—
Administrative expenses	—	—	—	—
Refund of employee contributions	(2,562,415)	(966,553)	—	—
Other expenses	—	—	—	—
Transfers	(11,800,430)	(12,767,145)	(50,886,299)	(70,017,648)
Net changes	26,458,191	16,116,369	38,068,599	10,570,445
Fund balance at end of year	$ 279,041,882	200,011,479	659,183,945	439,077,618

See accompanying independent auditors' report.

(D) Guarantee Fund

The Guarantee Fund records all investment earnings of the Fund. In addition, contributions from the State of Ohio, exclusive of death benefit contributions, are recorded in this fund. Annually, investment earnings are transferred to the Pension Reserve Funds and the Expense Fund.

(E) Expense Fund

The Expense Fund is used to record all expenses for the administration and management of the Fund. Annually, funds are transferred from the Guarantee Fund to cover expenses incurred.

(F) Death Benefit Fund

The Death Benefit Fund is used to record the death benefit contributions from the State of Ohio and the death benefit payments made to a spouse or dependent of a member whose death resulted from injury or illness sustained while on active duty as a policeman or fireman.

Pension Reserve Fund		Guarantee Fund	Expense Fund	Death Benefit Fund	Totals	
Police	Firemen				1988	1987
704,500,000	661,700,000	—	—	—	2,852,301,320	2,661,078,672
—	—	—	—	—	149,640,020	139,543,550
—	—	—	—	—	70,671,103	63,363,415
—	—	6,470,000	—	—	6,470,000	6,635,000
—	—	—	—	6,796,504	6,796,504	6,720,685
—	—	207,473,616	—	—	207,473,616	174,772,550
—	—	—	—	—	19,902,971	17,508,079
—	—	1,435,015	—	—	1,435,015	643,607
(54,833,530)	(58,188,590)	—	—	—	(113,022,120)	(105,307,595)
(22,406,744)	(21,296,678)	—	—	—	(43,703,422)	(38,247,807)
(24,505,000)	(19,234,268)	—	—	—	(43,739,268)	(39,465,273)
(13,246,032)	(10,568,309)	—	—	—	(23,814,341)	(20,811,701)
—	—	—	—	(6,796,504)	(6,796,504)	(6,720,685)
—	—	—	(5,165,653)	—	(5,165,653)	(3,903,646)
—	—	—	—	—	(3,528,968)	(2,915,311)
—	—	(705,349)	—	—	(705,349)	(592,220)
188,391,306	166,587,845	(214,673,282)	5,165,653	—	—	—
73,400,000	57,300,000	—	—	—	221,913,604	191,222,648
777,900,000	719,000,000	—	—	—	3,074,214,924	2,852,301,320

CASH RECEIPTS, CASH DISBURSEMENTS AND CHANGES IN CASH BALANCE

YEARS ENDED DECEMBER 31, 1988 AND 1987

SCHEDULE 3

	1988	1987
Cash receipts:		
Investment sales and maturities	$ 8,788,745,966	$ 9,601,488,401
Contributions:		
Employer	145,358,260	137,692,177
Employee	70,169,689	63,408,573
State of Ohio—subsidies	6,470,000	6,635,000
State of Ohio—Death Benefit Fund	6,601,863	7,284,132
	228,599,812	215,019,882
Net investment income	145,567,005	127,017,530
Local fund's receipts	20,409,080	20,568,371
Other income	725,718	566,422
Total cash receipts	9,184,047,581	9,964,660,606
Disbursements:		
Investment purchases	8,950,442,482	9,739,870,186
Benefits:		
Retirement	112,958,091	105,268,440
Disability	43,714,482	38,182,082
Health care	41,918,668	38,206,738
Survivor	23,799,883	20,782,895
Death Benefit Fund	6,796,504	6,720,685
	229,187,628	209,160,840
Administrative expenses	5,115,275	4,256,616
Refund of employee contributions	3,057,855	2,937,125
Other expenses	782,766	2,474,938
Total cash disbursements	9,188,586,006	9,958,699,705
Excess (deficiency) of cash receipts over cash disbursements	(4,538,425)	5,960,901
Cash balance, beginning of year	16,781,945	10,821,044
Cash balance, end of year	**$ 12,243,520**	**$ 16,781,945**

ADMINISTRATIVE EXPENSES

YEARS ENDED DECEMBER 31, 1988 AND 1987

SCHEDULE 4

	1988	1987
Personal Services:		
Administrative salaries	$ 1,119,114	$ 1,008,856
Employee benefits	260,242	101,070
Employer contributions—PERS	148,732	122,310
	1,528,088	1,232,236
Professional services	2,605,397	1,938,623
Other services and charges:		
Equipment—rental and maintenance	265,423	185,009
Travel expenses	142,743	133,102
Postage	132,836	75,727
Printing	102,519	92,414
Insurance—administrative	81,367	73,265
Office supplies and maintenance	57,431	39,898
Utilities—telephone	53,979	38,292
Ohio Retirement Study Commission	22,875	21,874
Dues and subscriptions	14,195	10,370
Rent—office space	—	58,200
Miscellaneous expenses	158,800	4,637
	1,032,423	732,788
Total administrative expenses	**$ 5,165,653**	**$ 3,903,647**

INVESTMENT MANAGEMENT FEES

YEARS ENDED DECEMBER 31, 1988 AND 1987

SCHEDULE 5

	1988	1987
Atalanta/Sosnoff Capital Corporation	$ 90,306	$ 0
Axe Core Investors	29,357	26,548
Bankers Trust Company	170,014	86,142
Duff and Phelps Asset Management	86,446	66,266
Loomis, Sayles, and Company	95,531	0
Oppenheimer Capital Corporation	98,003	0
Schroder Real Estate Associates	367,911	202,971
Society National Bank—Cleveland	64,814	62,270
The Travelers Investment Management Company	250,616	536,072
Trident/Meyer	534,543	598,153
Value Line Asset Management	370,271	343,911
Total Investment Management Fees	$ 2,157,812	$ 1,922,333

THOMAS E. FERGUSON
AUDITOR OF STATE
COLUMBUS, OHIO 43266-0040
(614) 466-4514

Members of the Board
The Police and Firemen's Disability
and Pension Fund of Ohio

We have reviewed the report of examination of The Police and Firemen's Disability and Pension Fund of Ohio as of December 31, 1988 and 1987 prepared by Peat, Marwick & Main, Certified Public Accountants. Based upon this review, we have accepted this report in lieu of the examination required by Section 117.10 of the Revised Code. The Auditor of State has not examined the accompanying financial statements and, accordingly, is unable to express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria as reflected by the Ohio Constitution; the Revised Code; policies, procedures and guidelines of the Auditor of State; and local resolutions/ordinances.

Thomas E. Ferguson

THOMAS E. FERGUSON
Auditor of State

June 28, 1989

ACTUARIAL SECTION

Actuary's Certification Letter

Summary of Methods and Assumptions

ACTUARY'S CERTIFICATION LETTER

THE *Wyatt* COMPANY

ACTUARIAL SERVICES
COMPENSATION PROGRAMS
ADMINISTRATIVE SYSTEMS
INTERNATIONAL SERVICES
ORGANIZATION SURVEYS

1400 OHIO SAVINGS PLAZA
CLEVELAND, OHIO 44114
(216) 696-6250

EMPLOYEE BENEFITS
EMPLOYEE COMMUNICATIONS
RISK MANAGEMENT
INSURANCE CONSULTING
HEALTH CARE CONSULTING

June 22, 1989

Board of Trustees
The Police and Firemen's Disability
and Pension Fund of Ohio
230 East Town Street
Columbus, Ohio 43215

Gentlemen:

The Wyatt Company prepares an actuarial valuation of The Police and Firemen's Disability and Pension Fund of Ohio on an annual basis. The purpose of the valuation is to determine contribution rates based on sound actuarial principles which can be used to assess the adequacy of contribution rates provided under Section 742.33 and 742.34 of the Revised Code. The most recent actuarial valuation was as of January 1, 1988.

The actuarial valuations are based upon census data and audited financial information submitted by the Fund. The Wyatt Company checks the data for reasonability. Information suspect of being in error is submitted to the Fund for correction.

The actuarial assumptions used in the valuation are recommended by the Actuary and approved by the Board. The decrement assumptions reflect actual Fund experience as measured in the quinquennial evaluations. The 1988 valuation uses new decrement assumptions. The interest rate and salary scale assumptions reflect both recent salary increases and Fund rates of return along with expected returns and salary increases over a long period in the future. The actuarial value of assets used in the valuation is the cost value as presented in the audited Financial Statements reduced by (1) the value of the employer accrued liability, (2) the member contributions which have yet to be refunded to members who terminated with less than 15 years of service and (3) total liabilities.

The benefit provisions valued in the valuation report reflect the status of the Revised Code as of the valuation date. Benefit changes during 1988 will be reflected in the 1989 valuation report.

The financial objective of The Police and Firemen's Disability and Pension Fund of Ohio is to collect employers' and members' contributions which, when expressed as percentages of the payroll for active members, separately for police and firemen, are close in value to the actuarially determined contributions. The actuarially determined contributions, in turn, are such that together with existing assets, including expected payments on the cities' initial unfunded liability and expected future investment earnings, they will fully provide for all expected benefit payments for current members if such contributions are made over the future working lifetime of the active members.

Under current law, the actuarially determined contributions are to be compared to the statutory contributions to determine if the statutory contributions are adequate. The Ohio Retirement Study Commission is, by law, charged with this responsibility. This policy of determination, review, and, if necessary, legislative change in the rates should assure that the financial condition of the Fund remains sound.

Respectfully submitted,

THE WYATT COMPANY

Wayne E. Dydo
Fellow—Society of Actuaries

WED:jjw

SUMMARY OF ACTUARIAL ASSUMPTIONS AND ACTUARIAL COST METHOD

A. INTEREST

A rate of 7¾% per annum, compounded annually.

B. RATES AND OTHER ASSUMPTIONS AMONG ACTIVE MEMBERS

1. Before Retirement:

(a) Mortality:

The 1951 Group Annuity Table as Projected to 1965 decreased by 33% for Firemen. The following rates at selected ages are illustrative:

	Rate of Mortality	
Age	Police	Firemen
25	.000706	.000473
30	.000923	.000618
35	.001280	.000858
40	.001863	.001248
45	.003336	.002235
50	.006032	.004041
55	.009724	.006515

(b) Termination:

The following rates at selected ages are illustrative:

	Rate of Termination	
Age	Police	Firemen
25	.062525	.023466
30	.044587	.016902
35	.030568	.011926
40	.020499	.007473
45	.015876	.005010
50	.018613	.004047

Note: The present values of future benefits for active members resulting from the use of these withdrawal rates are actuarially adjusted to include provision for prospective terminated employees eligible for vested termination benefits arising from the vesting provisions of the 1971 Amended Substitute Senate Bill No. 137.

(c) Disability:

The rates of disability are based upon the results of the 1982-1986 Quinquennial Evaluation. The following rates at selected ages are illustrative:

	Rate of Disability	
Age	Police	Firemen
25	.000904	.000000
30	.001823	.001090
35	.004097	.002551
40	.008880	.006205
45	.016900	.013147
50	.026091	.024800
55	.039748	.040236

Note: The present values of future benefits for active members resulting from the use of these withdrawal rates reflect the fact that the occurrence of disability by type approximates the following:

On duty permanent and total	60%
On duty partial	35
Off duty ordinary	5

(d) Salary Increase Rate:

A rate of future salary increase of 5½% per annum, compounded annually, has been employed. This rate can be divided into two component parts:
(i) promotional increase of ¾ of 1% per year, and
(ii) inflationary increase of 4¾% per year.

(e) Retirement:

The rates of retirement are based upon the experience during the periods 1982 through 1986. These rates are applicable after the member has satisfied the conditions for retirement. The rates are as follows:

Age(s)	Police	Firemen
48-51	.05	.05
52	.45	.45
53-59	.25	.30
60-64	.30	.40
65	1.00	1.00

2. After Retirement:

(a) On Service Retirement Pension:

The mortality, after retirement of active members expected to go on service retirement, is based on the 1951 Group Annuity Table as Projected to 1965. The following probabilities at selected ages are illustrative:

Age	Probability of Mortality
55	.009724
60	.014492
65	.022750
70	.036619
75	.060259
80	.100853
85	.155717
90	.222882
95	.297806

(b) On Disability Retirement Pension:

The mortality, after retirement of active members expected to go on disability retirement, is based on 70% of the 1956 Railroad Retirement Board Disability Annuitants Ultimate Mortality Table for ages 20 through 69, 80% for ages 70 through 85, 90% for ages 86 through 89 and 100% for ages 90 and above. The following probabilities at selected ages are illustrative:

Age	Probability of Mortality
35	.01712
45	.02126
55	.02700
65	.04209
75	.07710
85	.17018
95	.39621

C. PROBABILITIES OF MORTALITY AMONG PENSIONERS

1. Nondisabled Pensioners:

The mortality among all nondisabled retirants is equal to the 1951 Group Annuity Table as Projected to 1965 probabilities. The following probabilities at selected ages are illustrative:

Age	Probability of Mortality
35	.001280
40	.001863
45	.003336
50	.006032
55	.009724
60	.014492
65	.022750
70	.036619
75	.060259
80	.100853
85	.155717
90	.222882
95	.297806

2. Disabled Pensioners:

The mortality among all disabled retirants is based on 70% of the 1956 Railroad Retirement Board Disability Annuitants Ultimate Mortality Table for ages 20 through 69, 80% for ages 70 through 85, 90% for ages 86 through 89 and 100% for ages 90 and above. The following probabilities at selected ages are illustrative:

Age	Probability of Mortality
35	.017122
40	.019040
45	.021259
50	.023912
55	.026999
60	.032704
65	.042091
70	.061088
75	.077104
80	.101904
85	.170181
90	.280990
95	.396210

D. PROBABILITIES AMONG SURVIVORS

1. Probabilities of Mortality Among Surviving Spouses:

The mortality among all present surviving spouses is based on the 1951 Group Annuity Table as Projected to 1965 rates, decreased by 15% at all ages. The following probabilities at selected ages are illustrative:

Age	Probability of Mortality
35	.001326
40	.001938
45	.002950
50	.004471
55	.006775
60	.010464
65	.016448
70	.026121
75	.042560
80	.067465
85	.102527
90	.151530
95	.219657

2. Probability of Remarriage Among Surviving Spouses:

The probabilities of remarriage of surviving spouses are based upon the results of the 1982-1986 Quinquennial Evaluation. The following probabilities at selected ages are illustrative:

Age	Probability of Remarriage
35	.066173
40	.033604
45	.018466
50	.014738
55	.009249
60	.005891
65	.005065
70	.002751
75	.001206

3. Dependent Children:

No specific allowance has been made, in the evaluation of this benefit, for the probability of mortality prior to age 18, or the probability of disability at age 18 and thereafter. In valuing the benefit beyond age 18, it is assumed that ⅓ of the dependent children will be students and eligible for payments to age 22.

4. Dependent Parents:

Costs based upon allowance for mortality (the 1951 Group Annuity Table as projected to 1965), but no specific allowance for change in dependency status.

E. COLA ANNUITIES

It has been assumed that, where an election is possible, all members will elect the COLA annuity. It has also been assumed that the Consumer Price Index will increase each year at a rate equal to or greater than 3%.

F. EXPENSE LOADING

The net costs were loaded by ¾ of 1% to allow for future administrative expenses of the Fund.

G. ACTUARIAL COST METHOD

The "frozen initial liability" method has been used in developing the required contributions to the Fund. Under this approach, the present value of future benefits is reduced by valuation assets and the present value of the employer accrued liability. This net amount is then expressed as a percentage of the present value of active member future compensation and that percentage is applied to current payroll to determine the actual contribution.

The employer accrued liability was determined for each separate police and firemen's fund as of April 1, 1966. Each employer with an existing liability is presently making payments at the rate of 5% of the original liability (adjusted for any excess payments) pursuant to the schedule set forth in Section 742.30 of the Ohio Revised Code.

The assumptions used for the actuarial valuation were adopted by the Board of Trustees after consulting with the actuary. Differences between assumed and actual experience (actuarial gains and losses) become part of unfunded actuarial accrued liabilities. When these differences between assumed and actual experience have been observed to be sizeable and persistent a change is made to the actuarial assumption.

H. CHANGES IN ACTUARIAL ASSUMPTIONS

The original actuarial assumptions have been modified nine times since their adoption in 1966. The changes were as follows.

(1) 1970 evaluation:

- The interest rate was increased from 4¼% to 4⅝%

(2) 1972 evaluation:

- The interest rate was increased from 4⅝% to 4¾%.
- A loading was adopted to provide for the cost of 1972 Senate Bill No. 137 that, among other things, provided for special service retirement for late hires, vesting of service pension after 15 years of service under a 1½% formula, and vesting of service pension after 25 years of service under the 2% formula.

3) 1974 evaluation:

The interest rate was further increased from 4¾% to 5%.

Adjustments were made in six assumption areas as a result of the findings in our first quinquennial evaluation; those adjustments were as follows:

(a) the termination rates for active members were increased by approximately two-thirds of the former rates;

(b) the mortality rates for active members eliminated the original accidental loading of .001;

(c) the disability rates for active members were increased by 25% for ages above 40, grading down to a reduction of rates by 50% for ages below 30;

(d) the mortality rates for retirants were increased by 50% (instead of the former 10% load) of the standard tables rates before age 65, grading down to a decrease of 20% after age 85;

(e) the mortality rates for widows were reduced by 15% at all ages; and

(f) the remarriage rates for widows were increased by 300% at ages prior to 45, grading down to an increase of 50% after age 60.

(4) 1979 evaluation:

- The interest rate was increased from 5% to 6%.
- The salary scale was increased from 3% to 4½%.
- The projected final salary was increased by 4% to allow for the sick pay allowance.
- The assumed retirement age was increased from 56 to 57 years for police and decreased from 58 to 57 years for firemen.
- Adjustments were made in four other assumption areas as a result of the findings in our second quinquennial evaluation; those adjustments were as follows:
  (a) the termination rates for active members were decreased by approximately 20%;
  (b) the disability rates for active members were increased by over 200%;
  (c) the assumption that all disabilities are on-duty-permanent and total was changed to provide for 35% on-duty-partial and 5% off-duty-ordinary;
  (d) the remarriage rates for widows were decreased by approximately 40%.

(5) 1980 evaluation:

- The interest rate was further increased from 6% to 6⅜%.

(6) 1983 evaluation:

- The interest rate was increased from 6⅜% to 7½%.
- The salary scale was increased from 4½% to 5½%.
- The terminal pay adjustment was increased from 4% to 13%.
- The assumed retirement age was decreased from 57 to 55 for both police and firemen.
- As a result of the third quinquennial evaluation, the mortality rates for active firemen were decreased by 33%.

(7) 1986 evaluation:

- The interest rate was increased from 7½% to 7¾%.

(8) 1987 evaluation:

- The 13% terminal pay adjustment was replaced with the assumption that all active members would retire under the COLA annuity.
- In valuing the COLA annuity, it is assumed that each year the change in the Consumer Price Index will be at least 3%.

(9) 1988 evaluation:

- A decrease in the termination rates to the graduated 1982-86 experience rates.
- An increase in the disability rates to the graduated 1982-86 experience rates.
- A change in the service retirement assumption from a fixed age of 55 or, if later, after satisfying the conditions for retirement, to rates based upon the 1982-86 experience. The rates are applicable for ages 48 through 65.
- A change in the post retirement mortality probabilities for retired members to separate sets of probabilities for nondisabled retirees and disabled retirees.
- A decrease in the probabilities of remarriage among surviving spouses to the graduated 1982-86 experience rates.

ACTIVE MEMBER VALUATION DATA
1979 TO 1988

Actuarial Valuation as of Jan. 1	Number of Active Members		Average Annual Salary		Percentage of Average Annual Salary Increases		Annual Payroll (millions)
	Police	Firemen	Police	Firemen	Police	Firemen	
1979	12,415	9,378	16,959	16,777	*	*	367.9
1980	12,485	9,478	18,320	18,120	8.0	8.0	400.5
1981	12,834	9,039	19,921	20,377	8.7	12.5	439.8
1982	12,955	9,201	21,448	21,468	7.7	5.4	475.4
1983	12,834	9,172	23,143	23,324	7.9	8.6	510.9
1984	12,796	9,040	24,273	24,442	4.9	4.8	531.6
1985	12,656	9,008	25,290	25,421	4.2	4.0	549.1
1986	12,614	9,226	26,987	26,973	6.7	6.1	589.3
1987	12,652	9,231	28,443	28,418	5.4	5.4	622.2
1988	12,862	9,292	29,391	29,424	3.3	3.5	651.4

* This information for annual salaries, broken down between Police and Firemen, is not available prior to 1979.

SUMMARY OF UNFUNDED ACCRUED LIABILITIES

Each time a new benefit is added which applies to service already rendered, an "unfunded accrued liability" is created. The "unfunded accrued liability" was developed for funding requirement determinations. The value differs from the unfunded Pension Benefit Obligation reported in the financial statements because different actuarial cost methods were used for the two purposes. Laws governing the Fund require that "unfunded accrued liability" 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.

JMMARY OF ASSETS AND ACTUARIAL ACCRUED LIABILITIES
\mounts in Thousands)

Valuation Year	Actuarial Accrued Liabilities (AAL)	(A) Valuation Assets	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	(B) Active Member Payroll	UAAL as a % of Active Member Payroll
ice						
1979	1,174,800	414,900	759,900	35%	210.6	361%
1980	1,298,600	465,500	833,100	36	228.7	364
1981	1,455,100	523,500	931,600	36	255.7	364
1982	1,631,500	589,300	1,042,200	36	277.9	375
1983	1,736,600	679,300	1,057,300	39	297.0	356
1984	1,851,000	811,300	1,039,700	44	310.6	335
1985	2,000,100	915,700	1,084,400	46	320.1	339
1986	2,073,500	1,061,400	1,012,100	51	340.4	297
1987	2,400,100	1,246,100	1,154,000	52	359.9	321
1988	2,607,400	1,341,700	1,265,700	51	378.0	335
re						
1979	996,300	303,400	692,900	30%	157.3	440%
1980	1,115,300	340,100	775,200	30	171.8	451
1981	1,233,300	388,600	844,700	32	184.1	459
1982	1,375,100	446,500	928,600	32	197.5	470
1983	1,487,500	527,900	959,600	35	213.9	449
1984	1,577,700	643,400	934,300	41	221.0	423
1985	1,680,500	725,500	955,000	43	229.0	417
1986	1,763,300	838,600	924,700	48	248.9	372
1987	2,008,400	985,100	1,023,300	49	262.3	390
1988	2,200,700	1,094,400	1,106,300	50	273.4	405

\) Valuation assets are based upon the following:

or 1988—net assets available for benefits as rovided in the December 31, 1987 audited financial tatements, less the local funds accrued receivable nd contributions, which had yet to be refunded to mployees who terminated with less than 15 years f service.

'or 1979 through 1987—cost value of assets as eported by the Fund, less amounts reserved to the)eath Benefit Fund, less contributions which had yet ɔ be refunded to the employees who terminated vith less than 15 years of service and plus member ontributions which had not been deposited as of the eporting date.

(B) Equal to average salary multiplied by the number of members at the valuation date.

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SHORT-TERM SOLVENCY TEST

The Fund's 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 valuation assets 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.

COMPUTED ACCRUED LIABILITIES

($ Amounts in Thousands)

	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)
Police								
	1979	99,800	312,600	762,400	414,900	100%	100%	0%
	1980	108,500	339,300	850,800	465,500	100	100	2
	1981	123,700	378,600	952,800	523,500	100	100	2
	1982	138,500	457,400	1,035,600	589,300	100	99	0
	1983	156,000	458,100	1,122,500	679,300	100	100	6
	1984	173,900	498,800	1,178,300	811,300	100	100	12
	1985	190,700	563,700	1,245,700	915,700	100	100	13
	1986	207,400	623,400	1,242,700	1,061,400	100	100	19
	1987	231,300	702,200	1,466,600	1,246,100	100	100	21
	1988	252,600	773,900	1,580,900	1,341,700	100	100	20
Fire								
	1979	77,400	262,100	656,800	303,400	100%	86%	0%
	1980	84,100	290,200	741,000	340,100	100	88	0
	1981	94,500	336,000	802,800	388,600	100	88	0
	1982	103,100	425,200	846,800	446,500	100	81	0
	1983	114,200	439,300	934,000	527,900	100	94	0
	1984	126,000	497,600	954,100	643,400	100	100	2
	1985	137,800	546,300	996,400	725,500	100	100	4
	1986	150,100	598,200	1,015,000	838,600	100	100	9
	1987	168,000	660,700	1,179,700	985,100	100	100	13
	1988	184,000	717,200	1,299,500	1,094,400	100	100	15

Note: For the years 1979 through 1986, the active member contributions on deposit are as reported by the Fund in its annual reports which were prepared on the basis of cash receipts and disbursements. For 1987 and 1988, the member contributions on deposit are as reported in the Fund's audited financial statements, which were prepared on the accrual basis.

CHEDULE OF RECOMMENDED CONTRIBUTION RATES
S. ACTUAL CONTRIBUTION RATES

ar	Police (% of active member payroll) Recommended	Police Actual	Firemen (% of active member payroll) Recommended	Firemen Actual
79	27.03	27.03	28.74	28.74
80	24.16	24.16	28.33	28.33
81	25.73	25.73	30.85	30.85
82	26.61	26.61	32.38	32.38
83	28.37	28.37	33.49	33.49
84	30.85	28.37	36.13	33.49
85	29.46	29.46	34.02	34.02
86	27.80	29.00	31.25	33.50
87	31.12	29.00	34.11	33.50
88	32.38	29.50	34.02	34.00

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Schedules:

- Revenues by Source
- Expenses by Type
- Benefit Expenses by Type
- Retired Members by Type of Benefits
- Mean Monthly Payments

REVENUES BY SOURCE
SCHEDULE 1

Year ended December 31,	Employer contributions (2)	Employee contributions (2)	State of Ohio subsidies	Net investment income (1)
1979	$ 74,796,474	$ 28,781,212	$ 666,026	$ 45,701,543
1980	80,919,872	40,644,834	10,035,389	61,726,085
1981	83,362,974	41,455,835	9,792,950	79,530,675
1982	96,899,403	45,060,474	8,148,412	97,830,576
1983	103,330,679	46,261,767	7,916,482	99,834,810
1984	121,422,906	49,202,608	7,501,100	102,961,755
1985	128,531,626	52,592,700	7,271,000	116,299,670
1986	136,668,444	57,475,708	6,813,000	127,412,987
1987	139,543,550	63,363,415	6,635,000	174,772,550
1988	149,640,020	70,671,103	6,470,000	207,473,616

Note: For years 1979 through 1986, revenues are shown on the basis of cash and investment receipts and disbursements, while 1987 and 1988 revenues are shown on the accrual basis.

(1) For years 1979 through 1986 net realized gain on sale of investments is excluded.

EXPENSES BY TYPE
SCHEDULE 2

Year ended December 31,	Retirement, disability and survivor benefits	Health care benefits	Refund of employee contributions
1979	$ 68,010,328	$ 10,385,038	$ 3,143,081
1980	75,677,741	12,055,295	2,643,267
1981	87,168,453	10,870,137	2,776,852
1982	103,721,534	17,947,422	2,336,090
1983	113,944,003	22,837,676	2,329,264
1984	125,282,722	23,533,863	3,174,704
1985	137,391,797	27,055,162	3,654,760
1986	153,415,851	31,379,158	3,121,542
1987	164,367,103	39,465,273	2,915,311
1988	180,575,729	43,703,422	3,528,968

Note: For years 1979 through 1986, expenses are shown on the basis of cash and investment receipts and disbursements, while 1987 and 1988 expenses are shown on the accrual basis.

Interest on local funds' receivable	Other income	State contribution to death benefit fund	Total	Employer contributions as a percentage of covered payroll
$ 23,348,787	$ 337,509	$ 355,625	$ 173,987,176	18.2
20,117,737	143,722	1,720,797	215,308,436	16.9
20,750,375	243,649	1,987,337	237,123,795	17.1
20,750,973	312,219	2,799,623	271,801,680	18.3
20,465,903	357,192	2,418,758	280,585,591	19.0
20,399,728	299,806	2,343,132	304,131,035	21.0
20,432,283	236,843	6,484,686	331,848,808	20.8
20,393,099	242,446	6,666,157	355,671,841	22.0
17,508,079	643,607	6,720,685	409,186,886	21.4
19,902,971	1,435,015	6,796,504	462,389,229	21.4

(2) The contribution requirement for the years presented was not actuarially determined but rather established by law under the Ohio Revised Code. Contributions actually made are in accordance with the legal requirement.

Administrative expenses	Other expense	Death benefit fund benefits	Total
$ 849,723	$ 108,067	$ 1,466,914	**$ 83,963,151**
1,080,170	857,426	1,581,153	**93,895,052**
1,329,517	397,531	1,962,970	**104,505,460**
1,448,166	156,884	2,191,632	**127,801,728**
1,715,696	174,762	2,332,109	**143,333,510**
2,423,594	419,296	3,066,383	**157,900,562**
2,572,055	192,936	5,988,102	**176,854,812**
2,974,357	430,866	6,001,201	**197,322,975**
3,903,646	592,220	6,720,685	**217,964,238**
5,165,653	705,349	6,796,504	**240,475,625**

BENEFIT EXPENSES BY TYPE

1979 TO 1988

SCHEDULE 3

Year ended December 31,	(1) Retirement	(1) Disability	(1) Survivor	Subtotal	Health Care	Death Benefit Fund Benefits	Total Benefits
1979	—	—	—	68,010,328	10,385,038	1,466,914	79,862,280
1980	—	—	—	75,677,741	12,055,295	1,581,153	89,314,189
1981	—	—	—	87,168,453	10,870,137	1,962,970	100,001,560
1982	—	—	—	103,721,534	17,947,422	2,191,632	123,860,588
1983	—	—	—	116,944,003	22,837,676	2,332,109	142,113,788
1984	—	—	—	125,282,722	23,533,863	3,066,383	151,882,968
1985	—	—	—	137,391,797	27,055,162	5,988,102	170,435,061
1986	99,341,813	34,185,020	19,889,018	153,415,851	31,379,158	6,001,201	190,796,210
1987	105,307,595	38,247,807	20,811,701	164,367,103	39,465,273	6,720,685	210,553,061
1988	113,022,120	43,739,268	23,814,341	180,575,729	43,703,422	6,796,504	231,075,655

Note: For years 1979 through 1986, expenses are shown on the basis of cash and investment receipts and disbursements, while 1987 and 1988 expenses are shown on the accrual basis.

(1) The breakdown between retirement, disability and survivor benefits is not available for years prior to 1986.

RETIRED MEMBERSHIP BY TYPE OF BENEFITS

1979 TO 1988

SCHEDULE 4

Year	Service		Disability		Survivors		Combined Total Beneficiaries
	Police	Firemen	Police	Firemen	Police	Firemen	
1979	2,885	2,553	1,004	923	2,563	2,144	12,072
1980	3,030	2,744	1,064	951	2,700	2,256	12,745
1981	3,181	2,983	1,124	1,001	2,762	2,248	13,299
1982	3,311	3,158	1,160	1,033	2,677	2,192	13,531
1983	3,385	3,343	1,234	1,101	2,786	2,235	14,084
1984	3,519	3,488	1,296	1,134	2,812	2,233	14,482
1985	3,654	3,649	1,398	1,173	2,894	2,265	15,033
1986	3,674	3,677	1,499	1,209	2,958	2,297	15,314
1987	3,687	3,703	1,534	1,216	2,949	2,289	15,378
1988	3,784	3,830	1,741	1,352	3,046	2,321	16,074

[illegible]
FOR POLICE OFFICERS AND FIRE FIGHTERS
PLACED ON RETIREMENT ROLLS BETWEEN 1984-1988
SCHEDULE 5

	1984	1985	1986	1987	1988
Service					
Normal	*	1,771	1,864	1,928	2,022
Age Commuted	*	1,420	1,394	1,514	1,585
Service Commuted	*	221	300	337	394
Age/Service	*	723	1,035	920	886
Pre-1947	*	1,739	0	35	947
Subtotals	1,619	1,716	1,801	1,840	1,960
Disability					
Permanent & Total (P&T)	*	1,768	1,806	1,855	1,963
P&T Presumptive	*	1,737	1,778	1,823	2,038
Partial	*	1,247	1,265	1,273	1,337
Partial Presumptive	*	1,462	1,413	1,376	1,398
Off-duty	*	897	586	437	1,354
Pre-1947	*	0	0	0	0
Subtotals	1,444	1,460	1,483	1,538	1,617
Service and Disability					
Totals	1,538	1,624	1,682	1,719	1,817

*This statistical information was not broken down prior to 1985 and only total average service and disability amounts were recorded.

INVESTMENT SECTION

Investment Report

Investment Portfolio Summary

Detailed Listing of Investment Portfolio

Investment Policy

INVESTMENT REPORT

The stock market crash in late 1987 caused many market participants to enter 1988 on the lookout for signs of a recession or worse. Surprisingly though, the strength of several indicators soon began to show that the economy had not only survived the crash but appeared to be gaining some momentum. In fact, including the negative effects of the drought, 1988 real GNP grew at a 3.9% rate. Also the dollar, which had fallen throughout the prior year, was stable to higher as our trade deficit began to show some improvement. Finally, while inflation as measured by the CPI moved modestly higher to a 4.1% rate, the markets did not seem overly concerned that it would get out of hand.

This scenario helped the capital markets as both stocks and bonds turned in above average performances. Stocks, which outperformed bonds, were helped through the year by sustained economic growth and relatively stable long-term interest rates. However, early in the second quarter, short-term rates began a rising trend which continued through the end of the year. This upward move in short-term rates was engineered by the Federal Reserve Board which seemed to be worried by the growing strength of the economy and what that might mean for inflation prospects.

The economic and capital market environments certainly helped contribute to the growth of the fund's investment assets in 1988. The book value of our assets grew to $2.59 billion at year end versus $2.36 billion one year earlier. Over the same time period, the market value of our investment portfolio increased greatly to $2.68 billion from $2.40 billion.

The cautious attitude of investors last year can be seen in the changes that took place in our portfolio. Overall, our equity advisors were more comfortable with a reduced stock exposure and larger cash positions. Unfortunately, this caused the returns of our equity portfolio to be lower than the 16.6% return of the S&P 500. The fixed-income portfolio, which grew substantially last year, showed excellent performance by beating the Salomon Brothers Broad Investment Grade Index and other bond managers. However, given the fact that stocks outperformed bonds and that we are legally restricted to a relatively small stock allocation, the total fund produced only an average return for the year.

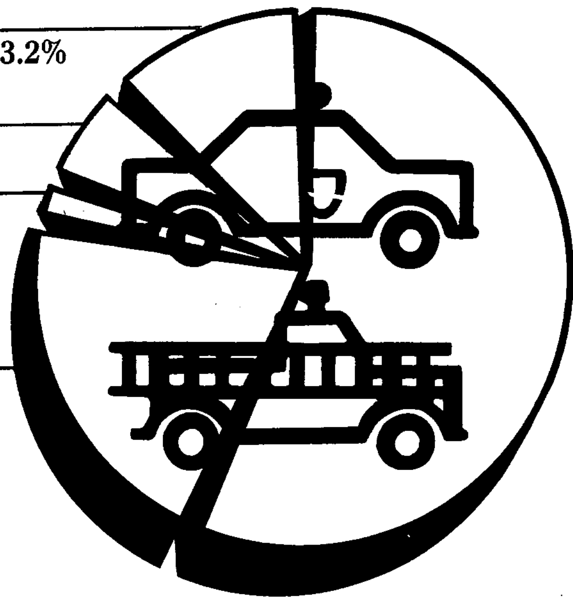
Apart from our normal stock and bond activity, it was a busy year in investments. We selected three new equity advisors to actively manage a portion of our stock portfolio. We also allocated money to three specialized real estate funds and approved the purchase of a sizable investment property. These new real estate funds will help diversify the portfolio by giving us exposure to apartments as well as to the development and rehabilitation of other property types.

As the coming year progresses, we would expect to see some signs of a slowing economy as the Federal Reserve's tight monetary policy begins to affect the interest sensitive sectors such as autos and housing. We may also see consumers slow their spending pace in favor of saving. Any slowdown should help to reduce the fear of an upsurge in inflationary pressures. This would allow the Federal Reserve room to ease monetary policy and help bring down interest rates across the entire maturity spectrum. We expect to see higher stock prices but are wary of what an economic slowdown will mean for corporate profits and, eventually, equity valuations.

In 1989 we expect to see growth in our real estate portfolio as we continue to diversify our property holdings. We will continue to search for relative value in the bond market while maintaining only a moderate risk profile. Our equity advisors will selectively look for value while adjusting their stock exposure to their market outlook. Given our new advisor structure, I would expect over time to see greater exposure to stocks and smaller cash positions. Finally, we will continue to strive to achieve at least an 8.25% return, which is our actuarial assumption as of December 31, 1988.

INVESTMENT PORTFOLIO

DECEMBER 31, 1988



Type	% of Book Value	Book Value	Market Value
Bonds:			
Government	42.48%	$ 639,196,757	$ 629,817,083
Mortgage-Backed	20.41	307,122,920	304,328,883
Canadian	2.84	42,740,906	44,302,270
Electric	1.77	26,621,457	26,273,140
Telephone	0.08	1,203,000	1,157,184
Finance	24.53	369,089,243	363,231,916
Industrial	7.87	118,422,588	115,942,146
Convertible	0.03	450,000	393,500
Total Bonds	58.16	1,504,846,871	1,485,446,122
Stocks	23.10	597,751,632	690,048,262
Cash Equivalents	13.12	339,520,148	339,520,148
Real Estate and Mtg. Notes Rec.	5.16	133,548,963	151,281,083
Venture Capital	.45	11,668,681	11,668,681
Total All Investments	100.00%	$2,587,336,295	$2,677,964,296

DETAILED LISTING OF INVESTMENT PORTFOLIO

BONDS

DECEMBER 31, 1988

ISSUER	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
American Housing Tr 1 Class 3	7.625	8/25/18	9,201,711	7,951,753	7,959,480
CMO Trust 50	.000	6/01/15	25,512,966	15,233,464	15,028,668
Community Prog. Series 87 A-3	4.500	4/01/02	29,300,000	19,543,711	20,015,416
FHLMC #140540	5.250	4/01/02	18,984,251	16,471,625	16,201,919
FHLMC #181734	7.500	5/01/09	2,136,018	1,273,216	1,878,286
FHLMC #185130	9.750	10/01/09	1,961,895	1,665,792	1,907,943
FHLMC #185228	11.500	8/01/13	724,760	687,774	746,503
FHLMC #185711	12.000	9/01/13	432,072	412,593	450,703
FHLMC #185839	12.000	8/01/13	340,775	321,947	355,470
FHLMC #186256	12.000	10/01/13	379,494	293,165	395,857
FHLMC #186808	13.000	10/01/13	157,573	148,589	168,455
FHLMC #187000	13.000	12/01/13	221,329	207,230	236,614
FHLMC #189847	9.750	12/01/09	1,941,593	1,601,130	1,888,199
FHLMC Series F-3	12.250	3/15/95	10,000,000	10,521,854	10,862,500
FHLMC #170164	9.000	5/01/16	723,579	710,369	672,929
FHLMC #230013	7.250	8/01/98	4,103,499	3,831,362	3,690,605
FHLMC #251021	12.000	8/01/99	762,214	909,286	795,080
FHLMC #252397	7.250	7/01/03	1,762,066	1,672,073	1,626,052
FHLMC #252548	7.000	9/01/02	1,209,569	1,125,108	1,118,851
FHLMC #254617	9.750	1/01/11	1,130,243	1,003,415	1,098,460
FHLMC #212242	7.500	7/01/01	7,661,619	6,892,836	6,912,236
FHLMC #300846	7.000	6/01/02	1,534,454	1,485,427	1,428,961
FNMA #281	9.500	12/01/10	1,872,118	1,755,709	1,808,353
FNMA/GL #2494	8.000	4/01/08	11,978,487	11,136,918	10,821,844
FNMA #7726	4.000	6/01/01	9,029,517	7,652,809	7,313,909
FNMA/GL #8300	7.500	7/01/07	24,729,649	22,401,907	21,854,828
FNMA Gtd Remic Tr Ser 88-23-C	9.750	9/25/18	5,000,000	4,855,695	4,903,150
FNMA/GL #44046	7.500	2/01/14	11,590,735	10,541,880	10,308,567
FNMA/GL #44048	7.000	12/01/05	18,637,821	16,496,705	16,180,051
FNMA/GL #57839	7.250	7/01/07	9,455,085	8,542,410	8,264,312
FNMA Strip, Trust 1, Class 1	.000	2/01/17	7,229,458	4,308,166	4,007,867
FNMA Trust 27	.000	11/01/17	33,337,876	17,360,256	17,294,023
FNMA Strip Tr. 34—Class 1	.000	5/01/18	37,467,889	19,030,927	19,576,972
FHLMC #181186	8.000	10/01/08	990,471	666,768	893,900
GNMA #228868	8.000	4/15/17	1,862,080	1,585,256	1,628,166
M.L.T. #12 Class F	8.450	9/01/17	15,000,000	14,207,981	12,571,950
Merrill Lynch Great Western	11.350	4/01/05	2,287,258	2,241,960	2,312,990
Mid-States Trust II Class A-2	8.300	4/01/93	15,300,000	15,266,462	14,869,764
Mid-State Trust II Class A-3	9.350	4/01/98	45,000,000	44,703,999	43,917,300
Rural Housing Tr 1987-1 Tr 2-C	6.830	4/01/26	13,370,000	10,403,393	10,361,750
Bear Stearns Inv Tr 88-7 Cl-2	9.250	12/01/18	15,100,000	14,813,619	14,430,013
Coupon Treasury Receipts	.000	8/15/90	12,360,000	10,280,969	10,654,196
Treasury Coupon Receipts	.000	2/15/91	20,000,040	16,575,171	16,474,633
F.N.M.A.	12.350	12/10/13	3,000,000	3,691,549	3,307,500
Gov't Tr Cert. T-3 (Turkey)	.000	5/15/91	15,000,000	12,101,387	12,035,850

ISSUER	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
Gov't Tr Cert. T-3 (Turkey)	.000	11/15/98	14,100,000	5,596,094	5,675,250
Gov't Trust Cert. Series 2F	.000	5/15/98	10,325,000	4,347,272	4,310,688
U.S. Treasury	7.250	5/15/16	16,710,000	13,272,714	13,723,088
U.S. Treasury	7.375	5/15/96	213,130,000	198,589,753	192,283,755
U.S. Treasury	7.250	11/15/96	319,570,000	288,344,815	284,717,696
U.S. Treasury	7.000	4/15/94	10,725,000	9,962,815	9,749,669
U.S. Treasury	8.000	7/15/94	1,840,000	1,780,398	1,745,130
U.S. Treasury	8.250	2/15/93	15,655,000	15,328,230	15,155,919
U.S. Treasury	8.375	4/15/95	4,635,000	4,505,171	4,449,600
U.S. Treasury	8.625	8/31/90	5,950,000	5,904,213	5,899,782
U.S. Treasury	.000	5/15/89	1,575,000	1,522,016	1,526,191
U.S. Treasury	.000	2/15/90	18,713,125	16,370,852	16,917,226
U.S. Treasury	.000	5/15/90	3,307,500	2,907,490	2,923,532
U.S. Treasury	.000	8/15/90	3,076,250	2,593,527	2,657,388
U.S. Treasury	.000	11/15/90	9,640,625	7,751,151	8,143,243
U.S. Treasury	.000	2/15/91	3,678,125	2,957,551	3,036,734
Hydro Quebec	16.250	7/15/91	1,860,000	2,164,102	2,129,030
Hydro Quebec	17.375	9/01/91	4,000,000	4,756,888	4,706,560
Manitoba Prov. of	14.750	3/15/97	8,500,000	8,696,759	10,219,210
Province of New Brunswick	14.750	7/01/91	5,000,000	5,586,405	5,545,950
New Brunswick Prov. of	15.500	6/15/90	2,575,000	2,770,065	2,778,090
Ontario Prov. of	15.750	3/15/12	5,000,000	7,441,027	6,803,850
Ontario Prov. of	15.250	8/31/12	9,000,000	11,325,660	12,119,580
Enogex, Inc.	10.020	12/21/95	13,000,000	13,000,000	13,024,700
Pacific Gas & Electric	12.750	11/01/17	4,000,000	5,303,115	4,675,000
Virginia Electric & Power	13.300	7/01/94	8,000,000	8,318,342	8,573,440
Mid-Penn Tel. Co.	9.500	5/01/00	640,000	640,000	616,000
Western Reserve Tel.	9.375	5/15/00	563,000	563,000	541,184
Associates Corp. of N.A.	12.750	8/15/94	6,000,000	6,181,386	6,684,720
Associates Corp. of N.A.	12.400	10/01/95	1,000,000	1,211,509	1,120,830
Associates Corp. of N.A.	7.625	4/15/98	16,700,000	16,692,442	15,749,102
Associates Corp. N.A.	8.250	5/01/92	4,000,000	3,957,122	3,828,200
Associates Corp. of N.A.	8.750	2/15/91	10,000,000	9,944,633	9,809,900
Associates Corp. of N.A.	8.375	1/15/98	7,000,000	6,942,562	6,655,250
Associates Corp. of N.A.	8.125	2/01/96	5,000,000	4,996,906	4,931,350
BankAmerica Corp.	9.687	8/01/96	24,200,000	24,103,199	22,566,500
BankAmerica Corp.	12.750	8/15/94	10,400,000	10,409,523	11,518,000
Beneficial Corp. Notes	9.750	9/15/99	5,000,000	4,992,687	4,819,650
Chase Manhattan	9.750	6/15/99	31,500,000	30,424,628	29,914,920
Chemical New York Corp.	10.750	10/15/92	9,700,000	9,688,315	9,803,790
Citicorp	8.200	4/15/90	13,225,000	13,225,000	12,993,563
Citicorp	12.375	10/15/96	5,000,000	4,986,557	5,450,000
D.C.S. Capital Corp.	8.500	6/01/98	20,000,000	20,038,380	19,000,000
First Chicago Corp.	9.500	8/30/91	12,000,000	12,024,276	11,891,640
First Chicago	12.500	11/01/91	7,200,000	7,223,486	7,348,824
First Interstate Bancorp	8.500	11/27/89	3,200,000	3,185,389	3,166,400
First Interstate Bancorp	8.750	10/01/89	10,000,000	10,014,030	9,941,900
First National Bank Chicago	8.750	1/15/91	5,000,000	5,007,990	4,915,000
Ford Motor Credit	8.250	5/01/18	15,930,000	15,698,239	15,423,904
G.E. Capital Corp.	8.125	7/15/90	7,750,000	7,713,880	7,569,813
GMAC	8.875	11/01/90	1,550,000	1,551,169	1,530,408
GMAC	8.500	2/01/93	3,150,000	3,160,135	3,020,220
GMAC	8.500	2/25/93	12,500,000	12,492,287	11,953,750
GMAC	8.625	8/06/91	2,200,000	2,218,515	2,144,560
GMAC					

ISSUER	COUPON	MATURITY	PAR VALUE	BOOK VALUE	MARKET VALUE
GMAC	8.700	6/16/92	5,000,000	4,944,792	4,849,000
GMAC	8.850	9/28/90	13,000,000	12,962,635	12,825,800
Household Finance Corp.	9.500	12/15/93	4,500,000	4,434,046	4,416,750
ITT Financial Corp.	12.750	8/15/94	12,650,000	13,194,995	13,708,299
ITT Financial Corp.	8.750	3/01/06	11,000,000	11,342,278	10,328,010
ITT Financial	8.500	1/15/98	3,000,000	2,978,901	2,868,960
Imperial Savings Assoc.	9.090	12/01/90	5,000,000	4,992,925	4,923,000
J.C.P. Master Credit Card Tr.	9.000	9/15/93	26,450,000	26,247,915	25,912,801
Maryland Bank N.A.	8.600	5/31/93	19,500,000	19,450,851	19,061,250
McDonnell Douglas Fin.	9.700	1/15/92	7,500,000	7,322,021	7,468,500
Merrill Lynch & Co.	.000	2/21/06	2,600,000	666,620	659,750
Security Pacific	9.750	5/15/99	6,120,000	5,962,022	6,025,079
Sperry Lease Finance Corp.	9.450	9/15/91	1,524,929	1,510,796	1,507,423
Union Bank (LA)	9.000	12/15/90	5,000,000	4,994,201	4,925,100
American Medical International	9.750	2/01/93	5,300,000	5,413,184	5,061,500
Amoco Co.	8.625	12/15/16	3,875,000	3,217,312	3,463,746
BCI Holdings	15.250	5/01/02	197,350	137,068	59,698
Chrysler Buildings of New York	9.125	5/01/99	15,000,000	14,947,672	14,175,000
Dayton-Hudson Corp.	9.250	11/15/16	1,850,000	1,841,236	1,621,858
General Motors Corp.	8.125	4/15/16	4,800,000	3,981,716	3,990,000
McDermott (J. Ray) & Co.	10.000	4/01/03	7,500,000	6,500,535	6,417,825
Merrill Lynch	8.900	11/30/89	7,000,000	7,000,000	6,954,780
Merrill Lynch	8.750	11/27/89	1,750,000	1,750,000	1,736,578
Shearson Lehman Am. Ex.	12.500	10/15/94	14,975,000	16,090,797	16,459,023
Shearson Lehman Brothers, Inc.	11.625	5/15/05	6,400,000	7,398,530	7,051,712
Shearson Lehman Brothers	7.875	8/15/93	11,250,000	10,518,104	10,317,938
Shearson Lehman Hutton	10.750	4/29/96	3,360,000	3,522,280	3,453,408
Telxon, Inc.	7.500	6/01/12	100,000	100,000	88,000
Texaco Capital	13.000	8/01/91	20,200,000	20,717,594	20,553,500
Transamerica Corp.	9.375	11/15/92	7,000,000	7,000,000	6,889,330
USG Corp.	16.000	7/15/08	75,000	27,682	75,750
Xerox Corp.	13.250	9/01/14	6,500,000	8,258,878	7,572,500
1st Union Real Est. Eq. Mort.	10.250	7/31/09	250,000	250,000	257,500
Sudbury Holdings, Inc.	7.500	4/15/11	200,000	200,000	136,000
Total			**1,654,181,068**	**1,504,846,871**	**1,485,446,122**

COMMON STOCKS
DECEMBER 31, 1988

	SHARES	COST	MARKET VALUE
Abbott Labs.	79,300	2,840,008	3,816,313
Acme Cleveland	25,000	348,395	237,500
Aetna Life & Casualty Co	7,800	409,906	368,550
Ahmanson (H F) & Co.	8,800	185,240	144,100
Air Products & Chemicals, Inc.	5,200	125,385	214,500
Alaska Air Group Inc.	400	8,820	8,000
Albertson's, Inc.	106,200	3,769,282	4,022,325
Alliant Computer Systems	9,175	43,581	38,994
Allied—Signal, Inc.	58,249	2,069,122	1,893,093
Alltel Corp.	39,050	946,121	1,415,563
Aluminum Co. of America	24,200	1,128,250	1,355,200
Amax Inc.	22,800	377,380	515,850
Amcast Industrial	18,000	220,905	238,500
Amerada Hess Corp.	10,700	382,208	337,050
Amdahl Corp.	13,800	259,095	248,400
American Brands, Inc.	21,700	988,289	1,421,350
American Cyanamid Co.	5,000	126,900	233,750
American Electric Power	7,300	155,855	198,925
American Express	249,000	5,130,554	6,629,625
American Family Corp.	10,200	163,843	140,250
American General Corp.	34,100	1,256,766	1,010,213
American Greetings Corp.	35,000	972,000	752,500
American Home Products	72,300	4,340,918	6,018,975
American International Corp.	148,800	8,387,540	10,081,200
American Medical Ent.	30,600	598,173	478,125
American Stores Co.	2,000	100,700	115,750
American Tel & Tel Co.	137,100	3,184,370	3,941,625
Ameritech	10,500	602,895	997,500
Ameritrust Corp.	36,000	782,875	756,000
Amp, Inc.	64,900	2,831,702	2,888,050
Amoco Corp.	47,400	3,364,714	3,555,000
Anheuser Busch Co.	213,700	5,839,159	6,731,550
Apache Corporation	8,300	102,090	65,363
Archer Daniels Midland	73,617	1,227,958	1,536,755
Armstrong World Industries	4,300	181,864	150,500
Ashland Oil	83,000	2,846,814	2,780,500
Atek Metals Center, Inc.	10,000	84,500	70,000
Atlantic Richfield Co.	65,500	4,676,583	5,280,938
Audio Video Affiliates	40,000	324,353	230,000
Automatic Data Processing	185,000	7,672,007	7,168,750
Avon Products	12,800	250,891	249,600
Baker Hughes, Inc.	27,900	506,325	390,600
Baldwin Piano & Organ Co.	15,000	230,250	217,500
Baltimore Gas & Electric	4,800	102,840	149,400
Banc One Corp.	5,600	153,580	124,600
Bank of Boston	5,900	183,195	139,388
Bank of New England	92,000	3,242,641	2,024,000
Bank of New York	55,000	1,928,300	2,035,000
BankAmerica Corp.	30,500	624,965	537,563
Bankers Trust Corp.	53,200	1,935,635	1,862,000
Bard (C. R.) Inc.	300,000	4,922,450	6,900,000

	SHARES	COST	MARKET VALUE
Barnett Banks, Inc.	59,275	2,031,486	2,015,350
Bausch & Lomb	4,900	147,858	212,538
Baxter International, Inc.	77,918	1,438,568	1,373,305
Bearings, Inc.	10,500	252,298	397,688
Becton, Dickinson	40,000	2,232,800	2,080,000
Bell Atlantic Corp.	16,600	799,582	1,180,675
BellSouth Corp.	68,550	1,787,106	2,733,431
Beneficial Corp.	1,700	131,198	73,738
Big Bear Stores	23,165	294,615	587,812
Black & Decker	19,800	387,948	457,875
Block (H & R)	5,800	183,570	164,575
Boeing Co.	58,050	3,133,646	3,519,281
Boise Cascade Corp.	58,166	2,303,109	2,399,348
Borden, Inc.	14,500	482,865	859,125
Bowater, Inc.	15,500	569,538	424,313
Bristol-Myers	182,400	7,535,500	8,253,600
Browning & Ferris Industries	379,000	10,030,187	10,375,125
Brunswick Corp.	8,400	111,668	141,750
Brush Wellman, Inc.	55,300	1,428,200	1,465,450
Burlington Northern	26,500	1,651,215	2,093,500
CBS Inc.	3,100	383,322	528,550
Cigna Corp.	10,700	587,333	504,238
CPC International, Inc.	5,000	102,838	259,375
Campbell Soup Co.	6,000	97,650	189,000
Capital Cities/ABC Inc.	2,200	476,623	796,950
Capital Holding Corp.	4,000	101,400	131,000
Carlisle Corp.	25,000	771,716	875,000
Caterpillar Inc.	17,900	610,754	1,138,888
Centerior Energy Corp.	47,200	814,973	637,200
Central & Southwest Corp.	86,200	3,064,844	2,758,400
Champion International Corp.	4,500	102,263	144,563
Champion Spark Plugs	53,100	654,195	710,213
Charter One Financial, Inc.	18,000	157,000	162,000
Chase Manhattan Corp.	73,800	2,242,732	2,112,525
Chemed Corp.	10,500	369,438	341,250
Chemical Banking Corp.	2,600	102,635	80,600
CSX Corp.	5,700	135,233	176,700
Chevron Corp.	179,500	7,911,952	8,212,125
Chrysler Corp.	8,600	372,380	221,450
Chubb Corp.	2,250	102,900	130,500
Cincinnati Financial Corp.	3,150	204,250	170,100
Cincinnati Microwave, Inc.	17,090	114,020	38,453
Cincinnati Milacron	10,000	192,700	220,000
Circuit City Stores	1,500	29,164	53,063
Citicorp	232,600	5,486,200	6,018,525
Colgate Palmolive Co.	18,990	770,320	892,530
Clevetrust Realty SBI	10,000	100,000	48,750
Clorox Co.	5,800	101,428	179,800
Coca Cola Co.	110,000	3,933,078	4,908,750
Columbia Gas Systems	3,100	153,106	106,950
Combustion Engineering	3,200	101,920	89,200
Commercial Intertec Corp.	12,000	170,000	204,000
Commonwealth Edison	59,200	1,870,362	1,953,600
Community Psych Centers	117,000	3,002,674	2,749,500

	SHARES	COST	MARKET VALUE
Conagra Inc.	6,600	105,518	191,400
Consolidated Edison	26,700	934,293	1,241,550
Consolidated Freightways	84,350	2,868,508	2,783,550
Consolidated Natural Gas	4,400	100,870	177,650
Consolidated Rail	4,700	175,898	158,625
Consolidated Stores	40,000	344,965	260,000
Contel Corp.	102,100	3,725,900	4,122,288
Control Data Corp.	13,500	355,561	264,938
Cooper Industries, Inc.	15,000	615,263	810,000
Cooper Tire & Rubber	20,000	155,038	480,000
Dana Corp.	9,000	277,498	349,875
Dayton Hudson	9,600	389,278	380,400
Deere & Co.	10,900	317,172	523,200
Delta Airlines	60,300	2,941,297	3,022,538
Deluxe Corp.	3,800	123,690	95,000
Detroit Edison Co.	6,100	102,023	107,513
Diebold, Inc.	19,100	767,899	742,513
Walt Disney Co.	78,400	4,256,322	5,154,800
Dominion Resources, Inc. of VA	3,300	100,155	139,013
Donnelley R R & Sons	3,800	104,215	131,575
Dover Corp.	5,600	120,190	161,700
Dow Chemical Co.	154,000	13,436,844	13,513,500
Dow Jones & Co.	6,500	221,525	191,750
Dresser Industries, Inc.	23,200	472,942	681,500
Dreyfus Corporation	15,000	296,893	375,000
E. I. Dupont De Nemours	98,900	7,481,737	8,727,925
Duke Power Co.	13,200	434,393	610,500
Dun & Bradstreet	21,965	925,394	1,177,873
E G & G, Inc.	2,700	105,773	77,625
Essef Corporation	20,000	257,500	140,000
E Systems	1,400	42,098	40,600
Eagle Picher Industries	12,000	384,935	187,500
Eastern Gas & Fuel Association	6,500	154,700	150,313
Eastman Kodak Co.	117,100	4,655,134	5,284,138
Eaton Corp.	67,950	3,453,458	3,788,213
Echlin, Inc.	8,200	196,185	135,300
A. G. Edwards, Inc.	8,900	244,506	170,213
Emerson Electric	23,700	539,476	719,888
Englehard Corp.	11,550	235,984	199,238
Enron Corp.	13,400	630,663	490,775
Enserch Corp.	12,900	336,876	243,488
Equitable Resources	12,900	415,093	436,988
Ethyl Corp.	169,700	3,922,884	3,669,763
Exxon Corp.	208,500	5,716,979	9,174,000
FPL Group, Inc.	4,500	109,013	140,063
Fabri Centers of America	20,000	229,930	240,000
Ferro Corp.	20,000	341,353	670,000
First Chicago Corp.	64,300	1,534,134	1,904,888
First Fidelity Bancorp New	3,800	153,140	102,125
First Interstate Bancorp	2,100	101,535	91,088
First Ohio Bancshares	11,500	230,125	296,125
First Union Real Estate	20,000	398,776	365,000
Florida Progress Corp.	13,400	377,618	469,000
Fluor Corp.	19,700	355,404	460,488

	SHARES	COST	MARKET VALUE
Ford Motor Co.	158,000	6,548,907	7,979,000
Foster Wheeler Corp.	65,500	1,040,518	949,750
Freeport McMoran	34,900	882,538	955,388
GAF Corp.	30,000	1,345,410	1,395,000
Gannett Co.	18,000	531,274	641,250
Gap (The) Inc.	3,100	155,155	129,425
Gencorp	15,074	334,375	252,490
General Cinema Corp.	6,400	98,720	163,200
General Computer	10,000	161,250	40,000
General Dynamics	1,700	115,983	86,275
General Electric	295,800	11,226,353	13,237,050
General Instrument	7,600	131,781	200,450
General Mills Inc.	9,400	222,139	487,625
General Motors Corp.	70,400	4,785,105	5,878,400
General Re Corp	115,500	4,980,650	6,410,250
General Signal Corp.	2,300	99,498	109,250
GTE Corp.	48,000	1,329,587	2,136,000
Georgia Pacific	86,400	3,069,802	3,186,000
Gerber Products	65,000	3,124,550	3,810,625
Gibson Greetings	16,000	268,925	352,000
Gillette Co.	195,259	5,004,220	6,492,362
Goodrich (B.F.)	8,000	318,494	414,000
Goodyear Tire & Rubber	7,372	205,552	376,894
W. R. Grace & Co.	28,100	586,232	730,600
Grainger (W W) Inc.	5,300	168,757	285,538
Grant National Bank	61,000	37,944	34,343
Great Northern Nekoosa	94,200	3,925,676	3,697,350
Great Western Financial	7,500	123,150	112,500
Grumman Corp.	6,400	206,170	126,400
Gulf & Western Inc.	38,800	813,517	1,576,250
Halliburton Co.	30,900	936,594	865,200
Handleman Co.	15,900	363,792	335,888
Hanna (M.A.) Co.	19,500	281,570	375,375
Harris Corp.	8,600	229,970	232,200
Hasbro, Inc.	14,900	368,383	236,538
Hauserman, Inc.	15,000	196,000	75,000
Health Care Reit	14,000	212,280	154,000
Hecla Mining Co.	5,500	98,588	69,438
Heinz H. J.	26,400	814,350	1,234,200
Hercules, Inc.	22,100	1,133,375	983,450
Hershey Foods Corp.	7,500	101,500	195,000
Hewlett Packard	138,000	5,984,796	7,348,500
Hilton Hotels Corp.	3,200	101,280	170,800
Holiday Corp.	5,800	127,302	156,600
Homestake Mining Co.	10,400	127,920	131,300
Honeywell, Inc.	9,500	638,061	567,625
Hospital Corp. of America	29,157	1,140,693	1,282,908
Household International	3,300	183,401	187,688
Houston Industries	4,100	108,855	114,800
Huffy Corp.	30,000	253,220	420,000
Humana, Inc.	4,700	132,070	119,263
ITT Corp.	40,400	1,925,329	2,035,150
Illinois Tool Works	104,200	3,262,810	3,620,950
Ingersoll Rand	87,500	2,805,095	2,996,875

	SHARES	COST	MARKET VALUE
Interco, Inc.	6,100	9,569	22,113
Interco Prfd "E"	549	16,164	31,842
Interlake Corp.	7,200	355,145	304,200
Intl. Business Machines	151,900	19,101,674	18,512,813
Intl. Flavors & Fragrances	6,700	210,633	330,813
Intl. Paper Co.	4,000	99,950	185,500
Interpublic Group Co.	4,200	104,733	154,350
Invacare Corp.	25,000	171,775	225,000
James River Corp. of VA	124,750	3,131,505	3,570,969
Jefferson Pilot Corp.	3,750	104,625	112,500
Johnson & Johnson	124,500	5,754,253	10,598,063
Johnson Controls, Inc.	4,300	154,840	157,488
K Mart	116,650	3,839,691	4,097,331
Keithley Instruments	25,750	319,500	386,250
Kellogg Co.	79,500	4,238,574	5,107,875
Kellwood Co.	107,150	2,917,754	2,852,869
Kerr McGee Corp.	18,200	618,331	689,325
Keystone International, Inc.	25,305	421,991	480,795
Kimberly Clark Corp.	49,800	2,671,861	2,900,850
Knight Ridder Inc.	5,700	254,085	258,638
Kroger Co.	11,200	37,175	99,400
Krug International Corp.	16,000	105,000	96,000
Lancaster Colony Corp.	30,800	495,195	577,500
Lilly Eli & Co.	56,000	4,506,347	4,788,000
Limited, Inc.	43,700	1,393,713	1,190,825
Lincoln National Corp.	4,500	206,668	195,750
Litton Industries, Inc.	3,696	322,864	265,650
Liz Claiborne	5,500	184,250	100,375
Lockheed Corp.	3,300	183,315	136,125
Loews Corporation	151,300	10,077,139	11,933,788
Long Island Lighting	52,700	464,552	671,925
Louisiana Land & Exploration	4,800	157,440	153,600
Lubrizol, Corp.	10,000	279,343	355,000
M/A Com, Inc.	16,500	281,970	140,250
MCA, Inc.	3,000	101,700	136,125
Malrite Communications A	11,000	101,750	114,125
Manufacturers Hanover	25,100	803,767	712,213
Mapco Inc.	84,100	5,015,680	4,593,963
Marriott Corp.	92,000	2,738,578	2,909,500
Marsh & McLennan	71,100	3,776,030	3,999,375
Martin Marietta Corp.	17,250	635,964	698,625
Masco Corp.	6,600	99,743	167,475
Mattel Inc.	23,100	334,193	219,450
Maxus Energy Corp.	19,158	175,148	131,711
May Department Stores	74,200	2,476,898	2,689,750
McDonald & Company Investments	62,500	652,000	406,250
McDonald's Corp.	232,725	10,844,965	11,199,891
McDonnell Douglas Corp.	1,500	105,525	112,875
McGraw Hill & Co.	17,700	951,705	1,101,825
McKesson Corp.	4,300	152,790	133,838
Mead Corp.	24,800	500,667	967,200
Mellon Bank Corp.	61,000	1,887,713	1,525,000
Melville Corp.	38,400	1,513,770	2,856,000
Mercantile Stores	3,250	129,540	138,938

	SHARES	COST	MARKET VALUE
Merck & Co.	270,900	9,427,278	15,644,475
Merrill Lynch & Co.	3,700	110,908	88,800
Middle South Utilities, Inc.	11,300	125,229	180,800
Minnesota Mining & Mfg. Co.	110,500	5,636,363	6,851,000
Mr. Gasket Co.	80,000	615,200	290,000
Mobil Corp.	98,700	3,513,162	4,490,850
Monsanto Co.	53,500	4,250,824	4,373,625
Morgan (J. P.) & Co.	82,700	2,882,566	2,884,163
Mortgage & Realty Trust	600	11,993	10,200
Morton Thiokol	9,200	417,910	332,350
Motorola, Inc.	83,200	3,907,027	3,494,400
Multicolor Corp.	13,000	111,250	104,000
NCNB Corp.	5,000	98,775	136,250
NCR Corporation	48,900	2,183,707	2,610,038
National City Corp.	40,500	1,188,625	1,331,438
National Ed Corp.	3,753	32,004	87,257
National Medical Enterprises	8,500	272,912	182,750
New York Times (A)	6,000	157,062	163,500
Newmont Mining Co.	3,300	47,204	109,313
Niagra Mohawk Power Corp.	142,600	1,802,672	1,853,800
Nordson Corp.	4,625	50,419	219,688
Nordstrom, Inc.	5,600	124,040	170,800
Norfolk Southern Corp.	24,300	552,681	762,413
Northern States Power Co.	3,300	130,515	108,075
Northrop Corp.	4,000	205,712	111,000
NWA Inc.	3,100	119,973	160,425
Nucor Corp.	13,900	410,056	663,725
NYNEX Corp.	30,100	1,489,887	1,986,600
Occidental Petroleum Corp.	15,034	438,342	381,488
Oglebay Norton	8,000	215,750	231,000
Ohio Edison Co.	6,900	100,740	130,238
Ohio Mattress	22,500	256,239	399,375
Omnicare, Inc.	51,000	435,465	414,375
PHM Corp.	10,000	167,662	111,250
PNC Financial Corp.	3,500	157,100	139,125
PPG Industries	86,000	3,475,243	3,472,250
Paccar, Inc.	5,000	101,250	205,000
Pacific Enterprises	2,400	101,640	90,000
Pacific Gas & Electric Co.	12,000	218,700	210,000
Pacific Telesis	65,200	1,216,456	2,013,050
Pall Corporation	200	4,143	5,825
Panhandle Eastern	3,000	58,268	76,875
Park—Ohio Industries	28,000	206,267	175,000
Parker Hannifin	30,300	851,068	852,188
Penney (J. C.)	23,100	868,620	1,169,438
Pennzoil Co.	8,300	433,753	595,525
Pepsico, Inc.	55,100	1,548,488	2,176,450
Perkin Elmer Corp.	5,400	138,935	132,975
Petrie Stores Corp.	60,000	1,848,006	990,000
Pfizer, Inc.	119,800	6,565,563	6,948,400
Philadelphia Electric Co.	6,500	100,588	130,000
Philip Morris Cos. Inc.	191,500	10,045,358	19,509,063
Philips Industries	20,800	349,700	400,400
Phillips Petroleum Co.	8,400	98,744	163,800

	SHARES	COST	MARKET VALUE
Pillsbury Co.	4,400	103,345	289,850
Pioneer Standard Electric, Inc.	40,000	272,500	380,000
Pitney Bowes	159,200	5,380,548	6,805,800
Pittston Co.	100,000	1,706,820	1,750,000
Polaroid Corp.	13,000	204,061	479,375
Premier Ind. Corp. Com. No Par	13,650	272,062	382,200
Prime Motor Inns	2,200	55,025	70,400
Primerica Corp.	4,600	97,754	100,050
Procter & Gamble	35,300	2,035,163	3,071,100
Public Service Enterprise Gr.	6,900	134,435	169,050
Quaker Oats Co.	4,600	100,568	244,375
Quantum Chemical Corp.	10,620	427,625	1,119,083
Rax Restaurants	19,000	117,500	54,625
RJR Nabisco, Inc.	182,300	9,083,914	16,612,088
RPM, Inc.	30,000	296,250	476,250
Ralston Purina	3,100	131,285	253,813
Raytheon Co.	39,800	2,630,569	2,666,600
Reading & Bates	81,400	338,257	667,480
Reynolds & Reynolds Class A	18,000	519,630	452,250
Reynolds Metals Co.	7,600	125,305	408,500
Rite Aid Corp.	90,300	2,714,457	2,946,038
Roadway Services	14,900	451,288	445,138
Robbins & Myers, Inc.	10,000	107,830	120,000
Rockwell International Corp.	51,400	895,633	1,117,950
Rohm & Haas	6,300	124,971	216,563
Rowan Co's Inc.	79,000	665,488	454,250
Rubbermaid, Inc.	21,400	531,088	537,675
Ryder Systems	7,500	231,224	195,000
Ryland Group	2,800	55,790	57,750
SCE Corp.	43,400	1,189,416	1,405,075
Safeco Corp.	5,000	100,313	115,000
St. Paul Companies	17,600	649,727	721,600
Salomon Inc.	5,600	221,956	135,100
Sara Lee Corp.	87,600	3,079,854	3,679,200
Schering Plough Corp.	5,800	125,092	329,150
Scott Paper Co.	5,600	102,480	219,800
E. W. Scripps Co.	5,000	80,000	80,000
Sears Roebuck & Co.	40,700	1,468,630	1,663,613
Security Pacific Corp.	80,400	2,984,452	2,904,450
Sherwin Williams	31,700	843,178	804,388
Smithkline Beckman	11,420	434,527	549,588
J. M. Smucker Co.	5,000	227,250	298,750
Snap On Tools	5,400	104,423	189,000
Society Corp.	10,000	287,750	320,000
Sonat, Inc.	7,900	279,858	229,100
Southern Co.	46,500	963,683	1,040,438
Southland Corp. PFD Ex 15%	39	221	453
Southwest Airlines	13,600	308,488	275,400
Southwestern Bell Corp.	86,600	3,066,324	3,496,475
Square D	9,600	388,478	460,800
Squibb Corp.	124,000	7,647,040	8,215,000
Standard Products	5,000	144,475	146,875
Sun Exp. & Prod. Co. Rights	18,600	494,265	481,275

	SHARES	COST	MARKET VALUE
Sun, Inc.	18,600	585,514	597,525
Sun Trust Banks, Inc.	6,600	153,780	131,175
Super Valu Stores Inc.	106,200	2,532,593	2,601,900
Syntex Corp.	94,800	2,858,975	3,851,250
Sysco Corp.	95,900	3,415,823	3,692,150
TRW, Inc.	89,800	4,188,106	3,737,925
TW Services	25,000	585,000	656,250
Tektronix Inc.	3,400	99,620	69,275
Telxon Corp.	8,000	82,708	136,000
Tenneco, Inc.	5,600	247,856	273,700
Texaco, Inc.	37,200	1,407,666	1,901,850
Texas Eastern Corp.	11,100	389,445	310,800
Texas Instruments	18,600	565,408	762,600
Texas Utilities Co.	128,800	4,295,313	3,622,500
Textron Inc.	27,200	724,786	646,000
Thor Industries	18,000	297,835	238,500
Time Inc.	6,900	388,644	738,300
Times Mirror Co.	91,150	2,970,444	2,996,556
Timken Co.	5,000	126,813	177,500
Todd Shipyards Corp.	400	12,020	800
Transamerica Corp.	3,300	95,260	111,788
Transco Energy Co.	16,600	699,255	583,075
Tranzonic Co.	7,000	32,981	70,000
Transonic-B	3,500	16,064	32,813
Travelers Corp.	3,200	143,520	111,200
Tribune Co. New	4,200	120,068	163,275
Trinova Corp.	105,000	2,896,012	2,887,500
Trustcorp, Inc.	5,000	108,750	125,000
UST, Inc.	234,700	6,365,225	9,622,700
USG Corp. Com Par $0.10	18,200	42,943	109,200
Union Camp Corp.	4,350	100,340	149,531
Union Carbide Corp.	1,938	36,711	49,661
Union Pacific Corp.	13,100	731,511	841,675
Unisys Corp.	410,100	12,482,883	11,534,063
U.S. Air Group	12,500	520,010	431,250
USX Corp.	2,533	71,671	74,090
U.S. West Inc.	14,800	563,525	854,700
United Technologies	7,600	294,420	312,550
United Telecommunications	103,000	3,015,249	4,776,625
Unocal Corp.	6,700	310,545	253,763
Upjohn Co.	31,800	548,240	914,250
V.F. Corp.	25,700	474,142	738,875
Van Dorn Co.	45,800	780,290	749,975
Vulcan Materials	8,100	1,286,953	1,344,600
Wal-Mart Stores	90,100	1,436,848	2,826,888
Walgreen Co.	21,300	698,083	644,325
Wang Labs (B)	19,200	330,902	153,600
Warner Communications	27,700	736,339	1,014,513
Warner Lambert Co.	52,900	4,061,195	4,146,038
Waste Management Inc.	84,400	3,031,336	3,492,050
Wells Fargo Corp.	3,200	174,560	193,200
Wendy's International	85,500	1,149,155	491,625
Westinghouse Electric	29,000	961,786	1,526,125
Weyerhaeuser Co.	272,400	7,591,745	6,844,050

	SHARES	COST	MARKET VALUE
Whirlpool Corp.	4,400	106,722	108,900
Whitman Corp.	6,200	101,060	221,650
Whittaker Corp.	2,600	63,513	134,550
Winn Dixie Stores Inc.	2,900	102,515	127,600
Witco Corp.	7,500	219,980	262,500
Woolworth (F W) & Co.	4,800	103,140	248,400
Worthington Industries	38,000	687,850	798,000
Wrigley, (Wm.) Jr.	30,400	619,164	1,098,200
Xerox Corp.	6,300	368,888	367,763
Xidex Corporation Warrants	14,482	56,188	130,338
Yellow Freight Systems	3,500	120,313	89,250
Zayre Corp.	3,600	114,165	91,800
Zenith Radio	800	16,640	15,200
Dow Jones & Co. Class B Conv.	2,050	57,807	63,550
Southland Cor. $25 Exc. Jr. PF	73	226	548
Total	**17,438,572**	**597,751,632**	**690,048,262**

COMMERCIAL PAPER
DECEMBER 31, 1988

SECURITY NAME	MATURITY	BOOK VALUE	MARKET VALUE
Atlantic Center	1/17/89	$ 7,932,020.00	$ 7,932,020.00
Bear Stearns & Co.	1/13/89	6,935,600.00	6,935,600.00
Bear Stearns & Co.	1/03/89	16,844,450.00	16,844,450.00
Cargill Financial Serv.	1/03/89	17,380,666.67	17,380,666.67
Citicorp	1/05/89	3,492,377.78	3,492,377.78
Citicorp	1/11/89	7,923,286.67	7,923,286.67
First Boston Private	1/04/89	9,893,694.44	9,893,694.44
Ford Motor Credit Corp.	1/18/89	14,884,000.00	14,884,000.00
GMAC	1/12/89	7,943,300.00	7,943,300.00
GMAC	1/12/89	5,955,533.33	5,955,533.33
Goldman Sachs & Co.	1/13/89	4,955,180.56	4,955,180.56
Goldman Sachs & Co.	1/18/89	14,846,666.67	14,846,666.67
Goldman Sachs & Co.	1/09/89	4,957,947.92	4,957,947.92
GTE Finance	1/03/89	3,966,450.00	3,966,450.00
GTE Finance	1/27/89	9,927,666.67	9,927,666.67
GTE Finance	1/03/89	4,848,206.45	4,848,206.45
G.E. Capital Corp.	1/17/89	9,897,777.78	9,897,777.78
G.E. Capital Corp.	1/23/89	9,901,041.67	9,901,041.67
Honeywell, Inc.	1/24/89	9,930,250.00	9,930,250.00
Interfin Funding Corp.	1/19/89	6,924,254.17	6,924,254.17
ITT Corp.	1/19/89	8,438,516.67	8,438,516.67
ITT Corp.	1/12/89	6,933,451.39	6,933,451.39
Marriott Corp.	1/20/89	4,949,625.00	4,949,625.00
Marriott Corp.	1/11/89	3,961,561.11	3,961,561.11
McDonnell Douglas Corp.	1/05/89	5,624,137.66	5,624,137.66
Merrill Lynch & Co.	1/13/89	9,905,444.44	9,905,444.44
Merrill Lynch & Co.	1/09/89	9,901,416.67	9,901,416.67
Mid Atlantic Fuel Co.	1/20/89	9,899,520.83	9,899,520.83
Pacific Funding Trust	1/27/89	2,179,540.00	2,179,540.00
Pacific Funding Trust	1/17/89	9,912,166.67	9,912,166.67
Philip Morris Cos. Inc.	1/10/89	12,572,047.50	12,572,047.50
Pitney Bowes Inc.	1/09/89	5,952,725.00	5,952,725.00
Shearson Lehman Hutton	1/05/89	14,857,395.83	14,857,395.83
Shearson Lehman Hutton	1/06/89	3,963,400.00	3,963,400.00
Shearson Lehman Hutton	1/06/89	7,924,355.56	7,924,355.56
Southern Bell Telephone	1/04/89	4,984,416.67	4,984,416.67
Transamerica Financial	1/26/89	10,915,208.33	10,915,208.33
Unisys Corp.	1/04/89	7,940,066.67	7,940,066.67
Unisys Corp.	1/25/89	8,923,275.00	8,923,275.00
Westinghouse Credit Co.	1/11/89	10,441,506.25	10,441,506.25
Total		**$339,520,148.03**	**$339,520,148.03**

INVESTMENT SECTION

VENTURE CAPITAL
DECEMBER 31, 1988

NAME	COST	MARKET VALUE
Cardinal Development Cap	$ 2,927,014	$ 2,927,014
Primus Capital Fund I	4,241,667	4,241,667
Primus Capital Fund II	4,500,000	4,500,000
Total	**$ 11,668,681**	**$ 11,668,681**

REAL ESTATE
DECEMBER 31, 1988

PROPERTY	BOOK VALUE	MARKET VALUE
Maricopa Business Ctr.	$ 5,231,542	$ 7,150,000
Northwest Sq. Shopping	10,149,935	13,200,000
Century Commerce Ctr.	3,784,577	5,300,000
Cedarbrook Business Pk.	7,736,541	8,550,000
Park Place	9,562,388	10,100,000
Laurel Square	5,028,926	5,400,000
Fullerton Industrial	9,130,826	13,350,000
Tri-View	9,791,028	11,800,000
Executive Ctr.	5,400,000	5,400,000
Cablevision Building	9,889,168	10,850,000
Mill River	5,652,029	6,300,000
Sunrise Plaza	23,987,455	25,000,000
Town Street Building	1,619,064	2,050,000
Shroder Real Estate Fund A	9,027,407	9,156,623
Advent Realty Ltd. Ptrshp.	5,000,000	5,096,049
Copley Instit. Inv. Fund II	1,500,000	1,520,334
Total	**$122,490,886**	**$140,223,006**

MTG. NOTES RECEIVABLE
DECEMBER 31, 1988

	BOOK VALUE	MARKET VALUE
Village Square	**$ 11,058,077**	**$ 11,058,077**

INVESTMENT POLICY AND GUIDELINES

"The Board and other Fiduciaries shall discharge their duties with respect to these funds solely in the interest of the participants and beneficiaries." These duties shall be carried out "with care," skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and like aims."

"The Board shall adopt in regular meeting, policies, objectives or criteria for the operation of the investment program" at least annually. "The Board shall give equal consideration to minority owned and controlled firms and firms owned and controlled by women and joint venture involving minority owned and controlled firms and firms owned and controlled by women which otherwise meet the criteria established by the Board."

The Statutory authority of the Board is set forth in Section 742.11 to 742.11.2 of the Ohio Revised Code and these policies are established and adopted as required under that authority.

INVESTMENT GOALS

The Board shall seek to maximize total return on investments while preserving the principal, and to that end, will strive for a minimum rate of 8.25 percent, which is the actuarial interest rate of the fund (as of Dec. 31, 1988), to meet that protection requirement.

INVESTMENT COMMITTEE

An Investment Committee shall be appointed by the Chairman of the Board, to work with the Investment Staff in conjunction with the Advisors, and make recommendations to the Board on investment matters.

INVESTMENT GUIDELINES STATUTORY INVESTMENT STANDARDS

Section 742.11 of the Ohio Revised Code sets forth specific investment standards and these standards are incorporated in all policies and guidelines of the Board.

FIXED INCOME INVESTMENTS

It shall be the responsibility of the Investment Staff to give careful consideration of the needs of the system in recommendations for bond investments, emphasizing quality and marketability.

In order to qualify for inclusion in the fixed income portfolio, securities shall be rated "A" or better by two standard rating services at the time of purchase.

No more than 10 percent of the fixed income portfolio may be invested in the securities of any one issuer, and no more than 5 percent in any one issue, with the exception of United States Government securities.

Five or more years of call protection shall be considered desirable.

Fixed income securities rated lower than "A" by a national rating service may be exchanged for securities of similar rating.

SHORT-TERM INVESTMENTS

To provide effective cash management when investing cash balances, emphasis shall be placed on the protection of principal through the purchase of higher quality money market instruments, while at the same time attempting to achieve the highest available return.

Short-term investments may be made in commercial paper which shall, at the time of purchase, be rated within the two highest classifications established by two standard rating services. Treasury obligations, certificates of deposits, banker's acceptance, or repurchase agreements may be purchased with the responsibility resting with the investment staff regarding the selection of the specific type of investment at any given point in time.

Only certificates of deposit issued by the largest 25 U.S. Banks (or holding companies), the ten largest banks (or holding companies) in Ohio, and the ten largest savings and loans (or holding companies) in Ohio may be purchased.

Only Bankers Acceptance issued by the 25 largest U.S. Banks may be purchased.

Only Commercial Paper instruments which mature within 180 days may be purchased.

REAL ESTATE

The Board policy regarding investments in Real Estate will be made for the purpose of portfolio diversification and to act as an inflation hedge. These investments should provide results which, commensurate with risk, will be competitive with and in most cases be in excess of other investment vehicles.

The Board may hire real estate advisors to assist in the investment of the real estate portion of the portfolio.

Real Estate equity should provide more cash flow than common stocks, concentration on properties which will provide cash flow increases over time and also aim at capitalizing on income increases by realizing capital appreciation. The opportunity for increasing income will include cash-on-cash initial investments where it is felt adequate management of property can upgrade the potential through short leases, percent of sales; cost of living clauses and other management techniques.

ELIGIBLE PROPERTIES

1) Office Buildings

2) Industrial Properties

3) Shopping Centers

4) Hotels—to a limited extent

In all cases, liability shall be limited to the amount of the investment.

Real Estate shall be limited to 10 percent of the total portfolio. Emphasis shall be put on a broad diversification as to types of properties and location. When properties located within Ohio offer quality, return and safety comparable to properties outside Ohio, the Ohio investment will be given preference.

The Investment Committee of the Board shall make recommendations to the Board, and approval of real estate investments shall be made prior to funding.

COMMON AND PREFERRED STOCKS AND CONVERTIBLES

Section 742.11(C)(5) limits the Fund's investment in common and preferred stocks to 35 percent of the value of all funds described in Section 742.38 of the Ohio Revised Code.

Trading recommendations shall be submitted by the various equity advisors to the Investment Manager and Staff who shall be responsible for all trading activity of the portfolio. The Manager shall execute no trading recommendations involving a total loss in excess of five hundred thousand dollars without prior agreement by the Trustees.

OHIO DEBT AND EQUITY INVESTMENTS

The fund may invest 5 percent of its funds in debt or equity interest in any corporation, proprietorship, partnership, or other entity not otherwise meeting the investment requirements of Section 742.38 of the Ohio Revised Code, as provided in Section 742.11(E)(2).

PLAN SUMMARY

PURPOSE

The Police and Firemen's Disability and Pension Fund of Ohio was established by the Ohio General Assembly to provide disability benefits and pensions to members of the fund and their surviving spouses, children, and dependent parents.

ADMINISTRATION

The administration, control, and management of the Fund are vested in the Police and Firemen's Disability and Pension Board of Ohio which is comprised of nine members as follows:

- Three representatives of police departments
- Three representatives of fire departments
- One municipal fiscal officer
- The Auditor of State
- The Attorney General

The representatives of police and fire departments are elected for four-year terms by the members with one being a retired member or surviving spouse, alternating between the police and fire. The municipal fiscal officer is appointed by the Governor.

The Auditor of State and Attorney General serve by virtue of their office and are also members of other state retirement boards.

The Board appoints an executive director as the chief administrative officer of the Fund. The executive director oversees the daily activity of the staff.

MEMBERSHIP

Membership in the Fund is mandatory under Ohio law for all full-time police officers and fire fighters employed by Ohio municipalities and full-time fire fighters employed by townships.

CONTRIBUTIONS

Contributions are established by statute. Employers of police officers pay 19.5% of compensation; employers of fire fighters pay 24% of compensation. Members contribute 10% of salary.

BENEFITS

1. Service Retirement

(a) Eligibility: Age 48 and 25 years of service.

(b) Benefit: An annual pension equal to a percentage of the average annual salary, where the percentage equals 2.5% for each of the first 20 years of service, 2% for each of the next five years of service, and 1.5% for service in excess of 25 years, to a maximum of 72% of the average annual salary. Average annual salary means one-third of the total salary during the three years of highest earnings during which the total earnings were greatest.

2. Special Service Retirement for Late Hires

(a) Eligibility: Age 62 and 15 years of service.

(b) Benefit: The same as the Service Retirement Benefit.

3. Permanent and Total Disability (On-duty)

(a) Eligibility: No age or service requirement.

(b) Benefit: An annual pension equal to 72% of the annual earnings during the last year of active service.

4. Partial Disability (On-duty)

(a) Eligibility: No age or service requirement.

(b) Benefit: An annual pension to be fixed by the Board of Trustees, but not to exceed 60% of the average annual salary; provided that if the member has 25 or more years of service the annual disability pension is equal to the accrued Service Retirement Benefit.

5. Cardiovascular and Respiratory Disease

(a) Eligibility: No age or service requirement.

(b) Benefit: An annual pension in an amount determined in accordance with the benefit provisions of Item 3 or Item 4 above, as the case may be.

6. Ordinary Disability (Off-duty)

(a) Eligibility: Any age and five years of service.

(b) Benefit: An annual pension to be fixed by the Board, but not to exceed the accrued Service Retirement Benefit, or 60% of the average annual salary, whichever is smaller.

7. Termination of Service Prior to Retirement

One of the following benefits is payable depending upon the particular circumstances:

(a) Refund if less than 15 years

(1) Eligibility: No age or service requirement.

(2) Benefit: A lump-sum amount equal to the sum of the contributions made by the member to the Fund.

(b) Greater than 15 years, but fewer than 25 years

(1) Eligibility: 15 years of service.

(2) Benefit: Commencing at age 48 or 25 years elapsing from full-time hire date, whichever is later; an annual pension equal to 1.5% of the average annual salary multiplied by the number of complete years of service.

(c) 25+ Years of Service

(1) Eligibility: 25 years of service.

(2) Benefit: Commencing at age 48, the accrued Service Retirement Benefit.

8. Flat Death Benefits

(a) Eligibility: Upon death of any member of the Fund, active or retired.

(b) Benefit:

(1) Surviving Spouse's Benefit—An annual amount equal to $4,920.

(2) Surviving Children—An annual amount equal to $1,416, payable until such child attains age 18 or marries, whichever occurs first. (Similar payments made, regardless of age, to disabled children.) An annual amount equal to $1,416 will continue beyond age 18 up to age 22 while the child is a student and unmarried.

(3) Dependent Parents—An annual amount of $1,896 to one dependent parent or $948 each to two dependent parents, during their lifetime or until dependency ceases or until remarriage, provided that deceased member leaves no surviving spouse or surviving children.

9. Pre-retirement Survivor or Annuity

(a) Eligibility: Upon death before retirement but after having satisfied the requirements for normal service retirement.

(b) Benefit: The surviving spouse or contingent dependent beneficiary will receive 50% of the benefit that the deceased member would have been entitled to had he retired effective the day following his death under the 50% Joint & Survivor annuity form.

10. Group Health Insurance and Medicare

Commencing January 1, 1974, the Board may contract for group health insurance on the basis of part or all of the cost of the premium for the coverage to be paid by the Fund.

Effective January 1, 1977, the Fund will pay the premium for supplemental Medicare (Part B).

11. COLA or Terminal Pay

Members retiring after July 24, 1986, and who have 15 or more years of service as of January 1, 1989, are allowed to select between (1) a pension calculated on the basis of average salary which is increased to reflect terminal pay adjustments, or (2) a pension based on average salary excluding the terminal pay adjustment, but increasing by 3% of the initial pension each retirement anniversary after July 1, 1988. The 3% addition is paid only if the annual increase in the Consumer Price Index, plus unused prior increases, equals or exceeds 3%. This additive 3% COLA annuity without terminal pay adjustment is the automatic form for an active member with less than 15 years of service as of January 1, 1989.

12. Additional COLA

Members and/or their unmarried beneficiaries retired prior to July 24, 1986, are entitled to a cost of living adjustment if the last annual increase in the Consumer Price Index plus unused prior increases equals or exceeds 3% and the members' benefits are less than a certain amount. That qualifying amount was $18,000 per year in 1988 and increases by $500 per year each calendar year. The COLA is an increase of $360 under a Single Life Annuity basis in annual benefits.

13. Optional Forms of Payment

Effective February 28, 1980, retiring members may elect to have actuarially reduced benefits payable under certain and continuous and joint and survivor annuity forms. The maximum certain period is 20 years, and the maximum continuation percentage under the joint and survivor form is limited to 100%.

Effective for one year beginning September 26, 1984, members who retired before February 28, 1980, could make a one-time election to have their benefits reduced and paid under the joint and survivor annuity form with the surviving spouse as survivor annuitant.